



**SLR-SY – 1**

Seat No.	
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Set	<b>P</b>
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**B.Sc. – I (Semester – I) (Entrepreneurship) Examination, 2017**  
**ENGLISH (Compulsory) (CBCS Pattern) (Old)**  
**‘On Track’ English Skills for Success**

Day and Date : Tuesday, 31-10-2017

Total Marks : 70

Time : 2.30 p.m. to 5.00 p.m.

**N.B. : 1) All questions are *compulsory*.**

**2) Figures to the *right* indicate *full* marks.**

1. Complete the following statements by choosing the correct alternatives from those given below them :

**14**

- 1) What did the policeman look like ?
  - a) Uniformed and short
  - b) Uniformed and well-built
  - c) Dressed in ordinary clothes and short
  - d) Dressed in ordinary clothes and well-built
- 2) What was Binet in the lesson ‘The Myths of Artificial Intelligence’ ?
  - a) a doctor
  - b) a teacher
  - c) a psychologist
  - d) none of the above
- 3) The story ‘After Twenty Years’ begins with a policeman who is on his \_\_\_\_\_
  - a) patrolling duty
  - b) jail duty
  - c) domestic duty
  - d) motor bike
- 4) Some experts say that \_\_\_\_\_ intelligence will soon come into existence.
  - a) Abnormal
  - b) Natural
  - c) Artificial
  - d) Scientific

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- 5) Criminal Bob was wanted by \_\_\_\_\_.
  - a) Indian
  - b) Chicago
  - c) New York
  - d) Washington
- 6) The poem 'Bangle Sellers' is written by \_\_\_\_\_.
  - a) Kamala Das
  - b) Kamala Markandeya
  - c) Sarojini Naidu
  - d) C. B. Naidu
- 7) \_\_\_\_\_ was an uninvited guest.
  - a) Miss Krishna
  - b) The writer
  - c) Miss Krishna's friend
  - d) Miss Krishna's sister
- 8) The word 'intelligence' is derived from \_\_\_\_\_ word 'intellegere'.
  - a) German
  - b) Greek
  - c) Latin
  - d) Urdu
- 9) From what she tells the writer, it is clear that Miss Krishna's life with her mother was \_\_\_\_\_.
  - a) Miserable
  - b) Happy
  - c) Comfortable
  - d) Good
- 10) The Irish airman is from \_\_\_\_\_.
  - a) Ireland
  - b) German
  - c) America
  - d) India
- 11) The word 'Beauty' is \_\_\_\_\_.
  - a) a common noun
  - b) an abstract noun
  - c) a collective noun
  - d) no article
- 12) Sangoli Rayanna was a great freedom fighter. The underlined word is \_\_\_\_\_ noun.
  - a) Proper
  - b) Collective
  - c) Common
  - d) Abstract
- 13) \_\_\_\_\_ P. V. Sindhu won silver medal in badminton.
  - a) A
  - b) An
  - c) The
  - d) No Article
- 14) Lalita Babar is \_\_\_\_\_ Maharashtra.
  - a) from
  - b) by
  - c) into
  - d) at



2. Answer in brief **any seven** of the following : 14
- 1) What had happened to Big Joe Brady's restaurant ?
  - 2) Why did the narrator consider Miss Krishna an annoying guest ?
  - 3) Why did the narrator invite Miss Krishna to stay at her house ?
  - 4) What was the nickname for Bob that plain clothes policeman used ?
  - 5) How can you define 'Intelligence' ?
  - 6) What is 'virtual reality' by Attila Narin ?
  - 7) What sort of relationship did Jimmy and Bob share ?
  - 8) What do you understand about Miss Krishna's childhood from 'The Connoisseur' ?
3. A) Write short answers on **any two** of the following : 8
- 1) What is the theme of the poem 'Bangle Sellers' ?
  - 2) What is the Irish airman's attitude towards the war he is fighting in ?
  - 3) What type of bangles are carried by the bangle sellers ?
- B) Write a paragraph on **any two** of the following : 6
- 1) Advantages and disadvantages of mobile.
  - 2) Democracy.
  - 3) My Aim in Life.
4. Write an essay on **any one** : 14
- 1) The Superstitions.
  - 2) Corruption – Causes, Effects and Remedies.
5. Read the following passage and make notes of it. Use an appropriate title for your notes : 14
- Food, generally speaking, decays as the time passes. Some spoil within hours while others take days or weeks. Cooked food, uncooked meat and fish or fruits lose their freshness, become old and spoil in warm, wet air as these undergo changes because of bacteria. Before modern methods of preservation came to be known, food items were prevented from decomposing with the help of salt, heat of the Sun, oil, etc. Fish can be preserved by salting it in heat of the Sun. Another traditional example is the pickles in oil so that we keep in bottles. We put salt and soak pickles in oil so that they remain fresh.



But today, food science and food technology have helped us preserve food with their modern techniques, Factories prepare and produce readymade foods-meat, fish, peas and fruits. They use certain processes like canning, dehydration, smoke and refrigeration.

Foods can be preserved by controlling or destroying the agents like warm and wet air, bacteria, insects and rodents.

Canning is a thermal or heat processing where foods are subjected to temperatures that are high enough to kill micro-organisms. Foods are sterilized in air tight and heat resistant pouches.

Dehydration removes water from food and thus prevents bacteria from growing. It then compresses and freeze-dries food which can resume their normal state on rehydration.

Refrigeration helps store foods with their nutrients and flavours. But smoke treatment to foods can preserve them only for a short time.

Certain substances in small amounts are added to foods to make them last longer, to give them colour, to add flavour to them, to add minerals. They are known as additives. Bezoates, propionic acids, sodium and calcium salts are a few preservatives. Yellow carotene dyes add colour. Ascorbic acid helps to prevent discolouration in canned foods. Additives are found in baked foods, confectionary items, soft drinks and juices.

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SLR-SY – 2

Seat No.	
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Set <b>P</b>
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**B.Sc. – I (Entrepreneurship) (Semester – I) (CBCS)  
Examination, 2017**

**Paper – I : ENTREPRENEURSHIP AND THE WORLD OF BUSINESS**

Day and Date : Wednesday, 1-11-2017

Max. Marks : 70

Time : 10.30 a.m. to 1.00 p.m.

**N.B. :** 1) **All questions are compulsory.**  
2) **Figures to the right indicate full marks.**

1. Choose the correct alternative among the following and rewrite the statement : **14**

- 1) \_\_\_\_\_ is the basic feature of entrepreneur.  
a) Risk bearing      b) Innovation      c) Motivation      d) Co-ordination
- 2) Entrepreneur helps to reduce \_\_\_\_\_.  
a) Conflict      b) Unemployment  
c) Wealth distribution      d) All of the above
- 3) Entrepreneurial competencies deal with \_\_\_\_\_.  
a) Self Assessment      b) Competency recognition  
c) Motivation      d) All of the above
- 4) Decision is one of the \_\_\_\_\_ function of entrepreneurship.  
a) Administrative      b) Managerial  
c) Personal      d) None of these
- 5) Major objectives of business is \_\_\_\_\_.  
a) Profit maximization      b) Wealth maximization  
c) Both a) and b)      d) None of these
- 6) The term entrepreneurship was first used in \_\_\_\_\_.  
a) French      b) Greek      c) American      d) Latin
- 7) Entrepreneurs are high in \_\_\_\_\_.  
a) Need achievement      b) Leadership  
c) Quality      d) Motivation
- 8) \_\_\_\_\_ gives attention only within the organization.  
a) Manager      b) Owner      c) Leader      d) None of these

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- 9) Barriers to Entrepreneurship is \_\_\_\_\_
- a) Lack of seed capital                      b) Lack of market knowledge  
c) Lack of technical skill                      d) All of the above
- 10) Entrepreneur is characterized by great caution and skepticism in practicing any change \_\_\_\_\_
- a) Innovating                                      b) Fabian  
c) Imitative                                      d) None of these
- 11) Role of Entrepreneurs are \_\_\_\_\_
- a) Idea generation  
b) Systematic innovation  
c) Implementation of mechanical skill  
d) All of the above
- 12) \_\_\_\_\_ is the primary barrier for women entrepreneurs.
- a) Lack of family support                      b) Lack of social support  
c) Lack of technical skill                      d) Lack of market knowledge
- 13) Minimum 2 and maximum \_\_\_\_\_ members/partners are essential to start a private company.
- a) 05                      b) 07                      c) 09                      d) 08
- 14) \_\_\_\_\_ and insurance are basic aids to trade and commerce.
- a) Manufacturing    b) Banking              c) Service              d) Trading

2. Solve **any 7** of the following :

14

- 1) Classification of business activity.
- 2) Management of business growth.
- 3) Introduction to commerce.
- 4) Meaning and definition of entrepreneurship.
- 5) Write a note on partnership.
- 6) Meaning and definition of business.
- 7) Concept of Business ethics.
- 8) Explain the concept of motivation.
- 9) Write a note on women entrepreneurship.



3. A) Answer **any 2** of the following : **10**
- 1) Write a note on sole traders.
  - 2) Entrepreneur V/s Manager.
  - 3) Explain nature and scope of business ethics.
- B) Explain in detail difference between Entrepreneurship and Entrepreneur. **4**
4. Answer **any 2** of the following : **14**
- 1) Explain the factors responsible for emergence of Entrepreneurship.
  - 2) Importance of business ethics in India.
  - 3) Explain in detail qualities required to become a successful entrepreneur.
5. Solve **any 2** of the following : **14**
- 1) Explain in detail characteristics of entrepreneurship.
  - 2) Explain problems faced by women entrepreneurs.
  - 3) Role of women entrepreneurship in Indian Economy – Elaborate.
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Day and Date : Thursday, 2-11-2017  
Time : 10.30 a.m. to 1.00 p.m.

Max. Marks : 70

**N.B. :** 1) **All** questions are **compulsory**.  
2) **Draw** the diagram **if** necessary.

1. Choose the correct answer from given alternative :

14

- 1) In \_\_\_\_\_ market, there is only a single seller of a product for which there is no close substitute.
  - a) Oligopoly
  - b) Monopoly
  - c) Duopoly
  - d) Perfect Competition
- 2) \_\_\_\_\_ is a process of converting an input into more valuable output.
  - a) Business finance
  - b) Accountancy
  - c) Production
  - d) Marketing
- 3) The demand curve for \_\_\_\_\_ demand is parallel to the OX axis.
  - a) Perfectly elastic
  - b) Perfectly inelastic
  - c) Elastic
  - d) Inelastic
- 4) If the proportionate change in quantity demanded is equal to the proportionate change in the price of the commodity then it is \_\_\_\_\_ elasticity of demand.
  - a) Perfectly elastic
  - b) Perfectly inelastic
  - c) Unitary
  - d) Cross
- 5) \_\_\_\_\_ is a reputation of business in money value.
  - a) Assets
  - b) Liabilities
  - c) Goodwill
  - d) Capital
- 6) \_\_\_\_\_ is a person, to whom business owes the money.
  - a) Debtor
  - b) Creditor
  - c) Owner
  - d) Investors

**P.T.O.**



- 7) \_\_\_\_\_ is a statement, which shows financial position of the business.
  - a) Trading A/c
  - b) Profit and Loss A/c
  - c) Ledger
  - d) Balance Sheet
- 8) According to \_\_\_\_\_ concept, the business unit is separate from its owner.
  - a) Going concern
  - b) Business entity
  - c) Money Measurement Concept
  - d) Cost Concept
- 9) If the owner withdraws any money or goods from the business for his personal use, it is called as a
  - a) Capital
  - b) Drawings
  - c) Assets
  - d) Liabilities
- 10) \_\_\_\_\_ is a basic objective of business.
  - a) Customer satisfaction
  - b) Profit making
  - c) Creating demand
  - d) Social work
- 11) \_\_\_\_\_ is regarded as the life blood of business.
  - a) Finance
  - b) Marketing
  - c) Human Resource
  - d) Management
- 12) A company can accept public deposits for a maximum period of
  - a) One year
  - b) Two years
  - c) Three years
  - d) Four years
- 13) \_\_\_\_\_ are the owners of the company.
  - a) Share holders
  - b) Debenture holders
  - c) Bond holders
  - d) Creditors
- 14) Trade credit is a source of
  - a) Long-term finance
  - b) Medium-term finance
  - c) Short-term finance
  - d) All the above

2. Solve **any seven** from the following :

14

- 1) What are the factors of production ?
- 2) What is meaning of managerial economics ?
- 3) What is law of demand ?
- 4) What is Duopoly market ?
- 5) What is accountancy ?
- 6) What are the basic rules of debit and credit ?
- 7) Why Profit and Loss A/c is prepared ?
- 8) What is Depreciation ?
- 9) What is business finance ?

**Set P**



3. A) Write note on **any two** from the following : 10

- 1) What are the internal economies of scale ?
- 2) Define Accounting concepts.
- 3) Journalize following transaction in the Books of Mrs. Prachi.

Sr. No.	Date	Particulars	Amount (Rs.)
1.	1-4-2017	Mrs. Prachi started business with cash	80,000
2.	4-4-2017	Purchased goods for cash	28,000
3.	5-4-2017	Deposited cash into Bank	39,000
4.	9-4-2017	Sold goods for cash	25,000
5.	19-4-2017	Sold goods to Miss, Sheetal on credit	5,000

B) Briefly explain importance of business finance. 4

4. Write in brief answer from the following (**any two**) : 14

- 1) Explain features of perfect competition market.
- 2) Explain external sources of business finance.
- 3) From the following information prepare Trading A/c of Mr. Sachin for the year ended 31<sup>st</sup> March, 2017.

Particulars	Amount (Rs.)
Opening Stock	50,000
Purchases	1,20,000
Sales	1,90,000
Wages	7,700
Carriage	2,500
Trade expenses	5,000
Factory Rent	10,000
Closing stock	35,000



5. Write in brief from the following (**any two**) :

**14**

- 1) Types of price elasticity of demand.
- 2) What are the different types of market ?
- 3) From the following information prepare Balance Sheet of Mr. Sourabh for the year ended 31<sup>st</sup> March, 2017 :

<b>Particulars</b>	<b>Amount (Rs.)</b>
Capital	1,50,000
Plant and Machinery	55,000
Building	50,000
Furniture	25,000
Debtors	15,000
Bills receivable	22,000
Creditors	25,000
Cash in hand	5,500
Closing stock	30,000
Bills payable	15,000

Note : Net Profit is Rs. 12,500.

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B.Sc. – I (Semester – I) (Entrepreneurship) (CBCS Pattern)

Examination, 2017

INDUSTRIAL CHEMISTRY

Paper – I : Fundamentals of Inorganic Chemistry

Day and Date : Friday, 3-11-2017

Total Marks : 70

Time : 10.30 a.m. to 1.00 p.m.

**N.B. :** i) *All questions are compulsory.*

ii) *Draw **neat** labeled diagrams and write equations **wherever** necessary.*

iii) *Figures to the **right** indicate **full** marks.*

1. Select the most correct alternative for **each** of the following and rewrite the sentences :

14

i) In formation of coordinate bond, Lewis acid accepts electron pair from \_\_\_\_\_

- |                   |                  |
|-------------------|------------------|
| a) Lewis base     | b) Metal         |
| c) Arrhenius acid | d) None of these |

ii) Limiting radius ratio for octahedral geometry is \_\_\_\_\_

- |          |          |          |          |
|----------|----------|----------|----------|
| a) 0.732 | b) 0.414 | c) 0.225 | d) 0.175 |
|----------|----------|----------|----------|

iii) Bond order in oxygen molecule is \_\_\_\_\_

- |         |          |        |        |
|---------|----------|--------|--------|
| a) four | b) three | c) two | d) one |
|---------|----------|--------|--------|

iv) Water is the \_\_\_\_\_ solvent.

- |            |              |           |              |
|------------|--------------|-----------|--------------|
| a) organic | b) non-ionic | c) impure | d) universal |
|------------|--------------|-----------|--------------|

v) \_\_\_\_\_ is the example of chemical pollutant.

- |        |                   |          |         |
|--------|-------------------|----------|---------|
| a) DDT | b) Micro-organism | c) Noise | d) Dust |
|--------|-------------------|----------|---------|

P.T.O.



- vi) H-N-H bond angle in ammonia molecule is \_\_\_\_\_  
a)  $107^{\circ}28'$       b)  $104^{\circ}28'$       c)  $120^{\circ}$       d)  $90^{\circ}$
- vii) Overlap of  $p_y - p_y$  atomic orbitals results into the formation of \_\_\_\_\_ bond.  
a)  $\sigma$       b)  $\pi$       c) axial      d) linear
- viii) Highest electron affinity is shown by \_\_\_\_\_ element.  
a) oxygen      b) fluorine      c) bromine      d) chlorine
- ix) Sound intensity measured in the \_\_\_\_\_ unit.  
a) g      b) mL      c) dB      d) Litre
- x) The geometry of  $\text{BF}_3$  molecule is \_\_\_\_\_  
a) square planer      b) pyramidal  
c) triangular planer      d) linear
- xi) Antibonding MOs are at \_\_\_\_\_ energy level.  
a) equal      b) lower      c) same      d) higher
- xii) \_\_\_\_\_ compounds are good conductor of electricity in solution state.  
a) Covalent      b) Non-polar  
c) Organic      d) Ionic
- xiii) About \_\_\_\_\_% of total water present in the form fresh water.  
a) 1      b) 2.5      c) 9.7      d) 97
- xiv) \_\_\_\_\_ gas is responsible for acid rain.  
a) CO      b)  $\text{H}_2\text{S}$       c)  $\text{H}_2\text{O}$       d)  $\text{SO}_2$

2. Solve **any seven** of the following :

14

- Define air pollution with example.
- What is mean by BOD ? Give example.
- Define ionisation potential.
- Define atomic and molecular orbitals.
- Define covalent bond with suitable example.



- vi) Explain s-s orbital overlap.
  - vii) What do you mean by alkalinity of water ?
  - viii) What is the effect of  $\text{NO}_x$  on human health ?
  - ix) Define bond order.
3. A) Solve **any two** of the following : 10
- i) Explain formation of  $\text{BeCl}_2$  molecule on the basis of hybridization.
  - ii) Write a note on LCAO principle.
  - iii) Discuss the formation of ionic bond with suitable example.
- B) Discuss the health effects of carbon monoxide. 4
4. Solve **any two** of the following : 14
- i) Explain the formation of ammonia molecule on the basis of VSEPR theory.
  - ii) Draw the MO diagram of nitrogen molecule. Comment on stability and magnetic property of nitrogen molecule.
  - iii) Explain the radius ratio and its effect with respect to octahedral geometry.
5. Solve **any two** of the following : 14
- i) Distinguish between bonding and anti-bonding molecular orbitals.
  - ii) Explain the crystal structure of NaCl with respect to unit cell, coordination number and stoichiometry.
  - iii) Explain the terms in detail : a) DO b) TOC.
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SLR-SY – 5

Seat No.	
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**B.Sc. – I (Entrepreneurship) (Semester – I) (CBCS)**  
**Examination, 2017**  
**INDUSTRIAL CHEMISTRY (Paper – II)**  
**Fundamentals of Organic Chemistry**

Day and Date : Monday, 6-11-2017  
Time : 10.30 a.m. to 1.00 p.m.

Max. Marks : 70

- N.B. :**
- i) All questions are **compulsory**.
  - ii) Figures to the **right** indicate **full** marks.
  - iii) Use of log table or calculator is **allowed**.

1. Select the most correct alternative for **each** of the following and rewrite the sentences :

14

- i) The catalyst used in Friedel Craft's reaction is
  - a)  $\text{AlCl}_3$
  - b) Cu
  - c) Pt
  - d)  $\text{NiCl}_2$
- ii) The hybridisation of carbon involved in acetylene is
  - a)  $\text{Sp}^3$
  - b) Sp
  - c)  $\text{Sp}^2$
  - d)  $\text{Sp}^3\text{d}^2$
- iii) Carius method is used for the estimation of
  - a) nitrogen
  - b) sulphur
  - c) halogen
  - d) carbon
- iv) The drug used to control concentration of blood sugar are \_\_\_\_\_, agent.
  - a) antidiabetic
  - b) antipyretic
  - c) antimaterial
  - d) antiinflammatory
- v) A chromophore is an
  - a) group of atoms
  - b) atom
  - c) aldehyde
  - d) unsaturated group
- vi) \_\_\_\_\_ is the general formula of alkane.
  - a)  $\text{C}_n\text{H}_{2n}$
  - b)  $\text{C}_n\text{H}_{2n-2}$
  - c)  $\text{C}_n\text{H}_{2n+2}$
  - d)  $\text{C}_n\text{H}_{2n+1}$
- vii) Benzene contains \_\_\_\_\_ Pi electron.
  - a) 6
  - b) 4
  - c) 10
  - d) 3
- viii) Carbon and hydrogen are estimated by \_\_\_\_\_ method.
  - a) Carius
  - b) Kjeldahl's
  - c) Platinichloride
  - d) Combustion

P.T.O.



- ix) Pharmaceutical chemistry, is the chemistry of  
a) dyes                      b) drugs                      c) pesticides                      d) none of these
- x) \_\_\_\_\_ is the example of auxochrome.  
a)  $\text{NH}_2$                       b)  $\text{NO}_2$                       c)  $\text{CO}_2$                       d) CO
- xi) Electrolysis of an aqueous solution of potassium acetate gives \_\_\_\_\_ at anode.  
a) methane                      b) propane                      c) butane                      d) ethane
- xii) Aromaticity is explained by \_\_\_\_\_ rule.  
a) Markownikoff                      b) Anti-markownikoff  
c) Huckel                      d) None of these
- xiii) In Lassaigne's test for the detection of sulphur sodium fusion extract is treated with  
a) sodium nitropruside                      b) sodium sulphate  
c) sodium nitrite                      d) ferrous sulphate
- xiv) Paludrin is used as \_\_\_\_\_ agent.  
a) anti-bacterial                      b) antileprotic  
c) antihistamic                      d) anti-malarial

2. Answer **any seven** of the following.

14

- i) What are dienes gives their general formula ?
- ii) State and explain kolbe reaction for the preparation of alkane.
- iii) Define molecular and empirical formula.
- iv) Define bacteriostatic and bactericidal agent.
- v) What is meant by vat dye ?
- vi) State and explain Huckel's rule.
- vii) Draw resonating structures of benzene.
- viii) How carbon and hydrogen in an organic compound are detected ?
- ix) Define Hypnotics drug with example.



3. A) Write short note on **any two**. 10
- i) What is the action of following on cyclopropane ?  
i) HBr ii) Conc.H<sub>2</sub>SO<sub>4</sub> iii) H<sub>2</sub>/Ni (reduction)
  - ii) Molecular orbital theory of benzene.
  - iii) Determination of molecular weight of an acid by titration method.
- B) Write qualities of good dye. 4
4. Answer **any two** of the following. 14
- i) What is meant by dehydrohalogenation ? Explain E<sup>1</sup> and E<sup>2</sup> mechanism for dehydrohalogenation of lower alkyl halide.
  - ii) How will you estimate nitrogen by kjeldahl's method ?
  - iii) Write the classification of dyes based on their constitution.
5. Answer **any two** of the following. 14
- i) What are dienes ? Gives the classification of dienes with example.
  - ii) Discuss Carius method for the estimation of chlorine in an organic compound.  
2.4×10<sup>-4</sup> kg of an organic compound gave 2.2×10<sup>-4</sup> kg of silver chloride in Carius method. Find the percentage of chlorine in organic compound.
  - iii) Write the classification of drug based on therapeutical action.
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**B.Sc. – I (Semester – I) (CBCS) Examination, 2017**  
**ENTREPRENEURSHIP**  
**Industrial Microbiology – I**  
**Fundamentals of Microbiology**

Day and Date : Tuesday, 7-11-2017  
Time : 10.30 a.m. to 1.00 p.m.

Max. Marks : 70

**Instructions :** 1) **All** questions are **compulsory** and carry **equal** marks.  
2) Draw a **neat** labelled diagram **wherever** necessary.  
3) Figures to the **right** indicate **full** marks.

1. Rewrite the following sentences by choosing correct alternatives from given below :

14

- i) Term vaccine was coined by
  - a) Robert Koch    b) Pasteur    c) Needham    d) None of these
- ii) Log-phase is also known as
  - a) Exponential phase    b) Death phase
  - c) Lag phase    d) None
- iii) If the source of energy for bacteria is from chemical compounds they are said to be
  - a) Phototrophs    b) Autotrophs    c) Chemotrophs    d) Methanotrophs
- iv) The cell wall of gram positive bacteria is made up of
  - a) Lipid    b) Protein    c) Cellulose    d) Peptidoglycan
- v) \_\_\_\_\_ is the structural component of cell membrane.
  - a) Phospholipid    b) Amino acid
  - c) Polysaccharide    d) Peptidoglycan
- vi) \_\_\_\_\_ is the strict intracellular parasite.
  - a) Bacteria    b) Fungi    c) Algae    d) Viruses
- vii) Which of the following is ionizing radiation ?
  - a) IR    b) UV rays    c) Sun    d) None

P.T.O.



- viii) Glasswares are sterilized by  
a) Autoclaving    b) Incineration    c) Hot air oven    d) None of these
- ix) \_\_\_\_\_ is a group of related isolates or strains.  
a) Family    b) Species    c) Order    d) Class
- x) The organism which use  $\text{CO}_2$  as carbon source and light as an energy source belongs to  
a) Photoautotroph    b) Chemoautotroph  
c) Photoheterotroph    d) Lithotrophs
- xi) \_\_\_\_\_ is responsible for swimming motility of bacteria.  
a) Cell wall    b) Capsule    c) Ribosome    d) Flagella
- xii) The process of pasteurization discovered by  
a) Louis Pasteur    b) Alexander Fleming  
c) Joseph Lister    d) Robert Koch
- xiii) \_\_\_\_\_ is a gaseous agents of sterilization.  
a) Alcohol    b) Phenols    c) Citric acid    d) Ethylene oxide
- xiv) The organisms which can grow best in presence and absence of oxygen is  
a) Aerobes    b) Anaerobes  
c) Facultative anaerobes    d) Strict aerobes

2. Answer **any seven** of the following :

14

- i) Define industrial microbiology.
- ii) Function of flagella.
- iii) Define sterilization.
- iv) Turbidostat.
- v) John Tyndall.
- vi) Define chemoautotrophs with example.
- vii) Define antimicrobial agent with one example.
- viii) Chemostat.
- ix) Alexander Fleming.



3. A) Answer **any two** of the following : **10**
- i) Explain in detail types of microorganism.
  - ii) Write in detail general principles of nomenclature.
  - iii) Describe in detail basic nutritional requirement of microorganism.
- B) Explain difference between prokaryotic cell and eukaryotic cell. **4**
4. Answer **any two** of the following : **14**
- i) Explain in detail structure and chemical composition of cell wall.
  - ii) Describe in detail physical agents of sterilization.
  - iii) Explain in detail nutritional classification based on carbon and energy source.
5. Answer **any two** of the following : **14**
- i) Describe in detail bacterial classification based on morphological, cultural and biochemical characters.
  - ii) Explain in detail structure of cell membrane.
  - iii) Write in detail chemical agents of sterilization.
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SLR-SY – 7

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Set

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**B.Sc. – I (Semester – I) (Entrepreneurship) (CBCS)**  
**Examination, 2017**  
**INDUSTRIAL MICROBIOLOGY – I**  
**Basic Techniques in Microbiology**

Day and Date : Wednesday, 8-11-2017

Max. Marks : 70

Time : 10.30 a.m. to 1.00 p.m.

- N.B :** 1) **All** questions are **compulsory** and carry **equal** marks.  
2) Draw a **neat** labelled diagram **wherever** necessary.  
3) Figures to the **right** indicate **full** marks.

