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B.Sc. I (Entrepreneurship) (Semester – I) (CBCS Pattern) Examination, 2018 ENGLISH (Comp.) (Old) On Track – English Skills for Success

Day and Date : Wednesday, 28-3-2018 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. Rewrite the following sentences by choosing the correct alternative : **14**

    1) What did the policeman on the beat constantly do ?
        a) twirl his stick   b) interrogate people on his beat
        c) smoke a cigar   d) unlock doors

    2) Jimmy Wells and Bob were raised in _____
        a) New York   b) Chicago   c) City   d) Restaurant

    3) The writer and Miss Krishna _____
        a) were at school together   b) met at an exhibition
        c) met at a tea party   d) were neighbours

    4) In the end the narrator refused to accept all of Miss Krishna's possession except _____
        a) a cigarette lighter   b) a little nine-inch clock
        c) a tiny glazed coffee cup   d) a small Burmese box

    5) 'The Myth of Artificial intelligence' is written by _____
        a) Anita Desai   b) Attila Narin
        c) Nargis Dalal   d) Dr. Abdul Kalam

    6) The word 'intelligence' is derived from the Latin word _____
        a) intellegere   b) intellect   c) intellectual   d) inter

    7) The bangle sellers are carrying their loads _____
        a) to a married woman's house   b) to the house of a maiden woman
        c) to a temple fair   d) to the streets

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8) The phrase 'like the flame of her marriage' is the _____ used by the poet.
   a) Simile   b) Metaphor
   c) Personification   d) Alliteration

9) The Irish Airman was from _____
   a) Kiltartan Cross   b) Dublin
   c) Kross Kitarton   d) Kitron Cross

10) This is Ramu and this is _____ dog.
    a) his   b) her   c) its   d) they

11) Ram, Seeta and Vijay went Mumbai and _____ ate Potato wada.
    a) he   b) she   c) it   d) they

12) Doctor is a _____ noun.
    a) Proper   b) Common   c) Collective   d) Countable

13) My friend returned home _____ 10 P.M.
    a) on   b) in   c) at   d) to

14) She can take care of _____
    a) oneself   b) herself   c) her   d) myself

2. Answer **any seven** of the following questions :   **14**
   1) What sort of relationship did Bob and Jimmy share ?
   2) What is the climax of the story "After Twenty Years" ?
   3) What do you understand of Miss Krishna's childhood from the story ?
   4) What is the meaning of the word connoisseur ?
   5) What is meant by, 'artificial intelligence' ?
   6) Who is the narrator of poem ' The bangle sellers' ?
   7) What coloured bangles are suitable for a bride on bridal morn ?
   8) What does the phrase "this life, this death" refer to ?
   9) What does the speaker say about those he fights in the poem "An Irish airman foresees his death" ?

3. A) Write short paragraphs on **any two** of the following :   **10**
   1) What makes the Computer Intelligent ?
   2) How Ms Krishna spent a few days with writer ?
   3) Describe the scene in the beginning of the story "After Twenty Years" .

   B) Describe the theme of the poem "Bangle Sellers".   **4**

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

   1) Superstitions.

   2) Define noun and its types with some examples.

   3) Define pronoun and its types with some examples.

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

   1) Read the following passage carefully and make a note of it.

   Civilised man is by now well aware of the more obvious symptoms of water pollution : scum-covered rivers, stinking bays, and shorelines littered with bloated fish. The cause of much of it is equally clear: the indiscriminate dumping of raw sewage and industrial sludge into the nearest body of water has exceeded the absorptive capacity of the environment. Because the symptoms of this overflow are so compelling, it seems likely that we shall finally attempt to do something about it. But continued population growth makes it impossible that we shall find the funds to do more than skim off the chunks.

   Unfortunately, the most serious water-pollution treats are those which cannot be seen, smelt, or picked up by the handful. The organic content in many domestic water supplies which have been treated to some degree is apparently still high enough to protect viruses from the effects of chlorine. Hence tap water is a suspected transmission route for the alarming rise of infectious hepatitis in the United States today. Moreover, the vast array of chemicals which industry spews into the environment in many cases defies filtration. These chemicals now pervade not only rivers, lakes and even oceans, but also vast reservoirs of ground water. As with air pollutants, their possible toxic effects have in most case not even been adequately catalogued. Many, of course, are known to be fatal to fish, which is the mainstay of high quality protein supplies in much of the world.

   2) Write a paragraph on 'A Meaningful Education'.

   3) Write an essay on 'Impact of Mobiles on the Lives of the Youth Today'.

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B.Sc. – I (Entrepreneurship) (Semester – I) Examination, 2018
ENGLISH (Compulsory) (New) (CBCS)
"Golden Petals"

Day and Date : Wednesday, 28-03-2018   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. Rewrite the following sentences by using the correct options.   **14**

    1) Mark Sennett and Mabel Normand first saw Charlie Chaplin in *A Night in an* _____ *Music Hall*.

       a) Italian   b) American   c) Indian   d) English

    2) Before Shanti Tigga getting selected as the first woman jawan, women were selected as officers in _____ combat units only.

       a) pro-   b) re-   c) non-   d) post-

    3) Vajasrawas donated Nachiketa to the God of Death, since he was

       a) very generous   b) angered by his son

       c) fed up with his son   d) poor and helpless

    4) The Indian Army started to recruit female officers in the year

       a) 1992   b) 1994   c) 1996   d) 1991

    5) The narrator in *I Find No Peace* says that he flew above the wind, yet he couldn't

       a) succeed   b) die   c) arise   d) fall

    6) According to Emily Dickinson the people who win are not able to define

       a) loss   b) victory   c) life   d) death

    7) "Likewise displeaseth me both life and death,

      And my _____ is causer of this strife."

       a) father   b) enemy   c) delight   d) sorrow

8) The cattle in the photograph _____ to my friend.

a) is belonging   b) belong

c) belongs   d) belonging

9) The noun *friend* carries _____ gender.

a) masculine   b) neuter   c) common   d) feminine

10) She saw *herself* in the mirror.

The word herself in the above sentence is _____ pronoun.

a) a personal   b) an emphatic

c) a reciprocal   d) a reflexive

11) He is such _____ unique person that everyone likes him.

a) an   b) a   c) the   d) no Article

12) If I were a bird, I would fly.

The above sentence has _____ mood.

a) Imperative   b) Subjunctive

c) Indicative   d) Interrogative

13) I *did* a project.

The word *did* in the above sentence is a

a) helping verb   b) modal   c) main verb   d) semi-modal

14) Have you seen _____ Mount Everest ?

a) a   b) the   c) no Article   d) an

2. Answer the following bits in **two** to **three** sentences **each**. (**Any Seven**)   **14**

1) Why did Charlie Chaplin feel that he should return to the stage ?

2) How did Shanti Tigga join the Indian Army ?

3) Why was Nachiketa disappointed by his father, Vajasrawas ?

4) How did the New York writer review Chaplin's first movie *Making a Living* ?

5) What qualities of Shanti Tigga motivated the Indian President to honour her ?

6) Why did Yama give three boons to Nachiketa ?

7) What acting qualities of Charlie Chaplin impressed the audiences ?

8) What does the unexpected death of Shanti Tigga mean ?

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3. A) Answer the following questions in about **50** words **each**. (**Any two**)   8

   1) What do you mean by communication ?

   2) How do you describe the *what*, *why* and *how* of communication ?

   3) How will you communicate to you younger brother the recipe of making tea ?

   B) Write short notes on the following. (**Any two**)   6

   1) What is the central theme of the poem *I Find No Peace* ?

   2) Why does Emily Dickinson say the purple Host can't tell the definition of victory ?

   3) Why did the poet in *I Find No Peace* experience contradictory feelings ?

4. Answer the following elaborately. (**Any one**)   **14**

   1) Bring out in detail the communication process by illuminating its stages.

   2) Describe the importance of *Mind, Medium and Message* in effective communication.

5. Interpret the Seven Cs-Completeness, Clarity, Correctness, Conciseness, Consideration, Courtesy and Concreteness in a successful communication.   **14**

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B.Sc. – I (Semester – I) (CBCS Pattern) Examination, 2018
ENTREPRENEURSHIP (Paper – I)
Entrepreneurship and the World of Business

Day and Date : Saturday, 31-3-2018   Max. Marks : 70
Time : 10.30 a.m. to 1.00 p.m.

N.B. : 1) **All** questions are **compulsory**.
          2) Draw figure **where** it is necessary.
          3) Figures to the **right** indicate **full** marks.

1. Multiple choice question :   **14**

   1) The term entrepreneur was first used in _____ language.
      a) French   b) Greek
      c) American   d) Latin

   2) Adverse and _____ financial conditions can motivate an individual to set up a new venture.
      a) Favorable   b) Supportive
      c) High   d) All of these

   3) Features of entrepreneurship is _____
      a) Economic activity   b) Creative activity
      c) Innovative activity   d) All of these

   4) _____ entrepreneur is characterized by great caution and skepticism in practicing any change.
      a) Innovating   b) Fabian
      c) Imitative   d) None of these

   5) The term motivation has derived from the word _____
      a) Motivate   b) Motives
      c) Motive   d) Motivational

6) The most important function of an entrepreneur is
   a) Risk assumption function   b) Managerial function
   c) Function of innovation   d) Decision making function

7) An entrepreneur is the _____ of the enterprise which he establishes by himself.
   a) Owner   b) Manager
   c) Employee   d) Worker

8) In _____ phase of entrepreneurship development, the motivated entrepreneurs are properly trained.
   a) Development   b) Training
   c) Maturity   d) Initial

9) While entrepreneurs refers to a person, entrepreneurship refers to
   a) Action   b) Development
   c) Achievement   d) Function

10) _____ factors encourage women to become entrepreneurs.
   a) Pull   b) Push
   c) Family   d) Creative

11) _____ may be defined as the process that motivates a person into action and includes him to continue the course of action for the achievement of goals.
   a) Motivation   b) Innovation
   c) Identification   d) Development

12) The entrepreneurs who blindly follows the traditional methods of production in spite of the loss is called
   a) Drone entrepreneur   b) Adoptive entrepreneur
   c) Fabian entrepreneur   d) Innovative entrepreneur

13) Entrepreneurship development consist of _____ phases.
   a) One   b) Four   c) Two   d) Three

14) Entrepreneur arising within an organisation is called _____
   a) Intrapreneur   b) Innovator
   c) Economist   d) Manager

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2. Answer **any seven** of the following : **14**

   1) Partnership firm.

   2) Write note on women entrepreneurship.

   3) Entrepreneurship as process.

   4) Explain motivation concept.

   5) Introduction to commerce.

   6) Classification of business activity.

   7) Management of business growth.

   8) Meaning and definition of business.

   9) Sole trader/proprietor.

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

   1) Types of entrepreneurs.

   2) Explain nature and scope of business ethics.

   3) Write note on HUF.

   b) Explain in detail the concept of innovation. **4**

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

   1) Importance of business ethics in India.

   2) Factor responsible for emergence of entrepreneurship.

   3) Explain in detail qualities required to become a successful entrepreneur.

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

   1) Explain the problems faced by women entrepreneurs.

   2) Explain the entrepreneurial motivation in detail.

   3) Explain the role of entrepreneurship in Indian economy.

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B.Sc. – I (Semester – I) (CBCS) Examination, 2018
ENTREPRENEURSHIP (Paper – II)
Economics for Manager and Managerial Accounting

Day and Date : Monday, 2-4-2018   Max. Marks : 70
Time : 10.30 a.m. to 1.00 p.m.

1. Choice and write a correct answer from given four alternatives :   **14**

    1) When marginal utility is zero, total utility is
       a) Nil   b) One   c) Minimum   d) Maximum

    2) Giffen goods are the _____ goods.
       a) Superior   b) Quality
       c) Prestigious   d) Inferior

    3) A firm under _____ competition has a regular tendency to show excess capacity.
       a) Oligopoly   b) Perfect
       c) Monopolistic   d) Imperfect

    4) _____ refers to the market structure where there are at least two sellers in market.
       a) Monopoly   b) Duopoly
       c) Oligopoly   d) Perfect competition

    5) The concept _____ was introduced by Alfred Marshal.
       a) Real cost of production   b) Money cost of production
       c) Opportunity cost   d) Total cost

    6) When the demand changes in the same proportion to the change in price it is
       a) Unitary inelastic   b) Unitary elastic
       c) Perfectly inelastic   d) Perfectly elastic

    7) Wealth consist of all the _____ goods.
       a) Financial   b) Economic
       c) Monetary   d) None of these

8) _____ is type of account.

   a) Real   b) Perfect   c) Cost   d) Direct

9) Profit and Loss Account also called as

   a) Income statement   b) Fund flow statement

   c) Current Ratio   d) Retained earning statement

10) A person who owes money to the business is called

   a) Creditor   b) Debtor   c) Proprietor   d) Owner

11) Owner account is under _____ account groups.

   a) Investment   b) Capital   c) Cash   d) Expenses

12) An example of fixed asset is

   a) Live stock   b) Value stock   c) Income stock   d) All the above

13) Cost of capital is helpful in corporative analysis

   a) Source of finance   b) Source of service

   c) Source of material   d) Product

14) Demand is a function of

   a) Price   b) Firm   c) Product   d) Cost

2. Solve **any seven** of the following :   **14**

   1) What is meant by Economics ?

   2) Define Manager.

   3) What do you mean by Monopoly ?

   4) Define Accounting.

   5) Define Demand analysis.

   6) Write down rules of account.

   7) Define business finance.

   8) Write down various book of account.

   9) What is meant by Balance Sheet ?

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

   1) What is account ? Explain the types of account.

   2) Draw a format Journal, Ledger, P&L A/c, Trial Balance and Balance Sheet.

   3) Explain the scope of Managerial economics.

  B) Short note on Business finance.   **4**

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

    1) Explain the basic concept of economics.   **14**

    2) Explain the features of Perfect competition.

    3) Explain the nature and scope of accounting.

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

    1) Explain the demand analysis and its objectives.

    2) Explain the source of financial information.

    3) To create journal entries of following transaction
        a) Ashok starts business with Rs. 10,000
        b) Purchase machinery for Rs. 50,000 and furniture Rs. 10,000
        c) Paid amount for rent Rs. 1,000
        d) Deposit Rs. 10,000 in Bank
        e) Purchase goods for Rs. 20,000 from Mr. Ram on credit.
        f) Sold goods to Mr. Rakesh for Rs. 10,000
        g) Rs. 5,000 withdraws from bank for personal use.

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B.Sc. – I (Semester – I) (Entrepreneurship) (CBCS) Examination, 2018
INDUSTRIAL CHEMISTRY
Fundamentals of Inorganic Chemistry (Paper – I)

Day and Date : Tuesday, 3-4-2018   Max. Marks : 70
Time : 10.30 a.m. to 1.00 p.m.

Instructions : 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) The Bond which is formed by sharing of electron is _____
      a) ionic   b) covalent   c) co-ordinate d) hydrogen

   ii) Ionic solids in molten state are _____
      a) good conductors   b) insulators
      c) semiconductors   d) none of these

   iii) Molecular orbitals are _____
      a) monocentric   b) dicentric
      c) polycentric   d) dicentric and polycentric

   iv) The optimum dissolved oxygen in natural water is _____ ppm.
      a) 1 – 2   b) 4 – 6   c) 2 – 3   d) 8 – 10

   v) The water which is fit for drinking purpose is called as _____ water.
      a) potable   b) deionized   c) distilled   d) sewage

   vi) The geometry of water molecule is _____
      a) Octahedral   b) Linear   c) V shaped   d) Hexagonal

   vii) The bond order of Li_2 is _____
      a) 1   b) 2   c) 0   d) 1.5

   viii) From the exhaust of automobile _____ major pollutant is relased in air.
      a) CO   b) HC   c) SO_2 d) NO_X

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ix) _____ is the example of physical pollutant.

    a) Micro-organism   b) Pesticides

    c) Odour   d) Detergent

x) Py-Py atomic orbital results in formation of _____ bond.

    a) σ b) axial   c) linear   d) π

xi) Antibonding Mos are at _____ energy level.

    a) equal   b) lower   c) higher   d) same

xii) Intensity of sound is measured in _____

    a) K   b) dB

    c) PPm   d) mg

xiii) _____ solvents are used to dissolve ionic solids.

    a) Polar   b) Non-polar

    c) Organic   d) All

xiv) The H-O-H bond angle in H_2O molecule is _____

    a) $109°28'$ b) $104°28'$

    c) $87°36'$ d) $107°35'$

2. Solve **any seven** of the following.   **14**

  i) Define Air pollution with example

  ii) What is meant by BOD ? Give example.

  iii) Define Lattice energy.

  iv) Define co-ordinate bond, with suitable example.

  v) Explain bonding molecular orbital.

  vi) What is the effect of SO_X on human health ?

  vii) What do you mean by alkalinity of water ?

  viii) What is bond order ?

  ix) Draw neat labelled Mo diagram of Hydrogen molecule.

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3. A) Solve **any two** of the following.   **10**

    i) Differentiate between atomic and molecular orbitals.

    ii) Write a note on electron affinity.

    iii) Explain the formation of BF_3 molecule on the basis of hybridisation.

   B) Discuss in detail, types of air pollutant.   **4**

4. Solve **any two** of the following.   **14**

    i) Draw the Mo diagram of oxygen molecule. Comment on the stability and magnetic property of oxygen molecule.

    ii) Explain the formation of ammonia molecule on the basis of VSEPR theory.

    iii) Explain in brief properties of ionic solid.

5. Solve **any two** of the following.   **14**

    i) Distinguish between bonding and anti-bonding molecular orbitals.

    ii) Explain the crystal structure of CsCl with respect to unit cell, co-ordination number and stoichiometry.

    iii) Explain the types and sources of water pollution in detail.

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B.Sc. – I (Semester – I) (Entrepreneurship) (CBCS) Examination, 2018
INDUSTRIAL CHEMISTRY (Paper – II)
Fundamentals of Organic Chemistry

Day and Date : Wednesday, 4-4-2018   Max. Marks : 70
Time : 10.30 a.m. to 1.00 p.m.

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

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

   i) Which of the following alkanes can not be prepared by Wurtz reaction.
      a) Methane   b) Ethane
      c) Propane   d) Butane

   ii) Ethanol on heating with conc. H_2SO_4 gives _____
      a) $CH_3COOC_2H_5$ b) C_2H_6
      c) C_2H_4 d) C_2H_2

   iii) Acetylene, when passed through red hot tube _____ product is formed.
      a) Cyclohexane   b) Cyclohexene
      c) Ethane   d) Benzene

   iv) Which of the following is cumulated diene ?
      a) $CH_2 = CH – CH – CH_2$ b) $CH_2 = CH – CH_2 – CH = CH_2$
      c) $CH_2 = C = CH_2$ d) $CH_3 – CH_2 – CH_2 – CH_3$

   v) Baeyer's reagent is _____
      a) alk $KMno_4$ solution   b) acidic $KMno_4$ solution
      c) Neutral $KMno_4$ solution   d) Aq Br_2 solution

   vi) The correct structure of benzene was given by _____
      a) Wohler   b) Kekule
      c) Davy   d) Dewar

vii) The catalyst used in Friedel-Craft's reaction is _____
   a) Ni
   b) Pt
   c) $AlCl_3$
   d) None of these

viii) Carbon and Hydrogen are estimated by _____
   a) Liebig's method
   b) Carius method
   c) Kjeldahl's method
   d) None of these

ix) The drug used to control concentration of blood sugar are _____ agent.
   a) Anti-diabetic
   b) Antipyretic
   c) Anti-malerial
   d) Anti-inflammatory

x) Azo dyes contain _____ functional group.
   a) $N = N$
   b) $N = O$
   c) $N – NO_2$
   d) $N – OH$

xi) Potash bulbs are used during the estimation of _____
   a) Sulphur
   b) Nitrogen
   c) Halogen
   d) Carbon

xii) Paludrin is used as _____
   a) Antidiabetics
   b) Antipyretics
   c) Antimalerials
   d) Antiamoebic agent

xiii) A chromophore is an _____
   a) Atom
   b) Group of atom
   c) Unsaturated group
   d) Aldehyde group

xiv) Olefins can be hydrogenated by _____
   a) $Zn + HCl$
   b) Raney $Ni + H_2$
   c) Nascent H_2
   d) $LiAlH_4$ in ether

2. Answer **any seven** of the following :   **14**

   i) Give the principle of Lassaigne's test.

   ii) State and explain Huckel's rule.

   iii) What are dienes ? Gives their general formula.

   iv) Define molecular and Empirical formula.

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   v) Draw resonating structure of benzene.

   vi) Define the term chromophore and auxochrome.

  vii) How will you prepare cyclopropane by internal Wurtz reaction ?

 viii) What is mean by Vat dye ?

   ix) State and explain Kolbe's reaction for preparation of alkane.

3. A) Write short notes on **any two** :   **10**
   i) Molecular orbital theory of benzene.
   ii) Explain Witt's theory.
   iii) How will you detect nitrogen by Kjeldahal's method ?

   B) What are qualities of good drug ?   **4**

4. Answer **any two** of the following :   **14**
   i) Write classification of drug based on therapeutical action.
   ii) Describe the various types of dienes and illustrate the reaction of 1, 3 – butadiene.
   iii) Determination of molecular weight of an acid by titration method.

5. Answer **any two** of following :   **14**
   i) Explain combustion method for detection of carbon and hydrogen and calculate % of carbon when 1.8×10^{-4} Kg of an organic compound subjected to combustion method produced 2.64×10^{-4} Kg of CO_2.
   ii) Write the classification of dyes based on their constitution.
   iii) What is meant by dehydrohalogenation ? Explain E^1 and E^2 mechanism for dehydrohalogenation of lower alkyl halides.

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B.Sc. I (Semester – I) (Entrepreneurship) (CBCS) Examination, 2018
INDUSTRIAL MICROBIOLOGY
Fundamentals of Microbiology

Day and Date : Thursday, 5-4-2018   Max. Marks : 70
Time : 10.30 a.m. to 1.00 p.m.

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

1. Choose the correct alternative and rewrite the sentence again.   **14**

    i) Father of Medical Microbiology is
        a) Pasteur   b) Jenner   c) Koch   d) Hock

    ii) The main feature of prokaryotic organism is
        a) absence of nuclear material   b) absence of nuclear envelope
        c) absence of locomotion   d) absence of protein synthesis

    iii) 'Swan necked flask' was discovered by scientist
        a) Louis Pasteur   b) Robert Koch
        c) Edward Jenner   d) Joseph Lister

    iv) Antibiotic penicillin was discovered by
        a) Robert Koch   b) Alexander Fleming
        c) Joseph Lister   d) Edward Jenner

    v) 1 A° is equal to
        a) 10^{-9} nm   b) 10^{-6} nm   c) 10^{-3} nm   d) 10^{-1} nm

    vi) _____ bacterium shows pleomorphism type of morphology.
        a) Rhizobium   b) Bacillus
        c) Streptococcus   d) Salmonella

    vii) The flagellum of Gram positive bacteria possesses _____ rings in basal
         body.
        a) 1   b) 2   c) 3   d) 4

P.T.O.

viii) Cell wall of Gram negative bacteria contains _____ % of peptidoglycan.
    a) 90   b) 60   c) 30   d) 10

ix) Study of acid and gas production is _____ approach to bacterial classification.
    a) morphological   b) cultural   c) genetic   d) biochemical

x) _____ is the method of assigning names to organisms.
    a) Identification   b) Nomenclature
    c) Classification   d) None of these

xi) Autoclave works on the principle of _____ sterilization.
    a) chemical   b) gaseous   c) moist heat   d) dry heat

xii) _____ is the antimicrobial agent in ophthalmic preparation.
    a) Silver nitrate   b) Mercuric chloride
    c) Copper sulphate   d) Ethylene oxide

xiii) Algae are _____ type of organisms.
    a) chemoautotroph   b) chemoheterotroph
    c) photoautotroph   d) photochemotroph

xiv) _____ is the example of live cell counting method.
    a) Microscopy   b) Standard plate count
    c) Flow cytometry   d) Nephelometry

2. Define and explain **any seven** of the following :   **14**
    i) Tyndallization
    ii) Milk
    iii) Virus
    iv) Mesosome
    v) Slime layer
    vi) Morphology
    vii) Desiccation
    viii) Pasteurization
    ix) Auxotroph.

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

    i) Give the general principles of microbial Taxonomy.

    ii) Discuss in brief control of microbes using chemical agents.

    iii) Explain the role of chemostat and turbidostat in continuous growth.

  B) Explain the structure of Cell membrane. **4**

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

    i) What is Growth ? Explain Bacterial Growth phases in detail.

    ii) What is Sterilization ? Explain control of microbes using heat treatment.

    iii) Explain morphological characteristics of bacteria with examples.

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

    i) Explain in detail arrangement, structure and function of Bacterial flagella.

    ii) Take account of the contribution of Louis Pasteur and Robert Koch.

    iii) Enlist the applications of various branches of Microbiology.

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Set P

Seat No.

B.Sc. – I (Entrepreneurship) (CBCS) (Semester – I) Examination, 2018
INDUSTRIAL MICROBIOLOGY – I
Basic Techniques in Microbiology

Day and Date : Friday, 6-4-2018   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) Figure to the **right** indicates **full** marks.

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

   i) Father of Microbiology is _____
      a) Lister   b) A. V. Leeuwenhoek
      c) Louis Pasteur   d) Robert Koch

   ii) The refractive index of air is _____
      a) 0.50   b) 0.75   c) 1.0   d) 1.25

   iii) _____ is used as a secondary stain in acid fast staining of mycobacterium.
      a) Crystal violet   b) Giemsa
      c) Methylene blue   d) Carbol fuchsin

   iv) _____ is used for cell enumeration.
      a) Coulter Counter   b) Calibrator
      c) Chromatographic chamber   d) Refractometer

   v) Endospore can be stained with _____
      a) Safranine   b) Crystal violet
      c) Methylene blue   d) ZNCF

   vi) Solidifying agent commonly used in media preparation is _____
      a) Agar-agar   b) Silica gel   c) Gel well   d) Soft gel

   vii) Total viable plate count can be obtained using _____ technique.
      a) Spread plate   b) Pour plate
      c) Both a) and b)   d) Hemocytometer

viii) All the following are components of compound microscope expect _____
a) Stage clips
b) Fine adjustment
c) Electron gun
d) Binocular eye piece

ix) Electron microscope gives magnification up to _____
a) 100 X
b) 2000 X
c) 50,000 X
d) 2,00,000 X

x) Acid fast staining is an example of _____ staining.
a) Simple
b) Monochrome
c) Differential
d) None of these

xi) _____ is selective component for coliforms used in MacConkeys agar.
a) NaCl
b) Peptone
c) Sodium taurocholate
d) Agar

xii) The characteristic shape of the bacteria is maintained because of _____
a) Capsule
b) Cell wall
c) Cell membrane
d) Slime layer

xiii) The resolution power of the compound microscope is _____
a) 0.2 micron
b) 0.2 millimeter
c) 0.2 Angstrom
d) 0.2 centimeter

xiv) Primary stain is used in Gram staining is _____
a) Iodine
b) Crystal Violet
c) Safranin
d) Acetocarmine

2. Answer **any seven** of the following : **14**

i) Define differential staining.

ii) What is differential media ?

iii) Enlist example of acidic stain.

iv) Applications of SEM.

v) Define non-living media.

vi) Neubaurs chamber.

vii) TVC.

viii) Enlist component of Semi-synthetic media.

ix) Role of Bile salt.

Set P

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

    i) Describe in brief acid fast staining.

    ii) Discuss in detail construction and working of electron microscope.

    iii) Describe in detail indirect methods of cell enumeration.

  B) Give a detailed account on component of culture media. **4**

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

    i) Describe in detail cultivation and isolation techniques.

    ii) Define stain and explain in detail classification of stain.

    iii) Explain in detail non-living media.

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

    i) Write in detail Gram staining.

    ii) Discuss in detail living media.

    iii) Describe in detail construction, working and principal of bright field microscopy.

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Seat No.

Set **P**

B.Sc. – I (Semester – I) (Entrepreneurship) (CBCS) Examination, 2018
CELL BIOLOGY
Industrial Biotechnology (Paper – I)

Day and Date : Saturday, 7-4-2018   Max. Marks : 70
Time : 10.30 a.m. to 1.00 p.m.

Instructions : 1) Draw **neat** labeled diagrams **wherever** necessary.
                              2) Figures to the **right** indicates **full** marks.
                              3) **All** questions are **compulsory**.

1. Rewrite the correct alternatives from the following :   **14**

    1) Phagocytosis was first of all seen by
        a) Huxley   b) Metchinkoff   c) Haeckel   d) Strasburg

    2) Cell membrane is absent in
        a) Sperm   b) Lysosomes   c) Bacteria   d) None of these

    3) If the centromere is present at the tip of chromosome it is called as _____
        type of chromosome.
        a) Metacentric   b) Acrocentric
        c) Telocentric   d) Subcentric

    4) Which of the following is shortest phase in mitosis
        a) Metaphase   b) Telophase
        c) Anaphase   d) Prophase

    5) In the fluid mosaic membrane model, the phospholipid bilayer
        a) is sandwiched between protein layers
        b) has proteins embedded in it
        c) lies on top of a single protein
        d) is covered by a single protein

    6) Plasma membrane is selectively permeable. It shows maximum permeability to
        a) K^+ b) Na^+ c) NH_4^+ d) Ca^{++}

    7) The endoplasmic reticulum in the cells of adipose tissue is in the form of
        a) Vacuoles   b) Tubules   c) Sacs   d) Nucleus

P.T.O.

8) _____biomolecule regularly moves from nucleus to cytoplasm.

   a) Glycogen   b) RNA   c) Cholesterol   d) DNA

9) _____cellular organelles breaks down complex macromolecules such as polysaccharides and proteins.

   a) Golgi complex   b) Mitochondria

   c) Lysosome   d) Rough Endoplasmic reticulum

10) Rough endoplasmic reticulum often contains

   a) Ribosomes   b) Centrioles

   c) Golgi bodies   d) Lysosome

11) Bacteria are the examples for

   a) Prokaryotic cell   b) Plastids

   c) Eukaryotic cell   d) Organelles

12) Histone protein is synthesized in eukaryotic cell during

   a) Metaphase   b) S phase

   c) M phase   d) G1 stage of prophase

13) Water enters in the cell by

   a) Endosmosis   b) Phagocytosis

   c) Pinocytosis   d) All of the above

14) _____ is also known as power house of the cell.

   a) Chloroplast   b) Cytoplasm   c) Cell wall   d) Mitochondria

2. Write in brief about **any seven** of the following :   **14**

   1) Euchromatin.

   2) Functions of Lysosome.

   3) Active transport.

   4) Characteristics of Chromosome.

   5) Pinocytosis.

   6) Cell senescence.

   7) Facilitated diffusion.

   8) Structure of ribosome.

   9) Principles of cell theory.

Set P

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

    1) Give an account on lipid biomembrane.

    2) Write a note on Biochemical composition of cell.

    3) Explain the structure and functions of Lysosome.

  B) Describe structure and functions of plant cell wall. **4**

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

    1) Write a detail note structure and functions of chromosome.

    2) Write a note on mitochondria.

    3) Describe Mitosis in detail.

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

    1) Explain in detail the difference between prokaryotic and eukaryotic cell.

    2) Give a detailed account on Meiosis.

    3) Write a detailed note on Chemical nature and structure of Genetic material.

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Set | **P**

B.Sc. I (Entrepreneurship) (Semester – I) (CBCS) Examination, 2018
Industrial Biotechnology
ANIMAL AND PLANT PHYSIOLOGY (Paper – II)

Day and Date : Monday, 9-4-2018   Max. Marks : 70
Time : 10.30 a.m. to 1.00 p.m.

1. Multiple choice questions.   **14**

   1) The energy for photosynthesis is derived from

      A) Spectrum   B) Gama rays   C) Light   D) Radio wave

   2) The plastids in green plants which contain chlorophyll are known as

      A) Chloroplast   B) Mitochondria   C) Golgi bodies   D) Lipids

   3) The _____ are the chlorophyll pigments mainly present in green plants and
      BGA.

      A) Chlophyll a and b   B) Xanthophyll and Carotein

      C) Chlorophyll d and e   D) None of these

   4) _____ is the empirical formula for chlorophyll A.

      A) HCl   B) $CaCl_2$

      C) NaCl   D) $C_{55}H_{72}O_5N_4M_g$

   5) _____ is called father of plant tissue culture.

      A) Bonner   B) Haberlandt   C) Laibach   D) Robert coach

   6) _____ is the basic component of for the growth.

      A) Iron   B) Calcium   C) Helium   D) Nitrogen

   7) _____ is the first acceptor of electron from PS-II in non cyclic
      photophosphorylation.

      A) Ubiquanone   B) Cytochrome   C) Feredoxin   D) Plastocyanin

8) The source of CO_2 during C_4 cycle in calvin cycle is

   A) Malic acid   B) PEP   C) RuBp   D) All of these

9) Heart is made up of _____ tissue.

   A) Striated muscle   B) Cardiac muscle

   C) Skeletal muscle   D) Nervous cells

10) The undifferentiated mass of cell grown in _____ culture.

   A) Media   B) Callus   C) Explants   D) Plantlets

11) Kupffer cells are characteristics of

   A) Somach   B) Intestine   C) Pancreases   D) Liver

12) Solar Energy is used for the synthesis of ATP molecules are called as

   A) Photosynthesis   B) Photophosphorylation

   C) Oxidation   D) Reduction

13) Bones are _____ type of tissue.

   A) Epithelial   B) Compound   C) Connective   D) Cuboidal

14) The long form of MS media is

   A) Murashige and Skoog   B) Murashige and Smith

   C) Michel and Skoog   D) None of these

2. Answer **any seven** of the following.   **14**

   1) Draw a neat labeled diagram of V.S. of teeth.

   2) Give the function of epithelial tissue.

   3) What are the advantages of serum media ?

   4) Which is the reaction center in photosynthetic pigment system ?

   5) Give the origin and location of nervous tissue.

   6) Define- (a) tissue culture (b) explant.

   7) What is the function of salivary gland ?

Set P

8) Define photosynthesis with balanced chemical reaction.

9) Explain the role of vitamins.

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

    1) Explain the structure of tongue and oesophagous.

    2) Give origin and location of muscular tissue (with diagram).

    3) Explain the role of nitrogen in growth.

   B) Give the applications of animal tissue culture.   **4**

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

   1) Explain structure of stomach and its function.

   2) Explain CAM mechanism.

   3) Explain synthetic media in animal tissue culture.

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

   1) Explain photosystem and process of non cyclic photophosphorylation.

   2) Give a brief account epithelial tissue.

   3) Explain plant tissue culture and its application.

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Set P

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No.

**B.Sc. (Part – I) (Entrepreneurship) (Semester – II) (CBCS Pattern) (Old)
Examination, 2018
ENGLISH (Compulsory)
On Track – English Skills for Success**

Day and Date : Thursday, 12-4-2018   Max.Marks : 70
Time : 10.30 a.m. to 1.00 p.m.

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

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

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

   1) According to Nani Palkhivala _____ is the eighth deadly sin.
      a) Hatred   b) Anger   c) Ignorance   d) Ideology

   2) _____ have created more deaths and human misery than all the weapons
      of mass destruction.
      a) Strife   b) War
      c) Human rights violations   d) None of the above

   3) Vivekananda's first night in Chicago after having met J. H. Wright was spent
      a) At the house of Wright's friend b) In a wooden cabin
      c) In a big, empty box   d) None of the above

   4) Who represented Theosophical Society in the parliament of religion at Chicago ?
      a) Vivekanand   b) Gandhi
      c) Dharmapala   d) Chakravarti and Annie Besant

   5) Which of the following place did Vivekananda not pass while travelling to
      America ?
      a) Ceylon   b) Singapore c) Australia   d) Penang

   6) Dr. Kalam had tested _____ successfully in France.
      a) SLV-3 apogee motor   b) V-2 Missile
      c) Jupiter Missile   d) None of the above

   7) Who suffer from Not Invented Here Complex (NIH) ?
      a) Germans   b) Americans c) Russians   d) French

8) The poem 'Brahma' is written by
   a) Robert Hayden   b) W. B. Yeats
   c) Sarojini Naidu   d) Ralph Waldo Emerson

9) The term 'bubble house' refers to
   a) The moon   b) The sun   c) Stars   d) The mars

10) Vivekananda reached Chicago in the month of
    a) September   b) December c) February   d) July

11) Shanta and Kamal have gone on a holiday. We are taking care of _____ dog for them.
    a) Its   b) His   c) Their   d) There

12) The words 'reveal and conceal' are
    a) Antonyms   b) Synonyms
    c) Homographs   d) Homophones

13) The words 'die and dye' are
    a) Antonyms   b) Synonyms
    c) Homographs   d) Homophones

14) Savita is the _____ of all my friends.
    a) More childish   b) Most childish
    c) Childish   d) None of the above

2. Answer **any seven** of the following questions :   **14**

   1) Who was Wernher von Braun ?

   2) Why did Dr. Kalam question the term 'workaholic' ?

   3) What is the first requirement to get into 'Flow' ?

   4) Which is the oldest human rights organization ? When was it founded ?

   5) How did people respond to Vivekananda's opening words at parliament of religion ?

   6) Who introduced Vivekananda to J. H. Wright ? How did J. H. Wright help Vivekananda ?

   7) Which is the most dangerous animal in the world ? How does Palkhivala prove it ?

   8) Why does Palkhivala say that world continues to be 'less than half free' ?

Set P

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

   1) What is the central theme of the poem 'Brahma' ?

   2) Does our perception of the moon has changed ? How ?

   3) How does Emerson use contrast in the poem effectively to convey his message ?