1. Rewrite the following sentences by choosing correct alternatives from given below. **14**

- i) Refractive index of immersion oil is  
A) 0.5                      B) 1                      C) 1.5                      D) 2.0
- ii) \_\_\_\_\_ invented electron microscope.  
A) Ernst Ruska      B) Robert Hook      C) Pasteur              D) Robert Koch
- iii) The media which consists nutritionally rich ingredients called as \_\_\_\_\_ media.  
A) Selective              B) Enriched              C) Enrichment              D) Differential
- iv) The process of obtaining growth of microbial population in artificial environment called as  
A) Cultivation              B) Isolation              C) Inoculation              D) Enrichment
- v) \_\_\_\_\_ used as decolourising agent in Gram staining.  
A) Iodine                      B) Tannic acid              C) Alcohol                      D) Crystal violet
- vi) Congo red is \_\_\_\_\_ stain.  
A) Acidic                      B) Basic                      C) Neutral                      D) AZO
- vii) Acid fast staining used for staining of \_\_\_\_\_ bacterial genus.  
A) E.coli                                      B) Pseudomonas  
C) Rhizobium                                      D) Mycobacterium
- viii) Standard plate count are those plates with \_\_\_\_\_ to colonics.  
A) 01 to 100                      B) 100 to 1000              C) 30 to 300                      D) 50 to 5000

P.T.O.



- ix) Viruses are cultivated by using \_\_\_\_\_ media.  
A) Nutrient agar    B) Blood agar    C) Tissue culture    D) Liquid media
- x) A population of only one species of Microorganism derived from single parent organism is called \_\_\_\_\_ culture.  
A) Mixed                      B) Syntrophic    C) Dual                      D) Pure
- xi) Total cell count for growth measurement carried by  
A) DMC                      B) SPC                      C) TDT                      D) TDP
- xii) The limit of resolution of light microscope is  
A)  $2\mu$                       B)  $20\mu$                       C)  $200\mu$                       D)  $0.2\mu$
- xiii) Methylene blue is used in \_\_\_\_\_ staining.  
A) Negative                      B) Monochrome    C) Gram                      D) Actinomycetes
- xiv) The media which consists known chemical ingredients with composition is called as \_\_\_\_\_ media.  
A) Empirical                      B) Crude                      C) Synthetic                      D) Semisynthetic

2. Answer **any seven** (Out of nine) of the following.

**14**

- i) Define stain
- ii) Define differential media.
- iii) Function of eye piece.
- iv) Define mixed culture.
- v) Mordant – Define.
- vi) Define culture media.
- vii) NaCl- Role in culture media.
- viii) Serial dilution.
- ix) Enlist methods indirect growth measurements.



3. A) Answer **any two** of the following. **10**
- i) Define SPC. Describe in detail SPC technique.
  - ii) Explain in detail Gram's staining.
  - iii) Explain in brief principle and application of bright field microscopy.
- B) Discuss in detail enriched, enrichment and selective media. **4**
4. Answer **any two** of the following : **14**
- i) Describe in detail methods of pure culture preparation.
  - ii) Discuss in detail principle and working of electron microscope.
  - iii) What is simple staining ? Explain procedure of negative staining.
5. Answer **any two** of the following : **14**
- i) Define living media. Discuss in detail types of living media.
  - ii) Discuss in detail membrane filter technique.
  - iii) Explain in detail role of components of media such as peptone, meat extract, glucose, lactose and Bile salt.
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SLR-SY – 8

Seat No.	
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Set **P**

**B.Sc. (Entrepreneurship) (Semester – I) (CBCS) Examination, 2017**  
**INDUSTRIAL BIOTECHNOLOGY (Paper – I)**  
**Cell Biology**

Day and Date : Thursday, 9-11-2017  
Time : 10.30 a.m. to 1.00 p.m.

Max. Marks : 70

**Instructions:** 1) **All questions are compulsory.**  
2) Draw **neat** labeled diagram **wherever** necessary.  
3) Figure to the **right** indicate **full** marks.

1. Choose the most correct alternative for the following and rewrite the sentences. **14**

- 1) \_\_\_\_\_ is the unique component of common bacterial cell wall.  
a) phospholipid                      b) peptidoglycan  
c) protein                              d) lipid
- 2) Genetic material is contained within the \_\_\_\_\_ of the cell.  
a) ribosomes    b) cytoplasm    c) nucleus    d) vacuole
- 3) The rough endoplasmic reticulum has \_\_\_\_\_ located on it.  
a) lysosomes    b) cytosol    c) ribosomes    d) proteins
- 4) \_\_\_\_\_ cells undergo meiosis.  
a) reproductive                      b) somatic  
c) unicellular organisms              d) bacterial
- 5) Crossing-over occurs during \_\_\_\_\_  
a) anaphase 1                      b) metaphase 1  
c) prophase 1                      d) prophase 2
- 6) The region of a chromosome where two sister chromatids are held together is called a \_\_\_\_\_.  
a) spindle              b) centromere    c) nucleosome    d) centriole
- 7) The phase of the cell cycle that occupies most of an average cell's life is \_\_\_\_\_.  
a) S                      b) G1                      c) G2                      d) Mitosis

P.T.O.



- 8) \_\_\_\_\_ is a type of diffusion in which an ion or molecule crossing a membrane moves down its electrochemical or concentration gradient.
- a) Active transport                      b) Active diffusion  
c) Inactive transport                      d) Passive transport
- 9) The process which involves the exit of the water molecules from the cell is known as \_\_\_\_\_
- a) Endosmosis                              b) Exosmosis  
c) Active transport                      d) Active diffusion
- 10) Cell organelles are located within the \_\_\_\_\_ of the cell.
- a) nucleus                                  b) cytoplasm  
c) cell membrane                      d) Lysosomes
- 11) r-RNA is produced in \_\_\_\_\_ region of the nucleus.
- a) centrosome    b) nucleolus    c) lysosome    d) endoplasmic reticulum
- 12) \_\_\_\_\_ is directly involved in protein synthesis within the cell.
- a) lysosomes    b) vacuoles    c) centrioles    d) ribosomes
- 13) \_\_\_\_\_ is found in plant cells, but not animal cells.
- a) cell wall                                  b) vacuole  
c) mitochondria                      d) endoplasmic reticulum
- 14) Meiosis is a type of cell division that produces \_\_\_\_\_
- a) Zygotes                                  b) Chromosomes  
c) DNA                                      d) Gametes

2. Attempt **any seven** of the following :

14

- 1) Define osmosis.
- 2) Write any two differences between prokaryotic and eukaryotic organisms.
- 3) Draw a labeled diagram of ultra structure of mitochondrion.
- 4) What is euchromatin ? Draw the structure of a chromosome.
- 5) Write any two functions of cell wall.
- 6) Define mitosis and enlist the stages.
- 7) Write any two definite characteristics of plant cell.
- 8) What is cell senescence ?
- 9) Define phagocytosis and give an example of phagocytic cell.

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3. A) Attempt **any two** of the following : **10**
- 1) Write the definite characteristics of animal cell.
  - 2) Explain the fluid Mosaic model of Plasma Membrane.
  - 3) Explain the structure and functions of the Endoplasmic reticulum.
- B) Differentiate between gram positive and gram negative bacterial cells wall. **4**
4. Attempt **any two** of the following : **14**
- 1) What is a cell ? And add a note on biochemical composition of cell.
  - 2) Explain in detail structure and function of DNA (Deoxyribonucleic Acid).
  - 3) Write an account on mitosis.
5. Attempt **any two** of the following : **14**
- 1) Give an account on structure and functions of plant cell wall.
  - 2) Give an account on structure, functions and types of chromosomes.
  - 3) Give a detailed account on chloroplast.
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SLR-SY – 9

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**B.Sc. Entrepreneurship (Part – I) (Semester – I) Examination, 2017**  
**INDUSTRIAL BIOTECHNOLOGY (Paper – II)**  
**Animal and Plant Physiology (CBCS)**

Day and Date : Friday, 10-11-2017  
Time : 10.30 a.m. to 1.00 p.m.

Max. Marks : 70

- Instructions :** 1) **All** questions are **compulsory**.  
2) Figures to the **right side** indicate **full** marks.  
3) **Draw** neat labelled diagrams **wherever** necessary.

1. Rewrite the sentence using correct alternative given below : **14**

- i) Scurvy is the disease caused due to the deficiency of vitamin \_\_\_\_\_  
A) A                      B) B                      C) C                      D) K
- ii) Squamous epithelium is also called as \_\_\_\_\_ epithelium.  
A) Bridge                      B) Pavement  
C) Connective                      D) Cuboidal
- iii) The layer of actively dividing cells of skin is termed as stratum \_\_\_\_\_  
A) Malphighii                      B) Lucideum  
C) Corneum                      D) Compactum
- iv) Kupffer cells are characteristics of \_\_\_\_\_  
A) Stomach                      B) Intestine                      C) Liver                      D) Pancreas
- v) Beta cells of pancreas secrete \_\_\_\_\_  
A) Insulin                      B) Glucagon  
C) Bile                      D) Pancreatic juice
- vi) Collagen is a \_\_\_\_\_  
A) Lipid                      B) Fibrous protein  
C) Carbohydrate                      D) Bile salt
- vii) The gastric juice contains \_\_\_\_\_

P.T.O.



- A) HCl                      B)  $\text{H}_2\text{SO}_4$                       C) Bile                      D) Ptyalin
- viii) The source of  $\text{CO}_2$  during Calvin cycle in  $\text{C}_4$  pathway is \_\_\_\_\_
- A) Malic acid                      B) OAA  
C) PEP                      D) RuDP
- ix) Glucose is stored in the form of glycogen in \_\_\_\_\_
- A) Skin                      B) Tooth  
C) Liver                      D) Kidney
- x) \_\_\_\_\_ is known as the father of tissue culture.
- A) Bonner                      B) Haberlandt  
C) Laibach                      D) Robert Koch
- xi) Callus is \_\_\_\_\_
- A) Embryo forming tissue  
B) An insoluble carbohydrate  
C) An unorganized actively dividing mass  
D) A soluble carbohydrate
- xii) The brain and spinal cord contain \_\_\_\_\_ tissue.
- A) Muscular                      B) Connective  
C) Epithelial                      D) Nervous
- xiii) During light phase of photosynthesis \_\_\_\_\_ is oxidized and \_\_\_\_\_ is reduced.
- A)  $\text{CO}_2$  and water                      B) Water and  $\text{CO}_2$   
C) Water and NADP                      D)  $\text{CO}_2$  and NADP
- xiv) Animal cell cultures are widely used for the production of \_\_\_\_\_
- A) Protease                      B) Monoclonal antibodies  
C) Somatostatin                      D) Insulin

2. Answer **any seven** of the following :

14

- i) What is role of kidney ?
- ii) Draw labelled diagram of nervous tissue.
- iii) State names of photosynthetic pigments.



- iv) Draw labelled diagram of V.S. of tooth.
- v) What are functions of liver ?
- vi) What is tissue culture ?
- vii) Write overall reaction of photosynthesis.
- viii) What is origin and location of muscular tissue ?
- ix) What are media components for animal tissue culture medium ?

3. A) Answer **any two** of the following : **10**

- i) Explain in detail the CAM pathway.
- ii) Write in detail structure and function of salivary gland.
- iii) Describe in detail Carbon and nitrogen as basic elements for growth.

B) Write a note on 'dark reaction'. **4**

4. Answer **any two** of the following : **14**

- i) Describe in detail light reaction.
- ii) Write in detail about V.S. of skin.
- iii) Write an account on physiology of pancreas.

5. Answer **any two** of the following : **14**

- i) Describe in detail origin, location and structure of epithelium.
- ii) Describe in detail electron transport pathway.
- iii) Add a detailed account on plant tissue culture.

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**SLR-SY – 10**

<b>Seat No.</b>	
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**B.Sc. – I (Semester – II) (Ent.) (CBCS) Examination, 2017**  
**ENGLISH (Comp.) (New)**  
**On Track : English Skills for Success**

Day and Date : Tuesday, 14-11-2017

Max. Marks : 70

Time : 10.30 a.m. to 1.00 p.m.

1. Complete the following sentences by choosing the correct alternatives from those given below them.

**14**

- 1) Dr. Kalam had successfully tested \_\_\_\_\_ in France.
  - a) V-2 missile
  - b) Jupiter missile
  - c) SLV-3 apogee motor
  - d) None
- 2) What had the Maharaja of Khetri given Vivekananda ?
  - a) a copy of the Bhagwad Gita
  - b) money
  - c) a beautiful robe
  - d) none
- 3) On which day was the first session of the Parliament of Religion was scheduled to begin ?
  - a) on May 31, 1893
  - b) on September 11, 1893
  - c) on September 21, 1894
  - d) on May 31, 1894
- 4) To succeed in any mission, says Dr. Kalam, one needs
  - a) single handed victory
  - b) single minded devotion
  - c) single attempt success
  - d) single attempt failure
- 5) According to Nani Palkhivala, Dharma lives in the hearts of
  - a) plants
  - b) public men
  - c) temples
  - d) animals
- 6) What do you check to decide that a society is civilized ?
  - a) whether there is material progress
  - b) whether all the people have jobs
  - c) whether the people have freedom
  - d) whether the poorest are supported

**P.T.O.**



- 7) The words 'red slayer' indicate  
a) the murderer in red dress                      b) the red army of China  
c) the guards in red uniform                      d) the fighters race in Hindu
- 8) The poem 'Brahma' displays the influence of \_\_\_\_\_ on Emerson.  
a) the Ramayana    b) the Bible                      c) the Vedanta    d) the Shakuntala
- 9) The term 'bubble house' refers to  
a) the moon                      b) the stars                      c) the mars                      d) the sun
- 10) The poet in 'Full Moon' gives expression to  
a) the feeling of pity for moon                      b) the feeling of joy for the scientists  
c) the feeling of joy for moon                      d) the feeling of joy for lovers
- 11) Ramesh is the \_\_\_\_\_ of all my friends.  
a) most childish    b) child                      c) most childly    d) children
- 12) \_\_\_\_\_ must be germfree.  
a) The Childrens's                      b) The Children milk  
c) Children's milk                      d) Childrens milk
- 13) Prarthana succeeded in getting out of the \_\_\_\_\_ line.  
a) fired                      b) firing                      c) fiery                      d) fire
- 14) Though Nanda was in her \_\_\_\_\_ boat, she could use her smart phone.  
a) cell                      b) sale                      c) sail                      d) sell

2. Answer in brief **any seven** of the following :

14

- 1) How did Swami Vivekananda manage to reach Chicago ?
- 2) Why is the speech of Vivekananda called 'a tongue of flame' ?
- 3) What advice did Wernher von Braun give to Dr. Kalam ?
- 4) What picture of Dr. Kalam emerges from the essay ?
- 5) What does Nani Palkhivala say about freedom ?
- 6) What two rays of hope does Nani Palkhivala speak of ?
- 7) What is Kalam's opinion of Wernher von Braun ?
- 8) What is the Amnesty International ?



3. A) Write short answers on **any two** of the following : **8**

- 1) Theme of the poem 'Full Moon'.
- 2) What transition has taken place in approach to the moon ?
- 3) What is the message of poem 'Brahma' to the readers ?

B) Write short answers on **any two** of the following : **6**

- 1) What are the essential features of notice ?
- 2) Write a note on agenda.
- 3) What is email ?

4. Write **any one** of the following : **14**

You are Deepak Waghmare, Secretary of Science Forum, Solapur. The well known scientist has agreed to visit the forum and interact with the students. Write a notice and agenda informing members of the forum. Imagine the necessary details.

OR

You have been selected as a Sales Officer in a company. You have received an email. Write an email letter accepting offer.

5. Prepare curriculum vitae of a science graduate who has applied for the position of Marketing Officer. **14**

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**SLR-SY – 11**

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**B.Sc. – I (Semester – II) (Entrepreneurship) Examination, 2017  
(New – CBCS Pattern)**

**ENTREPRENEURSHIP SCIENCE**

**Principles of Marketing and Management Accounting (Paper I)**

Day and Date : Wednesday, 15-11-2017

Max. Marks : 70

Time : 10.30 a.m. to 1.00 p.m.

**N.B. :** 1) **All questions are compulsory.**

2) **Figures to the right indicate full marks.**

1. Multiple choice questions :

**14**

- 1) Low price for earnings ratio is result of
  - a) Low riskier firms
  - b) High riskier firms
  - c) Low dividends paid
  - d) High marginal rate
- 2) Profit for the objective of calculating a ratio may be taken as
  - a) Profit before tax but after interest
  - b) Profit before interest and tax
  - c) Profit after interest and tax
  - d) All of the above
- 3) The formula used to calculate current ratio is
  - a) Current assets / Current liabilities
  - b) Current liabilities / Current assets
  - c) Inventory /Current liabilities
  - d) Current liabilities /Inventory
- 4) Step by step business functions in which product or services must have customer usefulness is classified as
  - a) Value chain
  - b) Useful chain
  - c) Product chain
  - d) Services chain
- 5) Purpose of management accounting is to
  - a) Past oriented
  - b) Help banks make decisions
  - c) Help managers make decisions
  - d) Help investors make decisions

**P.T.O.**



- 6) Time that company takes for creating and producing new product is classified as
- a) Management factor                      b) Time factor
  - c) Customer factor                         d) Chain factor
- 7) 'Natural forces or factors' are considered in company's environment called
- a) Macro environment                      b) Micro environment
  - c) Both a) and b)                         d) None of above
- 8) Economies consuming their own industrial outputs are known as
- a) Subsistence economies                      b) Industrial economies
  - c) Developing economies                      d) None of above
- 9) Markets in which goods are bought for personal consumption by individuals and households are called
- a) Business markets                         b) International markets
  - c) Consumer markets                         d) Governments markets
- 10) Collection, analysis and reporting of available data for any given marketing situation is classified as
- a) External databases                         b) Out sourced databases
  - c) Marketing research                         d) Both a) and b)
- 11) People who seek products with functional or practical purposes are considered as
- a) Markers                                      b) Destroyers
  - c) Non-makers                                      d) Non-destroyers
- 12) Segmentation of international markets on basis of monetary regulations is an example of
- a) Geographic location                         b) Cultural factors
  - c) Economic factors                             d) Political and Legal factors
- 13) Targeting affluent customers with luxurious goods is an example of
- a) Geographic segmentation                      b) Income segmentation
  - c) Psychographic segmentation                      d) Behavioural segmentation
- 14) The relationship between two financial variables can be expressed in
- a) Pure ratio                                      b) Percentage
  - c) Rate or Time                                      d) None of the above



2. Answer the following questions (**any 7**) : **14**
- 1) Define internal force.
  - 2) Advantages of segmentation.
  - 3) Formula of working capital.
  - 4) Concept of conservatism convention.
  - 5) Write down external uncontrollable forces.
  - 6) Formula of Liquid Ratio.
  - 7) Define Matching concept.
  - 8) Scope of marketing research.
  - 9) Concept of management account.
3. A) Write short note (**any 2**) : **10**
- 1) Need of environment analysis.
  - 2) Concept of management account.
  - 3) Process of working capital.
- B) Difference between Selling Vs Marketing. **4**
4. Attempt **any two** of the following : **14**
- 1) Explain the Marketing Research Process.
  - 2) Write down Introduction to Management account.
  - 3) Describe overview of marketing.
5. Attempt **any two** of the following : **14**
- 1) Explain the criteria for market segmentation.
  - 2) Describe analysis of financial statements ratio.
  - 3) Define marketing research. Explain scope and limitations of marketing research.
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**SLR-SY – 12**

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**B.Sc. – I (Entrepreneurship) (Semester – II) Examination, 2017**  
**Entrepreneurship Science**  
**COST ACCOUNTING AND PROJECT MANAGEMENT (Paper – II)**  
**(New CBCS Pattern)**

Day and Date : Thursday, 16-11-2017  
Time : 10.30 a.m. to 1.00 p.m.

Max. Marks : 70

**N.B. :** 1) **All questions are compulsory.**  
2) **Figures to the right indicate full marks.**

1. Choose the correct alternative from the given alternatives. **14**

- 1) What is defined as “the ability to influence and align others towards a common purpose” ?  
a) Teamwork                      b) Motivation                      c) Management                      d) Leadership
- 2) Using the marginal costing method contribution is equal to total sales revenue less  
a) Direct labour costs                      b) Total costs  
c) Variable costs                      d) Fixed costs
- 3) A project is typically defined in terms of scope, time, cost and which other parameter ?  
a) Benefits                      b) Quality                      c) Tolerance                      d) Controls
- 4) Service costing is useful for  
a) Construction                      b) Hotel and tourism  
c) Hospital                      d) Both b and c
- 5) The process that evaluates overall project performance to provide confidence is called  
a) quality assurance                      b) quality planning  
c) quality control                      d) quality audit
- 6) To check whether we are developing the right product according to the customer requirements are not it process  
a) Validation                      b) Verification  
c) Quality assurance                      d) Quality control

**P.T.O.**



- 7) Business markets usually includes fewer but
- a) Large scale production firms      b) Small scale retailers
  - c) Small scale production firms      d) Small scale wholesalers
- 8) Grade of a product
- a) Names the same thing as quality
  - b) Can be used interchangeably with quality
  - c) Is the level of a product or service
  - d) Depends on the quality of the product
- 9) Which problem is faced by small business ?
- a) Outdated technology      b) Shortage of raw materials
  - c) Lack of adequate finance      d) All
- 10) Effective communication is one of the most important skill required by
- a) The project team      b) The management
  - c) The project manager      d) The project contractor
- 11) Material is
- a) Direct expenses      b) Indirect expenses
  - c) Both a and b      d) None of these
- 12) The company has to repair or replace a product this will be taken as a
- a) Recall cost      b) Warranty cost
  - c) Scrap and rework cost      d) Inspection and testing cost
- 13) The actual input price is \$150 and the budgeted input price is \$80 then the price variance is
- a) \$ 30      b) \$ 70      c) \$ 150      d) \$ 80
- 14) The functional manager and project manager have equal power in which organizational structure ?
- a) Weak matrix      b) Functional
  - c) Strong matrix      d) Balanced matrix

2. Answer the following questions (**any 7**) :

**14**

- 1) Features of job cost sheet.
- 2) Significance of project report.
- 3) Direct and indirect examples of each.
- 4) Importance of project report.
- 5) Contents of project report.

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- 6) What do you mean by project management ?
  - 7) Service and batch costing (explanation and where to use only).
  - 8) Define project selection process.
  - 9) Scope of small scale industries.
3. A) Write short notes on (**any 2**) : **10**
- 1) Types of cost.
  - 2) Steps of project report.
  - 3) Difference between Management Accounting and Cost Accounting.
- B) State the advantages and limitations of job cost sheet. **4**
4. Attempt **any two** of the following : **14**
- 1) Classification of costing methods.
  - 2) Objective and scope of small business.
  - 3) Write down process of project development.
5. Attempt **any two** of the following : **14**
- 1) Meaning of project report. Significance and contents of project report.
  - 2) What do you mean by element of cost ? Classification of element of cost and draw a format of cost sheet.
  - 3) From the following information you are required to prepare cost sheet from Jan. 01 to June 30, 2004.
- | <b>Particulars</b>                | <b>2004 Jan. 01</b> | <b>2005 June 30</b> |
|-----------------------------------|---------------------|---------------------|
| Cost of raw material              | 30,000              | 25,000              |
| Cost of work in progress          | 12,000              | 15,000              |
| Cost of stock of finished goods   | 60,000              | 55,000              |
| Purchase of raw material          | 4,50,000            |                     |
| Wages paid                        | 2,30,000            |                     |
| Factory overhead                  | 92,000              |                     |
| Administration overheads          | 30,000              |                     |
| Selling and distribution overhead | 20,000              |                     |
| Sales                             | 9,00,000            |                     |
- Prepare :**
- a) Material consumed (4,55,000)
  - b) Prime cost (6,85,000)
  - c) Factory cost/work cost (7,77,000)
  - d) Cost of goods sold (8,12,000)
  - e) Profit (68,000)
-

Set **P**

Day and Date : Friday, 17-11-2017  
Time : 10.30 a.m. to 1.00 p.m.

Total Marks : 70

1. Select the most correct alternative from among those given below and rewrite the sentence :

14

- The compressibility factor  $Z$  for an ideal gas is \_\_\_\_\_.
  - zero
  - less than one
  - greater than one
  - equal to one
- The temperature at which a real gas obeys the ideal gas behavior over a wide range of pressure is called \_\_\_\_\_ temperature.
  - Critical
  - Boyle's
  - Reduced
  - Inversion
- The number of moles of solute in one liter of solution is called as \_\_\_\_\_.
  - Molarity
  - Molality
  - Mole fraction
  - Normality
- The ratio of weight of solute to the weight of solution is called as \_\_\_\_\_.
  - Weight fraction of solute
  - Weight fraction of solvent
  - % composition by weight
  - % composition by volume
- For \_\_\_\_\_ order reaction, the half life time is inversely proportional to initial concentration.
  - First
  - Second
  - Third
  - All of these
- Cooling effect of the gas on expansion is called as \_\_\_\_\_ effect.
  - Compton
  - Joule-Thomson
  - Photoelectric
  - All of these

**P.T.O.**



- 7) Van der Waal's equation explains the behavior of \_\_\_\_\_  
a) Mixture of gases                      b) Real gases  
c) Ideal gases                              d) All of these
- 8) Molecular volume is also called as \_\_\_\_\_  
a) Molecular mass                      b) Optical activity  
c) Molecular weight                      d) Parachor
- 9) The reaction,  $A + B \rightarrow \text{products}$ , is \_\_\_\_\_  
a) Unimolecular                      b) Bimolecular  
c) Trimolecular                      d) Tetra molecular
- 10) Rate of reaction \_\_\_\_\_  
a) Increases with increase in temperature  
b) Decreases with increase in temperature  
c) Is independent of temperature  
d) Is independent of concentration
- 11) The order of chemical reaction may be \_\_\_\_\_  
a) Zero                      b) Integer                      c) Half integer                      d) All of these
- 12) The molecular weight of a compound is an example of \_\_\_\_\_ property.  
a) Additive                      b) Constitutive  
c) Additive and constitutive                      d) None of these
- 13) The reciprocal of viscosity is called as \_\_\_\_\_  
a) Surface tension                      b) Frictional resistance  
c) Fluidity                      d) None of these
- 14) The unit of surface tension is \_\_\_\_\_  
a) dyne cm                      b) dyne  $\text{cm}^{-1}$                       c) dyne $^{-1}$  cm                      d) dyne $^{-1}$   $\text{cm}^{-1}$

2. Answer **any seven** of the following :

14

- i) Define ideal gas and non ideal gas.
- ii) Give two assumptions of kinetic theory of gases.
- iii) Name the different methods for determination of concentration.
- iv) Write the Van der Waals equation.
- v) What do you mean by pseudo-molecular reaction ?

Set P



- vi) Define :
- i) Mole fraction
  - ii) Normality.
- vii) Give one example of second order reaction.
- viii) Define molecularity of reaction, give its example.
- ix) Define additive and constitutive property with example.
3. A) Attempt **any two** of the following : **10**
- i) Discuss the liquefaction of gas.
  - ii) Explain the surface tension with suitable diagram.
  - iii) Half life time of first order reaction is 72 minutes. How much time will be required to complete 90% reaction ?
- B) Discuss the factors affecting the rate of reaction. **4**
4. Attempt **any two** of the following : **14**
- i) Discuss the deviation from ideal gas behavior.
  - ii) Derive an expression for second order reaction with equal initial concentration of reactant.
  - iii) Define viscosity and explain the method for its determination.
5. Attempt **any two** of the following : **14**
- i) Explain Drop – Weight method for determination of surface tension.
  - ii) Explain Andrew's isotherm for carbon dioxide.
  - iii) Define first order reaction. Derive an expression for first order reaction.
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## Set

**P**

**B.Sc. – I (Entrepreneurship) (Semester – II) (New-CBCS) Examination, 2017**  
**INDUSTRIAL CHEMISTRY (Paper – II)**  
**Fundamental of Analytical Chemistry**

Day and Date : Saturday, 18-11-2017  
Time : 10.30 a.m. to 1.00 p.m.

Max. Marks : 70

**Instructions:** 1) **All** questions are **compulsory**.  
2) Figures to **right** indicates **full** marks.  
3) **Use** of log table and calculator is **allowed**.

1. Choose most correct alternative among the following and rewrite the sentences. 14
- i) Octane number is the scale used to determine \_\_\_\_\_ quality of fuel.
- a) Knocking                                      b) Antiknocking  
c) Both a) and b)                                d) Purity
- ii) Refining of petroleum yields \_\_\_\_\_ major fractions.
- a) One                      b) Five                      c) Two                      d) Seven
- iii) The process which occurs of its own accord is called as \_\_\_\_\_ process.
- a) Non-spontaneous                              b) Spontaneous  
c) Adiabatic    d) Isothermal
- iv) The work done in reversible process is always
- a) Maximum              b) Minimum              c) Very less              d) None of these
- v) In isothermal expansion of ideal gas
- a)  $P = 0$                       b)  $\Delta V = 0$               c)  $\Delta E = 0$               d)  $W = 0$
- vi) The polymer material becomes permanently hard on heating at critical temperature is
- a) Rubber                      b) Polyethene              c) Thermosetting              d) Thermoplastic
- vii) The monomer used in PVC manufacture is
- a) Chloroethane              b) Polyethene              c) Styrene                      d) Formaldehyde

P.T.O.



- viii) The empirical formula of \_\_\_\_\_ polymer is same as that of monomer from which it is formed.  
a) CO                      b) Natural                      c) Synthetic                      d) Addition
- ix) The presence of free \_\_\_\_\_ is necessary for the life of organism in water.  
a) Carbon                      b) Nitrogen                      c) Oxygen                      d) Boron
- x) The human is composed of \_\_\_\_\_ % of water.  
a) 60                      b) 50                      c) 40                      d) 70
- xi) The proteins of milk consists of mainly  
a) Casein                      b) Fat                      c) Glucose                      d) Vitamin
- xii) Hydroforming refers to process of changing  
a) Open chain alkanes to aromatic hydrocarbons  
b) Petroleum to natural gas  
c) Less volatile alkane to more volatile alkane  
d) Open chain alkane to hydroxy compound
- xiii) The efficiency of heat engine operating between 400 k and 300 k is  
a) 1.0                      b) 0.75                      c) 0.5                      d) 0.25
- xiv) Based on origin the polymers are grouped into \_\_\_\_\_ and \_\_\_\_\_  
a) Homo, hetero                      b) Synthetic, natural  
c) Copolymer, polymer                      d) Both a) and c)

2. Answer **any seven** of the following :

14

- i) Define elastomer with example.
- ii) State Hess-law of mixing.
- iii) What is meant by thermoplastic polymer ?
- iv) Define calorific value and heating value.
- v) Define enthalpy.
- vi) What do you understand chemical oxygen demand ?
- vii) Name the major constituents of milk.
- viii) Define fire point.
- ix) Draw the structures of linear, branched and cross linked polymers.



3. A) Write notes on **any two** : 10
- i) Adulteration of milk.
  - ii) Spontaneous process.
  - iii) Petroleum refining.
- B) Write note on octane number. 4
4. Answer **any two** of the following : 14
- i) What are the types of water ? Explain the term fresh water.
  - ii) Write the synthesis and applications of :
    - a) poly styrene      b) polyvinyl chloride.
  - iii) Write note on Carnot cycle and its efficiency.
5. Answer **any two** of the following : 14
- i) Define antacid. Explain their types. Comment on role of magnesium hydroxide as antacid.
  - ii) What are polymers ? Discuss various types of polymers with suitable example.
  - iii) What is meant by cracking and hydroforming ?
-

Set **P**

Day and Date : Monday, 20-11-2017  
Time : 10.30 a.m. to 1.00 p.m.

Max. Marks : 70

1. Rewrite the following sentences by choosing correct alternatives from given below :

14

- i) \_\_\_\_\_ technique is used in screening of growth factor producers.
  - a) Crowded plate
  - b) pH indicating dye
  - c) Replica plate
  - d) Streak plate
- ii) \_\_\_\_\_ is used to control the temperature.
  - a) Silicon jacket
  - b) Cooling jacket
  - c) Antifoam
  - d) Baffles
- iii) \_\_\_\_\_ is a process of preservation of industrially important microorganism.
  - a) Lyophilization
  - b) Pasteurization
  - c) Canning
  - d) Burning
- iv) \_\_\_\_\_ is used to control drastic changes of pH.
  - a) Amylase
  - b) Acid
  - c) Buffer
  - d) Base
- v) The process that eliminates all forms of life including spores and other biological agent is known as
  - a) Lyophilization
  - b) Growth
  - c) Sterilization
  - d) Disinfection
- vi) \_\_\_\_\_ is an example of continuous filtration process.
  - a) Stage
  - b) Rotary vacuum drum
  - c) Plate and frame
  - d) Basket

**P.T.O.**



- vii) \_\_\_\_\_ technique is used to isolate auxotrophic strain.  
a) Acid                      b) Growth factor   c) Penicillin              d) Citric acid
- viii) \_\_\_\_\_ is mainly used as a carbon source during amylase production.  
a) Starch                      b) Citric acid              c) Agar                      d) Castor oil
- ix) Cobalt chloride is precursor used during \_\_\_\_\_ production.  
a) Penicillin    b) Phenoxy acetic acid  
c) Vitamin B12    d) Sodium chloride
- x) \_\_\_\_\_ % chromium present in AISI 316 grade steel.  
a) 18                      b) 10                      c) 5                      d) 30
- xi) In ethanol production \_\_\_\_\_ is mainly used as carbon source.  
a) Penicillin              b) Glucose              c) Molasses              d) Amino acids
- xii) Industrial scale fermenter has \_\_\_\_\_ liter capacity.  
a) 10 – 15              b) 100 – 1000              c) Above 10000              d) 300000 – 400000
- xiii) Heat sensitive liquid fermentation media are sterilized by  
a) Heat    b) Pasteurization  
c) Filtration    d) Centrifugation
- xiv) \_\_\_\_\_ is a branch of applied microbiology in which microorganisms are used in industrial processes.  
a) Mycology    b) Industrial Microbiology  
c) Biotechnology    d) Microbiology

2. Attempt **any seven** of the following :

**14**

- i) Enlist the precursors used in fermentation media.
- ii) What is Buffer ?
- iii) Define Antifoam agent.
- iv) Define Antibiotic.
- v) Define fermentation.
- vi) Types of fermenter.
- vii) Define freeze drying.
- viii) Sketch neat labelled diagram of fermenter.
- ix) Define sterilization.



3. A) Answer **any two** of the following : 10
- i) What is screening ? Explain with suitable example primary screening.
  - ii) Explain in detail sterilization of fermentation media.
  - iii) Explain fermentation process in brief.
- B) Write detail account on History of Industrial Microbiology. 4
4. Answer **any two** of the following : 14
- i) Explain in detail different types of fermenter used in fermentation industry.
  - ii) Define secondary screening and explain different techniques used in a secondary screening.
  - iii) Explain in detail fermentation media.
5. Attempt **any two** of the following : 14
- i) Explain in detail methods used in preservation and maintenance of industrial important microorganisms.
  - ii) Explain in detail scope of industrial microbiology.
  - iii) Describe in detail factors affecting fermentation process.
-

Set **P**

Day and Date : Tuesday, 21-11-2017  
Time : 10.30 a.m. to 1.00 p.m.

Max. Marks : 70

1. Rewrite the following sentences by choosing correct alternatives from given below :

14

- P.T.O.**



- vi) Any change that occurs in the DNA of a gene is referred to as
  - a) Transformation
  - b) Vernalisation
  - c) Mutation
  - d) Eugenics
- vii) \_\_\_\_\_ % cost is requiring for recovery and purification of enzymes
  - a) 30
  - b) 40
  - c) 55
  - d) 70
- viii) The process adopted to produce an inoculums meeting these criteria is called as
  - a) Hydrolytic enzyme
  - b) Inoculums development
  - c) Scale up
  - d) Antibiotic
- ix) \_\_\_\_\_ is an industrial important procedure for qualitatively assessing or quantitatively measuring the amount of fermentation product.
  - a) Assay
  - b) Scale up
  - c) Fermentation
  - d) None of these
- x) Dextran can be precipitated out of broth by the addition of
  - a) KOH
  - b) HCl
  - c) NaOH
  - d) Methanol
- xi) \_\_\_\_\_ processing refers to the recovery and purification of biosynthetic products.
  - a) Downstream
  - b) Upstream
  - c) Production
  - d) None of these
- xii) Mutations inducing agents are called as
  - a) Toxicants
  - b) Antifoam agent
  - c) Supernatant
  - d) Mutagens
- xiii) \_\_\_\_\_ mutants are those which lack the enzymes to manufacture certain required nutrients.
  - a) Auxotrophic
  - b) Autotrophic
  - c) Prototrophic
  - d) Chemotropic
- xiv) \_\_\_\_\_ is the example of continuous filtration process.
  - a) Whatmans
  - b) HEPA
  - c) Rotary vacuum drum
  - d) Chance

2. Answer **any seven** of the following :

14

- i) Define Distillation.
- ii) What is metabolic response assay ?
- iii) Enlist methods of downstream processing.



- iv) Applications of gene manipulation.
- v) Define assay.
- vi) What is Filtration ?
- vii) Define Mutation.
- viii) Enlist mutagenic agent.
- ix) Define Precipitation.

3. A) Answer **any two** of the following : **10**
- i) Describe in brief Computer applications in fermentation technology.
  - ii) Discuss in detail Fermentation economics.
  - iii) Describe in detail Site directed mutagenesis.
- B) Give a detailed account on Scale up of fermentation. **4**
4. Answer **any two** of the following : **14**
- i) Describe in detail development of inoculums.
  - ii) Define Centrifugation and explain in detail Types centrifugation.
  - iii) Explain in detail Turbidometric assay.
5. Answer **any two** of the following : **14**
- i) Write in detail solvent extraction for recovery of product.
  - ii) Discuss in detail enzymatic assay.
  - iii) Describe in detail drying and crystallization of fermentation product.
-



SLR-SY – 17

Seat No.	
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**B.Sc. – I (Entrepreneurship) (Semester – II) (New-CBCS) Examination, 2017**  
**INDUSTRIAL BIOTECHNOLOGY**  
**Basics of Biomolecules (Paper – I)**

Day and Date : Wednesday, 22-11-2017

Max. Marks : 70

Time : 10.30 a.m. to 1.00 p.m.

- N.B. :** 1) **All** questions are **compulsory** and carry **equal** marks.  
2) Draw **a neat** labeled diagram **wherever** necessary.  
3) Figures to the **right** indicate **full** marks.

1. Rewrite the following sentences by choosing correct alternatives from given below :

14

- i) The general chemical formula of carbohydrate is \_\_\_\_\_  
a)  $(\text{CH}_2\text{O})_n$       b)  $(\text{CH}_2\text{O})_{2n}$       c)  $(\text{CHO})_n$       d)  $\text{C}_n\text{H}_{2n}\text{O}$
- ii) \_\_\_\_\_ is the molecular formula of sucrose.  
a)  $\text{C}_{12}\text{H}_{20}\text{O}_{11}$       b)  $\text{C}_{10}\text{H}_{20}\text{O}_{10}$       c)  $\text{C}_6\text{H}_{12}\text{O}_6$       d)  $\text{C}_{12}\text{H}_{22}\text{O}_{11}$
- iii) Lectins are \_\_\_\_\_  
a) Sugars specific to proteins  
b) Proteins specific to sugars  
c) Enzymes specific to carbohydrates  
d) Carbohydrates specific to enzymes
- iv) Maltose is a disaccharide of \_\_\_\_\_  
a) Glucose and galactose      b) Glucose and glucose  
c) Glucose and lactose      d) Fructose and lactose
- v) \_\_\_\_\_ number of carbon required for a monosaccharide.  
a) 1      b) 2      c) 3      d) 4
- vi) \_\_\_\_\_ enzyme mainly act on lipid.  
a) Protease      b) Lipase      c) Amylase      d) Sucrose

P.T.O.



- vii) \_\_\_\_\_ is the 'OH' linked amino acid.  
a) Glycine      b) Serine      c) Alanine      d) Methionine
- viii) \_\_\_\_\_ is positively charged amino acid.  
a) Serine      b) Alanine      c) Arginine      d) Glutamine
- ix) Amino acids has \_\_\_\_\_  
a) Both amino group and carboxyl group  
b) Both amino group and keto group  
c) Only amino group  
d) Only carboxyl group
- x) Cholesterol is \_\_\_\_\_  
a) Glycolipid      b) Phospholipid  
c) Steroids      d) Fatty acid
- xi) \_\_\_\_\_ coined the term enzyme.  
a) F. Crick      b) Watson      c) Pasteur      d) W. Kuhne
- xii) \_\_\_\_\_ is a fat soluble vitamin.  
a) Vitamin C      b) Vitamin B      c) Lipoamide      d) Vitamin K
- xiii) The scurvy caused due to the deficiency of \_\_\_\_\_ Vitamin.  
a) Vitamin C      b) Vitamin B      c) Vitamin E      d) Vitamin K
- xiv) \_\_\_\_\_ is a pituitary hormone.  
a) Insulin      b) Melatonin      c) TSH      d) Glucagon

2. Attempt **any seven** (out of nine) of the following :

**14**

- i) Define Hormone.
- ii) What is Hydrogen bond ?
- iii) Secondary structure of proteins.
- iv) Define Exoenzyme.
- v) Define immobilization.



- vi) Functions of hormone.
- vii) What is fatty acid ?
- viii) Structure of triglycerides.
- ix) Define amino acids.

3. A) Answer **any two** (out of three) of the following : **10**
- i) Explain in detail classification of carbohydrate.
  - ii) Write a detail note on cholesterol.
  - iii) Describe in detail primary structure of protein.
- B) Write in detail account on fat soluble vitamins. **4**
4. Answer **any two** (out of three) of the following : **14**
- i) What are the factors affecting on enzyme activity ?
  - ii) Write in detail physiological role of hormones.
  - iii) Describe in detail glycoprotein with its structure and function.
5. Attempt **any two** (out of three) of the following : **14**
- i) Explain in detail classification of amino acids.
  - ii) Write in detail types of lipids.
  - iii) Explain in detail the process immobilization.
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SLR-SY – 18

Seat No.	
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Set 

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**B.Sc. I (Entrepreneurship) (New-CBCS) (Semester – II) Examination, 2017**  
**INDUSTRIAL BIOTECHNOLOGY**  
**Basics of Metabolism (Paper No. – II)**

Day and Date : Thursday, 23-11-2017

Max. Marks : 70

Time : 10.30 a.m. to 1.00 p.m.

**Instructions :** 1) **All** questions are **compulsory** and carry **equal** marks.  
2) Draw a **neat** labelled diagram **wherever** necessary.  
3) Figure to the **right** indicate **full** marks.

1. Rewrite the following sentences by choosing correct alternatives from given below. **14**

- i) Entire spectrum of chemical reactions occurring in living system is collectively referred as  
A) Catabolism    B) Metabolism    C) Anabolism    D) Amphibolism
- ii) \_\_\_\_\_ is a central atom in carbohydrate metabolism.  
A) Glycogen    B) Glucose    C) Fructose    D) Galactose
- iii) The biological membrane is mainly made up of  
A) Vitamins    B) Nucleic Acid    C) Carbohydrates    D) Lipids
- iv) Glycogenesis is  
A) Formation of Glycogen from glucose  
B) Synthesis of glucose  
C) Breakdown of Glycogen to Glucose  
D) All of the above
- v) Isotopes are the atoms with same number of proton but different number of  
A) Neutron    B) Proton    C) Electron    D) None of these
- vi) Gluconeogenesis is regulated by the hormone  
A) Testosterone    B) HGH    C) Glucagon    D) Insulin
- vii) Number of ATP synthesized in Glycolysis is  
A) 10    B) 12    C) 08    D) 14

P.T.O.



- viii) The end product of glycolysis is  
A) Citric acid      B) Pyruvic acid      C) Lactic acid      D) Fatty acid
- ix) The potassium channel allows rapid movement of \_\_\_\_\_ ions across membrane.  
A) Sodium                                      B) Potassium  
C) Both A) and B)                              D) Calcium
- x) The primary site for ATP production is \_\_\_\_\_ in cell.  
A) Mitochondria                                      B) Cell Membrane  
C) Nucleus    D) Golgi Complex
- xi) Active transport is a movement of molecules across a cell membrane from region of their lower concentration to region of their \_\_\_\_\_ concentration.  
A) Higher    B) Lower  
C) Both A) and B)                                      D) Middle
- xii) The enzymes of HMP shunt are located in the  
A) Cell membrane      B) Cell wall      C) Cytosol      D) Nucleus
- xiii) \_\_\_\_\_ is an organism capable of synthesizing its own food.  
A) Heterotrophs      B) Autotrophs      C) Auxotroph      D) Chemotrophs
- xiv) \_\_\_\_\_ means chemical alteration of chemicals such as nutrients, amino acids, toxins and drugs in the body.  
A) Biotransformation                                      B) Anabolism  
C) Conversion    D) Degradation

2. Answer **any seven** of the following :

14

- i) Define Autotrophs.
- ii) Define Oxidative Phosphorylation.
- iii) Define Biotransformation.
- iv) Define Anabolism.
- v)  $LC_{50}$ .
- vi) Define Heterotrophs.
- vii) Enlist enzyme involved in glycolysis.
- viii) ATP.
- ix) Define Xenobiotics.



3. A) Answer **any two** of the following : 10
- i) Describe in brief classification of transporters.
  - ii) Define Glycolysis. Discuss in detail EMP pathway.
  - iii) Describe in detail role of enzymes in biotransformation.
- B) Give a detailed account on HMP pathway. 4
4. Answer **any two** of the following : 14
- i) Describe in detail TCA cycle.
  - ii) Discuss in detail Photophosphorylation.
  - iii) Discuss in brief Active transport.
5. Answer **any two** of the following : 14
- i) Explain in brief Toxicity.
  - ii) Discuss in detail Biotransformation of Xenobiotics.
  - iii) Describe in detail passive transport.
-



**SLR-SY – 19**

<b>Seat No.</b>	
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**P**

**B.Sc. – I (Semester – II) (Entrepreneurship) (CGPA) Examination, 2017**  
**ENGLISH (Comp.) (Old)**  
**On Track : English Skills For Success**

Day and Date : Tuesday, 14-11-2017

Max. Marks : 70

Time : 10.30 a.m. to 1.00 p.m.

1. Complete the following statements by choosing the correct alternatives from those given below them :

**14**

- 1) The word 'workaholic' means
  - a) a person who works hard
  - b) a person who works slowly and slowly
  - c) a person who does not work
  - d) a person who runs away from work
- 2) Wernher von Braun made the lethal
  - a) SLV-3
  - b) V-2
  - c) V-3
  - d) V-11
- 3) The first session of Parliament of Religion was held on
  - a) 11 September 1893
  - b) 11 October 1893
  - c) 11 September 1993
  - d) 11 December 1893
- 4) \_\_\_\_\_ represented the Buddhists of Ceylon in Parliament of Religion.
  - a) Pratap Muzoomdar
  - b) Gandhi
  - c) Dharmapala
  - d) None
- 5) What is the vanishing act Palkhivala writes about
  - a) The removal of poverty
  - b) The disappearance of law and order
  - c) The removal of discrimination
  - d) The disappearance of dissenters

**P.T.O.**



- 6) The primary idea of human rights involves  
a) rights against the government    b) rights of the government  
c) rights for the government        d) rights formulated by the government
- 7) Ralph Emerson was also a advocate of  
a) The superstition                      b) The transcendentalism  
c) The western style                      d) None
- 8) Ralph Emerson was \_\_\_\_\_ poet.  
a) An American    b) An Indian        c) An English        d) The French
- 9) The word 'bubble house' in 'Full Moon' means  
a) The Sun            b) The Moon        c) The Earth        d) The Sky
- 10) As the time passed, our perception of the moon has  
a) Changed                                  b) Remained as it was  
c) Disturbed people                      d) None
- 11) This is the final \_\_\_\_\_ of the items.  
a) List                      b) Least                c) Lest                      d) Little
- 12) Mr. Padolkar congratulated Raju for his  
a) Princeple            b) Principles        c) Prencipal              d) Principale
- 13) Mrs. Bhujade cannot drink \_\_\_\_\_ coffee without your company.  
a) Her                      b) His                      c) Their                      d) Your
- 14) The correct antonym of 'expensive' is  
a) best                      b) chief                      c) poor                      d) cheap

2. Answer in brief **any seven** of the following :

**14**

- 1) What kind of a personality was Wernher von Braun, according to Dr. Kalam ?
- 2) What is 'flow' according to Dr. Kalam ?
- 3) How did J. H. Wright help Swami Vivekananda ?
- 4) How did Swami Vivekanand begin his speech in Chicago ?
- 5) What is the noble maxim by Palkhivala ?
- 6) Why does Palkhivala say that the world continues to be 'less than half free' ?
- 7) Write a note on Dr. Kalam as scientist.
- 8) What happened to the first V-2 missile when it was first tested ?

**Set P**



3. A) Write short answers on **any two** of the following : **8**
- 1) What is the message of the poem 'Brahma' ?
  - 2) How does Hayden lament over the Moon's fate ?
  - 3) Explain in short the concept of 'Brahma' by Emerson in the poem 'Brahma'.
- B) Write paragraphs on **any two** of the following : **6**
- 1) As a Principal of College, write a notice informing students about poetry reading competition. Mention date and events.
  - 2) What do you mean by minutes ?
  - 3) What is an agenda ?
4. Answer **any one** of the following questions : **14**
- A) You are Dr. Balkrishnan, Secretary of Himalaya Academy. The well known speaker has been called to guide students who prepare for competitive examinations. Write a notice and agenda informing members of the academy. Imagine necessary details.
- B) You have received an e-mail letter of appointment for the post of Bank Manager in D.B.N. Cooperative Bank, Pune. Write an email letter accepting the offer.
5. Prepare a C.V. for the post of Assistant Sales Executive in a renowned company. **14**
-



SLR-SY – 20

Seat No.	
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Set

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**B.Sc. – I (Semester – II) (Old) (CGPA Pattern) Examination, 2017**  
**ENTREPRENEURSHIP (Paper – II)**

Day and Date : Wednesday, 15-11-2017

Max. Marks : 70

Time : 10.30 a.m. to 1.00 p.m.

- N.B. :** 1) **All questions are compulsory.**  
2) **Figures to the right indicate full marks.**

SECTION – I

**(Principles of Marketing and Management Accounting)**

35

1. Multiple choice question.

5

- 1) \_\_\_\_\_ is one of the limitations of marketing research.
  - a) Sample
  - b) Sample method
  - c) Environment
  - d) All the above
- 2) \_\_\_\_\_ is also known as marketing segmentation.
  - a) Area of marketing
  - b) Manager
  - c) Owner
  - d) Customer
- 3) Number of buyers and Number of seller gathered is one place called
  - a) Market
  - b) Selling
  - c) Marketing
  - d) All the above
- 4) Liquid Asset \_\_\_\_\_
  - a) Current Assets – Stock
  - b) Current asset – current liability
  - c) Both a) and b)
  - d) None of these
- 5) Working Capital = \_\_\_\_\_
  - a) Current Assets – Stock
  - b) Current Asset – Current liability
  - c) Both a) and b)
  - d) None of these

P.T.O.



2. Solve **any five** from the following :

10

- 1) Net profit ratio.
- 2) Market Segmentation.
- 3) What is meant by selling ?
- 4) Concept of Accounting.
- 5) What is meant by Marketing Research ?
- 6) GP Ratio.
- 7) Working Capital.

3. A) Solve **any two** of the following :

10

- 1) Explain the scope and importance of Marketing Research.
- 2) Write note on Selling Vs Marketing.
- 3) Calculate Ratio.

Particulars	Rs.
Gross Profit	80,000
Current Asset	3,00,000
Current Liability	2,00,000
Net Profit	50,000
Stock	40,000
Sales	3,00,000

Calculate Ratio :

- 1) Gross Profit Ratio
- 2) Current Ratio
- 3) Net Profit Ratio
- 4) Working Capital Ratio
- 5) Liquid Ratio

B) Answer in brief (**any 1**) :

10

- 1) Define Management Accounting. Explain Nature, Scope, Limitations of Management Accounting.
- 2) From the following calculate working capital.
  - 1) Cash and Bank Balance – 5,00,000
  - 2) Debtors – 3,00,000
  - 3) Creditors – 5,00,000
  - 4) Stock – 4,00,000
  - 5) Bills Payable – 2,00,000
  - 6) Bills Receivables – 1,50,000
  - 7) Contingency – 20 %

Set P



SECTION – II

**(Cost Accounting and Project Management)**

**35**

1. Multiple choice question.

**5**

- 1) Effective communication is one of the important skill required to
  - a) The Project Team
  - b) Project Manager
  - c) The Management
  - d) Project Contractor
- 2) Labour turnover means
  - a) Turnover generated by labour
  - b) Rate of change in composition of labour force during a specified period
  - c) Either of the above
  - d) Both of the above
- 3) Prime cost
  - a) Material + Labour + Direct Cost
  - b) Labour Cost
  - c) Only Factory Indirect Costs
  - d) Only indirect expenses
- 4) Overhead refers to
  - a) Direct or prime cost
  - b) All indirect costs
  - c) Only factory indirect cost
  - d) Only indirect expenses
- 5) Conversion Cost means
  - a) Material + Labour + Cost
  - b) Labour Cost
  - c) Material Cost
  - d) Labour Cost + Factory Cost

2. Solve **any five** from the following :

**10**

- i) Job Costing.
- ii) Process Costing.
- iii) Write the example of Direct and Indirect Cost.
- iv) Write down Contract Costing.
- v) Write note on Project Management.
- vi) Operation/Service Costing.

**Set P**



3. A) Describe **any two** of the following : **10**
- 1) Explain Types of Project.
  - 2) Define process of project development.
  - 3) Explain significance of Project Report.

- B) Solve **any one**. **10**

- 1) The following figures have been extracted from the records of a manufacturing company for the year ending 31<sup>st</sup> December, 2008. You are required to prepare a statement of cost showing.

- a) Cost of raw materials consumed
- b) Prime Cost
- c) Factory Cost
- d) Cost of production
- e) Cost of goods sold
- f) Total cost of goods sold and profit on sales.

<b>Particular</b>	<b>Rs.</b>
Stock of Raw Materials (1-1-15)	30,000
Stock of Raw Materials (31-12-15)	24,000
Purchases of Raw Materials	1,40,000
Stock of work-in-progress (1-1-15)	10,000
Stock of work-in-progress (31-12-15)	8,000
Carriage inward	5,000
Manufacturing wages	40,000
Other direct expenses	2,000
Indirect wages	10,000
Experiment expenses	4,000
Wastage of materials	500
Factory overhead	70,000
Establishment on costs	20,000
Selling overhead	40,000
Distribution overhead	10,000
Stock of finished goods (1-1-15)	12,000
Stock of finished goods (31-12-15)	30,000
Sales	4,00,000

- 2) Define Cost. Explain types of Cost.



SLR-SY – 21

Seat No.	
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Set

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**B.Sc. (Part – I) (Semester – II) (Old CGPA) Examination, 2017**  
**ENTREPRENEURSHIP**  
**Industrial Chemistry (Paper – II)**

Day and Date : Thursday, 16-11-2017

Max. Marks : 70

Time : 10.30 a.m. to 1.00 p.m.

- Instructions :** 1) **All** questions are **compulsory**.  
2) Draw **neat** diagrams and give equations **wherever** necessary.  
3) Figures to the **right** indicate **full** marks.  
4) **Use** of log table and scientific calculator is **allowed**.  
(At. Wts.  $H = 1$ ,  $C = 12$ ,  $O = 16$ ,  $N = 14$ ,  $Na = 23$ ,  $Cl = 35.5$ )

SECTION – I

35

**(Fundamentals of Physical Chemistry)**

1. Choose the most correct alternative for each of the following :

5

- 1) The reaction between  $K_2S_2O_8$  and  $KI$  is an example of \_\_\_\_\_ order reaction.  
a) First                      b) Second                      c) Third                      d) Zero
- 2)  $V_c$ ,  $T_c$  and  $P_c$  are known as \_\_\_\_\_ constants.  
a) Gas                                      b) Van der Waals  
c) Velocity                                      d) Critical
- 3) The unit of surface tension is  
a)  $N/m$                       b) Newton                      c)  $J/m$                       d) All of these
- 4) The ratio of weight of one component to the total weight of the all components in the solution is called as  
a) Mole fraction                                      b) Weight fraction  
c) Fraction                                      d) None of these
- 5) The order of a chemical reaction may be  
a) Zero                      b) Integral                      c) Half integral                      d) All of these

P.T.O.