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

   1) What are the components of an official formal email letter ?

   2) What is a C.V. ?

   3) What are the features of a notice ?

4. Answer **any one** of the following question : **14**

  A) You are secretary of English Literary Association in your college. The association is organising a national level elocution competition for college students. Prepare the notice and agenda for the meeting of the association.

  B) You are Sunita Sharma, a postgraduate in Physics. Write an email application letter in response to an advertisement in the newspaper for the post of assistant professor in physics to the Principal, Modern College of Arts and Science, Mumbai.

5. You are postgraduate in Commerce. Prepare a C. V. for the post of Assistant Manager in a Co-operative bank. **14**

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Set P

**B.Sc. – I (Entrepreneurship) (Semester – II) (New CBCS) Examination, 2018
ENGLISH COMPULSORY
Golden Petals**

Day and Date : Thursday, 12-4-2018   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. Rewrite the following sentences by choosing the correct option given below :   **14**

    1) Letter to a teacher was written by _____ students.
       a) 7   b) 8   c) 5   d) 3

    2) 'My Duty to My Neighbour' is taken from the book _____
       a) The Value of Life   b) The Value of Society
       c) The Value of Neighbour   d) The Value of Relations

    3) Jim Corbett was born in _____
       a) 1875   b) 1865   c) 1855   d) 1845

    4) _____ animal's alarm call did the author use to calm down the
       irritation of his throat.
       a) Cat   b) Dog   c) Langur   d) Monkey

    5) The English translation of 'Letter to a Teacher' was published in
       _____
       a) 1970   b) 1960   c) 1965   d) 1955

    6) The authors of the book 'Letter to a Teacher' belonged to _____
       families.
       a) Affluent   b) Middle class c) Peasant   d) Poor

    7) In _____ Sir Earnest Barker was elected as a member of Liberal
       Party Council.
       a) 1937   b) 1939   c) 1938   d) 1936

P.T.O.

8) The grass plot was of _____ square feet.

   a) 19   b) 20   c) 30   d) 25

9) Sarojini Naidu was the first woman President of _____ party.

   a) Jan Sangh   b) Janta Party

   c) Lok Dal   d) Indian National Congress

10) Maya Angelou was an _____ poetess.

   a) American   b) African   c) Asian   d) European

11) _____ your hands for the exercise.

   a) Raise   b) Raze   c) Redge   d) Ridge

12) Sachin doesn't lie, he would call a spade a _____

   a) Tool   b) Machine   c) Spade   d) Hammer

13) A person who has the fear of water, that fear is called _____

   a) Zoophobia   b) Demophobia c) Bathophobia d) Hydrophobia

14) It is _____ to bribe anybody.

   a) Illicit   b) Elicit   c) Ellicit   d) Aellicit

2. Answer the following questions in **2** to **3** sentences **each (any seven)** :   **14**

   1) In what way is the school different from the students homes ?

   2) Where do the students go when they are failed out of school ?

   3) What is the claim of a larger piety ?

   4) What are our duties towards a neighbour ?

   5) Why can't tigers lie in one position for long ?

   6) What can be assumed from a tiger leaving his kill in the open ?

   7) Why did Jim Corbett regret carrying an unlocked rifle ?

   8) What did Jim Corbett do after killing the tiger ?

3. A) Answer the following in about **fifty** words **(any two)** :   **8**

   1) What is an Email and what type of language is used for writing it ?

   2) Write a short note on different types of blogs.

   3) Write a short note on how to write blogs.

Set P

B) Answer **any two** with reference to context :   **6**

   1) Weavers, weaving solemn and still,

      What do you weave in the moon light chill ?

      White as a feather and white as a cloud.

   2) I can accept the idea of my own demise,

      but I am unable to accept the death of any one else.

   3) Weavers, weaving at break of day,

      Why do you weave a garment so gay ?

      Blue as the wing of a halcyon wild.

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

   1) Write in detail how you will prepare for an interview.

   2) Write a script of group discussion on the topic-cleanliness movement in India, in which Rajesh, Shruti, Mohan and Noor participate.

5. Answer the following question :   **14**

   You are the Secretary of Mahavir Garments Ltd. The meeting of the office-bearers of the company is scheduled for the 10th of the next month. Prepare an agenda for the meeting then draft the minutes of the meeting using the standard format.

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Set P

B.Sc.-I (Semester – II) (Entrepreneurship) (CBCS Pattern) Examination, 2018
ENTREPRENEURSHIP SCIENCE
PRINCIPLES OF MARKETING AND MANAGEMENT ACCOUNTING (Paper – I)

Day and Date : Friday, 13-4-2018   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 question.   **14**

   1) 'Natural forces or factors' are considered in company's environment called

      a) Macro environment   b) Microenvironment

      c) Both a and b   d) None of above

   2) Economies consuming their own industrial outputs are known as

      a) subsistence economies   b) industrial economies

      c) developing economies   d) none of above

   3) 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) government markets

   4) Current assets are also referred to as

      a) Working capital   b) Investment

      c) Inventory   d) Livestock

   5) When the concept of ratio is defined in respected to the items shown in the financial statements, it is termed as

      a) Accounting ratio   b) Financial ratio

      c) Costing ratio   d) None of the above

   6) A technique uses in comparative analysis of financial statement is

      a) graphical analysis   b) preference analysis

      c) common size analysis   d) returning analysis

7) Markets in which market offerings are bought from sellers for reselling purpose are known as

   a) business markets

   b) reseller markets

   c) government markets

   d) international markets

8) 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

9) Targeting affluent customers with luxurious goods is an example of

   a) geographic segmentation

   b) income segmentation

   c) psychographic segmentation

   d) behavioural segmentation

10) The relationship between two financial variables can be expressed in

   a) Pure ratio

   b) Percentage

   c) Rate or time

   d) Either of the above

11) Consumers' primary motivation does not include

   a) ideals   b) leadership   c) achievement   d) self-expression

12) Second step in marketing research process is

   a) define research objectives

   b) develop research plan

   c) implement research plan

   d) none of above

13) Low price for earnings ratio is result of

   a) low riskier firms

   b) high riskier firms

   c) low dividends paid

   d) high marginal rate

14) 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

Set P

2. Answer the following questions. **(any 7)**   **14**

    1) Define Dual Aspect concept.

    2) Meaning of current ratio.

    3) Define of marketing.

    4) Nature of marketing environment.

    5) Origin of marketing.

    6) Limitations of marketing research.

    7) Concept of Convention of consistency.

    8) Object of Evidence Concept.

    9) Define Market segmentation.

3. A) Write short note **any 2**.   **10**

    1) Difference between current assets and current liability.

    2) Marketing research process.

    3) Types of marketing.

   B) Difference between Selling Vs Marketing.   **4**

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

    1) Write down steps of working capital.

    2) Write down need and importance of environment analysis.

    3) Explain analysis and interpretation of financial statements.

5. Attempt **any two** of the following.   **14**

    1) Explain scope and limitations of marketing research.

    2) Explain Nature and scope of management account.

    3) Write down criteria for market segmentation.

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B.Sc. – I (Entrepreneurship) (Semester – II) (CBCS) Examination, 2018
Cost Accounting and Project Management
ENTREPRENEURSHIP SCIENCE (Paper – II)

Day and Date : Monday, 16-04-2018   Max. Marks : 70
Time : 10.30 a.m. to 1.00 p.m.

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

   1) Direct Material + Direct Labour + Direct Expenses =
      a) Factory cost   b) Cost of goods sold
      c) Prime cost   d) Selling price

   2) _____ is the process of determining and accumulating the cost
      of product or activity.
      a) Cost Accounting
      b) Financial Accounting
      c) Management Accounting
      d) All the above

   3) _____ means ascertaining costs of an individual job, work
      order or project separately.
      a) Process costing   b) Operating costing
      c) Uniform costing   d) Job costing

   4) Salary paid to factory manager is an item of
      a) Factory overhead
      b) Selling and distribution overhead
      c) Office and administrative overhead
      d) None of the above

   5) Delivery van expenses is an item of
      a) Prime cost
      b) Factory cost
      c) Office and administrative overheads
      d) Selling and distribution overheads

6) Some units are not completed in process, they are known as
   a) Raw material
   b) Work in process
   c) Finished goods
   d) None of the above

7) Which of the following is not a method of costing ?
   a) Contract costing   b) Marginal costing
   c) Batch costing   d) Process costing

8) _____ method is mainly applied in biscuits manufactures, garment manufactures, spare parts manufactures, pharmaceutical enterprises etc.
   a) Contract costing   b) Process costing
   c) Batch costing   d) Service costing

9) _____ method is used in transport services.
   a) Process costing   b) Job costing
   c) Unit costing   d) Service costing

10) Small Scale Industry is a manufacturing enterprise in which investment in plant and machineries does not exceed Rs. _____ only.
    a) 1 crores   b) 5 crores   c) 10 crores   d) 20 crores

11) Projects are _____ in nature.
    a) Permanent   b) Temporary
    c) Flexible   d) None of the above

12) SSI$_S$ denotes for
    a) Services Sector Industry
    b) Secondary Service Industry
    c) Small Scale Industry
    d) None of the above

13) _____ is a document that describes a business project and steps a team should take to complete it.
    a) Budget   b) Project plan   c) Project report d) All the above

14) First stage of project life cycle is
    a) Planning stage   b) Initiation stage
    c) Execution stage   d) Closure stage

Set P

2. Solve **any seven** from the following : **14**

   1) What is cost ?

   2) What is financial accounting ?

   3) Define job costing.

   4) What is cost sheet ?

   5) Define batch costing.

   6) What is project management ?

   7) Define micro industry.

   8) What is project identification ?

   9) Sources of working capital.

3. A) Write note on **any two** from the following : **10**
   1) Objectives of cost accounting.
   2) Advantages and disadvantages of job cost sheet.
   3) Contents of projects report.

   B) Briefly explain objectives of small scale industries. **4**

4. Solve **any two** from the following : **14**
   1) Define project. Explain types of projects.
   2) Problems of Small Scale Industries.
   3) Following information is available for job no. 1234, which is being produced at the request of a customer.

	Dept. A	Dept. B	Dept. C
Material consumed (Rs.)	4,000	1,000	1,500
Direct labour			
Wages rate per hour (Rs.)	3	4	5
Direct labour hours	300	200	400

   In accordance with the company policy the following are chargeable to jobs :

   Fixed factory overheads – Rs. 5 per direct labour hour

   Fixed administrative overheads – 80% of works cost.

   Profit mark up – 20% margin on selling price.

   You are required to calculate the total cost and selling price of job no. 1234.

Set P

5. Solve **any two** from the following : **14**
   1) Explain types of cost.
   2) Explain role of small entrepreneurship in economic development.
   3) From the following particulars calculate :
      a) Prime cost
      b) Factory cost
      c) Cost of goods sold
      d) Cost of sale
      e) Profit

      Sourabh Industries manufacture a product, the information available from cost records for the year ended 31st December 2017 was as follows :

	Rs.
Direct Materials	8,00,000
Direct Wages	3,00,000
Stock of finished goods (1-1-2017)	50,000
Stock of Raw Material (1-1-2017)	1,00,000
Stock of Work in progress (1-1-2017)	40,000
Stock of finished goods (31-12-2017)	60,000
Stock of Raw Material (31-12-2017)	80,000
Stock of Work in progress (31-12-2017)	70,000
Carriage Inward	40,000
Indirect Wages	90,000
Power and Fuel	1,75,000
Factory Rent	1,00,000
Indirect Material	1,75,000
Office and Administrative overheads	80,000
Selling and Distribution overheads	1,00,000
Sales	20,00,000

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B.Sc. – I Entrepreneurship (Semester – II) (CBCS) Examination, 2018
Industrial Chemistry (Paper – I)
FUNDAMENTALS OF PHYSICAL CHEMISTRY

Day and Date : Tuesday, 17-4-2018   Max. 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 among those given below and rewrite the sentence.   **14**

   i) The catalytic decomposition of H_2O_2 is _____ order reaction.
     a) zero   b) first   c) second   d) third

   ii) Molecularity value may not be _____
     a) zero   b) negative
     c) infinity   d) zero, negative, infinity

   iii) A + B + C $\rightarrow$ products is _____
     a) unimolecular   b) bimolecular
     c) tri-molecular   d) tetra molecular

   iv) The half life period of _____ reaction is inversely proportional to initial concentration.
     a) zero   b) first   c) second   d) third

   v) The unit of surface tension is _____
     a) dyne cm   b) dyne cm^{-1}
     c) $dyne^{-1}$ cm   d) $dyne^{-1}$ cm^{-1}

   vi) Molecular weight is _____ property.
     a) additive   b) colligative
     c) constitutive   d) all of these

P.T.O.

vii) Small droplets are _____ in shape is due to minimum surface area.

   a) triangular   b) square

   c) hexagonal   d) spherical

viii) The compressibility factor 'Z' for ideal gas is _____

   a) zero   b) less than one

   c) greater than one   d) equal to one

ix) The critical temperature is denoted by _____

   a) T   b) T_c c) CT   d) P_c

x) The number of moles of solute per 1000 gm of solvent is called as _____

   a) molarity   b) molality

   c) mole fraction   d) normality

xi) The unit of normality of solution is _____

   a) moles/Kg   b) moles/liter

   c) gram equivalent/liter   d) none of these

xii) Vander Waal's equation is used to explain the behavior of _____

   a) mixture of gases   b) real gases

   c) ideal gases   d) perfect gases

xiii) The ratio of weight of solute to the weight of solution is called as _____

   a) Weight fraction of solute   b) Weight fraction of solvent

   c) % composition by weight   d) % composition by volume

xiv) The unit of first order rate constant is _____

   a) mole $dm^{-3} s^{-1}$ b) $mole^{-1} dm^{-3} s^{-1}$

   c) s^{-1} d) s^{1}

2. Answer **any seven** of the following :   **14**

   i) Define :

     a) Solute

     b) Molarity.

   ii) Give one example of second order reaction.

   iii) What do you mean by order of reaction ?

   iv) Explain additive property with example.

Set P

v) Define ideal gas and non ideal gas.

vi) Define co-efficient of viscosity.

vii) What do you mean by Rate of reaction ?

viii) Define % composition by volume.

ix) State the Joule – Thomson effect.

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

    i) Show that half life period of first order reaction is independent of initial concentration of a reaction.

    ii) Explain the concept of mole fraction with suitable example.

    iii) Half life time of first order reaction is 72 minutes. How much time will be required to complete 90% reaction ?

    B) Explain the concept of parachor. **4**

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

    i) Define first order reaction. Derive an expression for a first order reaction.

    ii) Explain Drop-Weight method for determination of surface tension.

    iii) Explain Andrew's isotherm for carbon dioxide.

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

    i) Derive an expression for a second order reaction with equal initial concentration of reactant.

    ii) Define viscosity and explain the method for its determination.

    iii) Discuss the deviation from ideal gas behavior.

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B.Sc. – I (Semester – II) (Entrepreneurship) (CBCS) Examination, 2018
INDUSTRIAL CHEMISTRY (Paper – II)
Fundamentals of Analytical Chemistry

Day and Date : Wednesday, 18-4-2018
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.
3) Use of log table or scientific calculator is **allowed**.

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

1) Fuel having its octane number 60 indicates that it contains
   a) 40% octane
   b) 60% n-heptane
   c) 80% octane
   d) 60% iso-octane

2) A polymer which is made up of same type of monomer is called as _____ polymer.
   a) Heterogeneous
   b) Natural
   c) Homogeneous
   d) Branched

3) The proteins of milk consists of mainly
   a) Casein
   b) Fat
   c) Glucose
   d) Vitamin

4) In adiabatic process
   a) v = 0
   b) q = 0
   c) p = 0
   d) w = 0

5) Cis-platin has _____ activity.
   a) Antidiabetic
   b) Antifungal
   c) Anticancer
   d) Antitubercular

6) Natural gas contains _____ as main constituent.
   a) Methane
   b) Ethane
   c) Propane
   d) Ethene

7) The monomer used in manufacture of PVC is
   a) Polyethene
   b) Styrene
   c) Chloroethane
   d) Formaldehyde

8) pH of drinking water according to ISI standard is
   a) 1 – 2
   b) 4 – 5
   c) 9 – 10
   d) 6 – 9

9) The empirical formula of _____ polymer is same as that of monomer from which it is formed.
   a) CO
   b) Addition
   c) Neutral
   d) Synthetic

10) The process of removing extra common salt is
    a) Distillation
    b) Purification
    c) Desalination
    d) Deionisation

11) 70% water is composed in
    a) Cow milk
    b) Human
    c) Trees
    d) None of these

P.T.O.

12) The polymer which soften on heating and harden on cooling is
    a) Thermoplastic b) Rubber   c) Elastomer   d) Thermosetting

13) The efficiency of heat engine is always
    a) Equal to 1   b) Greater than 1
    c) Less than 1   d) Zero

14) The efficiency of engine operating between 973 K and 273 K is
    a) 7.194 %   b) 0.7194 %   c) 719.4%   d) 71.94%

2. Answer **any seven** of the following: **14**
    i) Write methods of adulteration of milk.
    ii) Define hard water and soft water.
    iii) State Hess law of mixing.
    iv) Define calorific value.
    v) Define monomer and elastomer.
    vi) What are major nutrients of plants ?
    vii) Define heat capacity.
    viii) Write types of polymer.
    ix) Define heat of decomposition.

3. A) Write notes on **any two** :   **10**
    i) Classification of nutrients of plant.
    ii) Joule-Thomson effect.
    iii) Hydroforming and Knocking.
  B) Explain cracking of petroleum.   **4**

4. Answer **any two** of the following :   **14**
    i) State various statements of second law of thermodynamics.
    ii) Define petroleum. Explain refining of petroleum.
    iii) Give synthesis and application of (a) Polyethylene (b) Polystyrene.

5. Answer **any two** of the following :   **14**
    i) Explain classification of polymer.
    ii) Give the difference between spontaneous and non-spontanious process.
    iii) Define antacid. Explain importance of Na_2CO_3 and $Al(OH)_3$ as antacid.