2. Answer **any five** of the following : 10
- i) Define order of a reaction.
  - ii) Write the expression for Macleod equation.
  - iii) Define isotherm.
  - iv) What do you mean by stoichiometry ?
  - v) Define mole fraction.
  - vi) What are the causes of deviations of gases from ideal behaviour ?
  - vii) Give one example of pseudo-unimolecular reaction.

3. A) Write short notes on **any two** : 10
- i) Characteristics of first order reaction.
  - ii) Joule Thomson effect.
  - iii) Any two methods for determination of concentration of solution.
- B) Answer **any one** of the following : 10
- i) Prove that  $P_c = a/27b^2$  and  $V_c = 3b$ .
  - ii) Explain various factors that affect the rate of chemical reaction.

35

SECTION – II  
(Fundamentals of Analytical Chemistry)

4. Choose the correct alternative from each of the following : 5
- i) The human body is composed of about \_\_\_\_\_ % of the water by weight.  
a) 60                      b) 50                      c) 40                      d) 70
  - ii) The polymer which is soften on heating and harden on cooling is called as  
a) Rubber                      b) Elastomer  
c) Thermosetting                      d) Thermoplastic
  - iii) Refining of petroleum yields \_\_\_\_\_ fractions.  
a) One                      b) Two                      c) Five                      d) All of these
  - iv) No machine has \_\_\_\_\_ efficiency.  
a) 0%                      b) 100%                      c) 50%                      d) 99.9%
  - v) The presence of free \_\_\_\_\_ is necessary for the life of organism in water.  
a) Carbon                      b) Nitrogen                      c) Oxygen                      d) Boron



5. Answer **any five** of the following : 10
- i) Define the terms-thermoplastic and thermosetting.
  - ii) Explain the terms enthalpy.
  - iii) Give the importance of  $\text{Mg}(\text{OH})_2$ .
  - iv) Give Kirchhoff's equation.
  - v) Draw the structures of linear, branched and cross-linked polymers.
  - vi) State the "Hess law" of heat of mixing.
  - vii) Define the terms hard water and softwater.
6. A) Write a note on **any two** of the following : 10
- i) Ziegler-Natta Polymerization.
  - ii) Adulteration of Milk.
  - iii) Refining of Petroleum and Cracking.
- B) Answer **any one** of the following : 10
- i) Write a note on Carnot's cycle and its efficiency.
  - ii) What are polymer ? Give synthesis and uses of following :
    - i) Poly-ethylene
    - ii) PVC
-



SLR-SY – 22

Seat No.	
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**B.Sc. – I (Semester – II) (Old) (CGPA) (Entrepreneurship) Examination, 2017**  
**INDUSTRIAL MICROBIOLOGY (Paper – II)**

Day and Date : Friday, 17-11-2017

Max. Marks : 70

Time : 10.30 a.m. to 1.00 p.m.

- N.B. :** 1) **Both** the Sections should be attempted in **same** answerbook.  
2) **Both** the Sections are **compulsory** and carry **equal** marks.  
3) Figures to the **right** indicate **full** marks.

SECTION – I  
(Fundamentals of Microbiology)

35

1. Rewrite the sentences by choosing correct alternative :

5

- 1) \_\_\_\_\_ prevents the vortex formation.  
a) Antifoam agents    b) Baffles    c) Impellar    d) Sparger
- 2) \_\_\_\_\_ material is more suitable for construction of fermentor.  
a) Stainless steel    b) Glass    c) Wooden    d) Plastic
- 3) Major component of molasses is \_\_\_\_\_.  
a) Protein    b) Sugar    c) Bases    d) Antifoam agents
- 4) Indicator plate technique is used for primary screening of \_\_\_\_\_ producing organisms.  
a) Vitamin    b) Antibiotics  
c) Amylase    d) Organic acids and amines
- 5) \_\_\_\_\_ is the aeration device of fermentor.  
a) Bottom drain    b) Sparger    c) Impeller    d) Head space

2. Answer **any five** of the following :

10

- 1) Define stock cultures.
- 2) Define screening.
- 3) What is sterilization ?
- 4) Write the types of fermentors.
- 5) Give the examples of antifoam agents.
- 6) Lyophilization.

P.T.O.



3. A) Write short notes on **any two** of the following : 10
- 1) Write in detail about 'secondary screening'.
  - 2) Sterilization of fermentor and fermentation media.
  - 3) Describe the raw material used for fermentation media.
- B) Answer **any one** of the following : 10
- 1) Describe in detail about 'primary screening'.
  - 2) Give a detail account on 'preservation and maintenance of industrially important microorganisms'.

SECTION – II  
(Basic Techniques in Microbiology) 35

1. Rewrite the sentences by choosing correct alternatives : 5
- 1) Vinegar is fermentation product containing \_\_\_\_\_  
a) Acetic acid b) Hydrochloric acid  
c) Mallic acid d) Formic acid
  - 2) Population of microorganisms grown in medium is called \_\_\_\_\_  
a) colony b) growth c) culture d) all
  - 3) The term fermentation was coined by \_\_\_\_\_  
a) Louis Pasteur b) Robert Koch  
c) Alexander Flemming d) Watson
  - 4) \_\_\_\_\_ is used as a cloning vehicle in r-DNA technology.  
a) Chromosome b) Plasmid  
c) Chloroplast d) Cell wall
  - 5) \_\_\_\_\_ is an example of non-ionizing radiation.  
a) Alpha rays b) Beta rays  
c) Gamma rays d) UV-rays



2. Answer **any five** of the following : 10
- 1) What is Thymine dimer formation ?
  - 2) What is transformation ?
  - 3) What is chemical assay ?
  - 4) Define the term fermentation.
  - 5) Write about 'Genetic Engineering'.
  - 6) Explain methods of crystallization.
  - 7) What is ionization ?
3. A) Write short notes on **any two** of the following : 10
- 1) Explain 'solvent extraction'.
  - 2) Strain improvement by mutagenesis.
  - 3) Computer control of fermentation process.
- B) Answer **any one** of the following : 10
- 1) Write an essay on 'Microbial Assay'.
  - 2) Give a detail account on 'Down Stream Process'.
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Seat No.	
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**B.Sc. – I (Semester – II) (Old CGPA) Entrepreneurship Examination, 2017  
INDUSTRIAL BIOTECHNOLOGY (Paper – II)  
Basic Biomolecules and Basics of Metabolism**

Day and Date : Saturday, 18-11-2017  
Time : 10.30 a.m. to 1.00 p.m.

Max. Marks : 35+35=70

- N.B. :** 1) **Both** Sections are **compulsory** and carry **equal** marks.  
2) **Both** Sections should be attempted in **same** answerbook.  
3) Figures to the **right** indicates **full** marks.  
4) Draw a **neat** labelled diagram **wherever** necessary.

**SECTION – I  
(Basic Biomolecules)**

1. Rewrite the following sentences by choosing correct alternatives.

**5**

- i) \_\_\_\_\_ is example of polysaccharide.  
A) Starch              B) Albumin              C) DNA              D) Sucrose
- ii) Secondary structure consists \_\_\_\_\_ and \_\_\_\_\_.  
A)  $\alpha$  helix  
B)  $\beta$  sheets  
C)  $\alpha$  helix and  $\beta$  sheets  
D) Peptide unhydride and ether linkage
- iii) Fatty acids are usually derived from \_\_\_\_\_.  
A) Trisaccharides                      B) Teichoic acid  
C) Triacylgly cerides                      D) All of above
- iv) The vitamin B<sub>2</sub> also known as \_\_\_\_\_.  
A) Niacin              B) Riboflavin              C) Thiamine              D) Biotin
- v) The enzymes which are secreted in the presence of substrate known as \_\_\_\_\_ enzyme.  
A) Isozymes                      B) Ribozymes  
C) Constitutive                      D) Inducible





2. Answer **any five** of the following : 10

- i) Define autotroph with example.
- ii) Define passive transport.
- iii) What is xenobiotic compounds ?
- iv) Define anabolism and catabolism.
- v) Draw structure of ATP.
- vi) Cytochrome P-450 system.
- vii) Define voltage gated pump.

3. A) Answer **any two** of the following : 10

- i) What is oxidative phosphorylation ? Discuss in brief mechanism of ATP generation.
- ii) Explain in detail fluid mosaic model of cell membrane.
- iii) Describe in detail 'EMP' pathway.

B) Answer **any one** of the following : 10

- 1) Define photophosphorylation. Give a detailed account on cyclic and non cyclic photophosphorylation.
  - 2) Describe in detail TCA cycle.
-



**SLR-SY – 24**

Seat No.	
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**P**

**B.Sc. II (Semester – III) (CBCS Pattern) Examination, 2017**  
**Entrepreneurship (New)**

**Paper – V : PRINCIPLES OF BUSINESS MANAGEMENT AND BUSINESS ORGANIZATION**

Day and Date : Friday, 24-11-2017

Max Marks : 70

Time : 2.30 p.m. to 5.00 p.m.

**Instructions:** 1) **All questions are compulsory.**  
2) **Figures to the right indicate full marks.**

1. Select appropriate alternative :

**14**

- 1) The need of planning exist at \_\_\_\_\_ level of management.  
A) Top                      B) Middle                      C) Lower                      D) All of these
- 2) The last need in need hierarchy theory of motivation is  
A) Self esteem                      B) Physiological  
C) Self actualization                      D) Security
- 3) \_\_\_\_\_ is an example of standing plan.  
A) Mission                      B) Budget                      C) Projects                      D) Schedules
- 4) In \_\_\_\_\_ style of leadership subordinates are not allowed to participate in decision making process.  
A) Democratic                      B) Autocratic                      C) Free Rein                      D) Trait
- 5) \_\_\_\_\_ is the process of imparting technical and operative skill to employee for doing a particular job.  
A) Selection                      B) Training                      C) Recruitment                      D) Job analysis
- 6) \_\_\_\_\_ is the father of scientific management.  
A) Henry Gantt                      B) Gilbreth  
C) Frederick Winslow Taylor                      D) Fayol
- 7) \_\_\_\_\_ structure includes external specialist who advise line manager.  
A) Line                      B) Functional                      C) Matrix                      D) Line and Staff
- 8) \_\_\_\_\_ control technique is exercised during the operation of programmer.  
A) Concurrent                      B) Feedback                      C) Feed forward                      D) All of these
- 9) According to \_\_\_\_\_ theory people are self centered, resist to change and lacks ambitions.  
A) Theory Y                      B) Theory Z                      C) Theory X                      D) Theory X and Y
- 10) Which of the following is a financial incentive ?  
A) Status                      B) Promotion  
C) Stock option                      D) Participation in decision making

**P.T.O.**



- 11) \_\_\_\_\_ is the function by which managers build an organization through the recruitment selection and development of individuals as capable employees.  
A) Organizing      B) Planning      C) Controlling      D) Staffing
- 12) Manager better than \_\_\_\_\_ roles.  
A) Leader      B) Negotiator      C) Monitor      D) All of these
- 13) \_\_\_\_\_ decisions are related to day to day working of the organization.  
A) Tactical or operational      B) Strategic  
C) Programmed      D) Non-programmed
- 14) Management is \_\_\_\_\_ and \_\_\_\_\_.  
A) Art and Science      B) Art and Commerce  
C) Commerce and Science      D) All of these

2. Solve **any seven** : 14
- 1) Define management.
  - 2) Qualities of leader.
  - 3) Importance of management.
  - 4) Give examples of financial incentive.
  - 5) Explain feedback control system.
  - 6) Explain types of plan.
  - 7) Features of planning.
  - 8) Decision making.
  - 9) Organization structure.
3. Solve **any 2** questions : 14
- 1) Theory X
  - 2) Autocratic leadership style
  - 3) Importance of motivation.
4. Solve **any 2** questions : 14
- 1) Theory Y
  - 2) Managerial grid
  - 3) Departmentation.
5. Solve **any 2** questions : 14
- 1) Define planning process in detail.
  - 2) Explain Herzberg two factor theory.
  - 3) Define principles of management given by Henry Fayal.



**SLR-SY – 25**

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Set **P**

**B.Sc. – II (Semester – III) (New CBCS) Examination, 2017**  
**ENTREPRENEURSHIP**  
**Advanced Accountancy and Auditing**  
**(Paper – VI)**

Day and Date : Saturday, 25-11-2017  
Time : 2.30 p.m. to 5.00 p.m.

Max. Marks : 70

**N.B. :** 1) *All questions are compulsory.*  
2) *Draw the diagram if necessary.*

1. Choose the correct answer from given alternative : **14**

- 1) \_\_\_\_\_ is an amount invested by owner of business into business.  
a) Assets                      b) Liabilities                      c) Goodwill                      d) Capital
- 2) \_\_\_\_\_ is a person, to whom business owes the money.  
a) Debtor                      b) Creditor                      c) Owner                      d) Inverters
- 3) \_\_\_\_\_ is a statement, which shows financial position of the business.  
a) Trading A/c                      b) Profit and Loss A/c  
c) Ledger                      d) Balance Sheet
- 4) According to \_\_\_\_\_ concept, the business unit is separate from its owner.  
a) Going concern  
b) Business entity  
c) Money measurement concept  
d) Cost concept
- 5) A brief explanation of the business transaction for which an entry is passed is called as  
a) Journal entry                      b) Posting                      c) Narration                      d) Ledger
- 6) If the owner withdraws any money or goods from the business for his personal use, it is called as a  
a) Capital                      b) Drawings                      c) Assets                      d) Liabilities

**P.T.O.**



- 7) GST stands for
- a) Gross Statement
  - b) Gross Service Tax
  - c) Goods and Service Tax
  - d) General Service Tax
- 8) An audit which is compulsory by the law
- a) Government audit
  - b) Internal audit
  - c) Cost audit
  - d) Statutory audit
- 9) Internal auditor is appointed by
- a) The management
  - b) The shareholder
  - c) The Government
  - d) All the above
- 10) Auditing begins where \_\_\_\_\_ ends.
- a) Selling
  - b) Accounting
  - c) Purchasing
  - d) None of the above
- 11) The shortcut key is used to select company in Tally is
- a) Alt+F1
  - b) Alt+F3
  - c) F1
  - d) F4
- 12) Audit means
- a) Recording business transaction
  - b) Preparation of Final Account
  - c) Examination of books, accounts, vouchers etc.
  - d) All the above
- 13) In general the financial year shall be from
- a) 1<sup>st</sup> April of any year
  - b) 31<sup>st</sup> April of any year
  - c) 1<sup>st</sup> January of any year
  - d) 1<sup>st</sup> September of any year
- 14) The short key to quit from Tally is
- a) Ctrl+L
  - b) Ctrl+P
  - c) Ctrl+M
  - d) Ctrl+Q

2. Solve **any seven** from the following :

14

- 1) Who is insolvent person ?
- 2) What is Drawings ?
- 3) What is Depreciation ?
- 4) What is Accountancy ?
- 5) What is a voucher ?



- 6) What is statutory audit ?
- 7) What is internal audit ?
- 8) What is working capital ?
- 9) What is cash flow statement ?

3. A) Attempt **any two** of the following : 10

- 1) Explain qualities required for an auditor.
- 2) From the following Trial Balance you are required to prepare Trading A/c of Miss. Sheetal for the year ended 31<sup>st</sup> March, 2017.

Particulars	Debit Amount (Rs.)	Credit Amount (Rs.)
Opening Stock	40,500	—
Purchases and Sales	1,50,000	2,06,000
Goods taken over by owner for personal use	—	2,000
Carriage	1,000	—
Wages	14,000	—
Trade Expenses	1,500	—

**Note :** Closing stock was valued at Rs. 40,000.

- 3) Prepare Bank Reconciliation Statement as on 31<sup>st</sup> March, 2017 from the following details :
  - i) Cash book shows debit balance of Rs. 50,000 as on 31<sup>st</sup> March 2017.
  - ii) Cheque of Rs. 2,700 deposited into the bank but not credited by the bank.
  - iii) Bank collected the dividend Rs. 600 but not recorded in the cash book.
  - iv) Bank debited bank charges of Rs. 200.
  - v) Cheque of Rs. 10,000 issued but not presented for payment.

B) Define branches of accountancy. 4

4. Attempt **any two** of the following : 14

- 1) State the types of audit.
- 2) What is auditing ? Explain scope and objectives of auditing.



- 3) From the following Trial Balance and information you are required to prepare Profit and Loss A/c of Miss. Sheetal for the year ended 31<sup>st</sup> March, 2017.

Particulars	Debit Amount (Rs.)	Credit Amount (Rs.)
Salaries	15,000	—
Insurance	1,500	—
Printing and Stationery	500	—
Commission received	—	500
Discount	200	300
Travelling expenses	1,500	—

**Note :** 1) Depreciation on Building is Rs. 1,500.

2) Gross Profit is Rs. 50,500.

5. Attempt **any two** of the following :

14

- 1) What are the features of Tally Software ?
- 2) Explain types of errors.
- 3) Following are the Balance Sheet of Mr. Vijay.

Liabilities	01-01-2016	31-12-2016	Assets	01-01-2016	31-12-2016
Creditors	36,000	41,000	Cash	4,000	3,600
Loan from Bank	—	20,000	Debtors	35,000	38,400
Debentures	30,000	25,000	Stock	25,000	22,000
Capital	1,48,000	1,49,000	Land	20,000	30,000
			Building	50,000	55,000
			Machinery	80,000	86,000
	<b>2,14,000</b>	<b>2,35,000</b>		<b>2,14,000</b>	<b>2,35,000</b>

During the year Rs. 26,000 paid as dividend. The provision made for depreciation against machinery as on 01-01-2016 was Rs. 27,000 and on 31-12-2016 Rs. 36,000.

Prepare Cash Flow Statement.



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100	0.0000

Day and Date : Monday, 27-11-2017  
Time : 2.30 p.m. to 5.00 p.m.

Max. Marks : 70

**N.B :** 1) **All** questions are **compulsory**.  
2) Draw the diagram **if** necessary.  
3) Figures to the **right** indicate **full** marks.

1. Select the most correct alternative for **each** of the following and rewrite the sentence.
  - 1) A chemical reagent that forms precipitate on addition to solution is known as
    - a) peptisation
    - b) coagulation
    - c) super saturated solution
    - d) precipitant
  - 2) \_\_\_\_\_ is essential for corrosion.
    - a) Water
    - b) Gas
    - c) Liquid
    - d) Solid
  - 3) Hydrogenation of oil is done by using
    - a) Pt
    - b) Mn
    - c) Ni
    - d) Al
  - 4) In Haber process yield of ammonia increases with \_\_\_\_\_ in pressure.
    - a) decreases
    - b) increases
    - c) moderate
    - d) none of these
  - 5) Particle size of the crystalline precipitate is \_\_\_\_\_.
    - a) 0.1 to 1 micron
    - b) 0.02 to 0.1 micron
    - c) less than 0.02 micron
    - d) none of these
  - 6) Erichrome Black-T indicator is \_\_\_\_\_ Indicator.
    - a) weak acid
    - b) strong acid
    - c) weak organic
    - d) metal ion

14

**P.T.O.**



- 7) Oxide film theory of passivity was experimentally proved by  
a) Faraday      b) Whitney      c) Evan      d) Oswald
- 8) The chemical reaction in which added substance induces and enhance the rate of reaction is called \_\_\_\_\_ catalyst.  
a) positive      b) enzyme      c) auto      d) induced
- 9) In homogeneous catalytic reaction  
a) Reactant and catalyst are present in solid state  
b) Reactant and catalyst are present in liquid state  
c) Reactant and catalyst are present in gaseous state  
d) Reactant and catalyst are present in one and same phase
- 10) The colour change property of an acid-base indicator depend on  
a) pH of the solution      b) structural rearrangement  
c) Ionisation of indicator      d) all of the above
- 11) Catalyst used in \_\_\_\_\_ Process is  $V_2O_5$ .  
a) Haber      b) Solvay      c) Contact      d) All of these
- 12) Increase in temperature decreases extent of  
a) post precipitation      b) precipitation  
c) peptisation      d) co-precipitation
- 13) The optimum temperature for getting maximum yield of sulphuric acid by contact process is  
a)  $600 - 700^\circ\text{C}$    b)  $300 - 450^\circ\text{C}$    c)  $500 - 550^\circ\text{C}$    d)  $425 - 450^\circ\text{C}$
- 14) Chromium is the good metal for  
a) galvonising      b) alloying  
c) passivifying      d) catalysis

2. Answer **any seven** from the following :

14

- 1) What are the characteristics of precipitate ?
- 2) What is meant by heavy chemicals ? Write the examples.
- 3) What is meant by titrant and titrand ?
- 4) Define a corrosion and what are the types of corrosion ?

Set P



- 5) Write any applications of catalysis in industrial process.
  - 6) Write the optimum conditions of Haber's process for manufacture of ammonia.
  - 7) Give any two characteristics of catalytic reactions.
  - 8) Explain primary standard substance.
  - 9) Explain the effect of moisture on corrosion.
  3. A) Answer **any two** from the following. **10**
    - 1) How will you explain the mechanism of catalysis on the basis of intermediate compound formation theory ?
    - 2) What is passivity ? Discuss the types of passivity.
    - 3) Explain oxide film theory.

B) Explain Colour Change Interval of acid-base indicator. **4**
  4. Write note on **any two**. **14**
    - 1) Role of phenolphthalein as an indicator on the basis of quinoid theory.
    - 2) Adsorption theory of catalysis.
    - 3) Organic precipitants.
  5. Answer **any two** from the following. **14**
    - 1) Draw the neat labeled diagram of manufacture of sodium carbonate by solvay process.
    - 2) Discuss in detail electrochemical theory of corrosion.
    - 3) Explain the choice of an indicator for titration between strong acid and weak base with the help of neutralisation curve.
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SLR-SY – 27

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**B.Sc. – II (Entrepreneurship)(Semester – III) (New CBCS)**  
**Examination, 2017**  
**INDUSTRIAL CHEMISTRY (Paper – VI)**  
**Analytical and Industrial Aspects of Organic Chemistry**

Day and Date : Tuesday, 28-11-2017

Max. Marks : 70

Time : 2.30 p.m. to 5.00 p.m.

**Instructions:** 1) *All questions are compulsory.*  
2) *Figures to the right indicate full marks.*

1. Rewrite the following sentences by using correct alternatives .

14

- i) Alkaline hydrolysis of oil or fat is known as  
a) esterification    b) neutralization    c) saponification    d) diazotisation
- ii) A cleaning action of soap is due to its \_\_\_\_\_ nature.  
a) hydrophilic    b) amphiphatic  
c) both a & b    d) none of these
- iii) Paludrin is an \_\_\_\_\_ drug.  
a) antimalarial    b) antitubercular    c) CNS    d) anti-diabetics
- iv) \_\_\_\_\_ is universal bleaching agent  
a)  $H_2O_2$     b)  $NaOCl$     c)  $HOCl$     d)  $H_2O$
- v) The micro-organisms which brings out the Fermentation process is called as  
a) hydrolysis    b) ferments    c) oxidisers    d) none of these
- vi) An insecticide that is cyclic sulphate ester  
a) Carbonyl    b)  $FeSO_4$     c) Ethophan    d) Endosulphan
- vii) The density scale used to measure sugar concentration is  
a) brix    b) trix    c) pan    d) g/l
- viii) \_\_\_\_\_ is a natural insecticide.  
a) Endosulphan    b) Pyrethrum  
c) Ethophan    d) Monocrotophos

P.T.O.



- ix) Compound imbibition process is used for \_\_\_\_\_ of juice.  
a) crystallisation    b) clarification    c) extraction    d) defecation
- x) Fermentation is an \_\_\_\_\_ process.  
a) endothermic    b) exothermic    c) reversible    d) cyclic
- xi) Antipyretic is a drug used to  
a) control sleep    b) to control diabetic cells  
c) lower body temperature    d) to control body cells
- xii) \_\_\_\_\_ impart flexibility and smoothness to the wrap threads.  
a) Brighteners    b) Starch    c) Adhesive    d) Lubricants
- xiii) Among following \_\_\_\_\_ is used as saponifying alkali.  
a)  $\text{Na}_2\text{CO}_3$     b)  $\text{NH}_4\text{OH}$     c) Ethanolamine    d) KOH
- xiv) Semisolid mass obtained from cane juice is called as  
a) massecuite    b) mother-liquor    c) strick pan    d) bagasse

2. Answer **any seven** of the following.

**14**

- i) Define a) hydrophobic    b) hydrophilic
- ii) Raw materials used in soap industry.
- iii) Give the classification of fibre.
- iv) Draw the diagram of three roll mill.
- v) What are agrochemicals ? Give any two examples.
- vi) Define the term rectified spirit and denature spirit.
- vii) What are vat dyes ?
- viii) What are the qualities of ideal drug ?
- ix) Give the synthesis of deriphat.

3. A) Answer **any two** of the following.

**10**

- i) Write note on clarification of juice.
- ii) Explain the cleaning action of soap.
- iii) Write the general idea and properties of starch.

B) Explain the By-products of sugar industry.

**4**



4. Answer **any two** of the following : **14**

- i) What are soaps ? Discuss the manufacturing of soap by hot process.
- ii) Discuss the process of manufacturing of ethylalcohol by Fermentation of molasses.
- iii) Write synthesis and uses of following :
  - a) Isoniazide
  - b) Ethambutol.

5. Answer **any two** of the following : **14**

- i) Distinguish between soap and detergents.
  - ii) What is sizing process ? Discuss different ingredients and their functions for sizing.
  - iii) Write synthesis and uses of following :
    - a) Indole-3-acetic acid
    - b) Monocrotophos.
-



**SLR-SY – 28**

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**B.Sc. – II (Ent.) (Sem. – III) (New CBCS) Examination, 2017**  
**MICROBIAL BIOTECHNOLOGY (Paper – V)**  
**Genetics**

Day and Date : Wednesday, 29-11-2017  
Time : 2.30 p.m. to 5.00 p.m.

Total Marks : 70

1. Rewrite the sentences using correct alternatives given below. **14**

1) Separation of chromosome from centromere towards the end is known as \_\_\_\_\_

- |                  |                    |
|------------------|--------------------|
| a) Transcription | b) Transformation  |
| c) Translation   | d) Terminalization |

2) Gregor Mendel is \_\_\_\_\_

- a) A little known Central European monk
- b) An early 20<sup>th</sup> Century Dutch biologist who carried out genetics research
- c) An English scientist who carried out research with Charles Darwin
- d) None of the above

3) The alternate type of a given gene are called as \_\_\_\_\_

- |             |            |              |            |
|-------------|------------|--------------|------------|
| a) Genotype | b) Gametes | c) Phenotype | d) Alleles |
|-------------|------------|--------------|------------|

4) When \_\_\_\_\_ cross was made with  $F_1$ , then 1:1:1:1:1:1:1:1:1 is obtained.

- |               |                    |
|---------------|--------------------|
| a) Back cross | b) Two-way cross   |
| c) Test cross | d) Three-way cross |

5) Tautomerism is one of the causes of \_\_\_\_\_ mutation.