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B.Sc. – I (Entrepreneurship) (CBCS) (Semester – II) Examination, 2018
INDUSTRIAL MICROBIOLOGY – I
Fundamentals of Industrial Microbiology

Day and Date : Thursday, 19-4-2018   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) _____ process used at all scales of operation to separate suspended particles from a liquid or gas, using a porous medium.

      a) Filtration   b) Centrifugation   c) Precipitation   d) Streak

   ii) _____ is used to control the vortex formation.

      a) Agitator   b) Sparger   c) Baffles   d) Antifoam agent

   iii) In Fermenter the top portion left without broth is called as

      a) Shaft   b) Head space   c) Baffles   d) Sparger

   iv) _____ technique is used to isolate auxotrophic strain.

      a) Acid   b) Growth factor   c) Penicillin   d) Citric acid

   v) AISI 316 grade steel contains _____ % nickel is present.

      a) 18   b) 10   c) 07   d) 04

   vi) Lyophilization process is synonymous with _____ process.

      a) Filtration   b) Freeze drying   c) Sterilization   d) Disinfection

   vii) Starch is a precursor used in _____ production.

      a) Amylase   b) Penicillin G   c) Vitamin B12   d) Lysine

P.T.O.

viii) Continuous feed during fermentation is used to maintain

    a) water level   b) temperature

    c) substrate concentration   d) mixture

ix) Industrial alcohol is produced by using _____ as a starter culture.

    a) *Penicillium*   b) *Bottom yeast*   c) *E.coli*   d) *Acetobacter*

x) The process that kills all pathogenic microorganisms is known as

    a) Lyophilization   b) Growth   c) Pasteurization   d) Disinfection

xi) Industrial microbiology, mainly depends on the phenomenon of

    a) Sterilization   b) Classification   c) Fermentation   d) Alteration

xii) The capacity of laboratory fermenter is _____ litre.

    a) 1 – 2   b) 100 – 1000   c) above 10000   d) 300000 – 400000

xiii) Heat sensitive liquid fermentation media should be sterilized by using

    a) Heat   b) Pasteurization   c) Filtration   d) Centrifugation

xiv) Large vessel containing all the parts and condition necessary for the growth of desired microorganisms is called as

    a) Impeller   b) Baffles   c) Auto reactor   d) Bioreactor

2. Attempt **any seven** of the following :   **14**

  i) Define fermentation.

  ii) What are baffles ?

  iii) Define Antifoam agent.

  iv) Define antibiotic.

  v) Define agitation.

  vi) Types of impeller blades.

  vii) Preservation of microorganism.

  viii) Sketch neat labeled diagram of spray dryer.

  ix) Define sterilization.

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

     i) Describe in brief secondary screening with suitable example.

     ii) Explain in detail sterilization of fermentation media.

     iii) Explain in detail the process of fermentation.

   B) Write detail account on History of Industrial Microbiology. **4**

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

   i) What are the different types of fermenter used in fermentation industry ?

   ii) Describe in detail primary screening techniques and significance in fermentation industry.

   iii) Briefly explain scope of industrial microbiology.

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

   i) Explain in detail factors involved in fermenter design.

   ii) Write in detail about the isolation and preservation of industrially important microorganisms.

   iii) Describe in detail fermentation media with special reference to alternative sources of carbon and nitrogen, buffers and precursors.

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B.Sc. – I (Entrepreneurship) (CBCS) (Semester – II) Examination, 2018
Basic Techniques in Industrial Microbiology
INDUSTRIAL MICROBIOLOGY – II

Day and Date : Friday, 20-4-2018   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** indicates **full** marks.

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

    i) _____ is the example of mutagenic agent.
       a) Sodium   b) UV light   c) Visible light   d) Agar

    ii) Protoplast fusion technique mainly used in _____ programme.
       a) Strain improvement   b) Screening
       c) DSP   d) Scale up

    iii) _____ technique is mainly used in isolation of Auxotropic mutant.
       a) Filtration   b) Penicillin   c) Streak Plate   d) Amino acid

    iv) The process adopted to produce an inoculums meeting these criteria is
        called as
       a) Hydrolytic enzyme   b) Antibiotic
       c) Scale up   d) Inoculums development

    v) _____ 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

    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 ethanol.
       a) 30   b) 100   c) 55   d) 70

P.T.O.

viii) Ca(OH)$_2$ is mainly used for recovery of

    a) Amylase   b) Penicillin   c) Citric acid   d) Vitamin B$_{12}$

ix) Data reduction is mainly performed by

    a) Data logging   b) Data recovery

    c) Data analysis   d) Data management

x) _____ can be precipitated out of broth by the addition of methanol.

    a) Peptone   b) Dextran

    c) NaOH   d) Citric acid

xi) _____ process mainly used in the recovery and purification of alcohols.

    a) Distillation   b) Solvent extraction

    c) Drying   d) None of these

xii) Mutations inducing agents are called as

    a) Toxicants   b) Antifoam agent

    c) Supernatant   d) Mutagens

xiii) Auxotrophic mutants cannot grow on _____ media.

    a) Complete   b) Synthetic

    c) Minimal   d) Semisynthetic

xiv) _____ is mainly used in computer applications in fermentation technology for ADC to DAC.

    a) Interface   b) Clock   c) Meter   d) Knob

2. Answer **any seven** of the following :   **14**

  i) Define centrifugation.

  ii) Define turbidometric assay.

  iii) Enlist types of mutagenic agent.

  iv) Applications of drying in DSP.

  v) Define biological assay.

  vi) Define Flocculation.

  vii) Define downstream processing.

  viii) Define scale up.

  ix) What is protoplast fusion ?

3. A) Answer **any two** of the following : **10**
    i) Describe in brief precipitation in DSP.
    ii) Discuss in detail genetic engineering in strain improvement programme.
    iii) Describe in detail inoculums development process.

   B) Give a detailed account on Site directed mutagenesis. **4**

4. Answer **any two** of the following : **14**
    i) Describe in detail fermentation economics.
    ii) Describe in detail metabolic response assay.
    iii) Explain in detail computer applications in fermentation technology.

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) Define filtration and explain in detail types filtration.

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B.Sc. – I (Semester – II) (Entrepreneurship) (CBCS) Examination, 2018
INDUSTRIAL BIOTECHNOLOGY
Basics of Biomolecules (Paper – I)

Day and Date : Saturday, 21-4-2018   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) *Figure to the* ***right*** *indicate* ***full*** *marks.*

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

    1) Sugars are placed in _____ category.
       a) Proteins   b) Lipids
       c) Hormones   d) Carbohydrates

    2) Ten or more number of sugar residues is called as _____
       a) Monosaccharides   b) Disaccharides
       c) Polysaccharides   d) Proteins

    3) _____ number of naturally occurring amino acids.
       a) Ten   b) Twenty   c) Four   d) Hundreds

    4) The bond between two amino acids is called as _____
       a) Hydrogen bonds   b) Peptide bonds
       c) Ionic bonds   d) Covalent bonds

    5) Glycogen is best defined as _____
       a) Storage form of lipids   b) Storage form of proteins
       c) Storage form of glycerol   d) Polymer of glucose

    6) Enzymes _____
       a) Increase the rate of a chemical reaction
       b) Are always stored in active form
       c) Are consumed in chemical reactions
       d) All of the above

7) _____ of the following is not an amino acid.
   a) Glutamic acid
   b) Aspartic acid
   c) Glutamine
   d) Palmitic acid

8) _____ is the covalent bond which link two sugar residue in oligosaccharide.
   a) Peptide bonds
   b) Hydrogen bonds
   c) Glycosidic bonds
   d) Ester bonds

9) _____ vitamin is involved in blood clotting.
   a) Vitamin B6
   b) Vitamin B12
   c) Vitamin D
   d) Vitamin K

10) Lactose is a disaccharide of _____ and Galactose.
   a) Sucrose
   b) Glucose
   c) Maltose
   d) Mannose

11) Starch is a _____
   a) Homopolysaccharide
   b) Heteropolysaccharide
   c) Exopolysaccharide
   d) None

12) Secondary structure of protein consist _____
   a) α helix
   b) β sheets
   c) Both a) and b)
   d) Twist

13) The enzyme secreted either in presence or absence of substrate is known as _____
   a) Constitutive
   b) Inducible
   c) Endoenzyme
   d) Exoenzyme

14) _____ a structure of protein is native structure.
   a) Primary structure
   b) Secondary structure
   c) Tertiary structure
   d) Quaternary structure

2. Answer **any seven** of the following :   **14**

   i) Define oligosaccharide.
   ii) Enlist pituitary hormones.
   iii) Define glycosaminoglycans.
   iv) Enlist acidic amino acids.

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   v) Define Exoenzyme.

  vi) Define immobilization.

 vii) Functions of hormone.

viii) What is fatty acid ?

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

   i) Describe in brief factors affecting on enzyme activity.

  ii) Define Vitamin. Discuss in detail fat soluble vitamins.

 iii) Write a detail note on Cholesterol.

  B) Give a detailed account on types of enzymes.   **4**

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

   i) Describe in detail methods of enzyme immobilization.

  ii) Discuss in detail structural classification of proteins.

 iii) Write in detail physiological role of hormones.

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

   i) Define polysaccharide. Discuss in detail Homopolysaccharide.

  ii) Explain in detail classification of amino acids.

 iii) Write in detail types of lipids.

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B.Sc. – I (Semester – II) (Entrepreneurship) (CBCS) Examination, 2018
INDUSTRIAL BIOTECHNOLOGY
Basics of Metabolism (Paper – II)

Day and Date : Monday, 23-4-2018   Total Marks : 70
Time : 10.30 a.m. to 1.00 p.m.

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

1. Rewrite the sentence by choosing the correct alternatives from the following : **14**

   1) Respiration is regarded as a _____ process.
      a) Catabolic   b) Anabolic   c) Reduction   d) Synthetic

   2) The cell membrane is _____ in nature.
      a) Permeable   b) Non-permeable
      c) Semi-permeable   d) Both a) and b)

   3) _____ is an example of primary active transport.
      a) Na^+, K^+, ATPase   b) $Na^+ – H^+$ exchange
      c) $H^+ – Cl^-$ exchange   d) $Cl^- – HCO^3$ – exchange

   4) _____ can utilize light as energy source.
      a) Chemoautotroph's   b) Organotrophs
      c) Autotrophs   d) Photoautotroph's

   5) _____ acts as Na^+ channel blocker.
      a) Teradotoxin   b) Conotoxin   c) Cargennen   d) Acetylcholine

   6) Krebs cycle in the plants occurs in
      a) Cytosole   b) Peroxisomes
      c) Mitochondrial Matrix   d) Glyoxisomes

   7) In anerobic respiration, the final electron acceptor in the electron transport chain is
      a) NAD^+ b) O_2 c) H_2O d) Lactate

   8) _____ can only use glucose as a fuel source.
      a) Liver   b) Kidney
      c) Red Blood Cells   d) Heart

   9) V-type of pump is distributed at all such places except
      a) Vacuoles   b) Mitochondria   c) Lysosome   d) Peroxisome

P.T.O.

10) Glycolysis is also referred as _____ pathway.
    a) HMP   b) TCA   c) Glyoxilate   d) EMP

11) The prosthetic group of NADH dehydrogenase is
    a) FMN   b) NADH   c) FAD   d) NADPH

12) In Glycolysis, dehydration occurs during the formation of
    a) 3 – PGA   b) 2 – PGA   c) PEPA   d) DHAP

13) On decarboxylation, pyruvate gives rise to
    a) Acetaldehyde   b) Lactic acid
    c) Ethyl alcohol   d) Methyl alcohol

14) The synthesis of ATP molecules during respiration is called
    a) Glycolysis   b) Oxidative phosphorylation
    c) Aerobic respiration   d) Anaerobic respiration

2. Answer **any seven** of the following :   **14**
   1) Xenobiotics.
   2) Active transport.
   3) Photorespiration.
   4) Add a note on LC50.
   5) Enlist inhibitors of Oxidative phosphorylation.
   6) Anabolism.
   7) Chemotrophs.
   8) Passive transport.
   9) Define - Oxidation and Reduction.

3. A) Answer **any two** of the following :   **10**
     1) Write a note on voltage gated ion channel.
     2) Explain structure of biological membrane with neat labelled diagram.
     3) Explain cyclic electron transport chain.

  B) Add a note on structure of mitochondria.   **4**

4. Answer **any two** of the following :   **14**
   1) Write a detail note on EMP pathway.
   2) What are transporters ? And add a detailed note on its classification.
   3) Write a brief note on ligand gated ion channel.

5. Answer **any two** of the following :   **14**
   1) Write a detail note on TCA cycle.
   2) Give a detailed account on biotransformation.
   3) Explain HMP pathway.

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B.Sc. II (Semester – III) (CBCS Pattern) Examination, 2018
ENTREPRENEURSHIP (New)
Paper – V : Principles of Business Management & Business Organization

Day and Date : Tuesday, 24-4-2018
Time : 2.30 p.m. to 5.00 p.m.

Max. Marks : 70

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

1. Select correct alternative. **14**

1) In _____ Leadership Styles, Decision Making Power is centralized.

   A) Free Rein
   B) Supportive
   C) Democratic
   D) Autocratic

2) _____ is the process of deciding further courses of action in advance.

   A) Organizing
   B) Staffing
   C) Planning
   D) Training

3) Establishing Standard is the first step in _____ process.

   A) Staffing
   B) Planning
   C) Directing
   D) Centrality

4) _____ is the Art of Knowing what you want to do and then seeing that it is done in best and cheapest way.

   A) Staffing
   B) Planning
   C) Management
   D) Training

5) Theory Z of motivation is developed by

   A) William Ouchi
   B) Herzberg
   C) McGregor
   D) Maslow

6) A _____ Design of Organization composed of a number of small projects.

   A) Functional
   B) Conglomerate
   C) Divisional
   D) Matrix

7) The Motivation Factor consist of

   A) Achievement
   B) Recognition
   C) Advertisement and Growth
   D) All of the above

P.T.O.

8) _____ control is the process of adjusting further Action on the basis of information about past performance.

A) Feedback   B) Feed Forward

C) Concurrent   D) Indirect

9) A Departure Nation in a textile industry based on operations like gunny, spinning, weaving, dyeing and folding is called departure nation by

A) Process   B) Product   C) Territory   D) Customer

10) Recruitment and selection of employees in the task including in the function of

A) Controlling   B) Motivating   C) Directing   D) Staffing

11) _____ is concern with increasing the technical skill knowledge and operative skills in doing particular job.

A) Staffing   B) Tanning   C) Selection   D) None of these

12) _____ type of organization exist.

A) Formal   B) Informal

C) None of these   D) Both

13) _____ are management function.

A) Planning   B) Organizing

C) Directing & Controlling   D) All of these

14) _____ Oriented Leader Give Importance to both production and people.

A) Task   B) Team

C) Country Club   D) None of these

2. Solve **any seven**.   **14**

1) Democratic Leadership Styles.

2) Importance of Planning.

3) Define Control.

4) Importance of Leader.

5) Role of Manager.

6) Explain Non-Financial Incentives.

7) Line Organization.

8) Importance of Organisation.

9) Nature of Management.

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3. A) Solve **any two**. **10**

    1) Decision Making Process

    2) Principle of Taylor

    3) Importance of Motivation.

  B) Importance of Control. **4**

4. Solve **any two**. **14**

    1) Explain Functions of Management.

    2) Explain in brief types of training.

    3) Explain types of Plan.

5. Solve **any two**. **14**

    1) Explain control techniques.

    2) Explain Planning Process.

    3) Explain Role of Managers in Organization.

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B.Sc. – II (Semester – III) (CBCS) Examination, 2018
ENTREPRENEURSHIP (Paper – VI)
Advanced Accountancy and Auditing (New)

Day and Date : Wednesday, 25-4-2018   Total 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. Choice and write a correct answer from given four alternatives :   **14**

   1) _____ is a shortcut key to select any activated company.
      a) F1   b) Alt+F1   c) F10   d) F2

   2) VAT stands for
      a) Voice Access Table   b) Value Added Tax
      c) Vision Accurate Table   d) None of these

   3) To change current date from gateway of tally press the _____ key.
      a) F1   b) F2   c) F9   d) F12

   4) A person who owes money to the business is called a
      a) Creditor   b) Debtor   c) Proprietor   d) Owner

   5) Value of machinery comes under the primary group of
      a) Current Asset   b) Fixed Asset
      c) Investment   d) Capital Account

   6) BRS stands for
      a) Bombay Requirement Section b) Bank Reconciliation Statement
      c) Business Rate System   d) None of these

   7) _____ Real Account.
      a) Rent Outstanding A/c   b) Furniture A/c
      c) Interest Received A/c   d) Commission A/c

   8) _____ is transferred to debit side of the Profit and Loss A/c.
      a) Gross loss   b) Net profit   c) Gross profit   d) Net loss

P.T.O.

9) _____ is subsidiary books.

   a) Purchase book   b) Cash book

   c) Petty cash book   d) None of these

10) In tally, F7 key is used to select _____voucher type.

   a) Purchase   b) Receipt   c) Journal   d) Payment

11) Owner account is under _____ account group.

   a) Investment   b) Capital   c) Cash   d) Expenses

12) _____ is type of discount.

   a) Trade   b) Credit   c) Sales   d) Gross

13) MRP stands for

   a) Market Retail Price   b) Machine Retail Price

   c) Measurement Retail Price   d) Minute Retail Price

14) The _____ is arithmetical check of all transactions done as per date.

   a) Trial Balance   b) Ledger

   c) Balance Sheet   d) P and L Account

2. Solve **any seven** of the following :   **14**

   1) What is meant by Account ?

   2) Define Ledger.

   3) What do you mean by Credit Transaction ?

   4) Define Auditing.

   5) Define Bank.

   6) Write down types of Audit.

   7) Define working capital.

   8) Write down Versions of Tally.

   9) Define Charitable Trust.

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

   1) What is Account ? Explain the types of account.

   2) Draw a Format Journal, Ledger, P and L A/c, Trial Balance and Balance Sheet.

   3) Explain Cash flow and Fund flow statement.

  B) Write down scope of auditing.   **4**

Set P

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

   1) Draw and explain company creation and ledger creation manu.

   2) Explain the meaning, need and importance of vouching.

   3) What is VAT ? Explain VAT master and VAT on MRP.

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

   1) What is Tally ? Explain the features of Tally.

   2) Explain the short cut key and function key in Tally.

   3) State groups for ledgers and create the ledgers
      a) Ashok starts business with Rs. 10,000/-
      b) Purchase machinery for Rs. 50,000/- and furniture Rs. 10,000/-
      c) Paid amount for rent Rs. 1,000/-
      d) Deposit Rs. 10,000/- in bank.
      e) Purchase goods for Rs. 20,000/- from Mr. Ram on credit
      f) Sold goods to Mr. Rakesh for Rs. 10,000/-
      g) Rs. 5,000/- withdraws from bank for personal use.

_____

Set P

B.Sc. – II (Semester – III) (Entrepreneurship) (New CBCS) Examination, 2018
INDUSTRIAL CHEMISTRY (Paper – V)
Analytical and Industrial Aspects of Inorganic Chemistry

Day and Date : Thursday, 26-4-2018   Max. Marks : 70
Time : 2.30 p.m. to 5.00 p.m.