- |                |           |            |             |
|----------------|-----------|------------|-------------|
| a) Spontaneous | b) Silent | c) Induced | d) Missence |
|----------------|-----------|------------|-------------|

6) Pea plants can \_\_\_\_\_

- |                         |                               |
|-------------------------|-------------------------------|
| a) Only cross-fertilize | b) Reproduce with pollination |
| c) Self-fertilize       | d) None of these              |

7) Ultraviolet radiation causes DNA damage by formation of \_\_\_\_\_

- |                   |                    |
|-------------------|--------------------|
| a) cytidine dimer | b) thymidine dimer |
| c) guanine dimer  | d) adenine dimer   |

**P.T.O.**



- 8) Mutation is change in \_\_\_\_\_  
a) Gene frequency                      b) Genetic drift  
c) Base pair of DNA                      d) Environmental mechanism of evolution
- 9) A mechanism that can cause a gene to move from one linkage group to another is \_\_\_\_\_  
a) Translocation                      b) Crossing over  
c) Inversion                      d) Duplication
- 10) Movement of a segment of DNA from one site of the genome to another is called as \_\_\_\_\_  
a) Mutation              b) Reversion              c) Cleavage              d) Transposition
- 11) Direct contact between the bacteria is seen in \_\_\_\_\_ type of gene transfer method.  
a) Conjugation                      b) Transformation  
c) Transduction                      d) Translation
- 12) \_\_\_\_\_ genotype represents a homozygous recessive condition.  
a) Bb                      b) BC                      c) bb                      d) bc
- 13) \_\_\_\_\_ is a mutagen.  
a) O<sub>2</sub>                      b) CO<sub>2</sub>                      c) CO                      d) HNO<sub>2</sub>
- 14) 9 : 3 : 3 : 1 is the ratio of \_\_\_\_\_  
a) Reciprocal cross                      b) Test cross  
c) Back cross                      d) Dihybrid cross

2. Attempt **any seven** of the following :

14

- 1) Explain Null hypothesis.
- 2) Fate of exogenote.
- 3) Duplications.
- 4) Genotypic ratio.
- 5) Structure of Chromosome.
- 6) What is Epistasis ?
- 7) What is Incomplete dominance ?
- 8) Factors affecting crossing over.
- 9) Spontaneous mutation.

Set P



3. A) Attempt **any two** of the following : 10
- 1) Prove law dominance with suitable example.
  - 2) Explain in detail transposable elements.
  - 3) Describe chi-square test with suitable example.
- B) What is crossing over ? Explain in different theories of crossing over. 4
4. Attempt **any two** of the following : 14
- 1) Define Chromosome and explain its types based on centromere.
  - 2) Explain modifications of Mendelian ratios with suitable example.
  - 3) Write a note on linkage and explain its types.
5. Attempt **any two** of the following : 14
- 1) Describe process of transformation with suitable example.
  - 2) Write a detail on Mendel's experiment.
  - 3) Define mutation and add a note on mutagenic agents.
-



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**B.Sc. – II (Entrepreneurship) (Semester – III) (New – CBCS)**  
**Examination, 2017**  
**MICROBIAL BIOTECHNOLOGY (Paper – VI)**  
**Fermentation Technology**

Day and Date : Thursday, 30-11-2017

Max. Marks : 70

Time : 2.30 p.m. to 5.00 p.m.

- N.B. :** 1) **All** questions are **compulsory** and carry **equal** marks.  
2) **Draw** a neat labelled diagram **wherever** necessary.  
3) Figure to the **right** indicate **full** marks.

1. Rewrite the following sentences by choosing correct alternatives from given below : **14**

- i) \_\_\_\_\_ is a pH of fermentation media required for production of penicillin.  
A) 4 to 6  
B) 5 to 6  
C) 6 to 7  
D) 4 to 5
- ii) Ales are the beer in which fermentation is carried out by using \_\_\_\_\_.  
A) Top yeast  
B) Bottom yeast  
C) Middle yeast  
D) All of these
- iii) The recovery of ethanol is carried out by using \_\_\_\_\_.  
A) Centrifugation  
B) Distillation  
C) Filtration  
D) Solvent extraction
- iv) Fortified wine consist \_\_\_\_\_ concentration of alcohol.  
A) 14  
B) 20  
C) 60  
D) 2
- v) Methyl ester also called as \_\_\_\_\_.  
A) Biodiesel  
B) Bioethanol  
C) Biogas  
D) Biohydrogen
- vi) The juice that is extracted from grapes is known as \_\_\_\_\_.  
A) Wort  
B) Liquor  
C) Must  
D) Solution
- vii) Commercial production of citric acid is carried by \_\_\_\_\_.  
A) Rhizopus  
B) Candida albicans  
C) Apeergillus niger  
D) Fusarium

P.T.O.



- viii) \_\_\_\_\_ is an antibiotic which inhibits bacterial protein synthesis.
- A) Penicillin                                      B) Streptomycin  
C) Sulphonamide                                D) Quinolone
- ix) \_\_\_\_\_ is a biopesticide used to control pest to enhance economical value.
- A) Rhizobium                                     B) Azolla  
C) Azotobacter                                  D) Bacillus thuringiensis
- x) Pernicious anemia is caused due to deficiency of \_\_\_\_\_
- A) Vitamin D                                      B) Vitamin B<sub>12</sub>  
C) Vitamin C                                      D) Vitamin A
- xi) Starch is raw material used for commercial production of \_\_\_\_\_ enzyme.
- A) Protease                                        B) Amylase  
C) Lipase    D) Nuclease
- xii) \_\_\_\_\_ is a symbiotic nitrogen fixing organism.
- A) Rhizobium                                     B) Azolla  
C) Azotobacter                                  D) Bacillus thuringiensis
- xiii) L-lysine commercially produced by \_\_\_\_\_ microorganism.
- A) Bacillus                                         B) Aspergillus  
C) Corynebacterium                            D) Streptomyces
- xiv) \_\_\_\_\_ algae commonly used as SCP.
- A) Spirulina                                       B) Saccharomyces  
C) Aspergillus                                    D) E.coli

2. Answer **any seven** of the following :

14

- i) Define Antibiotic.
- ii) What is dual fermentation ?
- iii) Enlist types of beer.
- iv) Uses of citric acid.
- v) Types of Amylases.



- vi) What is PHB ?
- vii) Define Vitamin.
- viii) Define Biofertilizer.
- ix) Biodiesel.

3. A) Answer **any two** of the following : **10**
- i) Give a detailed account on symbiotic nitrogen fixation.
  - ii) Discuss in detail citric acid production.
  - iii) Describe in detail Ales beer production from barley.
- B) Give a detailed account on downstream processing of alcohol production. **4**
4. Answer **any two** of the following : **14**
- i) Describe in detail production of wine.
  - ii) What is SCP ? Describe in detail SCP production by fermentation.
  - iii) Discuss in detail methods of biogas production.
5. Answer **any two** of the following : **14**
- i) What is  $\beta$  lactum antibiotic ? Describe in detail penicillin production.
  - ii) Discuss in detail 1-lysine production by fermentation process.
  - iii) What is Bt toxin ? Explain in detail biopesticide production.
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**B.Sc. II (Semester – III) (Entrepreneurship) (Old-CGPA) Examination, 2017**  
**PRINCIPLES OF BUSINESS MANAGEMENT AND ORGANIZATION**  
**(Paper – III)**

Day and Date : Friday, 24-11-2017

Max. Marks : 70

Time : 2.30 p.m. to 5.00 p.m.

**Instructions :** 1) **All** questions are **compulsory**.  
2) **Rightside** indicate **full** marks.  
3) **Draw** diagram if **necessary**.

1. Choose the correct alternative from the following : **14**

- 1) \_\_\_\_\_ is an institution organised and operated to provide goods and services to society under the incentive of private gain.  
A) Manager      B) Entrepreneur      C) Business      D) All above
- 2) F.W. Taylor was born in  
A) 1856      B) 1872      C) 1850      D) 1840
- 3) Entrepreneur is responsible for  
A) Plan      B) Control      C) Decision      D) All the above
- 4) \_\_\_\_\_ is getting done through others.  
A) Management      B) Business      C) Employee      D) All above
- 5) A process of stimulating people to action to accomplish desired goals means  
A) Stimulation      B) Planning      C) Motivation      D) Directing
- 6) There are \_\_\_\_\_ main types of training.  
A) One      B) Two      C) Three      D) Four
- 7) Herzberg and his associates conducted research study based on interviews at  
A) USA      B) New York      C) Canada      D) India
- 8) Elton Mayo was born in  
A) 1780      B) 1880      C) 1881      D) 1980
- 9) A graphic portrayal of two-dimensional view of \_\_\_\_\_ was developed by Blake and Mouton.  
A) Managerial grid      B) Leadership style  
C) Business      D) None of these

**P.T.O.**



- 10) School of management and  
 A) Henry Fayola B) Charles Babej  
 C) Mary Parker D) F. W. Taylor
- 11) Theory X is related to  
 A) Business organization B) Employee motivation  
 C) Entrepreneur motivation D) None of these
- 12) A \_\_\_\_\_ must possess a high degree of physical and nervous energy.  
 A) Employee B) Theory X C) Planning D) None of these
- 13) McGregor has described the first set of assumptions of \_\_\_\_\_ related to traditional.  
 A) Theory X B) Theory Y C) Theory Z D) Theory X, Y
- 14) Peter Drucker is born in  
 A) 1872 B) 1835 C) 1842 D) None of these
2. Solve **any seven** from the following : 14
- 1) Introduce business management.
  - 2) Meaning and definition of business organization.
  - 3) What is direction ?
  - 4) What is planning ?
  - 5) Introduce management.
  - 6) Meaning and definition of leadership ?
  - 7) What is motivation ?
  - 8) Meaning and definition of decision.
3. A) Solve **any two** from the following : 10
- 1) Types of Decision.
  - 2) What are the features of planning ?
  - 3) Explain types of control.
- B) Structure of organization. 4
4. Solve **any two** from the following : 14
- 1) Write on importance of motivation.
  - 2) Herzberg two factor theory, Explain in detail.
  - 3) Decision making process.
5. Solve **any two** from the following : 14
- 1) Managerial process. Explain with diagram.
  - 2) Explain in detail Peter Drucker.
  - 3) What are the roles of manager ?



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**B.Sc. – II (Semester – III) (Entrepreneurship) (Old-CGPA Pattern)**  
**Examination, 2017**  
**ADVANCED ACCOUNTANCY AND AUDITING (Paper – IV)**

Day and Date : Saturday, 25-11-2017  
Time : 2.30 p.m. to 5.00 p.m.

Max. Marks : 70

**N. B. :** 1) **All questions are compulsory.**  
2) **Figures to the right indicate full marks.**

1. Rewrite the statements choosing the correct alternative :

14

- 1) A sale of Rs. 50,000 to A was entered as a sale to B. This is an example of \_\_\_\_\_
  - a) Error of omission
  - b) Error of commission
  - c) Compensating error
  - d) Error of principle
- 2) Carriage inward is debited to \_\_\_\_\_ account.
  - a) Trading
  - b) Profit and loss
  - c) Capital
  - d) Drawing
- 3) Outstanding expenses is a \_\_\_\_\_ account.
  - a) Real
  - b) Personal
  - c) Nominal
  - d) None of them
- 4) Funds Flow Statement is prepared on the basis of data of P & L statement and two consecutive balance sheets \_\_\_\_\_.
  - a) True
  - b) False
  - c) Value delivery
  - d) None of the above
- 5) When the auditor is an employee of the organization being audited (auditee), the audit is classified as an \_\_\_\_\_ quality audit.
  - a) Internal
  - b) External
  - c) Compliance
  - d) Both a) and b)
- 6) What is TAN ?
  - a) Tax Absorb Number
  - b) Tax Assign Number
  - c) Tax Account Number
  - d) Tax Assessment Number
- 7) A list of balance of all the accounts in ledger is called \_\_\_\_\_.
  - a) Balance sheet
  - b) Profit and loss A/c
  - c) Trading A/c
  - d) Trial balance
- 8) Audit of banks is an example of \_\_\_\_\_.
  - a) Statutory audit
  - b) Balance sheet audit
  - c) Both (a) and (b)
  - d) All of the above

P.T.O.



- 9) Bills payable is \_\_\_\_\_  
 a) Long term loan                      b) Current liability  
 c) Liquid asset                         d) Net loss
- 10) VAT stands for \_\_\_\_\_  
 a) Value Added Tax                      b) Value And Tax  
 c) Value Advertising Tax                d) None of the above
- 11) Voucher relates to \_\_\_\_\_  
 a) Cash receipt                            b) Cash payment  
 c) Credit transaction                      d) All the above
- 12) Balance sheet audit includes verification of \_\_\_\_\_  
 a) Assets  
 b) Liabilities  
 c) Income and expense accounts where appropriate  
 d) All of the above
- 13) Statement of changes in working capital is prepared separately in \_\_\_\_\_  
 a) Cash flow statement                      b) Funds Flow Statement  
 c) Both a) and b)                            d) None of the above
- 14) Chartered Accountant Act was passed by the Indian Institute of Chartered Accountant in \_\_\_\_\_  
 a) 1949                      b) 1932                      c) 1880                      d) 1945

2. Solve **any seven** of the following :

14

- 1) Define trail balance.
- 2) What is use for pass book and cash book ?
- 3) Classes of voucher.
- 4) Define fund flow and cash flow statement.
- 5) Define working capital.
- 6) Formula – gross profit, gross claim, policy amount.
- 7) Types of vouchers.
- 8) What is meant by insurance claim ?
- 9) Why is profit and loss account prepared ?

3. A) Attempt **any two** of the following :

10

- 1) From the following ledger Balance, prepare a Trial Balance as on 31-12-2010.

Particulars	Rs.	Particulars	Rs.
Purchases	1,49,000	Rent	1,800
Salaries	4,000	Discount	400

Set P



Creditors	10,000	Interest	3,000
Debtors	24,000	Bad debts reserve	2,000
Capital	1,00,000	Stationery	1,400
Drawings	16,000	Postage	460
Sales	2,17,000	Furniture	2,000
Return inward	1,600	Wages	7,000
Return outward	6,000	Machinery	30,000
Bad debts	1,200	Carriage	1,240
Bills receivable	1,700	Fuel	2,000
Opening stock	35,000	Factory insurance	400
Building	50,000	Reserve fund	6,000

2) Describe the advantages and disadvantages of an audit.

3) What is a Balance Sheet ? Why is it prepared ?

- B) Passbook of Ramesh showed the balance of Rs. 3,500 as on 30<sup>th</sup> April 2007. 4  
On the same date cashbook showed the balance of Rs. 3,170.  
The following points of difference were noted. Prepare a bank reconciliation on that date.

**Sr. No. Transaction**

1. Credited in a pass book for dividend collected Rs. 400 no entry appeared in a cash book.
2. Cheque deposited in to bank but not collected Rs. 570.
3. Bank has debited passbook for a dishonoured bill Rs. 750. It was not recorded in cashbook.
4. A cheque has Rs. 1,250 was issued on 25<sup>th</sup> April, 2007, but the same was presented for payment on 5<sup>th</sup> may, 2007.

4. Attempt **any two** of the following : 14

- 1) From the following particulars prepare Trading A/c as on 31-3-2015 :

Particulars	Rs.
Sales	70,000
Purchase	27,000
Stock (1-4-2011)	18,000
Stock (31-3-2015)	9,000
Carriage inward	7,900
Freight	8,100
Customs duty	910
Return inward	2,500
Return outward	1,200



2) Usha Co. Ltd. Balance Sheet :

<b>Liabilities</b>	<b>2001 (Rs.)</b>	<b>2002 (Rs.)</b>	<b>Assets</b>	<b>2001 (Rs.)</b>	<b>2002 (Rs.)</b>
Share capital	2,50,000	4,00,000	Machinery	3,05,000	4,25,000
Reserve	90,000	1,05,000	Stock	1,00,000	1,50,000
Bank loan	1,20,000	1,00,000	Sundry debtors	1,40,000	1,90,000
Profit and loss	60,000	1,30,000	Bills receivable	55,000	40,000
Sundry creditors	1,20,000	1,40,000	Preliminary exp.	50,000	40,000
Bills payable	45,000	35,000	Cash and bank	80,000	1,40,000
Depreciation	50,000	60,000	Goodwill	45,000	35,000
Proposed dividend	40,000	30,000	Discount on shares	30,000	25,000
Provision for tax	30,000	45,000			
	<b>8,05,000</b>	<b>10,45,000</b>		<b>8,05,000</b>	<b>10,45,000</b>

1) Prepare a statement showing change in working capital.

3) What do you mean by auditing ? Describe the internal and external of an audit.

5. Attempt **any two** of the following :

14

- 1) A fire broke out in the premises of Megha Company on 1<sup>st</sup> July 1995 and stock of the value of Rs. 1,57,500 was salvaged and the books and record were saved. The following information was obtained.

<b>Particulars</b>	<b>Rs.</b>
Stock 31 <sup>st</sup> March 1994	4,20,000
Stock 31 <sup>st</sup> March 1995	4,20,000
Sales from 1 <sup>st</sup> April to 30 <sup>th</sup> June 1995	5,10,000
Purchase from 1 <sup>st</sup> April to 30 <sup>th</sup> June 1995	3,15,000
Sales for the year ended 31 <sup>st</sup> March 1995	15,00,000
Purchase for the year ended 31 <sup>st</sup> March 1995	9,00,000

Calculate the amount of claim to be submitted to the insurance company in respect of loss of stock if policy is taken for Rs. 1,71,600.

- 2) From the following particulars prepare P & L A/c as on 31-3-2012 :

<b>Particulars</b>	<b>Rs.</b>
Gross profit	22,000
Travelling expenses	1,700
Bad debts	1,000
Salary	3,000
Rent paid	2,000
Carriage outward	500
Advertisement	2,700
Commission received	1,800
Insurance paid	2,100
Printing and stationery	1,100

- 3) What is meant by final accounts ? Describe types of final accounts.



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**B.Sc. – II (Semester – III) (Entrepreneurship) (CGPA – Pattern)**  
**Examination, 2017**  
**INDUSTRIAL CHEMISTRY (Old)**  
**Paper – III : Analytical and Industrial Aspects of Inorganic Chemistry**

Day and Date : Monday, 27-11-2017

Total Marks : 70

Time : 2.30 p.m. to 5.00 p.m.

- N.B. :** i) **All questions are compulsory.**  
ii) Draw **neat labeled** diagrams and write equations **wherever necessary.**  
iii) Figures to the **right** indicate **full** marks.

1. Select the most correct alternative for **each** of the following and rewrite the sentences : **14**

- i) Ionic theory of acid-base indicator was proposed by  
a) Pauling                      b) Whitney                      c) Faraday                      d) Ostwald
- ii) In gravimetric analysis of nickel \_\_\_\_\_ used as precipitating agent.  
a) Oxime                      b) Alluminon                      c) DMG                      d) Rubianic acid
- iii) The substance which increases the rate of reaction is called \_\_\_\_\_ catalyst.  
a) retarder                      b) positive                      c) negative                      d) promoter
- iv) Pyrrosulphuric acid has the formula  
a)  $H_2S_2O_7$                       b) 98%  $H_2SO_4$                       c) Conc.  $H_2SO_4$                       d) None of these
- v) Passivity is the \_\_\_\_\_ phenomena.  
a) Surface                      b) Internal                      c) Collective                      d) Inorganic
- vi) Phenolphthalein has the colour change interval \_\_\_\_\_ pH.  
a) 3.5-6.1                      b) 8.6-10.6                      c) 4-6                      d) 11-13
- vii) The driving force which causes digestion is \_\_\_\_\_ energy.  
a) Kinetic                      b) Potential                      c) Surface                      d) Electron affinity
- viii) \_\_\_\_\_ catalyst used in the hydrogenation of oil.  
a) Sodium                      b) Iron                      c) Platinum                      d) Nickel

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- ix) Small amount of catalyst is required to alter the \_\_\_\_\_ of chemical reaction.
- a) Solution                      b) Temperature  
c) Pressure                     d) Rate
- x) \_\_\_\_\_ is the process of protection of metals from corrosion.
- a) Heating                        b) Hammering  
c) Galvanizing                  d) Forming
- xi) Eriochrome Black-T is \_\_\_\_\_ indicator.
- a) acid-base indicator  
b) metallochromic  
c) acidic  
d) basic
- xii) Increase in temperature decreases the extent of
- a) co-precipitation              b) nucleation  
c) post-precipitation            d) all of these
- xiii) Modern adsorption theory first introduced by
- a) Evan                      b) Faraday              c) Kosasl                  d) H. Bethe
- xiv) Generally \_\_\_\_\_ is essential for corrosion.
- a) carbon                        b) sulphur dioxide  
c) water                         d)  $\text{H}_2\text{SO}_4$

2. Solve **any seven** of the following :

14

- i) Define titrant and titrand.
- ii) What is meant by titration error ?
- iii) What is meant by post-precipitation ?
- iv) Define organic precipitant with example.
- v) Define homogeneous catalysis with suitable example.
- vi) Give the reactions involved in manufacture of sulphuric acid by contact process.
- vii) Write optimum conditions for manufacture of ammonia by Haber's process.
- viii) Give the applications of passivity.
- ix) What is meant by catalytic poison ?



3. A) Solve **any two** of the following : 10
- i) Discuss the W. Ostwald's theory of acid base indicator.
  - ii) Draw the labeled diagram for manufacture  $\text{H}_2\text{SO}_4$  by contact process.
  - iii) Write a note on electrochemical theory of corrosion.
- B) What are the types of catalytic reactions ? 4
4. Solve **any two** of the following : 14
- i) What are the types of acid-base titrations ? Explain the choice of indicator with the help of neutralisation curve for weak acid against strong base.
  - ii) What are the conditions for good precipitation ?
  - iii) Discuss in detail intermediate compound formation theory of catalysis.
5. Solve **any two** of the following : 14
- i) What are the factors affecting corrosion ? Discuss in detail any one of it.
  - ii) Discuss the manufacture of soda ash by Solvay's process.
  - iii) Give the important industrial applications of catalyst.
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**B.Sc. – II (ENT) (Semester – III) (Old – CGPA) Examination, 2017**  
**INDUSTRIAL CHEMISTRY (Paper – IV)**  
**Analytical and Industrial Aspects of Organic Chemistry**

Day and Date : Tuesday, 28-11-2017

Max. Marks : 70

Time : 2.30 p.m. to 5.00 p.m.

- Instructions :** i) All questions are **compulsory**.  
ii) Figures to the **right** indicate **full** marks.  
iii) Draw neat labelled diagram.

1. Choose the most correct alternative among the following and rewrite the sentences :

14

- i) Cleaning action of soap is due to its \_\_\_\_\_ nature.
  - a) amphipathic      b) hydrophilic      c) hydrophobic      d) all of above
- ii) Semisolid mass obtained from cane juice is called
  - a) mother liquor      b) massecuite      c) strick pan      d) seeding
- iii) The process of desizing is used to remove
  - a) starch material      b) grease and wax
  - c) colour from fiber      d) dust from fiber
- iv) Ibuprofen is an \_\_\_\_\_ drug.
  - a) antimalarial      b) antibacterial
  - c) anti-inflammatory      d) antibiotic
- v) Chemical used to control weeds are called as
  - a) insecticide      b) herbicide      c) hormones      d) micronutrients
- vi) The detergent suitable for hard water are generally
  - a) ionic      b) cationic      c) non-ionic      d) anionic
- vii) The most important use of molasis is in the
  - a) manufacture of ethanol      b) crystallization of sugar
  - c) preparation of black syrup      d) preparation of guz
- viii) Bleaching the cotton by NaOCl involves \_\_\_\_\_ reaction.
  - a) oxidation      b) reduction      c) hydrolysis      d) halogenation

P.T.O.





3. A) Write short notes on **any two** : 10
- i) Synthesis and uses of ibuprofen.
  - ii) By products of sugar industry.
  - iii) Properties of starch.
- B) Explain types of soap. 4
4. Answer **any two** of the following. 14
- i) Explain manufacture of soap by hot process.
  - ii) How ethanol is prepared from molasses ?
  - iii) Write the synthesis and uses of paludrin.
5. Answer **any two** of the following. 14
- i) Explain types of detergents.
  - ii) What is meant by sizing ingredient and explain their function.
  - iii) Give the synthesis of ethophan and methoxy chlor.
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Day and Date : Wednesday, 29-11-2017  
Time : 2.30 p.m. to 5.00 p.m.

Max. Marks : 70

1. Rewrite the following sentences by choosing correct alternatives from given below :

14

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- vii) Nomenclature of chromosome is done by \_\_\_\_\_
- a) Bateson (1906)                      b) Mendel (1909)  
c) Waldeyer (1888)                  d) Watson (1878)
- viii) 5 – Bromouracil is a mutagen. It act as \_\_\_\_\_
- a) Deaminating agent                  b) Base analog  
c) Alkylating agent                    d) None of the above
- ix) \_\_\_\_\_ is the phenotype of an individual represents.
- a) Gene arrangement  
b) Genetic linkage  
c) Physical appearance of the person  
d) All the above
- x) Histone protein are synthesized in eukaryotic cell during \_\_\_\_\_
- a) Metaphase                              b) S phase  
c) G1 stage of prophase                d) M phase
- xi) 9 : 3 : 3 : 1 Dihybrid ratio is modified in complementary genes as \_\_\_\_\_
- a) 15 : 1                      b) 9 : 7                      c) 13 : 1                      d) 12 : 3 : 1
- xii) \_\_\_\_\_ is most likely to disrupt the normal linking pattern of genes.
- a) Crossing over  
b) Unlinking  
c) Allergic response pattern in the cell membrane  
d) All of these
- xiii) Euchromatin is \_\_\_\_\_
- a) It is genetically an active chromatin with genes  
b) It stains lightly  
c) It is partially condensed  
d) All of these
- xiv) Ethyl Methane Sulphonate (EMS) is \_\_\_\_\_
- a) Alkylating agent                      b) Base analogue  
c) Acridine Dye                          d) Deaminating agent



2. Answer **any seven** of the following : **14**
- i) State the law of dominance.
  - ii) Define mean.
  - iii) Explain in detail the epistasis.
  - iv) Name the protein involved in structural organization of chromosome.
  - v) What do you mean by chromosomal aberration ?
  - vi) What is the significance of crossing over ?
  - vii) What are the characteristics of X-linked Traits ?
  - viii) Explain Aneuploidy.
  - ix) Define recombination.
3. A) Answer **any two** of the following : **10**
- i) Difference between : Induced and spontaneous mutation.
  - ii) Explain in detail the types of linkage crossing over.
  - iii) Describe in detail degree of freedom.
- B) Describe in detail the process of conjugation. **4**
4. Answer **any two** of the following : **14**
- i) Explain in detail the process of Karyotyping.
  - ii) Write in detail null hypothesis.
  - iii) Explain dihybrid cross with suitable example.
5. Answer **any two** of the following : **14**
- i) Write in detail incomplete dominance.
  - ii) Explain in detail the factors affecting on crossing over.
  - iii) In a group of 40 people, 10 are healthy and every person of the remaining 30 has either high blood pressure, a high level of cholesterol or both. If 15 have high blood pressure and 25 have high level of cholesterol.
    - a) How many people have high blood pressure and a high level of cholesterol ?  
If a person is selected randomly from this group, what is the probability that he/she.
    - b) Has high blood pressure (event A) ?
    - c) Has high level of cholesterol (event B) ?



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## MICROBIAL BIOTECHNOLOGY

### Fermentation Technology (Paper – IV)

Max. Marks : 70

**N.B. :** 1) **All** questions are **compulsory** and carry **equal** marks.  
2) Draw a **neat** labelled diagram **wherever** necessary.  
3) Figures to the **right** indicate **full** marks.

1. Rewrite the following sentences by choosing correct alternatives from given below. **14**
- i) \_\_\_\_\_ is antibiotic which inhibit cell wall biosynthesis in Gram positive bacteria.  
A) Penicillin      B) Streptomycin C) Tetracycline    D) Quinolone
- ii) Lagers are the beer in which fermentation is carried out by using  
A) Top yeast      B) Bottom yeast C) Middle yeast    D) All of these
- iii) The aqueous extract of malt is known as  
A) Mash              B) Must              C) Sonti              D) Wort
- iv) The concentration of sugar in the molasses for the production of wine is  
A) 10 – 12          B) 18 – 20          C) 6 – 10            D) 2 – 5
- v) Sherry is a type of  
A) Brandy            B) Beer                C) Wine               D) Cheese
- vi) The recovery of ethanol is carried out by using  
A) Centrifugation B) Distillation      C) Filtration          D) Solvent extraction
- vii) Commercial production of citric acid is carried by  
A) Rhizopus                                      B) Candida albicas  
C) Apergillus niger                              D) Fusarium
- viii) \_\_\_\_\_ is a antibiotic which inhibit bacterial protein synthesis.  
A) Penicillin      B) Streptomycin C) Sulphonamide D) Quinolone

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2. Answer **any seven** of the following :

14

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3. A) Answer **any two** of the following : 10
- i) Describe in brief penicillin production by fermentation.
  - ii) Discuss in detail citric acid production.
  - iii) Describe in detail vitamin B<sub>12</sub> production.
- B) Give a detailed account on ethanol fermentation. 4
4. Answer **any two** of the following : 14
- i) Enlist types of wine. Describe in detail production of wine.
  - ii) What is Bt toxin ? Explain in detail biopesticide production.
  - iii) Define Biofuel. Discuss in detail methods of Biogas production.
5. Answer **any two** of the following : 14
- i) Define Biofertilizer. Give detailed account on symbiotic nitrogen fixation.
  - ii) Discuss in detail methods of treatments of industrial wastes.
  - iii) Describe in detail L-lysine production by fermentation.
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**B.Sc. – II (Semester – IV) Examination, 2017  
(CGPA Pattern)**

**ENTREPRENEURSHIP**

**Corporate Accounting and Professional Ethics (Paper – V)**

Day and Date : Saturday, 2-12-2017

Max. Marks : 70

Time : 10.30 a.m. to 1.00 p.m.

**N.B :** 1) **All questions are compulsory.**  
2) **Figures to the right indicate full marks.**

1. Multiple choice questions :

**14**

- 1) Excess of cost of investment over paid up values of the shares is considered as
  - A) Goodwill
  - B) Capital reserve
  - C) Minority interest
  - D) None of above
- 2) Holding co share in capital profits of subsidiary company is adjusted in
  - A) Cost of control
  - B) Shown on asset side of balance sheet
  - C) Profit and loss account
  - D) None of above
- 3) Aim of MNC is to boost accounting profitability by shifting funds around the
  - A) Country
  - B) Region
  - C) World
  - D) Market
- 4) The environmental analysis includes
  - A) Political conditions
  - B) Social factors
  - C) Economic condition
  - D) All of the above
- 5) We wish to be food citizen of every community in which we operate this is
  - A) Ethical code
  - B) Political and social code
  - C) Legal code
  - D) Legal Act
- 6) Which is the approach to corporate planning ?
  - A) Customer and workers satisfaction
  - B) Planning skills
  - C) Optimizing
  - D) All of the above
- 7) Which one of the following is not principle of business ethics ?
  - A) Principle of universality
  - B) Principle of humanity
  - C) Principle of autonomy
  - D) Principle of dissatisfaction

**P.T.O.**



- 8) Ethics deals with the right actions of individuals who said ?  
A) Peter F. Drucker  
B) C.S. Rao  
C) J.R. Betty  
D) D.C. Zahe
- 9) The social demands and Expectations of organization can be assessed  
By all of the following except actions of organization can be assessed by  
All of the following except  
A) Social Planning  
B) Social Forecasting  
C) Social Scanning  
D) Social Audits
- 10) The legal term for tangible property is  
A) Trust  
B) Chattel  
C) Mortgage  
D) Private property
- 11) Slightest hazardous methods by which organization carry out international trade is  
A) Licensing  
B) Franchising  
C) International trade  
D) The establishment of new subsidiaries
- 12) Government can make globalization more fair by  
A) Increasing competition  
B) Increasing employment  
C) Implementing the labour laws  
D) Imposing trade barriers
- 13) Minority interest includes  
A) Share in share capital  
B) Share in capital profit  
C) Share in revenue profit  
D) All of the above
- 14) Justice and fairness of a result of q decision is classified as  
A) Descriptive justice  
B) Procedural justice  
C) Distributive justice  
D) Severance justice

2. Solve **any seven** of the following :

14

- 1) Define mergers
- 2) Reissue of forfeited shares
- 3) Concept of CSR
- 4) Global corporation
- 5) Code of conduct
- 6) Morality
- 7) IT
- 8) Steps of final accounts of companies
- 9) Define Net Assets methods.



3. A) Attempt **any two** of the following : 10
- 1) Concept and theories of ethics.
  - 2) M Ltd. Purchased 8000 equity shares of N Ltd. on 1-4-2005 for Rs. 3,00,000. N Ltd. Provides you following information as on 31/3/2006 :
    - a) Equity shares capital 12,000 Equity shares of Rs. 10 each.
    - b) General reserve Rs. 40,000 (on 1/4/2005 Rs. 10,000)
    - c) Profit and Loss A/C Rs. 50,000 (on 1/4/2005 Rs. 30,000)Prepare a statement showing capital profit, revenue profit and minority interest and goodwill.
  - 3) Discuss in absorption and mergers.

B) Methods for valuation of shares. 4

4. Attempt **any two** of the following : 14
- 1) Ethics in HRM.
  - 2) Meaning definition of Corporate Governance. Explain in detail corporate culture and CSR.
  - 3) Raj products Ltd., prepare Balance Sheet in Vertical form with proper Schedules as on 31-3-2005

Liabilities	Rs.	Assets	Rs.
Share Capital	6,50,000	Land and building	3,15,000
General Reserve	65,000	Freehold Property	3,00,000
Reserve Fund	55,000	Plant and Machinery	1,40,000
Share Premium	40,000	Sinking Fund Investment	1,00,000
Debentures	1,60,000	Closing Stock	1,25,000
Bank Overdraft	80,000	Sundry Debtors	95,000
Sundry Creditors	70,000	Cash/Bank	65,000
Bills Payable	40,000	Bills Receivable	40,000
Unclaimed Dividend	20,000	Prepaid Expenses	20,000
Provision Tax	45,000	Preliminary Expenses	25,000
<b>Total</b>	<b>12,25,000</b>	<b>Total</b>	<b>12,25,000</b>

5. Attempt **any two** of the following : 14
- 1) Marketing Ethics.
  - 2) Features of holding Company.
  - 3) Etiquette and Professional Codes.



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**B.Sc. – II (Semester – IV) (Entrepreneurship) Examination, 2017  
(CGPA Pattern)  
MARKETING DECISIONS AND INTERNATIONAL MARKETING  
(Paper – VI)**

Day and Date : Monday, 4-12-2017  
Time : 10.30 a.m. to 1.00 p.m.

Max. Marks : 70

**N. B. :** 1) **All questions are compulsory.**  
2) **Figures to the right indicate full marks.**

1. Multiple choice questions :

**14**

- 1) \_\_\_\_\_ is very popular in retail trade and wholesale trade.
  - 1) Cost-plus pricing
  - 2) Market price
  - 3) Variable pricing
  - 4) Base pricing
- 2) The level of commitment that consumer feel towards a given brand, as represented by their continuing purchase of that brand is \_\_\_\_\_.
  - 1) Brand loyalty
  - 2) Brand Equity
  - 3) Advertisement
  - 4) Marketing
- 3) Convenience store found in all area as well as in shopping areas.
  - 1) Residential
  - 2) Army
  - 3) Social
  - 4) Political
- 4) Break even analysis is managerial tool that emphasizes the relationship among decision variables such as price, cost and volume of scale.
  - 1) Selling
  - 2) Promotion
  - 3) Advertisement
  - 4) Break even analysis
- 5) Physical distribution management is also called as
  - 1) Logistic
  - 2) Mercantile
  - 3) Channel Management
  - 4) None of these
- 6) Globalization means \_\_\_\_\_ of a country with the global/world economy.
  - 1) Integrating the economy
  - 2) Integrating the sociology
  - 3) Integrating the quality
  - 4) Integrating the culture
- 7) Tata Tej brand is comes under \_\_\_\_\_ type of branding.
  - 1) Individual brand
  - 2) Combination device
  - 3) Umbrella brand
  - 4) Family brand

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- 8) \_\_\_\_\_ channel is preferable when buyers are large retailers and product needs speedy distribution.
- 1) Manufacturer – retailer – consumer
  - 2) Manufacturer – wholesaler – retailer – consumer
  - 3) Manufacturer – agent – wholesaler – retailer – consumer
  - 4) None of these
- 9) Global products are standardized by \_\_\_\_\_, indicating total quality management.
- 1) ISO
  - 2) IMF
  - 3) ISI
  - 4) WTO
- 10) \_\_\_\_\_ is concerned with the activities the person/institute which sell to retailer and other merchant.
- 1) Wholesaling
  - 2) Retailing
  - 3) Agency
  - 4) Sales
- 11) Following are the 5M of advertising.
- 1) Mission, Money, Media, Message, Measurement
  - 2) Mission, Money, Media, Message, Material
  - 3) Mission, Money, Media, Measurement, Material
  - 4) Mission, Money, Material, Message, Measurement
- 12) \_\_\_\_\_ is a process of marketing communication to inform, persuade, remind and influence consumers in favour of product.
- 1) Buying
  - 2) Market research
  - 3) Promotion
  - 4) Sponsoring
- 13) \_\_\_\_\_ are those for which customers have strong brand preference and very fussy about them.
- 1) Convenience product
  - 2) Shopping product
  - 3) Speciality product
  - 4) Technological product
- 14) A \_\_\_\_\_ is brand that is available in many countries and though it may differ from country to country, the versions have a common goal and similar identity.
- 1) Global brand
  - 2) National brand
  - 3) Local brand
  - 4) None

2. Solve **any seven** of the following :

14

- 1) Hyper Marketing
- 2) Benefits of segmentation

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- 3) Combination store
- 4) Direct Marketing
- 5) Technological product
- 6) Warehouse
- 7) Product mix
- 8) Importance of promotion
- 9) Exhibition store.

3. A) Write short note on (**any 2**) : **10**
- 1) Promotion
  - 2) Product life cycle
  - 3) Product types.
- B) Give the types of wholesaler. **4**
4. Attempt **any two** of the following : **14**
- 1) What are the features of supermarket ?
  - 2) Write the steps involved in the export process.
  - 3) What are the channels of distribution ?
5. Attempt **any two** of the following : **14**
- 1) Explain global marketing environment.
  - 2) What means consumer behaviour ? Explain any two models.
  - 3) Explain the components and importance of physical distribution.
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**B.Sc. – II (Entrepreneurship) (Semester – IV) (CGPA) Examination, 2017**  
**INDUSTRIAL CHEMISTRY (Paper – V)**  
**Analytical and Industrial Aspects of Physical Chemistry**

Day and Date : Tuesday, 5-12-2017

Max. Marks : 70

Time : 10.30 a.m. to 1.00 p.m.

- Instructions :** i) **All** questions are **compulsory**.  
ii) Figures to the **right** indicate **full** marks.  
iii) **Use** of calculator and logarithmic table is **allowed**.  
iv) Draw **neat** labelled diagrams **wherever** necessary.

1. Choose the most correct alternative for the following and rewrite the sentence : **14**

- 1) The correct unit of cell constant is  
a)  $S\text{ cm}^{-1}$       b)  $\text{cm}^{-1}$       c)  $\text{cm}^2$       d)  $\text{ohm cm}^{-1}$
- 2) Following are four solutions of sodium chloride, which will have highest value of specific conductance  
a) 0.001 M      b) 0.01 M      c) 0.1 M      d) 1.0 M
- 3) The equation  $I_t = I_0 10^{-\alpha t}$  represents  
a) Lambert law      b) Beer's law  
c) Avogadro's law      d) None of these
- 4) The formula  $\text{C}_6\text{H}_4\text{O}_2 \cdot \text{C}_6\text{H}_4(\text{OH})_2$  represents  
a) Quinhydrone      b) Quinone  
c) Hydroquinone      d) None of these
- 5) The material most commonly used in making prism in flame photometry is  
a) Glass      b) Quartz  
c) Metals      d) Non-metals
- 6) \_\_\_\_\_ fuel oxidant combination provides highest flame temperature.  
a) propane-air      b) hydrogen-air  
c) acetylene-air      d) acetylene-oxygen

P.T.O.



- 7) Conductance of solution depends on  
a) number of ions                      b) speed of ions  
c) mobility of ions                    d) all of these
- 8) Which of the following is electrolyte ?  
a)  $C_6H_5Cl$               b)  $C_6H_6$               c)  $CHCl_3$               d)  $CH_3COOH$
- 9) Sum of transport number of cation and anion is equal to  
a) 1                      b) 0                      c) 0.6                      d) 0.5
- 10) \_\_\_\_\_ electrode is indicator electrode.  
a) hydrogen                      b) calomel  
c) glass                      d) silver-silverchloride
- 11) The ratio of intensity of transmitted light to that of incident light is known as  
a) transmittance                      b) absorbance  
c) opacity                      d) reflection
- 12) On dilution equivalent conductance  
a) increases                      b) decreases  
c) remains constant                      d) becomes zero
- 13) For flame photometry  
a) only solid sample can be used  
b) only liquid sample can be used  
c) both liquid and solid samples can be used  
d) no sample is necessary
- 14) Ionic product of water is  
a)  $1 \times 10^{-7}$               b)  $1 \times 10^{-10}$               c)  $1 \times 10^{-14}$               d)  $1 \times 10^{14}$

2. Answer **any seven** of the following :

14

- 1) Draw neat labelled diagram of calomel electrode.
- 2) Define equivalent conductance and give its unit.
- 3) Define buffer and mention its type.
- 4) Draw neat circuit diagram of Wheatstone bridge.
- 5) Write the function of mirror and slit in flame photometry.
- 6) What is meant by conductance and give its unit.
- 7) List various burners used in flame photometer.
- 8) Define opacity and transmittance.
- 9) What do you mean by buffer solution ? Mention different types of it.

Set P



3. A) Answer **any two** of the following : 10
- 1) Write the methods of locating end point of potentiometric titration.
  - 2) Define cell constant. How it is determined ?
  - 3) State and explain Lambert's law.
- B) At 297 K the velocity of migration of silver ion is 0.000552 cm/sec. and that of nitrate ion is 0.00062 cm/sec. Calculate the transport number of silver and nitrate ions. 4
4. Answer **any two** of the following : 14
- 1) Discuss glass electrode.
  - 2) Write different types of conductometric titration. Explain conductometric titration between weak acid against strong base.
  - 3) Draw and explain total consumption burner and laminor flow burner.
5. Answer **any two** of the following : 14
- 1) Define transport number. Explain moving boundary method.
  - 2) Mention different types of potentiometric titrations. Explain acid base titration.
  - 3) What are the advantages and limitations of flame photometer ?
-



Set

**P**

Day and Date : Wednesday, 6-12-2017

Total Marks : 70

Time : 10.30 a.m. to 1.00 p.m.

**N.B. :** i) **All** questions are **compulsory**.  
ii) Draw **neat** labeled diagrams and write equations **wherever** necessary.  
iii) Figures to the **right** indicate **full** marks.

1. Select the most correct alternative from those given below and rewrite the sentence. **14**
- i) The percentage of carbon in cast iron is \_\_\_\_\_ %.
- a) 2.5 – 4.0                      b) 0.5 – 2.5                      c) 4.0 – 5.0                      d) 5.0 – 6.5
- ii) Glass is \_\_\_\_\_ of heat and electricity.
- a) conductor    b) insulator  
c) semiconductor    d) all the above
- iii) The cement which contains essentially a calcium aluminate and prepared by heating a mixture of limestone and bauxite at  $1600^{\circ}\text{C}$  is called \_\_\_\_\_ cement.
- a) high alumina                      b) low alumina                      c) portland                      d) sorel's
- iv) In electroplating \_\_\_\_\_ plays an important role.
- a) Electrolysis    b) Electro-osmosis  
c) Osmosis    d) None of these
- v) The Greek word "keromos" means \_\_\_\_\_
- a) Glass    b) Polymer    c) Fuel    d) Ceramic
- vi) The ores and minerals which are associated with some impurities are called as \_\_\_\_\_
- a) flux    b) slag    c) gangue    d) silicate
- vii) Clay, feldspar and sand are the three main raw materials used in making the \_\_\_\_\_
- a) cement    b) glass    c) ceramic    d) fertilizer

**P.T.O.**



- viii) Superphosphate and triple superphosphate are \_\_\_\_\_ fertilizer.  
a) organic                      b) inorganic              c) physical              d) none of these
- ix) In manufacture of urea \_\_\_\_\_ is used as raw material.  
a) Ammonia    b) Ammonium carbonate  
c) HCl and  $\text{HNO}_3$     d) None of these
- x) If cathode efficiency is greater than anode efficiency, the electroplating bath becomes \_\_\_\_\_ in metal content.  
a) rich                              b) poor                      c) both a and b              d) none of these
- xi) Triple super phosphate generally contain 44 – 47% \_\_\_\_\_.  
a)  $\text{N}_2\text{O}_5$                       b)  $\text{K}_2\text{O}$                       c)  $\text{P}_2\text{O}_5$                       d) None of these
- xii) N, P and K consumed in large quantities by plants for their growth are called \_\_\_\_\_ nutrients.  
a) primary                      b) secondary              c) tertiary                      d) micro
- xiii) The safety glass may be prepared by placing transparent \_\_\_\_\_ sheet between two thin glass sheets.  
a) plastic                      b) rubber                      c) metal oxide              d) cullets
- xiv) Haematite is ore of \_\_\_\_\_.  
a) Fe                              b) Zn                              c) Al                              d) Cu

2. Answer **any seven** of the following :

14

- i) State Faradays first law of electrolysis.
- ii) What do you mean by colored glass ?
- iii) What are the qualities of an ideal fertilizer ?
- iv) Write the any two properties of ceramics.
- v) What do you mean by safety glass ?
- vi) Define the term cathode efficiency and anode efficiency.
- vii) What are ceramics ?
- viii) Define :
  - i) Native ore
  - ii) Oxide ore.
- ix) Name physical methods used for concentration of ores.

Set P



3. A) Write the short notes on **any two** of the following : **10**
- i) Manufacturing process of urea.
  - ii) Cleaning of articles in electroplating.
  - iii) Raw materials used in glass.
- B) What are the different types of steel ? **4**
4. Attempt **any two** of the following : **14**
- i) What is ore ? Discuss the different types of ores in detail.
  - ii) With the use diagram explain the production of urea.
  - iii) Explain the manufacturing process of glass by pot furnace.
5. Attempt **any two** of the following : **14**
- i) Distinction between calcination and roasting.
  - ii) Describe electroplating of chromium.
  - iii) Explain the wet process for manufacture of port plant cement.
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SLR-SY – 40

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**B.Sc. – II (Semester – IV) (Entrepreneurship) (CGPA) Examination, 2017**  
**Paper – V : MICROBIAL BIOTECHNOLOGY**  
**(Molecular Biology)**

Day and Date : Thursday, 7-12-2017  
Time : 10.30 a.m. to 1.00 p.m.

Max. Marks : 70

**N. B. :** 1) All questions are **compulsory** and carry **equal** marks.  
2) Draw a **neat** labelled diagram **wherever** necessary.  
3) Figures to the **right** indicate **full** marks.

1. Rewrite the following sentences by choosing correct alternatives. 14

- 1) \_\_\_\_\_ amino acid has maximum genetic code.
  - a) Leucine
  - b) Tryptophan
  - c) Valine
  - d) Alanine
- 2) Processing of transfer RNA involves \_\_\_\_\_.
  - a) Cleavage of extra bases from both 3' and 5' ends
  - b) Nucleotide sequence specific methylation of bases
  - c) Addition of sequences CCA by a nucleotidyl transferase
  - d) Addition of methylated guanosine at 5' end
- 3) Okazaki fragments are \_\_\_\_\_.
  - a) RNA primers for DNA synthesis
  - b) Short DNA fragments after nuclease digestion
  - c) Newly synthesized DNA fragments
  - d) Short stretches of DNA attached to RNA primers on lagging strand
- 4) True activators of transcription are transcription factors that bind to \_\_\_\_\_.
  - a) Other proteins to enhance transcription
  - b) Promoters
  - c) Enhancers
  - d) Promoters and enhancers
- 5) In a temperature sensitive mutant bacteria, at non-permissive temperature, there are huge accumulation of Okazaki fragments. The bacteria are mutant for \_\_\_\_\_.
  - a) DNA polymerase I
  - b) DNA topoisomerase I
  - c) DNA ligase
  - d) DNA gyrase

P.T.O.



- 6) Mut S, Mut H and Mut L is present in \_\_\_\_\_ repair system.  
a) Mismatch repair                      b) Nucleotide excision repair  
c) Base excision repair                  d) SOS repair
- 7) Type of proof reading activity by DNA polymerase I in *E.coli* is \_\_\_\_\_  
a) 5' – 3' exonuclease                  b) 3' – 5' exonuclease  
c) 5' – 3' endonuclease                d) 3' – 5' endonuclease
- 8) \_\_\_\_\_ statement is not true for DNA transcription.  
a) Template strand and m-RNA have complementary sequences  
b) Template strand is used as coding strand  
c) Transcription is in 5' to 3' direction  
d) Template strand and m-RNA have identical sequences
- 9) \_\_\_\_\_ separates Archea group from bacteria and eukaryotes.  
a) genome sequence                      b) 16S rRNA gene sequence  
c) 23S rRNA gene sequence              d) EFTu sequence
- 10) Topoisomerase is involved in \_\_\_\_\_  
a) Producing RNA primer                b) Joining DNA segments  
c) Producing nick in DNA                d) Separation of DNA strands
- 11) DNA strand is synthesized in \_\_\_\_\_ direction.  
a) 5' – 3'                      b) 1' – 3'                      c) 3' – 5'                      d) 6' – 1'
- 12) In bacterial promoters, \_\_\_\_\_ describes the 'Pribnow box'.  
a) The 5' untranslated region            b) The – 35 box  
c) The – 10 box                              d) The termination sequence
- 13) \_\_\_\_\_ is human genetic disorder resulting from defects in nucleotide excision repair.  
a) Hereditary Nonpolyposis Colorectal Cancer (HNPCC)  
b) Xeroderma Pigmentosum (XP)  
c) Lynch syndrome  
d) Diabetes
- 14) \_\_\_\_\_ is the initiation codon.  
a) AUG                      b) GUG                      c) AAA                      d) AGG

2. Answer **any seven** of the following :

14

- 1) DNA polymerases
- 2) Gene
- 3) Termination of replication in eukaryotes
- 4) RNA polymerases

Set P



- 5) Topoisomerase
- 6) The Central Dogma
- 7) Replication
- 8) r-RNA
- 9) DNA motif.

3. A) Answer **any two** of the following : **10**
- 1) Explain in brief genetic code.
  - 2) Write detail mismatch repair system in prokaryotes.
  - 3) Describe in detail Enzymatic Method of DNA sequencing.
- B) Write a detail note on enzyme involved in eukaryotic replication. **4**
4. Answer **any two** of the following : **14**
- 1) Explain in detail translation in prokaryotes.
  - 2) Write in detail Trp Operon.
  - 3) Explain SOS repair system.
5. Answer **any two** of the following : **14**
- i) Describe in detail isolation of nucleic acid.
  - ii) Explain in detail post transcriptional modification.
  - iii) Write in detail transcription in prokaryotic cell.
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**B.Sc. – II (Entrepreneurship) (Semester – IV) (CGPA) Examination, 2017**  
**MICROBIAL BIOTECHNOLOGY (Paper – VI)**  
**Food and Dairy Technology**

Day and Date : Friday, 8-12-2017  
Time : 10.30 a.m. to 1.00 p.m.

Max. Marks : 70

- N.B. :** 1) **All questions are compulsory and carry equal marks.**  
2) **Draw a neat labelled diagram wherever necessary.**  
3) **Figures to the right indicate full marks.**

1. Rewrite the following sentences by choosing correct alternatives from given below :

14

- i) \_\_\_\_\_ is example of perishable food.  
A) Milk                      B) Egg                      C) Onion                      D) Potato
- ii) Example of soft cheese is \_\_\_\_\_.  
A) Cheddar                      B) Swiss                      C) Brick                      D) Cottage
- iii) Microbial quality of milk is determine by \_\_\_\_\_ test.  
A) Caseinase                      B) Amylase  
C) Crowded plate                      D) MBRT
- iv) Temperature used in HTST treatment is \_\_\_\_\_ °C during pasteurization.  
A) 50.1                      B) 62.8                      C) 71.1                      D) 92.2
- v) \_\_\_\_\_ is the principal carbohydrate in the milks of all mammals.  
A) Maltose                      B) Lactose                      C) Sucrose                      D) Dextrose
- vi) Efficiency of pasteurization is determined by \_\_\_\_\_ test.  
A) MBRT                      B) Resazurin  
C) Phosphatase                      D) None of these
- vii) Butter milk is a fluid product resulting from the manufacture of \_\_\_\_\_.  
A) Cheese                      B) Yogurt  
C) Ice cream                      D) Butter

P.T.O.



- viii) \_\_\_\_\_ enzyme is involved in curdling of milk.  
A) Amylase B) Rennet  
C) Lipase D) Isomerase
- ix) Rennet belongs to \_\_\_\_\_ group.  
A) Lipases B) Catalases  
C) Proteinases D) Phosphatases
- x) Legal butter must contain at least \_\_\_\_\_ percentage of fat.  
A) 70 B) 80 C) 90 D) 95
- xi) Food fermentations include \_\_\_\_\_.  
A) Leavening bread B) Pickling  
C) Alcohol production D) All of these
- xii) The preservation techniques using radiation is also known as \_\_\_\_\_.  
A) Hot sterilization B) Cold sterilization  
C) Heat sterilization D) Dry sterilization
- xiii) \_\_\_\_\_ is degradation of fatty foods.  
A) Fermentation B) Putrefaction  
C) Rancidity D) Sacchacrification
- xiv) Afla toxin in food is produced by \_\_\_\_\_.  
A) *Aspergillus* B) *Azolla*  
C) *Azotobacter* D) *Bacillus*

2. Answer **any seven** of the following :

14

- i) Define milk.
- ii) What is LTH ?
- iii) Define fermentation.
- iv) What is tanned milk ?
- v) Define food infection.
- vi) Define thermophilic microorganisms.
- vii) Types of cheese.
- viii) MBRT test.
- ix) Define canning.

Set P



3. A) Answer **any two** of the following : **10**
- i) Explain in brief microbial examination of milk.
  - ii) Write in detail composition and uses of ice-cream.
  - iii) Write in detail microbial food poisoning.
- B) Discuss in detail methods of pasteurization. **4**
4. Answer **any two** of the following : **14**
- i) Describe in detail cheese production.
  - ii) Describe in detail chemical methods of food preservation.
  - iii) Write in detail methods of cream preparation.
5. Answer **any two** of the following : **14**
- i) Explain in detail various methods of butter production.
  - ii) Describe in detail microbial spoilage of meat and poultry products.
  - iii) Write in detail note on food as substrate for microorganism.
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**B.Sc. – III (Semester – V) (Ent.) Examination, 2017**  
**ENGLISH (Compulsory) (CGPA)**  
**Breakthrough**

Day and Date : Tuesday, 14-11-2017

Max. Marks : 70

Time : 2.30 p.m. to 5.00 p.m.

**N.B. :** 1) **All questions are compulsory.**  
2) **Figures to the right indicate full marks.**

1. A) Choose the correct alternative.

10

- 1) Which of the following statements about the Press is true ?
  - a) The newspapers are owned by poor men
  - b) People get their opinions from the newspapers
  - c) The Press is free
  - d) Honest editors and journalists are rewarded
- 2) According to G.B. Shaw, the average parson teaches \_\_\_\_\_ to the merely rich.
  - a) honesty
  - b) equality
  - c) deference
  - d) morality
- 3) *The Gettysburg Address* was delivered by President Abraham Lincoln on
  - a) 19 November 1863
  - b) 19 November 1865
  - c) 19 July 1863
  - d) 19 July 1865
- 4) Abraham Lincoln visited Gettysburg battlefield to
  - a) to solve the problems of soldiers
  - b) to dedicate a cemetery for the martyrs of the civil war
  - c) to mourn the death of soldiers who died in the war
  - d) to thank American people for their support in the civil war
- 5) \_\_\_\_\_ makes Abou Ben Adhem bold when he sees an angel in his room.
  - a) His love for god
  - b) His love for an angel
  - c) Exceeding peace
  - d) The moonlight in his room

P.T.O.