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 :   **14**

    1) pH range of phenolphthalein indicator is _____

       a) 8.3 to 10   b) 0.2 to 1.8   c) 1.3 to 3.0   d) 1.5 to 2.5

    2) A solution containing one gram equivalent of a solute per litre is known as
       one _____ solution.

       a) Mole   b) Neutral   c) Standard   d) Normal

    3) Catalyst which decreases the rate of reaction is called _____ catalyst.

       a) Auto   b) Positive

       c) Negative   d) Enzyme

    4) Contact process was developed by _____

       a) Carl Bosch and Haber   b) Phillips c

       c) Solvay   d) Ostwald's

    5) In Haber process forward reaction is favored by _____

       a) High pressure   b) Low pressure

       c) Atmospheric pressure   d) Moderate pressure

    6) Electrochemical theory of corrosion was introduced by _____

       a) Evan   b) Keir   c) Whitney   d) Faraday

7) The passivity which is induced in the metal due to the effect of chemical reagent is _____
   a) Corrosion
   b) Negative
   c) Electrochemical
   d) Chemical passivity

8) Eriochrome Black-T indicator is _____
   a) Weak organic acid
   b) Oxidizing agent
   c) Reducing agent
   d) Metal ion indicator

9) In heterogeneous catalytic reaction _____
   a) Reactants and catalyst are present in the different phase
   b) Reactant and catalyst present in solid state
   c) Reactant and catalyst present in liquid state
   d) Reactant and catalyst present in gaseous state

10) In contact process yield of sulphuric acid increases with _____ in pressure.
    a) Decreases
    b) Increases
    c) Moderate
    d) None of these

11) Oxide film theory of passivity was experimentally proved by _____
    a) Faraday
    b) Whitney
    c) Evan
    d) Ostwald

12) Particle size of the crystalline precipitate is _____
    a) 0.1 – 1.0 micron
    b) 0.02 – 0.01 micron
    c) Less than 0.02 micron
    d) None of these

13) The process in which the foreign ions are trapped and surrounded by the successive layer during the crystal growth in known as _____
    a) Occlusion
    b) Co-precipitation
    c) Inclusion
    d) Surface adsorption

14) Ionic theory of an acid-base indicator was proposed by _____
    a) J. J. Thomson
    b) Evan
    c) Ostwald
    d) None of these

2. Answer **any seven** from the following :   **14**

   1) Give any two use of catalyst in industrial process.

   2) Write optimum condition for Haber process for manufacture of ammonia.

   3) What is mean by corrosion and classify it ?

4) Define following :

    i) Standard solution

    ii) Normal solution.

5) Explain effect of hydrogen overvoltage on corrosion.

6) Explain homogeneous catalysis and heterogeneous catalysis.

7) Precipitation must be carried out from hot and dilute solution of reactants. Why ?

8) Explain primary standard substance.

9) Write any two conditions for good result of precipitation.

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

    1) Discuss the role of phenolphthalein as an indicator on the basis of quinoid theory.

    2) What is passivity ? Discuss the types of passivity.

    3) Discuss the physico-chemical principles involved in the manufacture of ammonia by Haber process.

  B) Discuss characteristics of catalytic reaction.   **4**

4. Write note on **any two** :   **14**

    1) Methods of protection of metal from corrosion.

    2) Contact process for manufacture of sulphuric acid.

    3) Nucleation.

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

    1) Comment on the merits and demerits of organic precipitants.

    2) What is catalysis ? Discuss the types of catalysis.

    3) Explain the choice of an indicator for titration between strong acid and weak base with the help of neutralisation curve.

_____

Set P

B.Sc. – II (Semester – III) (New CBCS) (Entrepreneurship) Examination, 2018
INDUSTRIAL CHEMISTRY (Paper – VI)
Analytical and Industrial Aspects of Organic Chemistry

Day and Date : Friday, 27-4-2018   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.*
       3) *Draw* ***neat*** *labeled diagrams* ***wherever*** *necessary.*

1. Rewrite the following sentences by using correct alternative.   **14**

   i) The clarified sugar cane juice contains _____.
     a) 85% water   b) 15% water   c) 65% water   d) 80 Brix

   ii) Graining, waiting and shock treatment methods are used for _____ of sugar.
     a) dissolving   b) crystallizing   c) refining   d) purifying

   iii) The rectified spirit contains _____ % of alcohol.
     a) 9   b) 95.6   c) 40   d) 100

   iv) Cotton and jute are examples of _____ fibers.
     a) synthetic   b) semi-synthetic
     c) inorganic   d) natural

   v) _____ is used to separate the soap after saponification.
     a) Na_2CO_3 b) NH_4OH c) NaCl   d) KOH

   vi) The detergents suitable for hard water are generally _____.
     a) non-ionic   b) ionic   c) cationic   d) anionic

   vii) Cleaning action of soap is due to its _____ nature.
     a) hydrophilic   b) hydrophobic   c) amphipatic   d) none of these

viii) The efficiency of bleaching depends upon _____.
   a) through impregnation of the fiber
   b) uniform distribution of the liquor
   c) control of concentration and temperature of bleachig liquor
   d) all of these

ix) _____ is the process of removing starch material in textile industry.
   a) sizing   b) desizing   c) scouring   d) bleaching

x) The semisolid mass obtained from cane juice is called _____.
   a) massecuite   b) mother liquor
   c) strick pan   d) none of these

xi) Antipyretic is a drug used to _____.
   a) control sleep temperature   b) induce sleep
   c) lower body   d) elivate body temperature

xii) An ideal drug must not induce _____ in body.
   a) resistance   b) hunger
   c) curative action   d) all of these

xiii) Fumigants are insecticide which _____
   a) penetrate through respiratory system
   b) penetrate by mear contact
   c) enter through vascular system
   d) enter through alimentary canal

xiv) The by product of sugar industry ethanol is obtained from _____.
   a) juice   b) bagasse   c) molasses   d) sugar

2. Answer **any seven** of the following :   **14**
   i) What is meant by saponification reaction ?
   ii) Define the terms :
      i) Rectified spirit
      ii) Denatural spirit.
   iii) What do you mean by Dyeing ?
   iv) Give the classification of fibers.
   v) What do you mean by antimalarial drug with suitable example ?

Set P

vi) What are agrochemicals ? Give any two examples.

vii) Draw the diagram of clarifier in manufacture of sugar.

viii) Give the synthesis of deriphat.

ix) What are the qualities of ideal drug ?

3. A) Answer **any two** of the following :   **10**
    i) Write a note on extraction of juice.
    ii) Gives general idea of process of desizing.
    iii) Write a note on types of soap.

  B) Explain the by-products of sugar industry.   **4**

4. Answer **any two** of the following :   **14**
  i) Give the synthesis and uses of
    a) Monocrotophos   b) Methoxychlor.
  ii) What do you understand the terms
    a) Rectified spirit   b) denatured spirit
    c) absolute alcohol   d) power alcohol
  iii) Explain manufacture of soap by hot process.

5. Answer **any two** of the following :   **14**
  i) Explain bleaching action in textile industry.
  ii) Give synthesis and uses of
    a) Paludrin   b) Tolbutamide.
  iii) Explain manufacture of ethanol from molasses.

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Seat No.

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B.Sc. II (Semester – III) (Entrepreneurship)
(New – CBCS) Examination, 2018
MICROBIAL BIOTECHNOLOGY (Paper – V)
Genetics

Day and Date : Saturday, 28-4-2018   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** side indicate **full** marks.

1. Rewrite the following sentence by choosing correct alternatives.   **14**

    1) Cross made between offspring and its parents is called as
        a) monohybrid cross   b) back cross
        c) dihybrid cross   d) test cross

    2) Exchange of segment between non-homologous chromosomes is called as
        a) Translocation   b) Transformation
        c) Transduction   d) None of the above

    3) _____ is condition if the child is born with an extra chromosome in each of its cells,
        a) Non-disjunction   b) Recombination
        c) Segregation   d) None of the above

    4) The word chromosome was given by
        a) Bateson (1906)   b) Waldeyer (1888)
        c) Mendel (1909)   d) Watson (1878)

    5) 5 – Bromouracil is a mutagen. It act as
        a) Deaminating agent   b) Alkylating agent
        c) Base analog   d) None of the above

    6) _____ is the phenotype of an individual represents.
        a) Gene arrangement
        b) Genetic linkage
        c) Physical appearance of the person
        d) All the above

P.T.O.

7) _____ 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

8) _____ is the most potent mutagen.

   a) UV – A   b) X – rays   c) UV – B   d) UV – C

9) _____ is the example of ABO blood group system.

   a) Complete dominance   b) Incomplete dominance

   c) Blending   d) Co-dominance

10) In heredity, the genes are obtained from

   a) Father   b) Mother   c) Both   d) None of the above

11) _____ is the cross when a heterozygous offspring is crossed with homozygous recessive parent.

   a) Reciprocal cross   b) Dihybrid cross

   c) Back cross   d) Test cross

12) Mendel did not propose

   a) Segregation   b) Dominance

   c) Independent assortment   d) Incomplete dominance

13) Linkage genes are located on

   a) Same chromosome

   b) Different chromosome of the same size and shape

   c) Inherited genes

   d) Both a and b

14) _____ acts as an intercalating agent.

   a) Acridine orange   b) Ethidium Bromide

   c) Proflavin   d) All of these

2. Attempt **any seven** of the following : **14**

   1) What is Gene interaction ?

   2) Write a note on Law of Segregation.

   3) Write a short note on Transformation.

   4) Define Mode.

   5) Explain Linkage.

   6) Define mutation.

   7) Define Dihybrid with its ratio.

   8) Epistasis.

   9) Chi-Square test.

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

   1) Write a detail Incomplete dominance.

   2) Explain in detail Mutagenic agents.

   3) Explain Law of Dominance with example.

   B) Describe process of conjugation with suitable example. **4**

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

   1) Write a note on linkage and explain its types.

   2) Explain Supplementary Epistasis.

   3) What is crossing over ? Explain in different theories of crossing over.

5. Attempt **any two** of the following. **14**

   1) Write a detailed on Mendel's experiment.

   2) Define Chromosome and explain its types based on centromere.

   3) What is Chromosomal aberration ? Explain its types.

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**B.Sc. – II (Semester – III) (Entrepreneurship) (New – CBCS)
Examination, 2018
MICROBIAL BIOTECHNOLOGY
Fermentation Technology (Paper No. – VI)**

Day and Date : Wednesday, 2-5-2018   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) Figures to the **right** indicates **full** marks.

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

   i) _____ is the example of beta lactum antibiotic.
     a) Refampicin   b) Chloramphenicol
     c) Penicillin   d) Both b) and c)

   ii) _____ is commercially used as bioinsecticide.
     a) P. chrysogenum   b) B. thuringiensis
     c) B. subtilis   d) A. niger

   iii) Vitamin B12 is also called as
     a) Cobalmin   b) Starch   c) Peptone   d) Iron

   iv) _____ is mainly used as a raw material during SCP production.
     a) Nutrient agar   b) Maltose   c) Glucose   d) Hydrocarbon

   v) Methane gas is mainly produced during _____ condition.
     a) Aerobic   b) Microaerophilic c) Anaerobic   d) Static

   vi) *Streptomyces griseus* is used generally for the production of
     a) Penicillin   b) Vit. B12   c) Citric acid   d) L-Lysine

   vii) Vitamin B12 is _____ type of vitamin.
     a) Fat soluble   b) Fat insoluble   c) Water soluble   d) Water insoluble

   viii) Industrial microbiology, mainly depends on the phenomenon
     a) Vaccination   b) Purification   c) Fermentation   d) Pasteurization

   ix) _____ is raw material used during beer production.
     a) Barley   b) Wheat   c) Sorghum   d) Maize

   x) Fortied wine consists _____% alcohol.
     a) 80   b) 60   c) 20   d) 50

xi) _____ is the example for non-symbiotic nitrogen fixation.
   a) Azotobacter   b) Bacillus   c) Rhizobium   d) Pseudomonas

xii) PHA stands for
   a) Polyhydrogen   b) Polyhydroxy alkonate
   c) Polyhydroxy Butyrate   d) None of these

xiii) Ethanol recovery and purification is mainly carried out by using _____ technique.
   a) Drying   b) Precipitation
   c) Solvent extraction   d) Distillation

xiv) _____ substrate mainly used in ethanol production.
   a) Iodine   b) Starch   c) Molasses   d) Cellulose

2. Answer **any seven** of the following :   **14**
   i) Define secondary metabolite.
   ii) Mashing.
   iii) Application of citric acid.
   iv) Enlist types of wine.
   v) Define SCP.
   vi) PHB.
   vii) Application of L-Lysine.
   viii) Penicillin recovery process.
   ix) Define Bioinsecticide.

3. A) Answer **any two** of the following :   **10**
   i) Describe in detail industrial production of Streptomycin.
   ii) Discuss in detail Biofuel production.
   iii) Write in detail citric acid fermentation.

   B) Give a detailed account on Biogas production.   **4**

4. Answer **any two** of the following :   **14**
   i) Describe in brief Bioinsecticide production.
   ii) Define fermentation and explain in detail Vitamin B12 production.
   iii) Explain in detail Micro-organisms involved, media and product recovery of L-Lysine.

5. Answer **any two** of the following :   **14**
   i) Describe in detail Biofertilizer production with their applications.
   ii) Give a detailed account of wien production.
   iii) Write in detail Amylase production.

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Seat
No.

B.Sc. – II (Semester – III) (Entrepreneurship) (Old) (CGPA) Examination, 2018
PRINCIPLES OF BUSINESS MAGT. AND BUSINESS ORGANIZATION (Paper – III)

Day and Date : Tuesday, 24-4-2018   Max. Marks : 70
Time : 2.30 p.m. to 5.00 p.m.

N. B. : **All** questions are **compulsory**.
Marks indicate to the **right** side.

1. Choose the correct answers from the given alternatives :   **14**

   1) Management is a _____ process.
      a) Psychological   b) Integrated
      c) Social and integrated   d) Forward looking

   2) The second function of management is _____
      a) Staffing   b) Planning
      c) Organising   d) Co-ordinating

   3) Leadership is the ability of _____ people to strive willingingly for mutual objectives.
      a) Motivating   b) Directing
      c) Influencing   d) Inducing

   4) Motivation is a _____ concept.
      a) Social   b) Dynamic
      c) Integrated   d) Psychological

   5) _____ is a pioneer of need hierarchy theory.
      a) MC Gregor   b) MC Clell
      c) Herzberg   d) A. H. Maslow

   6) Planning is a process which begins with _____
      a) Objectives   b) Goals
      c) Strategies   d) Policies

   7) In staffing function _____ managers are involved.
      a) Only top   b) Only middle
      c) Only personnel   d) All of the above

P.T.O.

8) Organising process does not involve _____

   a) Departmentation   b) Delegation of authority

   c) Appraisal of subordinate   d) Fixing responsibility

9) _____ control is a tool of management used to plan, carry out and
   control the operation of the business.

   a) Cost   b) Inventory

   c) Production   d) Budgetary

10) _____ refers to the structure of well defined jobs, each having a definite
    authority and responsibility.

    a) Formal organisation   b) Informal organisation

    c) Functional organisation   d) Product organisation

11) _____ is one of the feature of good plan.

    a) Consistency   b) Highly ambitious targets

    c) Rigid targets   d) None

12) Every decision is the outcome of a _____ process which is influenced
    by multiple process.

    a) Dynamic   b) Integrated

    c) Continuous   d) Complex

13) The theory X and Theory Y of motivation are devised by _____

    a) Vroom   b) MC Gregor

    c) Herzberg   d) Maslow

14) _____ is the art of getting things done through and with people in
    formally organised groups.

    a) Organising   b) Administration

    c) Planning   d) Management

Set P

2. Solve **any 7** questions out of **9** questions : **14**

    1) What is mean by business magt. ?

    2) What are the levels of magt. ?

    3) What is mean by controlling ?

    4) What is mean by strategic decision ?

    5) Give process of organisation.

    6) What is mean by motivation ?

    7) Give safety needs.

    8) What is mean by leadership ?

    9) What is mean by planning ?

3. A) Attempt **any 2** questions out of **3** questions : **10**

    1) What are the features of management ?

    2) Give types of planning.

    3) What are the features of decision-making ?

   B) Attempt **any 2** questions out of **3** questions : **4**

    1) Advantages of line and staff organisation.

    2) What is importance of staffing ?

    3) Give principle of specialisation.

4. Attempt **any 2** out of **4** questions : **14**

    1) 'Management is getting things done through people' – Discuss.

    2) Describe briefly the function of management.

    3) Explain various types of decisions.

    4) Give qualities of leader.

5. Attempt **any 2** questions out of **3** questions : **14**

    1) What are the principles of organisation ?

    2) Enumerate the financial and non-financial incentives for employee motivation.

    3) Discuss the various leadership styles.

————————————

Set P

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) Goods sent on approval basis have been recorded as 'Credit sales'. This is an example of _____
      a) Error of omission   b) Error of commission
      c) Errors of duplication   d) Error of principle
   2) Funds Flow Statement is also known as
      a) Statement of Funds Flow
      b) Statement of Sources and Application of Funds
      c) Statement of Sources and Uses of Funds
      d) All of the above
   3) Balance sheet audit includes verification of _____
      a) Assets
      b) Liabilities
      c) Income and expense accounts where appropriate
      d) All of the above
   4) Excess of credit over debit in profit and loss A/c indicates_____
      a) Net profit   b) Gross profit
      c) Gross loss   d) Net loss
   5) What is TAN ?
      a) Tax Absorb Number   b) Tax Assign Number
      c) Tax Account Number   d) Tax Assessment Number
   6) Voucher relates to _____
      a) Cash receipt   b) Cash payment
      c) Credit transaction   d) All the above
   7) Auditing standards differ from audit procedures in that procedures relate to _____
      a) Audit assumptions   b) Acts to be performed
      c) Quality criterion   d) Methods of work
   8) Discount Column is available in _____
      a) Sales invoice   b) Purchase invoice
      c) Both a and b   d) None of these
   9) Internal Auditor is appointed by _____
      a) The Management   b) The Shareholders
      c) The Government   d) The Statutory Body

10) A trial balance facilitates smooth preparation of _____
    a) Final accounts   b) Cash book
    c) Subsidiary books   d) Journal

11) Total number of ledger, Groups, Entries, Etc. can be shown from _____
    a) Tally Audit   b) Statistics
    c) Account information   d) Company information

12) As per Income-Tax Act, financial year ends on _____ every year.
    a) 31st December   b) 30th June
    c) 30th September   d) 31st March

13) The most comprehensive type of audit is the _____ system audit, which examines suitability and effectiveness of the system as a whole.
    a) Quantity   b) Quality
    c) Preliminary   d) Sequential

14) Carriage inward is debited to _____ Account.
    a) Trading   b) Profit and loss
    c) Capital   d) Drawing

2. Solve **any seven** of the following :   **14**
    1) What is working capital ?
    2) Features of balance sheet.
    3) Scope of auditing.
    4) Introduction to VAT.
    5) Difference between cash book and passbook.
    6) Formula-gross profit, gross claim, policy amount.
    7) Types of voucher.
    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 particulars prepare P & L A/c as on 31-3-2012.

Particulars	Rs.
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

Set P

2) M/s Mayur Co. Pvt. Ltd., Balance Sheet.