- 6) The poem "O Captain! My Captain!" is  
a) a sonnet                  b) a lyric                  c) an elegy                  d) a ballad
- 7) Which of the following statements about women is not true ?  
a) In the 19<sup>th</sup> century women were encouraged to be an artist  
b) Anonymity runs in the blood of women  
c) A woman must have money and a room of her own if she is to write fiction  
d) Even in the 19<sup>th</sup> century, women were slapped, lectured and exhorted
- 8) According to Virginia Woolf, the value accorded to \_\_\_\_\_ prevented women from living a free life like male writers.  
a) decency                  b) humility                  c) chastity                  d) morality
- 9) Abou Ben Adhem was blessed by God because  
a) he loved God                  b) he loved his fellow men  
c) he offered gold to an angel                  d) he prayed god everyday
- 10) The Captain in the poem *O Captain ! My Captain !* does not answer because  
a) he does not care to answer                  b) he is angry with his people  
c) he likes to remain silent                  d) his lips are pale and still C
- B) Rewrite the following sentences choosing the correct modal auxiliary from the bracket.
- 1) I \_\_\_\_\_ speak Marathi, Hindi and English languages. (can, could, must, should)
- 2) \_\_\_\_\_ you please post these letters ? (Must, Will, Might, Shall)
- C) Write the following sentences in indirect speech.
- 1) The teacher said to students, "Don't waste your time".
- 2) Meena asked to me, "What is your name ?"
- Answer **any seven** of the following questions in brief :
- 1) Why do, according to G.B. Shaw, villagers become cynical ?
- 2) How do respectful peasants behave during a revolution ?
- 3) Why did Abraham Lincoln visit the Gettysburg battle field ?
- 4) What did Lincoln expect from the people assembled at the Gettysburg ?



- 5) What was the condition of gifted women in Shakespeare's age ?
  - 6) Why did women writers choose to remain anonymous ?
  - 7) What is G.B. Shaw's opinion of the Press ?
  - 8) Why was it impossible for any woman to have the genius of Shakespeare ?
  - 9) What was the outcome of the American Civil War ?
  3. A) Answer **any two** of the following : **8**
    - 1) Why does Walt Whitman use the image of a voyage to lament the death of a leader ?
    - 2) What is the moral message the poem *Abou Ben Adhem* tries to convey ?
    - 3) What is the significance of the title of the poem *O Captain ! My Captain !* ?

B) Write short reports on **any two** of the following : **6**

    - 1) The Zoo Festival of your college.
    - 2) A Ten-Day Personality Development Workshop organized in your college.
    - 3) Your visit to a Botanical Garden.
  4. Answer **any one** of the following : **14**
    - 1) Prepare a presentation consisting of five charts or slides to promote a "Vacuum Cleaner" in the market.
    - 2) Write a presentation on the topic "Importance of Self-Discipline" using charts transparencies or slides.
  5. Write a transcript of group discussion on the topic "Goods and Services Tax : A Step towards Progress ?" **14**
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**B.Sc. (Entrepreneurship) – III (Semester – V) (CGPA)  
Examination, 2017  
BUSINESS FINANCE**

Day and Date : Wednesday, 15-11-2017

Max. Marks : 70

Time : 2.30 p.m. to 5.00 p.m.

**Instructions :** 1) *All questions are compulsory.*

2) *Draw the diagram if necessary.*

1. Choose the correct answer from given alternative : **14**

1) The \_\_\_\_\_ decision involves determining the appropriate make-up of the right-hand side of the Balance Sheet.

- |                     |                      |
|---------------------|----------------------|
| a) Asset Management | b) Financing         |
| c) Investment       | d) Capital budgeting |

2) Which of the following is not a perk ?

- a) Company-provided automobile
- b) Expensive office
- c) Salary
- d) Country club membership

3) GATT means

- a) General Agreement on Trade and Tariffs
- b) Global Agreement on Trade and Transaction
- c) General Acceptables on Trade and Transaction
- d) None of these

4) WTO is established in

- |                 |                 |
|-----------------|-----------------|
| a) 1 Jan. 1995  | b) 1 Jan. 1994  |
| c) 12 Dec. 1996 | d) 27 July 1944 |

**P.T.O.**



- 5) \_\_\_\_\_ is a contract under which a firm agrees to fully design, construct and equip a manufacturing/business facility and turn the project over to the purchaser when it is ready for operation.
- a) Turnkey project                      b) Management contract  
c) Franchising                          d) Exporting
- 6) Subsidy given by Govt. for the purpose of
- a) Protect domestic company from foreign company  
b) Protect customer  
c) Protect supplier  
d) All of the above
- 7) NSE means
- a) National Security Exchange  
b) National Stock Exchange  
c) National Safety Exchange  
d) National Stock Economics
- 8) IMF is established in
- a) 1945                      b) 1944                      c) 1947                      d) 1946
- 9) Financial lease is \_\_\_\_\_ agreement.
- a) Short-term                      b) Long-term  
c) Mid-term                          d) None of these
- 10) Venture capital provides capital to the projects of
- a) High technology                      b) High profits  
c) Lease                                  d) High growth
- 11) \_\_\_\_\_ is responsible for financial planning.
- a) Finance Controller                      b) Treasurer  
c) Finance Manager                      d) Accountant
- 12) Online trading of scrips in introduced from
- a) March 1995    b) October 1995    c) February 1995    d) June 1995
- 13) The trading system of BSE is known as
- a) BOLT                      b) NEAT                      c) SPEED                      d) None of these
- 14) The origin of venture capital was in
- a) U.K.                      b) India                      c) Canada                      d) U.S.A.



2. Solve **any seven** from the following : 14
- 1) Meaning of lease financing.
  - 2) Loan from banks.
  - 3) Nature of business finance.
  - 4) Introduce public deposits.
  - 5) Functions of stock exchange.
  - 6) What is online trading ?
  - 7) Types of financing planning.
  - 8) Present value method.
  - 9) Introduce E-Banking.
3. A) Write short note on **any two** from the following : 10
- 1) Various types of lease financing.
  - 2) Venture capital in India.
  - 3) Objectives and importance of business finance.
- B) Multinational Investment Guaranty Agency (MIGA). 4
4. Write note on **any two** from the following : 14
- 1) The working structure of BSE and NSE.
  - 2) Stock exchange in India.
  - 3) International monetary fund.
5. Write note on **any two** from the following : 14
- 1) Sources of working capital.
  - 2) Types and steps in financing planning.
  - 3) Convertibility of rupees and its implications.
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**B.Sc. – III (Entrepreneurship) (Semester – V ) (CGPA) Examination, 2017**  
**HUMAN RESOURCE MANAGEMENT**

Day and Date : Thursday, 16-11-2017  
Time : 2.30 p.m. to 5.00 p.m.

Max. Marks : 70

**N.B. :** 1) *All questions are compulsory.*  
2) *Draw diagram if necessary.*

1. Choose the correct alternative from the following : **14**

- 1) The main objective of HRM is to ensure the availability of right \_\_\_\_\_  
for right jobs at right times.  
A) Manager      B) Entrepreneur      C) People      D) Place
- 2) The functions performed by human resource Management are classified as \_\_\_\_\_ functions and operative functions.  
A) Managerial      B) Manager      C) Formal      D) None of these
- 3) Essar Steel Limited had introduced strategic HRM to capacitate its \_\_\_\_\_ by imparting them required training.  
A) Manager      B) Leader      C) Employee      D) Entrepreneur
- 4) A \_\_\_\_\_ may be understood as a division of total work into packages / positions.  
A) Business      B) Service      C) Job      D) All above
- 5) The main steps involved in Job Analysis are to collect data about  
A) Employee      B) Family      C) HR      D) Organization
- 6) The \_\_\_\_\_ one of the method used for data collection for job.  
A) Planner      B) Relation      C) Check lists      D) None of these

**P.T.O.**



- 7) Work simplification, job rotation, job enlargement and job enrichment are the popular techniques at  
A) Job design  
B) Interview  
C) Data collection  
D) HRM
- 8) Recruitment process involves \_\_\_\_\_ steps.  
A) five  
B) three  
C) two  
D) eight
- 9) Recruitment process is \_\_\_\_\_ process.  
A) Breakage  
B) Continuous  
C) Indirect  
D) All above
- 10) Selection starts where \_\_\_\_\_ ends.  
A) Employee package  
B) Organizational strategy  
C) Recruitment  
D) None of these
- 11) “\_\_\_\_\_ is hiring the best candidate from the pool of application.  
A) Recruitment  
B) Election  
C) Selection  
D) Data collection
- 12) Selection follows  
A) Business  
B) Manager  
C) Recruitment  
D) Organizational activity
- 13) The candidates who clear all the steps involved in \_\_\_\_\_ are finally selected for particular jobs.  
A) Election  
B) Promotion  
C) Transfer  
D) Selection
- 14) \_\_\_\_\_ refers to an inventory indicating which individuals are ready to move into higher positions in the company.  
A) Succession planning  
B) Recruitment  
C) Interview  
D) Transfer

2. Solve **any seven** from the following :

14

- 1) What is HRM ?
- 2) Introduce promotion.
- 3) What is transfer ?

**Set P**



- 4) Introduce career planning.
  - 5) Introduce gratuity.
  - 6) What is selection ?
  - 7) Introduce Job Analysis.
  - 8) Meaning of external mobility.
3. A) Solve **any two** from the following : **10**
- 1) Problems of transfer.
  - 2) Need and objectives of training.
  - 3) Job description.
- B) What are the advantages and limitations of career planning and developments ? **4**
4. Solve **any two** from the following : **14**
- 1) What are the steps in career development system ?
  - 2) Use of P.A. and problems of P.A.
  - 3) Training method.
5. Solve **any two** from the following : **14**
- 1) External and internal sources of recruitment.
  - 2) Steps in selection procedure.
  - 3) Explain in detail E.S.I. maintenance allowance.
-



SLR-SY – 45

Seat No.	
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**B.Sc. – III (Entrepreneurship) (CGPA) (Semester – V)**  
**Examination, 2017**  
**INDUSTRIAL CHEMISTRY**  
**Spectroscopic Methods**

Day and Date : Friday, 17-11-2017  
Time : 2.30 p.m. to 5.00 p.m.

Max. Marks : 70

- N.B. :** 1) **All questions are compulsory.**  
2) Figures to the **right** indicate **full** marks.  
3) Draw **neat** labelled diagrams and give equation **wherever** necessary.

1. Select most correct alternative from those given below and rewrite the sentence : **14**

- i) In NMR spectra of toluene the peak area ratio is \_\_\_\_\_  
a) 5 : 3                      b) 2 : 1                      c) 3 : 1                      d) 1 : 1
- ii) Mass spectra is obtained by plotting \_\_\_\_\_ and \_\_\_\_\_ on X and Y axis respectively.  
a) charge, abundance                      b) abundance,  $\frac{\text{mass}}{\text{charge}}$   
c) mass, charge on ions                      d) mass, abundance
- iii) When absorption maximum value is shifted towards longer wavelength, this phenomenon is known as \_\_\_\_\_  
a) hypsochromic shift                      b) hyperchromic shift  
c) bathochromic shift                      d) hypochromic shift
- iv) For determination of function group \_\_\_\_\_ spectroscopy is used.  
a) NMR                      b) Mass                      c) UV                      d) IR
- v) The proton NMR spectrum of 2-bromopropane has \_\_\_\_\_  
a) 2 signals doublet and multiplet  
b) 2 signals singlet and multiplet  
c) 3 signals singlet, multiplet and 2 doublet  
d) 3 signals singlet, doublet and 2 triplet
- vi) Mass spectra of methanol shows molecular ion peak at  $m/z$  = \_\_\_\_\_  
a) 32                      b) 30                      c) 23                      d) 21
- vii) The equation for Beer-Lambert law is \_\_\_\_\_  
a)  $\log_{10} \frac{I_t}{I_o} = Ect$       b)  $\log_{10} \frac{I_o}{I_t} = - Ect$       c)  $\log_{10} \frac{I_t}{I_o} = ct$       d)  $\log_{10} \frac{I_o}{I_t} = Et$

P.T.O.



- viii) Mathematically Hook's law is given by \_\_\_\_\_
- a)  $\frac{1}{2\pi} \sqrt{\frac{F}{\mu}}$                       b)  $\frac{1}{2\pi c} \sqrt{\frac{F}{\mu}}$
- c)  $\frac{1}{2\pi c} \sqrt{\frac{1}{\mu}}$                       d)  $\frac{1}{c} \sqrt{\frac{F}{c}}$
- ix) In NMR spectroscopy \_\_\_\_\_ is used as internal reference.
- a) TMS                      b) TNS                      c) DMS                      d) DMF
- x) Mass spectrum is obtained by using \_\_\_\_\_
- a)  $e^{\ominus}$  beam                      b) UV light                      c) IR light                      d) Radio waves
- xi) UV spectroscopy is also known as \_\_\_\_\_ spectroscopy.
- a) Vibrational                      b) Rotational                      c) Raman                      d) Electronic
- xii) The chemical shift on  $\delta$  scale is 4.4 then on  $\tau$  scale it will be \_\_\_\_\_
- a) 5.6                      b) - 4.4                      c) - 5.6                      d) 4.4
- xiii) IR spectroscopy is useful to determine \_\_\_\_\_
- a) The no. of C-atoms in compound
- b) The kinds of bonds in the compound
- c) The empirical formula of compound
- d) Functional groups
- xiv) In NMR spectroscopy unit of coupling constant is \_\_\_\_\_
- a) Hz                      b)  $\text{cm}^{-1}$                       c) cm                      d) delta

2. Answer **any seven** of following :

14

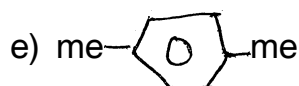
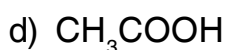
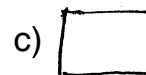
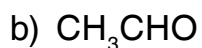
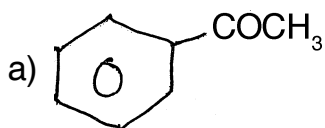
- Explain in brief magnetic and non-magnetic nuclei.
- Calculate fundamental modes of vibration for non-linear  $\text{H}_2\text{O}$  molecule.
- Define chromophore and auxochrome.
- Principle of mass spectroscopy.
- Draw diagram of NMR instrument.
- State and explain Hook's law.
- Name the types of transitions in UV spectroscopy.
- What is the principle of PMR spectroscopy ?
- Write the applications of mass spectroscopy.

Set P



3. A) Write short notes on **any two** : 10

- i) Application of UV spectroscopy.
- ii) How many numbers of signals are given by following compounds ?



- iii) Draw schematic diagram of mass spectrometer.

B) Match the following :

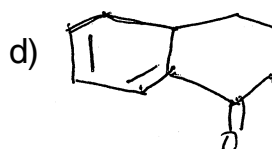
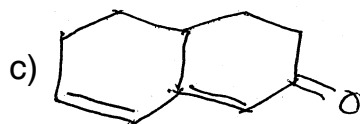
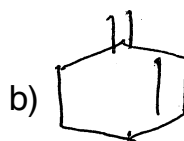
4

PMR	mol. wt.
UV	$\delta$
IR	nm
mass	$\text{cm}^{-1}$

4. Answer **any two** of the following :

14

- i) Calculate  $\lambda_{\text{max}}$  values of following compound :



- ii) Explain types of vibration in IR spectroscopy.

- iii) Explain spectra of ethanol.

5. Answer **any two** of the following :

14

- i) Explain fundamental group region in IR spectroscopy.
- ii) Types of ions formed in mass spectroscopy.
- iii) Propose the structure of compound with following data :

M.F.  $\text{C}_4\text{H}_8\text{O}$

$m/z = 72$

IR =  $1720 \text{ cm}^{-1}$

PMR 1.05  $\delta$  (t, 3H)

2.50  $\delta$  (q, 2H)

2.00  $\delta$  (s, 3H).



TABLE – 1

## Characteristic Infrared Absorptions of Functional Groups

GROUP	FREQUENCY RANGE $\text{cm}^{-1}$	INTENSITY
A. Alkyl		
C – H (stretching)	2853 – 2962	(m – s)
Isopropyl – $\text{CH}(\text{CH}_3)_2$	1380 – 1385	(s)
and	1365 – 1370	(s)
tert – Butyl – $\text{C}(\text{CH}_3)_3$	1385 – 1395	(m)
and	– 1365	(s)
B. Alkenyl		
C–H (stretching)	3010 – 3095	(m)
C = C (stretching)	1620 – 1680	(v)
R – CH = $\text{CH}_2$	985 – 1000	(s)
and	905 – 920	(s)
$\text{R}_2\text{C} = \text{CH}_2$ (out of plane	880 – 900	(s)
cis – $\text{RCH} = \text{CHR}$ C–H bendings)	675 – 730	(s)
trans – $\text{RCH} = \text{CHR}$	960 – 975	(s)
C. Alkynyl		
$\equiv \text{C} - \text{H}$ (stretching)	– 3300	(s)
$\text{C} \equiv \text{C}$ (stretching)	2100 – 2260	(v)
D. Aromatic		
Ar – H (stretching)	– 3030	(v)
Aromatic substitution type (C–H out-of-plane bendings)		
Monosubstituted	690 – 710	(very s)
and	730 – 770	(very s)
o – Disubstituted	735 – 770	(s)
m – Disubstituted	680 – 725	(s)
and	750 – 810	(very s)
p – Disubstituted	800 – 840	(very s)
E. Alcohols, Phenols, Carboxylic Acids		
OH (alcohols, phenols, dilute solutions)	3590 – 3650	(sharp v)
OH (alcohols, phenols, hydrogen bonded)	3200 – 3550	(broad s)
OH (carboxylic acids, hydrogen bonded)	2500 – 3000	(broad v)
F. Aldehydes, Ketones, Esters and Carboxylic Acids		
C = O stretch 1720	1630 – 1780	(s)
aldehydes – 1720 {Stre 2700 – 2900	1690 – 1740	(s)
ketones	1680 – 1750	(s)
esters	1735 – 1750	(s)
carboxylic acids	1710 – 1780	(s)
amides	1630 – 1690	(s)
G. Amines		
N – H	3300 – 3500	(m)
H. Nitriles		
$\text{C} \equiv \text{N}$	2220 – 2260	(m)



TABLE - 2  
Approximate Proton Chemical Shifts in NMR

TYPE OF PROTON	CHEMICAL SHIFT, DELTA, PPM ( $\delta$ )	
1° Alkyl, $\text{RCH}_3$	0.8 - 1.0	
2° Alkyl, $\text{RCH}_2\text{R}$	1.2 - 1.4	
3° Alkyl $\text{R}_3\text{CH}$	1.4 - 1.7	
Allylic, $\text{R}_2\text{C} = \underset{\text{R}}{\underset{ }{\text{C}}} - \text{CH}_3$	1.6 - 1.9	Ester $\text{R} - \overset{\text{O}}{\underset{  }{\text{C}}} - \text{O} - \text{CH}_2 - \text{R}$ 4 to 4.5 N - $\text{CH}_3$ 2.3
Benzylic, $\text{ArCH}_3$	2.2 - 2.5	
Alkyl chloride, $\text{RCH}_2\text{Cl}$	3.6 - 3.8	
Alkyl bromide, $\text{RCH}_2\text{Br}$	3.4 - 3.6	
Alkyl iodide, $\text{RCH}_2\text{I}$	3.1 - 3.3	
Ether, $\text{ROCH}_2\text{R}$	3.3 - 3.9	
Alcohol, $\text{HOCH}_2\text{R}$	3.3 - 4.0	
Ketone, $\text{RCCH}_3$ $\quad \quad \quad   $ $\quad \quad \quad \text{O}$	2.1 - 2.6	
Aldehyde, $\text{RCH}$ $\quad \quad \quad   $ $\quad \quad \quad \text{O}$	9.5 - 9.6	
Vinylic, $\text{R}_2\text{C} = \text{CH}_2$	4.6 - 5.0	
Vinylic $\text{R}_2\text{C} = \underset{\text{R}}{\underset{ }{\text{CH}}}$	5.2 - 5.7	
Aromatic, $\text{ArH}$	6.0 - 9.5	
Acetylenic, $\text{RC} \equiv \text{CH}$	2.5 - 3.1	
Alcohol hydroxyl, $\text{ROH}$	0.5 - 6.0 <sup>a</sup>	
Carboxylic, $\text{RCOH}$ $\quad \quad \quad   $ $\quad \quad \quad \text{O}$	10 - 1.3 <sup>a</sup>	
Phenolic, $\text{ArOH}$	4.5 - 7.7 <sup>a</sup>	
Amino $\text{R} - \text{NH}_2$	1.0 - 5.0	



### Spectroscopic Chart

Woodward's-Fieser's rules for calculating ultraviolet absorption maxima

A) For substituted dienes (Ethanol solution)

No.	Basic Value	$\lambda_{\max}$ (nm)
1)	Acyclic and heteroannular dienes	214
2)	Homoannular dienes	253
3)	<b>Addition for each substituent</b>	
	a) – R alkyl (including part of carbocyclic ring)	5
	b) – OR (alkoxy)	6
	c) – Cl, –Br	5
	d) – OCOR (acyloxy)	0
	e) – NR <sub>2</sub> , (N – alkyl)	60
	f) – SR (S – alkyl)	30
	g) – CH = CH – additional conjugation i.e. extending conjugation	30
	h) If one double bond is exocyclic to one ring	5
	i) If exocyclic to two rings simultaneously	10



B) Rules for  $\alpha, \beta$  – Unsaturated Enones (Ethanol Solution)

No.	Basic value	$\lambda_{\max}$ (nm)
1)	Ketones : $\begin{array}{c} \beta \\   \\ -\text{C} = \text{C} - \text{CO} - \\   \quad   \\ \alpha \end{array}$	
	a) Acyclic or 6 – membered ring	215
	b) 5 – membered ring	202
2)	Aldehydes $\begin{array}{c}   \\ -\text{C} = \text{C} - \text{CHO} \\   \end{array}$	207
3)	Extended Conjugation $\begin{array}{c} \delta \quad \gamma \quad \beta \quad \alpha \\   \quad   \quad   \quad   \\ -\text{C} = \text{C} - \text{C} = \text{C} - \text{CO} - \text{etc.,} \end{array}$	30
4)	Homodiene component	39
5)	a) If one double bond is exocyclic to one ring	5
	b) If exocyclic to two rings simultaneously	10
6)	Addition for substituents	



Substituents		Position			
		$\alpha$	$\beta$	$\gamma$	$\delta$
a)	- R alkyl (including part of carbocyclic ring)	10	12	18	18
b)	- OR (alkoxy)	35	30	17	31
c)	- OH (hydroxy)	35	30	-	50
d)	- SR (thioether)	-	85	-	-
e)	- Cl (chloro)	15	12	-	-
f)	- Br (bromo)	25	30	-	-
g)	- OCOR (acyloxy)	6	6	-	6
h)	- NH <sub>2</sub> , - NHR <sub>1</sub> , - NR <sub>2</sub>	-	95	-	-

### Solvent correction

	Solvent	
a)	Ethanol	0
b)	Methanol	0
c)	Dioxan	-5
d)	Chloroform	-1
e)	Ether	-7
f)	Water	+8
g)	Hexane	-11
h)	Cyclohexane	-11



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Set **P**

**B.Sc. – III (Semester – V) (CGPA) (Entrepreneurship) Examination, 2017**  
**ADVANCES IN FERMENTATION TECHNOLOGY**

Day and Date : Saturday, 18-11-2017

Max. Marks : 70

Time : 2.30 p.m. to 5.00 p.m.

- N.B. :** 1) **All** questions are **compulsory** and carry **equal** marks.  
2) Draw a **neat** labelled diagram **wherever** necessary.  
3) Figure to the **right** indicate **full** marks.

1. Rewrite the following sentences by choosing correct alternatives from given below :

14

- i) Temperature required for cultivation of mushroom is  
a) 23°C                      b) 37°C                      c) 45°C                      d) 60°C
- ii) \_\_\_\_\_ is produced by acetic acid bacteria.  
a) Vinegar                      b) Acetic acid                      c) Formic acid                      d) Both a) and b)
- iii) By using recombinant techniques \_\_\_\_\_ products are produced.  
a) Insulin                      b) Interferon                      c) Both a) and b)                      d) None
- iv) \_\_\_\_\_ is a metabolic process that converts sugar to acids, gases, or alcohol by bacteria.  
a) Metabolism                      b) Addition  
c) Recombination                      d) Fermentation
- v) GMP stands for  
a) Good Manufacturing Practices                      b) Good Laboratory Practices  
c) Quality Control                      d) All of these
- vi) \_\_\_\_\_ the maintenance of a desired level of quality in a service or product, especially by means of attention to every stage of the process of delivery or production.  
a) Quality management                      b) Quality control  
c) Quality suggestion                      d) Quality assurance

P.T.O.



- vii) \_\_\_\_\_ is a hormone ; a chemical messenger produced in one part of the body to have an action on another.  
a) Insulin                      b) Interferon                      c) DNA                      d) RNA
- viii) A symbol, word, or words legally registered or established by use as representing a company or product is  
a) Copyright                      b) Trademark                      c) Patent                      d) Secret
- ix) Gypsum is used to maintain the  
a) Temperature                      b) Humidity                      c) pH                      d) Moisture
- x) It is an example of button mushroom  
a) *Aspergillus niger*                      b) *Agaricus bisporus*  
c) *Zygomycota*                      d) All
- xi) Patent office is situated in  
a) Mumbai                      b) Chennai                      c) Kolkata                      d) All
- xii) To build up new industry which factors are essential  
a) Good manufacturing practices                      b) Good laboratory practices  
c) Quality assurance                      d) Both a) and b)
- xiii) Xanthum gum is  
a) Monosaccharide                      b) Disaccharide  
c) Polysaccharide                      d) All
- xiv) Vinegar production is an example of \_\_\_\_\_ step process.  
a) Dual                      b) Single                      c) Triple                      d) None

2. Answer **any seven** of the following :

- i) Edible mushroom.
- ii) What is DNA vaccine ?
- iii) Define Patent.
- iv) Role of Insulin.
- v) Define Toxoid.
- vi) Write applications of vinegar.
- vii) Types of interferon.
- viii) Define exopolysaccharide.
- ix) Define Biosafety.

14



3. A) Answer **any two** of the following : 10
- i) Explain in detail Vinegar production.
  - ii) Describe in detail GLP.
  - iii) Describe in detail Risk of assessment of fermentation product.
- B) Write detail account on mushroom cultivation. 4
4. Answer **any two** of the following : 14
- i) Describe in detail production of Pullulan and its role.
  - ii) Explain in detail the process of acetone-butanol production.
  - iii) Describe in detail GMP.
5. Answer **any two** of the following : 14
- i) Define patent and give suitable example of patenting of biological material.
  - ii) Write in detail interferon production.
  - iii) Explain in detail the process of PHB production.
-



**SLR-SY – 47**

Seat No.	
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Set

**P**

**B.Sc. – III (Semester – VI) (Entrepreneurship) (CGPA) (New)  
Examination, 2017  
ENGLISH (Compulsory)  
Breakthrough**

Day and Date : Tuesday, 31-10-2017  
Time : 10.30 a.m. to 1.00 p.m.