Labilities	2001 (Rs.)	2002 (Rs.)	Assets	2001 (Rs.)	2002 (Rs.)
Share Capital	2,00,000	3,00,000	Machinery	2,05,000	3,25,000
Reserve	60,000	95,000	Stock	90,000	1,50,000
Bank loan	1,00,000	80,000	Sundry Debtors	1,20,000	1,50,000
Profit and loss	45,000	1,10,000	Bills Receivable	45,000	30,000
Sundry creditors	1,00,000	1,25,000	Preliminary Exp.	55,000	45,000
Bills payable	35,000	30,000	Cash and Bank	50,000	1,10,000
Depreciation	40,000	50,000	Goodwill	40,000	20,000
Proposed Dividend	30,000	20,000	Discount on Shares	25,000	15,000
Provision for tax	20,000	35,000			
	6,30,000	**8,45,000**		**6,30,000**	**8,45,000**

Prepare a statement showing change in working capital.

3) Define Final Account. Describe types of Final Account.

B) Describe Auditor of limited company.   **4**

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

1) A fire broke out in the premises of Star Company on 1st July 1995 and stock of the value of Rs. 1,65,000 was salvaged and the books and record were saved . The following information was obtained.

Particulars	Rs.
Stock 31st March 1994	4,80,000
Stock 31st March 1995	4,80,000
Sales from 1st April to 30th June 1995	5,70,000
Purchase from 1st April to 30th June 1995	3,50,000
Sales for the year ended 31st March 1995	18,00,000
Purchase for the year ended 31st March 1995	11,00,000

Calculate the amount of claim to be submitted to the insurance company in respect of loss of stock if policy is taken for Rs. 2,00,000.

2) From the following Ledger Balance, prepare a Trail Balance as on 31-12-2010

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

Set P

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

3) What are the classifications of Accountings and what are the Golden rules of Accounting ?

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

1) Pass-book of Mr. Irfan showed the balance of Rs. 2,333 as on 31st April, 2008 on the same date cash-book showed the balance of Rs. 3,433 the following points of difference was noted. Prepare a bank Reconciliation on that date.

Sr. No.	Transaction
1	Bank has debited pass-book for insurance premium paid Rs. 1,100 , but it was not recorded in a cash-book.
2	Cheque issued but not presented for payment Rs. 800.
3	Bank has credited Rs. 100 for interest, entry of the same has not been made in cash-book.
4	Cheque deposited into bank but not collected Rs. 900.

2) From the following details, prepare Balance Sheet as on 31-3-2014

Particulars	Rs.
Capital	80,000
Building	25,000
Goodwill	6,000
Bills payable	16,000
Creditors	50,000
Machinery	40,000
Cash in hand	10,000
Furniture	20,000
Debtors	45,000

3) What do you mean by Auditing ? Describe the Internal and External of an Audit.

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**B.Sc. – II (Semester – III) (Entrepreneurship) (CGPA – Pattern) (Old)
Examination, 2018
INDUSTRIAL CHEMISTRY
Paper – III (Analytical and Industrial Aspects of Inorganic Chemistry)**

Day and Date : Thursday, 26-4-2018   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) Particle size of _____ precipitate is smallest.
      a) Crystalline   b) Amorphous
      c) Gel   d) Solid

   iii) The substance which increases the rate of reaction is called _____
        catalyst.
      a) retarder   b) positive   c) negative   d) promoter

   iv) In manufacture of sulphuric acid by contact process temperature range is
       _____ °C.
      a) 400-450   b) 500-600   c) 200-250   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) Nucleation is _____ step of precipitation.
      a) Final   b) Internal   c) Initial   d) Last

viii) _____ catalyst used in the hydrogenation of oil.

   a) Sodium   b) Iron

   c) Platinum   d) Nickel

ix) Previously Sulphuric acid was manufactured by _____ process.

   a) Contact   b) Haber's

   c) Solvay   d) Lead chember

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) _____ increases the efficiency of catalyst.

   a) Retarder   b) Promoter

   c) Initiator   d) Temperature

xiv) The chemicals which induce the passivity in metals are called

   a) Accelerator   b) Preventers

   c) Passivators   d) All of these

2. Solve **any seven** of the following :   **14**

   i) Define primary standard with example.

   ii) What is meant by equivalence point and end point ?

   iii) What is meant by post-precipitation ?

   iv) Define organic precipitant.

   v) Define acid-base catalysis with suitable example.

   vi) Give the reactions involved in manufacture of sulphuric acid by contact process.

   vii) State Le-Chatelier's Principle.

   viii) Give the applications of passivity.

   ix) What is meant by catalytic poison ?

Set P

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

    i) Discuss the colour change interval of an indicator.

    ii) Draw the labeled diagram for manufacture H_2SO_4 by contact process.

    iii) Write a note on electrochemical theory of corrosion.

  B) How do you classify the 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 nutralisation curve for strong acid against weak base.

    ii) What are the conditions for good precipitation ?

    iii) Discuss in detail modern theory of catalysis.

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

    i) Discuss the effects of moisture and oxygen on the process of corrosion.

    ii) Discuss in detail, manufacture of ammonia by Haber's process.

    iii) Write the characteristics of catalysts.

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B.Sc. – II (Semester – III) (Entrepreneurship) (Old-CGPA) Examination, 2018
INDUSTRIAL CHEMISTRY (Paper – IV)
Analytical and Industrial Aspects of Organic Chemistry

Day and Date : Friday, 27-4-2018   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.*
3) *Draw neat labelled diagrams and give equations wherever necessary.*

1. Select most correct alternative among the following and rewrite the sentences :   **14**

   1) The soap is _____ molecule.
      a) amphipatic   b) hydrophilic
      c) basic hydrophobic   d) all the above

   2) Defication is a process used in _____ of cane juice.
      a) concentration   b) purification
      c) extraction   d) all the above

   3) Among the following, which is not a natural fiber ?
      a) Nylon   b) Jute
      c) Wool   d) Silk

   4) _____ is the CNS drug.
      a) Phenobarbitone   b) Ethambutol
      c) Ibuprofen   d) Paludrin

   5) MIC is required for the synthesis of _____
      a) IAA   b) Carbaryl
      c) Monocrotophos   d) Endosulphan

   6) _____ is of the following is not additive used in soap manufacture.
      a) Antioxidant   b) Fixative
      c) Fatty acid   d) Builder

7) Bagasse is used for _____
   a) seeding
   b) extraction of juice
   c) manufacture of celotex
   d) all the above

8) The process of removal of wax and tallow during sizing process is called as _____
   a) Scouring   b) Singeing
   c) Desizing   d) None of these

9) _____ is the antitubercular drug.
   a) isoniazid   b) paludrin
   c) phenobarbitone   d) chloromycetin

10) Carbaryl is also known as _____
   a) Rhizopan   b) Ethrel
   c) Azodrin   d) Sevin

11) Antioxidant added to soap help _____
   a) To increase the durability of soap
   b) To increase detergent action of soap
   c) To increase the brightness of washing
   d) None of these

12) The compound imbibition technique is used to _____
   a) Crystallize sugar from massecuite
   b) Extract juice from sugar cane
   c) Concentrate sugar cane juice
   d) Clarification of juice

13) _____ impart flexibility and smoothness to the warp threads.
   a) Brighteners   b) Lubricants
   c) Starch   d) Adhesive

14) A drug should be _____ and effective.
   a) Selective
   b) Sensitive
   c) Hypersensitive
   d) None of these

Set P

2. Answer **any seven** of the following : **14**

   i) Explain : i) Builders, ii) Optical brighteners.

   ii) Explain extraction of juice.

   iii) Explain in brief sizing ingredients.

   iv) Define drug with example.

   v) Give the synthesis of methoxychlor.

   vi) Define the soap. How it is prepared ?

   vii) Write the steps used in sugar industry.

   viii) What are the types of fibers ?

   ix) Write the uses of ethephon.

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

   i) Clarification of juice.

   ii) Properties of starch.

   iii) Synthesis and uses of carbaryl.

  B) Explain the By-products of sugar industry. **4**

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

   i) Explain manufacture of soap by hot process.

   ii) Explain the process of sizing used in textile industry.

   iii) Give the synthesis of :

     i) Monocrotophos

     ii) Indole-3-acetic acid.

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

   i) Explain the cleaning action of soap.

   ii) Explain manufacture of ethanol from molasses.

   iii) Give the synthesis and uses of paludrin.

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**B.Sc. II (Semester – III) (Entrepreneurship) (Old) (CGPA)
Examination, 2018
MICROBIAL BIOTECHNOLOGY
Genetics (Paper – III)**

Day and Date : Saturday, 28-4-2018   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 formed when an octamer of 4 histones complexed with DNA.
      a) Centromere   b) Endosome
      c) Nucleosome   d) None of the above

   ii) _____ is Somatic Mutation.
      a) Can be passed to the offspring   b) Cannot be passed to the offspring
      c) Cannot be cured   d) None of the above

   iii) _____ mutations occur by environmental damage or mistakes during DNA
        replications.
      a) Acquired   b) Both a) and b)
      c) Inherited   d) None of them

   iv) A _____ chromosome is without Centromere.
      a) Metacentric   b) Acrocentric
      c) Submetacentric   d) Acentric

   v) Ionizing radiations cause mutation by
      a) Forming thymine diamers   b) Breaking phosphodiester linkage
      c) Intercalating between the bases   d) Both b) and c)

P.T.O.

vi) A complete set of chromosome is known as

    a) Genome   b) Polyploidy   c) Karyotyping   d) None of these

vii) _____ is the role of Centromere.

    a) Helpful in replication of DNA

    b) Mediate poleward movement of Chromosome

    c) Allow chromosome segregation

    d) All of these

viii) _____ is the cross when a heterozygous offspring is crossed with homozygous recessive parent.

    a) Reciprocal cross   b) Test cross

    c) Back cross   d) Dihybrid cross

ix) Pea plants can be

    a) only cross-fertilize   b) self-fertilize

    c) reproduce with pollination   d) None of these

x) Linkage genes are located on

    a) Different chromosome of the same size and shape

    b) Same chromosome

    c) Inherited genes

    d) Both a) and b)

xi) In dominant Epistasis ratio 9 : 3 : 3 : 1 is modified to

    a) 9 : 7   b) 12 : 3 : 1   c) 12 : 4   d) 13 : 3

xii) Emasculation of flower body is achieved by

    a) Removal of stigma   b) Removal anther

    c) Removal of carpel   d) Removal of stamen

xiii) _____ is the cause of lack of independent assortment of two genes A and B in fruit fly Drosophila.

    a) Repulsion   b) Recombination

    c) Linkage   d) Both a) and b)

xiv) Alleles that produce independent effect in heterozygous condition is known as

    a) Co-dominant   b) Epistasis

    c) Complementary alleles   d) Supplementary alleles

Set P

2. Answer **any seven** of the following. **14**

   i) Define Linkage with example.

   ii) Write a note on Non-Histones.

   iii) Define Median and explain it.

   iv) Write a note on Euploidy.

   v) Define Dominant Epitasis.

   vi) Write a note on histones.

   vii) Mutagenic agents.

   viii) Define Mutation and write a note on it.

   ix) Define recombination.

3. A) Answer **any two** of the following. **10**
    i) Explain Law of Dominance with example.
    ii) Write a note on Spontaneous mutation.
    iii) Write a note on Chi-square test.

   B) Write in detail structural changes in chromosome. **4**

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

   i) Write a detail note on Recessive epitasis with example.

   ii) Write a note on Physical, Chemical and Biological mutagens.

   iii) Explain crossing over and write a note on Factors affecting crossing over.

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

   i) Write a detail Karyotyping.

   ii) Explain a detail Monohybrid and Dihybrid cross with example and also explain its phenotypic and genotypic ratios.

   iii) Write in detail complementary gene interaction with example.

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B.Sc. – II (Semester – III) (Entrepreneurship) (Old CGPA) Examination, 2018
MICROBIAL BIOTECHNOLOGY
Fermentation Technology (Paper – IV)

Day and Date : Wednesday, 2-5-2018   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) *Figures to the* ***right*** *indicate* ***full*** *marks.*

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

   i) _____ is a beta lactum antibiotic.
      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 crushed grapes are known as
      A) Malt   B) Must   C) Sonti   D) Wort

   iv) Maturation of the beers is carried out at _____ °C.
      A) 14   B) 10   C) 6   D) 2

   v) Commercial production of amylases carried out by _____
      A) Rhizopus   B) Candida albicas
      C) Apergillus niger   D) E.coli

   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 albicans*
      C) *Apergillus niger*   D) *Fusarium*

   viii) _____ is a antibiotic which inhibit bacterial protein synthesis.
      A) Penicillin   B) Streptomycin
      C) Sulphonamide   D) Quinolone

P.T.O.

ix) _____ is a biopesticide used to control pest to enhance economical value.

   A) Rhizobium   B) Azolla

   C) Azotobacter   D) Bacillus thuriengenesis

x) _____ is a fuel extracted from plants and crop which is renewable energy source.

   A) Vitamin   B) Biodiesel   C) Citric acid   D) Methanol

xi) _____ is a indicator organism of fecal contamination of water.

   A) *S.typhi*   B) *Shigella*

   C) *Pseudomonas*   D) *E.coli*

xii) _____ is a symbiotic nitrogen fixing organism.

   A) *Rhizobium*   B) *Azolla*

   C) *Azotobacter*   D) *Bacillus thuriengenesis*

xiii) Secondary treatment of industrial waste carried out by _____ method.

   A) Physical   B) Biological   C) Chemical   D) Mechanical

xiv) _____ is produced with the help of methanogenic bacteria by anaerobic digestion.

   A) Ethanol   B) Methane   C) Biodiesel   D) Butanol

2. Answer **any seven** of the following :   **14**

   i) Define antibiotic.

   ii) Define SCP and enlist its application.

   iii) Enlist types of wine.

   iv) Trickling filter.

   v) Types of Amylases.

   vi) Ales beer.

   vii) Define biofuel.

   viii) Define Must.

   ix) Explain role of Vitamin B 12 in human health.

Set P

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

    i) Describe in brief Spirulina used as SCP.

    ii) Discuss in detail biogas production.

    iii) Describe in detail Red wine production.

   B) Give a detailed account on distillation.   **4**

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

    i) Describe in detail production of beer.

    ii) Define biopesticide. Explain in detail biopesticide production.

    iii) Define beta lactum antibiotic. Discuss in detail submerged production of Penicillin.

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

    i) Define biofertilizer. Give a detailed account on symbiotic nitrogen fixation.

    ii) Discuss in detail secondary treatments of industrial wastes.

    iii) Describe in detail L-lysine production by dual fermentation.

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**B.Sc. – II (Entrepreneurship) (Semester – IV) (New – CBCS) Examination, 2018
(Paper – VII)
CORPORATE ACCOUNTING & PROFESSIONAL ETHICS**

Day and Date : Thursday, 3-5-2018   Max. Marks : 70
Time : 10.30 a.m. to 1.00 p.m.

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

   1) Compulsory cancellation of shares by the company due to non-payment of allotment or call money is called _____
      a) Surrender of shares   b) Buy back of shares
      c) Forfeiture of shares   d) All of these

   2) The profit on reissue of forfeited shares is transferred to _____
      a) General reserve   b) Capital redemption reserve
      c) Capital reserve   d) Investment allowance reserve

   3) The allotment of shares in case of oversubscription is called _____
      a) Pro-rata allotment   b) Private Placement
      c) Offer for sale   d) None of these

   4) Debenture holders will get _____
      a) Dividend   b) Interest   c) Profit   d) All of these

   5) A charge created not on specific assets but generally on all assets is known as _____
      a) Fixed charge   b) Floating charge   c) Mortgage   d) None of these

   6) The Balance Sheet of companies are prepare in the form _____
      a) Part I of Schedule V   b) Part I of Schedule VI
      c) Part II of Schedule V   d) Part II of Schedule VI

   7) Advance tax paid is shown in the Balance Sheet under the head _____
      a) Current Liabilities   b) Loans and Advances
      c) Fixed Assets   d) None of these

   8) _____ is a set of values, beliefs, goals, norms and ways of solving problems by the members of the organization.
      a) Corporate culture   b) Organizational culture
      c) Both of these   d) None of these

   9) A _____ is a written document, inspirational in contents and specify clearly what is acceptable or unacceptable behavior at workplace and beyond, when the employees represent their organizations outside.
      a) Code of conduct   b) Business ethics
      c) Corporate governance   d) None of these

P.T.O.

10) A set of characteristics that sets one group of people apart from another is called as _____

    a) Ethics   b) Values   c) Culture   d) None of these

11) _____ represent an individual's highest priorities and deeply held driving forces.

    a) Values   b) Principles   c) Culture   d) Ethics

12) The word 'moral' is derived from the Latin word _____

    a) Moralis   b) Morilitic   c) Monatic   d) None of these

13) _____ deals with the right actions of individuals.

    a) Sincerity   b) Rules   c) Ethics   d) All of these

14) The _____ is the primary direct stakeholder influencing corporate governance.

    a) Board of directors   b) Creditors

    c) Investors   d) None of the above

2. Solve **any seven** from the following :   **14**

    1) What is amalgamation ?

    2) Define Liquidator.

    3) Define types of ethics.

    4) What is Business Ethics ?

    5) What is Holding Company ?

    6) What is Global Corporation ?

    7) Define Corporate Governance.

    8) What is statement of affairs ?

    9) Meaning of share.

3. A) Solve **any two** from the following :   **10**

    1) What is liquidation ? Explain order of payment.

    2) What is code of conduct ? Explain model of code of conduct for Board of director.

    3) The following is the Balance Sheet of Vikas Ltd. as on 31-12-2017

Liabilities	Rs.	Assets	Rs.
Equity share capital		Goodwill	1,20,000
30,000 shares of Rs. 10 each	3,00,000	Leasehold property	3,50,000
10% preference shares		Fixtures	60,000
of Rs. 10 each	1,00,000	Investments	50,000
General Reserve	80,000	Current Assets	75,000
Profit & Loss A/c	70,000	Loans & Advances	15,000
Unsecured creditors	1,00,000	Miscellaneous Expenses	10,000
Current liabilities	30,000		
	6,80,000		**6,80,000**

    Additional information :

    Following assets were revalued,

      Leasehold property   Rs. 4,00,000

      Fixtures   Rs. 50,000

      Goodwill   Rs. 2,40,000

    Ascertain intrinsic value of each equity share.

  B) Explain types of preference shares.   **4**

Set P

4. Solve **any two** from the following : **14**

   1) Explain advantages of business ethics.

   2) Explain in detail corporate social responsibility.

   3) Sunidhi Industries Ltd. Issued for subscription 2,000 equity shares of Rs. 100 each at premium of Rs. 20 per share payable as under :

      On application Rs. 20 per share

      On allotment Rs. 50 per share (including premium)

      On First Call Rs. 20 per share

      On Final Call Rs. 30 per share.

      Applications were received for 3,000 equity shares. 2,000 equity shares were allotted to the applicants. The remaining applications for 1,000 equity shares were rejected and the application money thereon refunded.

      All the amounts were duly received except from Mr. Ram to whom 80 equity shares were allotted. He failed to pay the amounts due on first and final calls. These shares were subsequently forfeited.

      Pass the necessary Journal Entries.

5. Solve **any two** from the following : **14**

   1) Lovely Ltd. went into voluntary liquidation on 31st March, 2017. The following Balance Sheet was prepared :

Liabilities	Rs.	Assets	Rs.
Equity share capital		Goodwill	30,000
14,550 shares of Rs. 10 each	1,45,500	Leasehold property	25,000
Preferential creditors	4,000	Sundry Assets	1,42,120
Partly secured creditors	29,180	Cash at bank	500
Unsecured creditors	79,160	Profit and Loss Account	61,380
Bank overdraft	1,160		
	2,59,000		**2,59,000**

The liquidators realized the assets as follows :

   1) Leasehold property which was used to pay first to partly secured creditors Rs. 18,000

   2) Sundry Assets Rs. 99,500

   3) Cash at bank   Rs. 500

The liquidation expenses is amounted Rs. 1,170

The liquidator's remuneration was agreed at 2.5% on the amount of assets realized and 2% on the amount paid to unsecured creditors.

   Prepare Liquidators Final Statement of Account.

Set P

2) Following is the Trial Balance of Good Hope Ltd. as on 31st March 2017 :

Particulars	Debit Amount	Credit Amount
Opening stock	75,000	
Sales		3,50,000
Purchases	2,45,000	
Wages	50,000	
Discount		5,000
Furniture	17,000	
Salaries	7,500	
Rent	4,950	
Sundry Expenses	7,050	
Profit and Loss Appropriation A/c		15,030
Dividend paid	9,000	
Share capital		1,00,000
Debtors and creditors	37,500	17,500
Plant and machinery	29,000	
Cash at bank	16,200	
Reserve		15,500
Patent and Trade mark	4,830	
	5,03,030	**5,03,030**

Prepare Profit and Loss Account for the year ended 31st March 2017 and Balance Sheet as on that date after taking into consideration the following adjustments :

1) Stock on 31st March 2017 was valued at Rs. 82,000

2) Depreciation on fixed assets @ 10%

3) Make a provision for income tax @ 50%

4) Provide corporate dividend tax @ 10%.

3) Explain functional areas of business ethics.

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**B.Sc. – II (Semester – IV) (Entrepreneurship) Examination, 2018
(New – CBCS)
Paper – VIII : INTERNATIONAL MARKETING AND
MARKETING DECISION**

Day and Date : Friday, 4-5-2018   Max. Marks : 70
Time : 10.30 a.m. to 1.00 p.m.

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

    1) The Marketing mix does not include

        a) Product   b) Place

        c) Practically   d) Promotion

    2) Marketing is a _____ activity.

        a) Universal   b) Fixed

        c) Temporary   d) None of these

    3) This world organization monitor trade and resolve disputes

        a) WTO   b) GSP

        c) IMF   d) World Bank

    4) The Price motive is an example of _____

        a) Rational Motive   b) Emotional motive

        c) Subjective Motive   d) Prestige motive

    5) The top Country in terms of Marketing research expenditure is _____

        a) The United Kingdom   b) The Universal State

        c) Germany   d) Japan

    6) The partnership at corporate level is

        a) Licensing   b) Joint venture

        c) Management contact   d) Trunkey operation

7) The world largest exporter of services is _____

   a) The United State   b) Canada

   c) Belgium   d) Japan

8) The world's most international currency is the _____

   a) U. S. doller   b) British Pound

   c) Euro   d) Japanese Yen

9) This is a fixed system of exchange rate

   a) Per value   b) Wideband

   c) Crawling Peg   d) Flexible

10) _____ describes changes in an individual behavior arising from experience.

   a) Modeling   b) Motivation

   c) Perception   d) Learning

11) The amount of money expected required, or given in payment for something is called _____

   a) Plan   b) Price

   c) Product   d) Process

12) GME stands for _____

   a) Global Marketing Environment

   b) Global Marketing Earning

   c) Global Marketing Essential

   d) Global Marketing Energy

13) EDI stands for

   a) Electronic Data Interchange   b) Easy Data Interchange

   c) Economic Data Interchange   d) Era Data Interchange

14) FT stands for _____

   a) Fast Trade   b) Foreign Trade

   c) Fixed Trade   d) Frequency Trade

Set P

2. Answer **any seven** of the following : **14**

   A) What is Planning ?

   B) What is Product ?

   C) Define Decision.

   D) What is consumer ?

   E) Define e-commerce.

   F) What is Retailer ?

   G) Define Technology.

   H) What is Communication ?

   I) Define International.

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

   1) What is Product ? Explain types of Product.

   2) What is Consumer Behavior ? Explain the model of behavior.

   3) Write down types of distribution Channel.

   B) Describe in short E-Marketing. **4**

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

   1) Describe the advertising strategy in Competitive market.

   2) What is e-commerce ? Write down application of e-commerce.

   3) Describe :

      i) Market Selection.

      ii) Product planning and development.

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

   1) What is price ? Write down needs of Pricing.

   2) Explain the advantages and disadvantage of e-commerce.

   3) Define Wholeseller. Explain types and function.

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B.Sc. – II Entrepreneurship (Semester – IV) Examination, 2018
INDUSTRIAL CHEMISTRY (Paper – VII)
Analytical and Industrial Aspects of Physical Chemistry (New CBCS)

Day and Date : Saturday, 5-5-2018   Max. Marks : 70
Time : 10.30 a.m. to 1.00 p.m.

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

   1) When the end points of potentiometric titrations are obtained by plotting
      $\Delta E/\Delta V$ against volume V of the solution, then it is called
      a) First derivative method   b) Second derivative method
      c) Third derivative method   d) None of these

   2) In the total consumption burner _____ of sample is used.
      a) 5%   b) 50%   c) 95%   d) 100%

   3) To determine the cell constant _____ electrolyte is used.
      a) HCl   b) H_2SO_4 c) NaCl   d) KCl

   4) The photo currents in photoelectric colorimeters are measured by using a
      _____
      a) voltmeter   b) galvanometer c) ammeter   d) none of these

   5) An increase of 1°C temperature may increase the conductance value by
      about _____ %.
      a) 25   b) 0.25   c) 2.5   d) 50

   6) To measure the conductance _____ source is preferred.
      a) AC   b) DC   c) both AC & DC d) none of these

   7) The equation $I_t = I_0 10^{-\epsilon ct}$
      a) Beer's law   b) Einstein's law
      c) Grottus law   d) Lambert's law

8) _____ electrode is the indicator electrode.

a) Platinum   b) Hydrogen   c) Quinhydrone   d) Glass

9) The material most commonly used in making prism in the flame photometry is

a) glass   b) quartz   c) metal   d) non-metal

10) On dilution, specific conductivity _____
a) decreases   b) increases
c) remains constant   d) none of these

11) In redox titrations, platinum wire is used as _____ electrode.

a) indicator   b) reference   c) auxiliary   d) none of these

12) _____ analysis is based on the variation of the colour of a system with change in concentration of component.
a) colorimetric   b) conductometric
c) potentiometric   d) none of these

13) The range of PH is _____
a) 0 to 7   b) 7 to 14   c) 0 to 4   d) 1 to 14

14) $Ohm^{-1} Cm^{-1}$ is the unit of _____ conductance.

a) molecular   b) specific   c) equivalent   d) observed

2. Answer **any seven** of the following :   **14**

i) What is specific resistance and mention its unit.

ii) List various burners used in flame photometer.

iii) Write merits of glass electrode.

iv) How conductivity water is prepared ?

v) Define :
a) Optical density   b) Transmittance.

vi) Write limitations of flame photometry

vii) What is meant by PH and POH ?

viii) Write advantages of Quinhydrone electrode.

ix) Mention different types of conductivity cell used for conductance measurement.

Set P

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

   i) Explain diagrammatically basic circuit of Wheatstone bridge.

   ii) Write a note on Total consumption burner.

   iii) Write various reasons for deviation from Beer's law.

   B) At 298 k the equivalent conductance at infinite dilution of NH_4Cl and NaOH are 149.7 and 248.6 Ohm^{-1} Cm^2 respectively. The transport number of NH_4^+ & OH^- ions in these electrolytes are 0.392 and 0.797 respectively. Calculate the Equivalent conductance of NH_4OH at infinite dilution. **4**

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

   i) Mention different types of conductometric titration. Explain the conductometric titration between weak acid and weak base.

   ii) Discuss the use of glass electrode with reference to its limitations and precaution during the measurement.

   iii) Describe the construction and working of a single cell photoelectric colorimeter.

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

   i) Describe potentiometric methods to determine the end points of the following titration.
   a) Oxidation-reduction   b) Precipitation.

   ii) Give different characteristics of flame. Describe in details laminar-flow burner.

   iii) Explain moving boundary method with neat labeled diagram.

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B.Sc. (Part – II) (Semester – IV) (Entrepreneurship) (CBCS) Examination, 2018
INDUSTRIAL CHEMISTRY (Paper – VIII) (New)
Industrial Aspects of Applied Chemistry

Day and Date : Monday, 7-5-2018   Total Marks : 70
Time : 10.30 a.m. to 1.00 p.m.

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

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

   i) In _____ ore, metal atoms are present in atomic state.
      a) Halide   b) Sulphide   c) Native   d) Oxide

   ii) The process of cleaning the article in acid is known as
      a) Pickling   b) Washing   c) Tumbling   d) All of these

   iii) One of main contents of fertilizers is
      a) Ammonia   b) Chlorine   c) Hydrogen   d) Methane

   iv) Optical glass may also be known as
      a) Staple glass   b) Crooker's glass
      c) Fiber glass   d) All of these

   v) Triple super phosphate generally contains 44 – 47%
      a) N_2O_5 b) K_2O c) P_2O_5 d) None of these

   vi) In chromic acid anodizing process, _____ % chromic acid is used.
      a) 9   b) 6   c) 3   d) 1

   vii) Urea has highest _____ content (46 – 47%).
      a) Nitrogen   b) Potassium   c) Phosphorus   d) Sodium

   viii) The sharp edges of glass are removed by cutting, grinding and polishing these process called as
      a) Shaping   b) Fusion   c) Finishing   d) Annealing

   ix) The Greek word 'Keramos' mean
      a) Glass   b) Polymer   c) Fuel   d) Ceramic

   x) The infusible mass produced during removal of gangue from ore by adding flux is called
      a) Slag   b) Matrix   c) Cullets   d) Minerals

xi) For good quality nickel plating, the optimum pH ranges is
    a) 2 – 3   b) 3 – 4   c) 4 – 5   d) 5 – 6

xii) _____ sold in market as muriate of potash.
    a) Super phosphate   b) Ammonium sulphate
    c) Potassium fertilizer   d) Urea

xiii) The pieces of waste glass is known as
    a) Flux   b) Cullets   c) Slag   d) None of these

xiv) _____ is used where sea water contact is there.
    a) Low heat cement   b) Moderate heat cement
    c) High strength cement   d) Sulphate resistant cement

2. Answer **any seven** of the following: **14**
   i) Define Native ore and oxidized ore.
   ii) What are basic principles of electroplating ?
   iii) Write the factors which affects on the fertility of soil.
   iv) Write the properties of glass.
   v) What is ceramic ? Give it's two application.
   vi) Draw neat labeled diagram of magnetic separation method of ore.
   vii) Give any two application of anodizing.
   viii) Write the good qualities of an ideal fertilizer.
   ix) What are colored glasses ?

3. A) Attempt **any two** of the following :   **10**
   i) Explain the types of cements and give their applications.
   ii) Describe the raw materials used for the preparation of glass.
   iii) Explain the pollution caused by fertilizers.
  B) Distinction between calcinations and roasting.   **4**

4. Answer **any two** of the following :   **14**
   i) Describe electroplating of chromium.
   ii) Give the classification of fertilizers according to their mode of operation on soil with example.
   iii) Describe in detail the types of glass.

5. Write note on **any two** of the following :   **14**
   i) Manufacturing of Portland cement by wet process.
   ii) Manufacturing of glass by tank furnace.
   iii) Extraction of Iron by blast furnace.

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B.Sc. II (Entrepreneurship) (Semester – IV) (New CBCS) Examination, 2018
Microbial Biotechnology
MOLECULAR BIOLOGY (Paper – VII)

Day and Date : Tuesday, 8-5-2018　　　　　　　　　　　Total Marks : 70
Time : 10.30 a.m. to 1.00 p.m.

1. Rewrite the correct alternative from the following questions :　　　　**14**

　　1) In A – DNA _____ base pairs are present in per turn of the helix.
　　　　a) 10　　　　　　b) 11　　　　　　c) 12　　　　　　d) 13

　　2) The base thymine is always paired with
　　　　a) Adenine　　　b) Guanine　　　c) Cytosine　　　d) Thymine

　　3) Uvr ABC endonuclease is present in _____ system.
　　　　a) Mismatch repair　　　　　　　b) Nucleotide excision repair
　　　　c) Base excision repair　　　　　d) SOS repair

　　4) _____ amino acid has maximum genetic codone.
　　　　a) Leucine　　　b) Tryptophan　c) Valine　　　d) Alanine

　　5) _____ subunit of *E.coli* RNA polymerase is responsible for gene
　　　　selection.
　　　　a) Alpha　　　　b) Beta　　　　c) Omega　　　d) Sigma

　　6) _____ is not found in an *E.coli* replication fork.
　　　　a) DnaA
　　　　b) Primase
　　　　c) PCNA
　　　　d) Single-stranded DNA binding protein

　　7) Full expression of the lac operon requires
　　　　a) lactose and cAMP　　　　　　b) allolactose and cAMP
　　　　c) cAMP　　　　　　　　　　　d) lactose

　　8) DNA polymerase III is thought to add nucleotides
　　　　a) to the 5' end of the RNA primer
　　　　b) to the 3' end of the RNA primer
　　　　c) in the place of the primer RNA after it is removed
　　　　d) on single stranded templates without need for an RNA primer

9) Enzyme that induces double strand breaks in DNA and rejoins them is called as
   a) Restriction endonuclease   b) DNA gyrase
   c) DNA ligase   d) DNA polymerase

10) Ultraviolet radiation causes DNA damage by formation of
   a) cytidine dimer   b) thymidine dimer
   c) guanine dimer   d) adenine dimer

11) Archea is considered as a separate group from bacteria and eukaryotes based on
   a) genome sequence   b) 16S rRNA gene sequence
   c) 23S rRNA gene sequence   d) EFTu sequence

12) Okazaki segments are small pieces of DNA containing 1000 to 1500 nucleotides and are formed in
   a) lagging strand   b) sense strand
   c) leading strand   d) non sense strand

13) In bacterial promoters, _____ describes the 'Pribnow box'.
   a) The 5' untranslated region b) The-35 box
   c) The-10 box   d) The termination sequence

14) DNA polymerase is required for the synthesis of
   a) DNA from DNA   b) RNA from RNA
   c) RNA from DNA   d) DNA from RNA

2. Answer **any seven** of the following :   **14**

   1) DNA Polymerase in prokaryotes.

   2) Topoisomerase.

   3) Draw the Structure of DNA.

   4) The Central Dogma.

   5) Ribosome structure.

   6) RNA polymerase in eukaryotes.

   7) Silent of DNA.

   8) Operators.

   9) Central Dogma.

3. A) Answer **any two** of the following : **10**
   1) Explain Genetic code and its properties.
   2) Describe in detail Nucleotide Excision repair system in prokaryotes.
   3) Write a detail note on Translation in prokaryotes.

   B) Write a detail note on Replication in prokaryotes. **4**

4. Answer **any two** of the following : **14**
   1) Describe in brief Transcription in Prokaryotic Cell.
   2) Write a detail note on Rolling Circle Model of DNA.
   3) Explain in detail Lac Operon.

5. Answer **any two** of the following : **14**
   1) Briefly explain types of DNA.
   2) Describe in brief Enzyme involved in eukaryotic Replication.
   3) Write a essay on Post transcriptional modification.

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B.Sc. – II Entrepreneurship (Semester – IV) (New CBCS) Examination, 2018
MICROBIAL BIOTECHNOLOGY (Paper – VIII)
Food and Dairy Technology

Day and Date : Friday, 11-5-2018　　　　　　　　　　　　　　　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) Figures to the **right** indicate **full** marks.

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

　　i) Cottage cheese is an example of
　　　A) Eye cheese　　　　　　　　　B) Fresh unripened cheese
　　　C) Stretched curd cheese　　　　D) Fresh Cheese

　ii) Microbial quality of milk is determined by _____ test.
　　　A) Caseinase　　　　　　　　　B) Amylase
　　　C) Crowded plate　　　　　　　D) MBRT

　iii) Temperature used in LTH treatment is _____ °C during pasteurization.
　　　A) 50.1　　　　　B) 62.8　　　　　C) 71.1　　　　　D) 92.2

　iv) _____ is the principal carbohydrate in the milks of all mammals.
　　　A) Maltose　　　　　　　　　　B) Lactose
　　　C) Sucrose　　　　　　　　　　D) Dextrose

　v) Food fermentations include
　　　A) Leavening bread　　　　　　B) Pickling
　　　C) Alcohol production　　　　　D) All of these

　vi) The preservation techniques using radiation is also known as
　　　A) Hot sterilization　　　　　　B) Cold sterilization
　　　C) Heat sterilization　　　　　　D) Dry sterilization

　vii) _____ is degradation of fatty foods which gives foul smelling.
　　　A) Fermentation　　　　　　　　B) Putrefaction
　　　C) Rancidity　　　　　　　　　D) Sacchacrification

P.T.O.

viii) *Aspergillus flavus* produced _____ type of toxin.

    A) Citrate   B) *Afla*   C) *Beta*   D) *Tetanus*

ix) Most variable constituent of milk is

    A) Protein   B) Fat   C) Lactose   D) Mineral

x) Temperature used during UHT pasteurization is _____ °C.

    A) 10-20   B) 60-70   C) 40-50   D) 130-140

xi) The significance of pasteurization is to _____ of milk.

    A) Improve flavour   B) Increase keeping quality

    C) Improve color   D) None of these

xii) _____ is example of non perishable food.

    A) Milk   B) Egg

    C) Onion   D) Cereals

xiii) Yellow color of milk fat is due to presence of

    A) Vitamin D   B) Carotinoids

    C) Calcium   D) Folic Acid

xiv) Tests for proper pasteurization are based on the activity of _____ enzyme.

    A) Lipases   B) Catalase

    C) Protease   D) Phosphatase

2. Answer **any seven** of the following :   **14**

  i) Define Canning.

  ii) Define Psychrophiles.

  iii) Define food infection.

  iv) MBRT test.

  v) What is water activity ?

  vi) Define Fermentation.

  vii) Define Thermophiles.

  viii) What is HTST ?

  ix) Types of Cheese.

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3. A) Answer **any two** of the following :   **10**
    i) Describe in detail chemical methods of food preservation.
    ii) Write in detail composition 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) Explain in brief microbial examination of milk.
    iii) Describe in detail microbial spoilage of meat and poultry products.

5. Answer **any two** of the following :   **14**
    i) Write a note on food as substrate for microorganism.
    ii) Explain in detail various methods of Butter production.
    iii) Write in detail preservation of food by using radiation.