Max. Marks : 70

**Instructions :** 1) **All** questions are **compulsory**.  
2) Figures to the **right** indicate **full** marks.

1. A) Choose the correct alternative :

**10**

- 1) Which of the following statements is not true ?
  - a) Tom had been dreading the ridicule of Ben Rogers the most
  - b) Ben Rogers was unwilling to whitewash the fence
  - c) Tom believed that work consists of whatever a body is obliged to do
  - d) Tom succeeded in making other boys believe that whitewashing the fence is very difficult
- 2) Tom was given the task of whitewashing the fence on \_\_\_\_\_ morning.
  - a) Sunday
  - b) Monday
  - c) Saturday
  - d) Friday
- 3) Guy de Maupassant was a great \_\_\_\_\_ short story writer and novelist.
  - a) American
  - b) French
  - c) German
  - d) Russian
- 4) The ball party that M and MmeLoisel attended took place on \_\_\_\_\_.
  - a) Sunday, January 18
  - b) Monday, January 17
  - c) Sunday, January 17
  - d) Monday, January 18
- 5) Thomas Bullfinch has taken the story of Pyramus and Thisbe from \_\_\_\_\_.
  - a) Ovid's *Metamorphoses*
  - b) Chaucer's *The Legend of Good Women*
  - c) Shakespeare's *A Midsummer Night's Dream*
  - d) Giovanni Boccaccio's *On Famous Women*

**P.T.O.**



- 6) Which of the following statements is not true ?  
a) Pyramus was the handsomest youth  
b) Thisbe was the fairest maiden  
c) Their parents occupied adjoining houses  
d) They eloped and married as their parents were against their marriage
- 7) The poem *In The Bazaars of Hyderabad* ends with the line \_\_\_\_\_  
a) Daggers with handles of jade  
b) Scabbards of gold for the king  
c) To perfume the sleep of the dead  
d) Chaplets to garland his bed
- 8) In the poem *In The Bazaars of Hyderabad* Goldsmiths make girdles of gold for \_\_\_\_\_  
a) The king  
b) Dancers  
c) The queen  
d) The bridegroom
- 9) Whom does the speaker in the poem *On Virtue* ask not to sink into despair ?  
a) Virtue  
b) Chastity  
c) Soul  
d) Glory
- 10) The speaker in the poem *On Virtue* asks his/her soul to court virtue for \_\_\_\_\_  
a) her promised bliss  
b) her promised glory  
c) her promised chastity  
d) her promised happiness
- B) Do as directed :
- 1) Everybody knows that Kapil Sharma is a good comedian.  
(Change it into a simple sentence)
- 2) You scratch my back and I will scratch yours.  
(Change it into a complex sentence)
- 3) This is a very interesting book.  
(Add a question tag)
- 4) Coffee is too hot to drink it.  
(Make it negative without changing the meaning)



2. Answer **any seven** of the following questions in short. 14

- 1) What is the moral of the story *Whitewashing the Fence* ?
- 2) What role did the wall play in the life of Pyramus and Thisbe ?
- 3) Who do you think responsible for the tragic deaths of Pyramus and Thisbe ?
- 4) What did Mathilde and Loisel do after the loss of *the necklace* ?
- 5) Why was Mathilde reluctant to go to the party ?
- 6) Bring out the significance of the title *The Necklace*.
- 7) What was Tom's offer for Jim ?
- 8) Describe the character of Tom.

3. A) Answer **any two** of the following : 8

- 1) Describe the scene of the bazaar in Hyderabad in your own words.
- 2) What appeal does Phillis Wheatley make to virtue ?
- 3) What is personification ? How is it used in the poem On Virtue ?

B) Answer **any two** of the following : 6

- 1) You are a college student. You spend most of your leisure time in watching T.V. serials and in chatting on internet. You have failed in the previous Semester. How will you manage your time in order to clear both the semesters ?
- 2) Imagine that you have recently been quarrelling a lot with your brother on the issue of property and want to make your relationship with him better. How will you handle the problem ?
- 3) Sachin has been appointed as a branch manager in one of the branches of Bank of India in Chennai and he moves there from Pune, where he grew up. He is unfamiliar with the city and its weather, people, food, language and culture. Suggest ways in which Sachin can successfully adapt himself to the new environment where he has to live and work.

4. Write in detail the description of your favourite teacher. Remember to convey the character, thoughts and mood of him/her. 14

OR

Imagine that you are waiting for a bus at the bus stop and you witness an accident in which three children die. Narrate in detail the accident.

**Set P**



5. Read the following passage and write the summary of it.

14

Although our age far surpasses all previous ages in knowledge, there has been no correlative increase in wisdom. But agreement ceases as soon as we attempt to define 'wisdom' and consider means of promoting it.

There are several factors that contribute to wisdom. Of these I should put first a sense of proportion : the capacity to take account of all the important factors in a problem and to attach to each its due weight. This has become more difficult than it used to be owing to the extent and complexity of the specialized knowledge required of various kinds of technicians. Suppose, for example, that you are engaged in research in scientific medicine. The work is difficult and is likely to absorb the whole of your intellectual energy. You have no time to consider the effect which your discoveries or inventions may have outside the field of medicine. You succeed in enormously lowering the infant death-rate, not only in Europe and America, but also in Asia and Africa. This has the entirely unintended result of making the food supply inadequate and lowering the standard of life in the most populous parts of the world. To take an even more spectacular example, you study the composition of the atom from a disinterested desire for knowledge and incidentally place in the hands of powerful lunatics the means of destroying the human race. In such ways the pursuit of knowledge may become harmful unless it is combined with wisdom and wisdom in the sense of comprehensive vision is not necessarily present in the pursuit of knowledge.

Comprehensiveness alone, however, is not enough to constitute wisdom. There must be, also, a certain awareness of the ends of human life. This may be illustrated by the study of history. Many eminent historians have done more harm than good because they viewed facts through the distorting medium of their passions. Hegel's philosophy of history which did not suffer from any lack of comprehensiveness sought to inculcate the lesson that from the year 400 A.D. down to his own time, Germany had been the most important nation and the standard-bearer of progress in the world. Perhaps one could stretch the comprehensiveness that constitutes wisdom to include not only intellect but also feeling. It is by no means uncommon to find men whose knowledge is wide but whose feelings are narrow. Such men lack what I am calling wisdom.



SLR-SY – 48

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**B.Sc. – III (Semester – VI) (Entrepreneurship) (New CGPA) Examination, 2017**  
**INTERNATIONAL BUSINESS**  
**(Paper – X)**

Day and Date : Wednesday, 1-11-2017

Max. Marks : 70

Time : 10.30 a.m. to 1.00 p.m.

**N.B. :** 1) **All questions are compulsory.**  
2) **Figures to the right indicate full marks.**

1. Multiple choice questions :

14

- 1) Which one is not an International Organization ?  
a) SAARC                      b) ASEM                      c) ASEAN                      d) CBDT
- 2) What was the predecessor of WTO ?  
a) GAAT                      b) IMF                      c) ADB                      d) None of the above
- 3) The investment in productive assets and participation in management as stake holders in business enterprises is  
a) FDI                                      b) FII  
c) Balance of payment                      d) SDR
- 4) Balance of payments of a country includes \_\_\_\_\_  
a) Current account                      b) Monetary account  
c) Capital account                      d) All of the above
- 5) The World Trade Organization was formed in the year \_\_\_\_\_ with GATT as it basis.  
a) 1993                      b) 1994                      c) 1995                      d) 1996
- 6) Which one of the following modes of entry requires higher level of risks ?  
a) Licensing                                      b) Franchising  
c) Contract manufacturing                      d) Joint venture
- 7) \_\_\_\_\_ consist of economic conditions, economic policies, industrial policies and economic system.  
a) Business Environment                      b) Economic Environment  
c) Natural Environment                      d) None

P.T.O.



2. Solve **any seven** of the following : 14
- 1) Define E-commerce.
  - 2) Components of balance of payment.
  - 3) What is meant International Business ?
  - 4) Define SAARC.
  - 5) Concept of Multinational Corporation.
  - 6) Franchising.
  - 7) Growth of MNCs.
  - 8) Comparative cost theory.
  - 9) Automatic correction.
  - 10) Multinational company.
3. A) Attempt **any two** of the following : 10
- 1) Difference between Mergers and Acquisitions.
  - 2) Concept of e-commerce.
  - 3) Meaning factors influencing.
- B) Nature of International Business. 4
4. Attempt **any two** of the following : 14
- 1) Advantages and disadvantages of Globalization.
  - 2) Explain World Trade Organization.
  - 3) Describe Export procedure and Import procedure.
5. Attempt **any two** of the following : 14
- 1) Definition and concept of Multinational Corporation. Explain in brief advantages and disadvantages of MNCs.
  - 2) Definition and evaluation International Business. Describe nature and approaches of International Business.
  - 3) Define SAARC, objectives and functions of organization.
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**B.Sc. – III (Semester – VI) (Entrepreneurship) Examination, 2017  
(New-CGPA Pattern)  
ORGANISATIONAL BEHAVIOUR**

Day and Date : Thursday, 2-11-2017  
Time : 10.30 a.m. to 1.00 p.m.

Max. Marks : 70

**N.B. :** 1) *All questions are compulsory.*  
2) *Figures to the **right** indicate **full** marks.*

1. Multiple choice questions :

14

- 1) \_\_\_\_\_ is another term used to denote Organization behavior.
  - a) Behavior science
  - b) Circumstantial response
  - c) Human relations
  - d) Social responsibility
- 2) Personality is determined by \_\_\_\_\_.
  - a) Heredity
  - b) Environment
  - c) Situation
  - d) All above
- 3) In addition to perception and personality, \_\_\_\_\_ helps in Understanding human behavior.
  - a) Motivation
  - b) Learning
  - c) Temperament
  - d) All the above
- 4) An attitude can be described as \_\_\_\_\_.
  - a) Human response
  - b) The mindset of a person
  - c) The way a person thinks
  - d) All
- 5) \_\_\_\_\_, the management guru, observed that, if procrastination is taken care of in an organization, the productivity would go up by about 50%.
  - a) Paul McGregor
  - b) Shiv Khera
  - c) Arindam Chaturvedi
  - d) Peter Drucker
- 6) Conflicts can be helpful and constructive if \_\_\_\_\_.
  - a) Avoided
  - b) Buried deep
  - c) Handled properly
  - d) Crushed with heavy hand



- 7) Every individual set his goal and he also know the \_\_\_\_\_ which will take him to achieve the goal.
- a) Process
  - b) Behavior
  - c) Event
  - d) Way
- 8) \_\_\_\_\_ is a study of group behavior.
- a) Anthropology
  - b) Psychology
  - c) Social psychology
  - d) Sociology
- 9) Belief, opinion, knowledge, emotion feeling intention is the components of \_\_\_\_\_
- a) OB
  - b) Job satisfaction
  - c) Attitude
  - d) Personality
- 10) “The combination of characteristics or qualities that form an individual’s distinctive character” is the definition of \_\_\_\_\_
- a) Personality
  - b) Motivation
  - c) Attitude
  - d) Behavior
- 11) \_\_\_\_\_ focuses on the influence of people on one another.
- a) Anthropology
  - b) Psychology
  - c) Social psychology
  - d) Sociology
- 12) \_\_\_\_\_ means the mental action or process of acquiring knowledge and understanding through thought, experience and the senses.
- a) Learning
  - b) Development
  - c) Cognition
  - d) Training
- 13) Group created by managerial decision in order to accomplishment stated goal of the organization are called \_\_\_\_\_
- a) Formal Group
  - b) Informal Group
  - c) Task Group
  - d) Interest Group
- 14) \_\_\_\_\_ advocated that humans are essentially motivated by levels of needs.
- a) A. Maslow
  - b) Follet
  - c) Elton Mayo
  - d) Ivon Pavlov



2. Solve **any seven** of the following : **14**
- 1) Introduction to O. B.
  - 2) Nature of Group.
  - 3) Individual differences and their uses in industries.
  - 4) Power dynamics.
  - 5) Importance of motivation.
  - 6) Hereberg theory.
  - 7) Electronic data interchange.
  - 8) Online electronic cash.
  - 9) What is stress ?
3. A) Short note (**any 2**) : **10**
- 1) MASLOS theory.
  - 2) Usefulness of group in organization.
  - 3) Goal setting theory.
- B) Types of personality. **4**
4. Attempt **any two** of the following : **14**
- 1) What is group dynamic and write on nature and structure of group dynamic.
  - 2) Factors influencing perceptions.
  - 3) The electronic commerce environment.
5. Attempt **any two** of the following : **14**
- 1) Theory of motivation.
  - 2) Online electronic cash.
  - 3) What is O. B. ? Explain nature and scope of O. B.
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SLR-SY – 50

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Set **P**

**B.Sc. – III (Semester – VI) (Entrepreneurship) (New) Examination, 2017**  
**INDUSTRIAL CHEMISTRY (CGPA)**  
**Techniques in Industrial Chemistry**

Day and Date : Friday, 3-11-2017

Max. Marks : 70

Time : 10.30 a.m. to 1.00 p.m.

- Instructions :** 1) **All** questions are **compulsory**.  
2) Draw **neat** diagrams and give equations **wherever** necessary.  
3) Figures to **right** indicate **full** marks.

1. Choose the correct answer from those given below and rewrite the sentence : **14**

- i) In paper chromatography the aqueous medium acts as \_\_\_\_ phase.  
a) Solvent                      b) Organic                      c) Mobile                      d) Stationary
- ii) In column chromatography the alumina used acts as  
a) organic phase                      b) adsorbent  
c) aqueous phase                      d) porous material
- iii) \_\_\_\_\_ is an example of type fire A.  
a) wood                      b) oils  
c) electrical source                      d) none of these
- iv) The property by virtue of which uniform deposit of metal may be obtained on a cathode is known as  
a) throwing power                      b) magic power  
c) all of these                      d) none of these
- v) Soda ash fire extinguishers consists of \_\_\_\_\_ and acid.  
a)  $\text{NaHCO}_3$                       b)  $\text{Na}_2\text{CO}_3$                       c) Both a) and b)                      d) None of these
- vi) Zeolites are \_\_\_\_\_ substance.  
a) crystalline                      b) amorphous  
c) either a) and b)                      d) neither a) nor b)
- vii) The ratio of concentration of solute in stationary phase to concentration of mobile phase is called as  
a) permeability                      b) partition                      c) separation                      d) none of these

P.T.O.



- viii) Chemical products should be designed to preserve efficacy of function while reducing  
a) yield                      b) utility                      c) toxicity                      d) all of these
- ix) Microwave reaction are  
a) slow                      b) faster                      c) moderate                      d) none of these
- x) Bio catalytic reactions are  
a) highly specific                      b) equilibrium is established rapidly  
c) occur at room temperature                      d) all of these
- xi) Energy requirement should be recognized for their \_\_\_\_\_ impacts should be recognized.  
a) environmental                      b) economic  
c) both a) and b)                      d) none of these
- xii) If Cathode efficiency < anode efficiency the bath becomes \_\_\_\_\_ in metal content.  
a) poor                      b) rich  
c) both a) and b)                      d) none of these
- xiii) \_\_\_\_\_ of the following cannot cause separation in chromatography.  
a) alumina                      b)  $\text{CaCO}_3$                       c) paper                      d) magnesia
- xiv) In electroplating \_\_\_\_\_ plays an important role.  
a) electrolysis                      b) electro-osmosis  
c) osmosis                      d) none of these

2. Attempt **any seven** of the following :

14

- i) What is mean by rate of flow ?
- ii) Explain the composition of bath on the basis of anode and cathode efficiencies.
- iii) Write the structure and advantages of zeolite catalyst.
- iv) Explain soda-acid extinguishers.
- v) Write application of Nickel plating.
- vi) What are the different types of chromatography ?
- vii) What is mean by Green chemistry ?
- viii) Write the any two advantages of TLC over paper chromatography.
- ix) Define Friedel Craft's alkylation reaction.



3. A) Attempt **any two** of the following : **10**
- i) Discuss in details how column chromatography is carried out ?
  - ii) Discuss the basic principle of electroplating.
  - iii) What are the advantages of biocatalysts ?
- B) Write a note on anodizing. **4**
4. Attempt **any two** of the following : **14**
- i) Explain classification of water and its types.
  - ii) Describe all details involved in electroplating of nickel.
  - iii) Write a note on Biocatalytic hydroxylation reaction.
5. Attempt **any two** of the following : **14**
- i) Discuss in details about gas chromatography and write its advantages.
  - ii) Write the application of nickel and chromium plating.
  - iii) Give the twelve principle of green chemistry.
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SLR-SY – 51

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**B.Sc. III (Semester – VI) (Entrepreneurship) (New CGPA)  
Examination, 2017**

**Ind. MICROBIOLOGY & Ind. BIOTECHNOLOGY  
Genetic Engineering & Techniques in Plant Tissue Culture**

Day and Date : Monday, 6-11-2017

Max Marks : 70

Time : 10.30 a.m. to 1.00 p.m

- N.B :** 1) *All questions are **compulsory** and carry **equal** marks.*  
2) *Draw a **neat** labeled diagrams **wherever** necessary.*  
3) *Figures to the **right** indicate **full** marks.*

1. Rewrite the following sentences by choosing correct alternatives from given below :

14

- i) Plasmid are autonomously replicating minichromosome found in  
a) Bacteriophage    b) E. coli.    c) Paramecium    d) Euglena
- ii) The father of plant tissue culture is  
a) P.R. White    b) C.D. Larue  
c) J.P. Nitsch    d) Gotlib Hyberlandt
- iii) \_\_\_\_\_ are used in plant tissue culture media.  
a) Macroelements    b) Microelements  
c) Vitamins and hormones    d) All a, b and c
- iv) \_\_\_\_\_ is used as surface cleaning agent of seed or plant material.  
a) Teapol    b) NaCl    c) KOH    d) HCl
- v) \_\_\_\_\_ flasks are incubated at 25°C in dark condition.  
a) root culture    b) shoot culture  
c) shoot tip culture    d) isolated ovary culture
- vi) MS Media is designed by  
a) F.Skoog and C.O. Miller  
b) S.M. Caplin and F.C. Steward  
c) J.Van overbeck and M.E. Concklin  
d) Murashig and Skoog
- vii) Totipotency is the genetic potential of a plant cell to produce the  
a) Only leaf    b) Only fruit    c) Only shoot    d) Entire plant

P.T.O.



- viii) The mature pollen grains of *Ginkgo biloba* can be induced to proliferate in culture to form haploid callus was first time observed by
  - a) W. Tulecke
  - b) S. Guha and S.C. Maheswary
  - c) J.P. Bourgin and J.P. Nitsch
  - d) E. Hanning
- ix) Recent technique used for separating fragments of DNA is
  - a) Northern blotting
  - b) Southern blotting
  - c) Eastern blotting
  - d) Western blotting
- x) First step in genetic engineering is
  - a) Isolation of RNA
  - b) Isolation of protein
  - c) Isolation of genetic material
  - d) Purification of protein
- xi) \_\_\_\_\_ organelle/molecule are related with genetic engineering.
  - a) Mitochondrion
  - b) Golgi apparatus
  - c) Plasmids
  - d) Lysosomes
- xii) \_\_\_\_\_ vector is mainly used in crop improvement.
  - a) Mitochondrion
  - b) Cosmid
  - c) Plasmids
  - d) Agrobacterium
- xiii) A medium which is composed of defined quantity of specific chemicals is called as
  - a) Synthetic media
  - b) Seminatural media
  - c) Natural media
  - d) All a, b and c
- xiv) The most widely used chemical for protoplast fusion, as fusogens is
  - a) Mannitol
  - b) Sorbitol
  - c) Polyethylene Glycol
  - d) Lysosomes

2. Answer **any seven** of the following :

14

- i) Define Cosmid
- ii) Define PCR
- iii) Enlist enzymes used in genetic engineering
- iv) Applications of PAGE
- v) Cellular totipotency
- vi) Transgenic plants
- vii) Topoisomerases
- viii) Role of agarose in PAGE
- ix) Synchronization.



3. A) Answer **any two** of the following : 10
- i) Describe in brief Southern blotting.
  - ii) Discuss in detail suspension culture.
  - iii) Describe in detail applications of genetic engineering.
- B) Give a detailed account on c DNA libraries. 4
4. Answer **any two** of the following : 14
- i) Describe in detail Northern and Western blotting.
  - ii) Write in detail Anther and Pollen culture.
  - iii) Explain in detail organ culture.
5. Answer **any two** of the following : 14
- i) Explain in detail types of vector used in genetic engineering.
  - ii) Discuss in detail transgenic plants and add a note on its significance.
  - iii) Describe in detail micro propagation and its application.
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SLR-SY – 52

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**B.Sc. – III (Semester – VI) (Entrepreneurship) Examination, 2017**  
**ENGLISH (Compulsory) (Old)**  
**Breakthrough**

Day and Date : Tuesday, 31-10-2017

Max. Marks : 50

Time : 10.30 a.m. to 12.30 p.m.

**N. B. :** 1) **All questions are compulsory.**  
2) **Figures to the right indicate full marks.**

1. A) Choose the correct alternative :

6

- 1) Which of the following statement is not true ?
  - a) Bringing water from the town pump had always been hateful work in Tom's eyes
  - b) Tom wanted to bring water from the town pump instead of whitewashing the fence
  - c) Tom was ready to give Jim a mighty gay marvel in exchange of whitewashing the fence
  - d) Jim accepted the privilege of whitewashing the fence when Tom offered him a bully taw
- 2) The necklace that Loisels had lost cost
  - a) Five hundred francs
  - b) Forty thousand francs
  - c) Thirtyfour thousand francs
  - d) Thirtysix thousand francs
- 3) Pyramus saw in the sand the footsteps of the
  - a) Lion
  - b) Tiger
  - c) Wolf
  - d) Fox
- 4) Which of the following instruments is not played by the musicians *In the Bazaars of Hyderabad* ?
  - a) Sitar
  - b) Sarangi
  - c) Drum
  - d) Flute
- 5) Phillis Wheatley asks \_\_\_\_\_ not to sink into despair.
  - a) Virtue
  - b) God
  - c) Soul
  - d) Angels
- 6) The story of Pyramus and Thisbe has been burlesqued in
  - a) Ovid's Metamorphoses
  - b) Shakespeare's Mid-Summer Night's Dream
  - c) Mickle's translation of the "Lusiad"
  - d) Sylph's Ball

P.T.O.



- B) Do as directed : 4
- 1) Somebody left the key on the table. (Add a question tag)
  - 2) These keys are yours. (Frame a Wh-question to get the underlined part as an answer)
  - 3) You are requested to give me a glass of water. (Make it imperative)
  - 4) You put off the lights and I will scream. (Change into a complex sentence)
2. Answer **any five** of the following questions in brief : 10
- 1) What is the great law of human action that Tom discovered ?
  - 2) What moral lesson does the story *The Necklace* teach ?
  - 3) What did Mathilde do to pay the debt ?
  - 4) What action do the parents of Thisbe take after her death ?
  - 5) What is the myth about red mulberries ?
  - 6) What, according to Mark Twain, is the difference between the work and play ?
3. A) Answer **any two** of the following questions : 6
- 1) What is the theme of the poem *On Virtue* ?
  - 2) Comment on the title of the poem *In the Bazaars of Hyderabad*.
  - 3) What poetic devices have been used in the poem *On Virtue* ?
- B) Answer **any two** of the following question : 4
- 1) You have passed NIIT examination after XII Science and you get admission to MBBS in Bihar. What would you do to adapt yourself to the new situation ?
  - 2) Make a list of five ways in which you usually waste your time. What will you do to manage your time better ?
  - 3) You are a clever student of B.Sc. III and you expect distinction in the university examination but you fail in it. You are in great stress. What will you do in such a situation ?
4. Answer **any one** of the following questions : 10
- A) Write in detail the description of your favourite political leader. Remember to convey the character, thoughts and his vision.
- OR
- B) You were driving on a lonely highway at night. Describe what happened when you were stopped by three men on the way.



5. Read the following passage and summarise it.

10

Accounting is inseparable from the person serving as an accountant. It is said that poets are born, not made. The same may be true of any professional. The implication is that a person will have some inborn qualities which make for success in the chosen field of activity. It is not just a question of getting an academic degree in Accountancy and membership of a recognised professional accounting body.

A progressive accountant must have certain qualities of mind and heart, not generally required for service in any other profession, if he is to do justice to himself, to the profession and to the community at large. A reasonable aptitude for arithmetic if not mathematics, an analytical and a critical attitude, a capacity for sound judgement, a sound common sense, a proper understanding of human relations and practical business, a certain amount of tact in handling situations and an ability to express clearly and convincingly what he honestly feels may be listed as some of the qualities that go to make up the personality of an accountant. Any one of these qualities by itself will not make for success, but a combination of all of them in a requisite measure will be absolutely essential in the case of those cut out for this profession.

An accountant need not be an expert at mathematics because Accountancy is not an exact science, although it is exacting. The mere ability to add two and two can never make a person an accountant. What is meant is that an accountant who always dabbles in figures must be able to deal with figures meaningfully, analyse them, view them in proper perspective, and interpret them critically before reporting on the results. He is essentially a specialist and an expert in planning, analysing, interpreting, verifying and reporting on economic and non-economic data. As accounting is a man-made science, it is mostly conventional and there is no finality or certainty about it although it may be and is highly desirable. If a person has certain basic endowments, there seems to be no reason why he should not and cannot be a success in the profession.

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SLR-SY – 58

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**B.Sc. I (Semester – I) (Entrepreneurship) Examination, 2017**  
**(New CBCS)**  
**ENGLISH COMPULSORY**  
**Text : Golden Petals**

Day and Date : Tuesday, 31-10-2017  
Time : 2.30 p.m. to 5.00 p.m.

Max. Marks : 70

**N.B. :** 1) **All questions are compulsory.**  
2) **Figures indicate to *right* carry full marks.**

1. Rewrite the following sentences choosing the correct alternative : 14

- 1) \_\_\_\_\_ gave a notice of leaving the keystone company as he was not interested in doing films with the company.  
a) Ford staring      b) Ford starling      c) Ford sterling      d) Eward Ford
- 2) Charlie was signed at \_\_\_\_\_ pounds per week by the company.  
a) 160                      b) 170                      c) 150                      d) 175
- 3) Shanti Tigga was recruited in the year \_\_\_\_\_ on grounds of compassion after the death of her husband.  
a) 2004                      b) 2005                      c) 2003                      d) 2004
- 4) Nachiketa waited at the gates of god of death Yama without any food or water for \_\_\_\_\_ days.  
a) five                      b) two                      c) four                      d) three
- 5) The poem-success is Counted Sweetest was first published in the year  
a) 1874                      b) 1864                      c) 1894                      d) 1834
- 6) I find no \_\_\_\_\_ and all my war is done.  
a) piece                      b) room                      c) peace                      d) place
- 7) The god of death granted \_\_\_\_\_ boons to Nachiketa after becoming impressed by him.  
a) two                      b) five                      c) three                      d) six
- 8) Choose the correct form of noun.  
What is the \_\_\_\_\_ ?  
a) news                      b) nues                      c) neus                      d) newz

P.T.O.



9) Choose the correct article.

Look there is \_\_\_\_\_ apple in the bag of Sarika.

- a) the                      b) a                      c) an                      d) no article

10) Choose the correct collective noun.

There was a meeting of the \_\_\_\_\_ of Directors.

- a) Bored                      b) Board  
c) Boared                      d) None of the above

11) Choose the correct form of the verb.

Samir \_\_\_\_\_ stories on every sunday.

- a) reading                      b) reds                      c) reads                      d) reeds

12) Choose the correct form of the pronoun.

Nobody but \_\_\_\_\_ was present in the class whole day listening the lectures.

- a) he                      b) him                      c) his                      d) one

13) Choose the correct mood.

When the sun set we returned home.

- a) Imperative Mood                      b) Subjunctive Mood  
c) Happy Mood                      d) Indicative Mood

14) Choose the correct homophone.

This is very costly \_\_\_\_\_ that – I purchased in London last month.

- a) sent                      b) scent                      c) cent                      d) ksent

2. Answer the following questions in **2-3** sentences (**any seven**).

**14**

- 1) What was the review of Charlie Chaplin's first film by a New York writer ?
- 2) Describe the costume of Charlie Chaplin in the Film-Making a Living.
- 3) Describe the achievements of Shanti Tigga in her training.
- 4) What was the reaction of adivasi groups after the death of Shanti Tigga ?
- 5) Describe the condition of the film makers of Charlie Chaplin's first film.
- 6) Describe Vajasrawas love for Nachiketa.
- 7) What was Nachiketa's second wish ?
- 8) Why was Yama pleased with Nachiketa ?



3. A) Answer in about **50** words **each (any two)**. **8**
- 1) What is communication and why do we communicate ?
  - 2) How do you communicate with a principal to know about the admission process in his college ?
  - 3) Write in detail what is communication barriers ?
- B) Answer the following questions (**any two**). **6**
- 1) Why does the poet not find any peace in the poem 'I Find No Peace' ?
  - 2) What is the theme of the poem 'Success is Counted Sweetest' ?
  - 3) What are the conflicting emotions of the poet in the poem – 'I Find No Peace' ?
4. Answer **any one** of the following. **14**
- 1) Describe what is communication process stating importance of its parts and stages.
  - 2) Why the Language skill and vocabulary are necessary for effective communicating our thoughts to other ? Explain in detail.
5. Answer the following question. **14**
- What are the advantages of two way communication ? Write in detail.
-