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B.Sc. – II (Semester – IV) (Entrepreneurship) Examination, 2018 (Old – CGPA Pattern)
CORPORATE ACCOUNTING AND PROFESSIONAL ETHICS (Paper – V)

Day and Date : Thursday, 3-5-2018
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) Document that consists of all ethical standards that employer's expect from employees is classified as _____
   A) Ethical code
   B) Descriptive code
   C) Procedural code
   D) Distributive code

2) Justice and fairness of a result of q decision is classified as _____
   A) Descriptive Justice
   B) Procedural Justice
   C) Distributive Justice
   D) Severance Justice

3) Required rate of return in calculating bonds cash flow is also classified as _____
   A) Going rate of return
   B) Yield
   C) Earning rate
   D) Both of A)and B)

4) Globalization opportunity for paid work for women has denied them _____
   A) Global Health
   B) Good Education
   C) Permanent job
   D) None of these

5) Optimization offered the practical basis for targeting _____
   A) Product
   B) Customers
   C) Decision
   D) Government

6) The aim of the MNC is to boost accounting profitability by shifting funds around the _____
   A) Country
   B) Region
   C) World
   D) Market

7) For the investment weighed average time to maturity classified as _____
   A) Premium time
   B) Standard time
   C) Mean time
   D) Distribution

P.T.O.

8) Globalization has created new opportunities of _____

   A) Employment

   B) Emerging multinationals

   C) Providing services

   D) All of the above

9) Process in which employees take some time off from job and expect that they will come back for work is classified as _____

   A) Merger

   B) Acquisition

   C) Layoffs

   D) Downsizing

10) An annual interest payment dividends by current price of bond is considered as

   A) Current yield

   B) Maturity yield

   C) Return yield

   D) Earning yield

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) Which is the section of corporate social responsibility ?

   A) Creditors

   B) Suppliers

   C) Professional institutions

   D) All of the above

13) A teleological approach to business ethics process that the guiding principle should be _____

   A) Practice

   B) People

   C) Purpose

   D) Power

14) In real world, all factors of production are perfectly _____

   A) Mobile

   B) Immobile

   C) Somewhat mobile

   D) All of answer is correct

2. Solve **any seven** of the following :   **14**

   1) Corporate culture.

   2) Use of final account.

   3) Define holding company.

   4) Meaning and definition of Corporate Governance.

   5) Concept of personal and business ethics.

   6) What is meant by goodwill ?

   7) Code of conduct.

   8) Valuation of shares.

   9) Define code of conduct.

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3. A) Attempt **any two** of the following : **10**
    1) Explain in detail Corporate Governance.
    2) Role of Information Technology.
    3) Importance of business ethics.

   B) Rearrange the following items of a manufacturing company under the three heads : **4**
    1) Live stock
    2) Goodwill
    3) Patents
    4) Book Debts
    5) Advances paid
    6) Loose tools
    7) Bills receivable
    8) Vehicles
    9) Work in progress
    10) Cash in hand.
        A) Fixed Assets
        B) Current Assets
        C) Loan and Advances

4. Attempt **any two** of the following : **14**
   1) Role of MNC.
   2) Describe Schedules of final A/c of company in detail.
   3) Balance Sheet as on 31-3-2003.

Liabilities	H Ltd. (Rs.)	S Ltd. (Rs.)	Assets	H Ltd. (Rs.)	S Ltd. (Rs.)
Equity Shares capital (Rs. 10 each)	5,00,000	1,50,000	Investment (12000 equity shares)	1,90,000	–
General Reserve	80,000	30,000	Machinery	2,50,000	1,50,000
Profit and Loss A/c	70,000	60,000	Sundry Debtors	50,000	50,000
Sundry Creditors	80,000	40,000	Cash/Bank	3,00,000	1,15,000
Bills Payable	60,000	35,000			
Total	**7,90,000**	**3,15,000**		**7,90,000**	**3,15,000**

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Additional information :

1) H Ltd., purchased 12,000 equity shares of S Ltd., on 1/4/2002 on which date, S Ltd., General Reserve at Rs. 10,000 and Profit and Loss stood at Rs. 20,000.

2) Prepare a Consolidated Balance Sheet.

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

   1) Ethics in HRM.

   2) Raj products Ltd., prepare Balance Sheet in vertical from 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
Total	**12,25,000**	**Total**	**12,25,000**

   3) Following information pertains to Clinton Corporation Ltd.

Particulars	Rs.
20,000, 12% Preference shares of Rs. 10 each	2,00,000
50,000 Equity shares of Rs. 10 each	5,00,000
Average Annual Profits before tax	2,00,000
Income tax	30%
Transfer to Reserve	20%
Normal return in similar industry	25%

   Mr. Rahul holds 400 equity shares of the company. He has requested you value his shareholding on the basis of above information. Please do the needful.

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B.Sc. – II (Semester – IV) (Entrepreneurship) Examination, 2018
(Old-CGPA Pattern)
INTERNATIONAL MARKETING AND MARKETING DECISIONS (Paper – VI)

Day and Date : Friday, 4-5-2018   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) According to _____ marketing segmentation is sub-dividing of market
      into homogeneous sub-sections of customer.
      1) Philip Kotler   2) P. Ducker   3) Stanton   4) Howard

   2) In the _____ each product has a special and unique brand.
      1) Individual brand   2) Family brand
      3) Umbrella brand   4) Combination device

   3) In _____ stage of PLC when product is introduces in the market, sales
      revenue began to grow.
      1) Introduction   2) Growth   3) Maturing   4) Suturing

   4) In direct modes marketing _____ marketer can use door to door selling
      through trained sale force.
      1) Home selling   2) Mail order   3) Tele-buying   4) Promotion

   5) In buying process _____ is not external influencing factor.
      1) Culture   2) Social
      3) Financial status of customer   4) Product planning

   6) A _____ distinguishes a product or service from similar offerings on the
      basis of unique features perceived by consumers.
      1) Brand   2) Patent
      3) Service   4) Product planning

   7) The _____ is a person who first suggests or thinks of the idea of buying
      the particular product.
      1) Initiator   2) Influencer   3) Decider   4) User

8) _____ is equivalent to the total product offering. i.e. brand name, benefits, service after sale, credit, delivery etc.
   1) pricing   2) marketing   3) branding   4) promotion

9) _____ is the best example of scrambled merchandise or diversification in retail trade.
   1) Hypermarket   2) Discount stores
   3) Department stores   4) Multiple shops

10) _____ is group of product items or brands that are closely related in terms their functions and benefits they provide.
   1) product brand   2) product line
   3) product mix   4) marketing mix

11) _____ 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

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) Physical distribution management is also called as _____.
   1) logistic   2) mercantile
   3) channel management   4) none

14) _____ are those for which customers have strong brand preference and very fussy about them.
   1) Convenience product   2) Shopping product
   3) Specialty product   4) Technological product

2. Solve **any seven** of the following :   **14**
   1) Segmentation
   2) Consumer product
   3) Direct marketing
   4) Global brand

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5) Multinational company

6) Hyper marketing

7) Sponsorship

8) Customer loyalty

9) Market selection.

3. A) Attempt **any two** of the following : **10**
   1) Promotion
   2) Product life cycle
   3) Distribution channel.

   B) What is global brand ? **4**

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

   1) What is price war ?

   2) What is e-marketing ?

   3) What are the channels of distribution ?

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

   1) What is the price ? Give the different types of prices ?

   2) Explain global marketing environment.

   3) What means consumer behaviour ? Explain any two models.

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B.Sc. – II (Semester – IV) (Entrepreneurship) Examination, 2018
INDUSTRIAL CHEMISTRY (Paper – V) (Old CGPA)
Analytical and Industrial Aspects of Physical Chemistry

Day and Date : Saturday, 5-5-2018   Max. Marks : 70
Time : 10.30 a.m. to 1.00 p.m.

Instructions : 1) **All** questions are **compulsory**.
            2) Draw **neat** diagrams **wherever** necessary.
            3) Figures to the **right** indicate **full** marks.
            4) **Use** of logarithmic table and scientific **calculator** is
               allowed.

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

   1) The S.I. unit of conductance is _____
      a) ohm   b) ohm^{-1}
      c) siemen   d) mhos

   2) The equation $I_t = I_0 10^{-\epsilon c t}$ represents _____
      a) Lambert's law   b) Grotthus law
      c) Beer's law   d) Einstein's law

   3) The material most commonly used in making prisms in flame photometry
      is _____
      a) Glass   b) Quartz   c) Metal   d) Non-metal

   4) Which of the following method gives exact end point ?
      a) Second derivative   b) First derivative
      c) Classical   d) All of these

   5) _____ with increase in 1°C temperature the conductivity of the electrolyte
      increases.
      a) 50%   b) 2.5%   c) 25%   d) 0.25%

   6) The photo currents in photoelectric colorimeters are measured by using
      a _____
      a) Voltmeter   b) Ammeter   c) Conductometer   d) Galvanometer

P.T.O.

7) Which of the following is not a strong electrolyte ?

    a) NH_4OH b) $AgNO_3$

    c) NaCl   d) HCl

8) The emf of a concentration cell is determined by using

    a) Voltmeter   b) Potentiometer

    c) Ammeter   d) Galvanometer

9) The formula $C_6H_4O_2 . C_6H_4 (OH)_2$ represents _____

    a) Quinhydrone   b) Quinone   c) Hydroquinone   d) None of these

10) For flame photometry _____

    a) Only solid sample can be used

    b) Only liquid sample can be used

    c) Both solid and liquid sample can be used

    d) No sample is necessary

11) The conductance of the solution depends on _____

    a) Number of ions   b) Speed of ions

    c) Mobility of ions   d) All of these

12) In potentiometric measurements, Saturated Calomel Electrode (SCE) is used as _____

    a) Indicator electrode   b) Reference electrode

    c) Platinum electrode   d) Hydrogen electrode

13) The burner in which sample, fuel and oxidant are mixed before reaching to flame is _____

    a) Mecker burner   b) Lundeqarph burner

    c) Laminar-flow burner   d) None of these

14) In total consumption burner _____ of sample is used.

    a) 5%   b) 50%   c) 95%   d) 100%

2. Answer **any seven** of the following :   **14**

    i) Define pH and pOH.

    ii) Give advantages of potentiometric titration.

    iii) Define the following terms.

       i) Equivalent conductance

       ii) Specific conductance.

iv) Define conductance and mention its SI unit.

v) Give the block diagram of flame photometer.

vi) List various burners used in flame photometer.

vii) Define :

i) Optical density

ii) Transmittance.

viii) What is cell constant ?

ix) How conductivity water is prepared ?

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

i) Write the methods of locating end-points of potentiometric titration.

ii) Explain with the help of diagrams atleast two types of conductivity cell.

iii) Define Lambert's and Beer's law.

B) What are the types of conductors ? **4**

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

i) Describe the basic circuit of direct reading potentiometer.

ii) Describe the construction and working of a single cell photoelectric colorimeter.

iii) What are the applications of flame photometry in qualitative and quantitative analysis ?

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

1) Mention different types of conductometric titration. Explain conductometric titration between strong acid and weak base.

2) Write any two functions of burners in flame photometry. Describe in details laminar-flow burner.

3) Define transport number. What are the factors influencing the transport number ?

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Set **P**

B.Sc. – II (Semester – IV) (Entrepreneurship) Examination, 2018
INDUSTRIAL CHEMISTRY (Paper – VI) (Old CGPA – Pattern)
Industrial Aspects of Applied Chemistry

Day and Date : Monday, 7-5-2018　　　　　　　　　　　　　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°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

P.T.O.

vii) Clay, feldspar and sand are the three main raw materials used in making the _____

    a) cement   b) glass   c) ceramic   d) fertilizer

viii) _____ has the material with high resistance to corrosion and have a refractory properties.

    a) Porcelain   b) Foamed quartz ceramics

    c) Silica ceramics   d) Clay

ix) _____ cement is also known as slag sulphate cement.

    a) White   b) Coloured

    c) Super sulphate   d) Sorrels

x) Sand lime and soda ash are the major ingredients of _____

    a) glass   b) cement   c) ceramics   d) fertilizer

xi) _____ is the crushed or broken glass obtained from imperfect articles or waste glass.

    a) Commercial   b) Special   c) Colored   d) Cullet

xii) _____ fertilizer sold in market as Muriate of potash.

    a) Potassium   b) Urea

    c) Super phosphate   d) Ammonium phosphate

xiii) N, P and K consumed in large quantities by plant for their growth are called _____ nutrients.

    a) primary   b) secondary   c) tertiary   d) micro

xiv) In electroplating, the electro deposition takes place at _____

    a) Cathode   b) Anode

    c) Cathode and Anode   d) None of these

2. Answer **any seven** of the following :   **14**

   i) Name the principles used in electroplating.

   ii) What is main raw material used in manufacture of glass ?

   iii) What are the qualities of an ideal fertilizer ?

   iv) Write the any two properties of ceramics.

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v) What do you mean by safety glass ?

vi) Define the term cathode efficiency and anode efficiency.

vii) What are ceramics ?

viii) Define :
   i) Mineral
   ii) Ore.

ix) Name any two chemical methods used for reduction in metallurgy.

3. A) Write the short notes on **any two** of the following : **10**
   i) Manufacturing process of Urea
   ii) Anodizing
   iii) Gravity separation method.

   B) What do you meant by hardening and case hardening ? **4**

4. Attempt **any two** of the following : **14**
   i) What is steel ? Discuss the Bessemer process for manufacture of steel.
   ii) With the use diagram explain the production of urea.
   iii) Explain the manufacturing process of glass by tank furnace.

5. Attempt **any two** of the following : **14**
   i) Distinction between calcinations and roasting.
   ii) Describe electroplating of nickel.
   iii) Explain the wet process for manufacture of port plant cement.

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B.Sc. II (Semester – IV) (Entrepreneurship) (CGPA) Examination, 2018
MICROBIAL BIOTECHNOLOGY (Old)
Paper No. V – Molecular Biology

Day and Date : Tuesday, 8-5-2018　　　　　　　　　　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) Figure to the **right** indicate **full** marks.

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

　i) _____ is the subunit of E.coli RNA polymerase is responsible for gene selection.

　　a) Alpha　　　　b) Beta　　　　c) Omega　　　　d) Sigma

　ii) Which of the statements about tRNAs is true ?

　　a) All organisms have more than 20 tRNA genes

　　b) The three-dimensional structure of tRNAs looks like a cloverleaf

　　c) tRNAs contain modified bases

　　d) The sequence of the last 3 nucleotides at the $3'$ end of all tRNAs is the same

　iii) _____ of the following is not found in an E-coli replication fork ?

　　a) DnaA　　　　　　　　　　b) Primase

　　c) PCNA　　　　　　　　　　d) Single-stranded DNA binding protein

　iv) _____ enzyme is responsible for joining DNA fragments.

　　a) DNA polymerase I　　　　　b) DNA topoisomerase I

　　c) DNA ligase　　　　　　　　d) DNA gyrase

　v) During RNA polymerase II transcription initiation, phosphorylation of the _____ factor is essential to commence transcription.

　　a) Polymerase II CTD　　　　　b) TFIID

　　c) TFIIH　　　　　　　　　　　d) TFIIE

P.T.O.

vi) Full expression of the lac operon requires

    a) lactose and cAMP   b) allolactose and cAMP

    c) cAMP   d) lactose

vii) DNA polymerase III is adding nucleotides to

    a) the $5'$ end of the RNA primer

    b) the $3'$ end of the RNA primer

    c) the place of the primer RNA after it is removed

    d) single stranded templates without need for an RNA primer

viii) An enzyme that induces double strand breaks in DNA and rejoins them is called as

    a) Restriction endonuclease   b) DNA gyrase

    c) DNA ligase   d) DNA polymerase

ix) U V rays (UVr) ABC endonuclease is present in _____ repair system.

    a) Mismatch   b) Nucleotide excision

    c) Base excision   d) SOS

x) Ultraviolet radiation causes DNA damage by formation of the

    a) cytidine dimer   b) thymidine dimer

    c) adenine dimer   d) guanine dimer

xi) _____separates Archea group from bacteria and eukaryotes.

    a) genome sequence   b) 16S rRNA gene sequence

    c) 23S rRNA gene sequence   d) EFTu sequence

xii) Okazaki segments are small pieces of DNA containing 1000 to 1500 nucleotides and are formed in

    a) lagging strand   b) leading strand

    c) sense strand   d) non sense strand

xiii) In proof reading during DNA replication

    a) wrong nucleotides are inserted

    b) wrong nucleotides are taken out

    c) wrong nucleotides are removed and correct ones are inserted

    d) mutations are prevented

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xiv) _____ of the following is the name of the 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

2. Answer **any seven** of the following.   **14**

  i) DNA Polymerases in prokaryotes.

  ii) Activator.

  iii) Initiation of replication in eukaryotes.

  iv) RFLP.

  v) Topoisomerase.

  vi) Genetic code.

  vii) The Central Dogma.

  viii) Ribosome structure.

  ix) Define Transcription.

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

    i) Write in detail Replication in prokaryotes.

    ii) Write a note on Nucleotide Excision repair system in prokaryotes.

    iii) Explain in brief Chemical Method of DNA sequencing.

  B) Write a detail note on Translation in prokaryotes.   **4**

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

  i) Write in detail Rolling Circle Model.

  ii) Explain in detail Enzyme involved in eukaryotic Replication.

  iii) Explain in brief Lac Operon.

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 (Semester – IV) (Entrepreneurship)
(Old-CGPA) Examination, 2018
MICROBIAL BIOTECHNOLOGY (Paper No. – VI)
Food and Dairy Technology

Day and Date : Friday, 11-5-2018   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 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) The process to increase in volume caused by whipping air into the ice
       cream mix during freezing is called as _____

       A) Homogenization   B) Aging

       C) Overrun   D) Hardening

    ii) Most variable constituent of milk is _____

       A) Protein   B) Fat   C) Lactose   D) Mineral

    iii) Temperature used during UHT pasteurization is _____ °C.

       A) 10-20   B) 60-70   C) 40-50   D) 130-140

    iv) _____ are the intrinsic factors for the microbial growth.

       A) pH   B) Moisture

       C) OR Potential   D) All of these

    v) _____ is measure protein present in milk.

       A) Albumin   B) Casein   C) Malate   D) Globulin

    vi) In cow's milk generally _____ % protein is present.

       A) 10   B) 7   C) 4.9   D) 3.3

    vii) Lactose is disaccharide containing _____ and _____

       A) Glucose and Fructose   B) Glucose and Galactose

       C) Glucose and Glucose   D) Glucose and Maltose

viii) _____ species involved in curdling of milk.

    A) *Lactobacillus*   B) *Rhizobium*

    C) *Azotobacter*   D) *Bacillus thuriengenesis*

ix) Afla toxin in food is produced by _____

    A) *Bacillus*   B) *Azolla*

    C) *Azotobacter*   D) *Aspergillus*

x) The aim of pasteurization milk is to _____

    A) Improve flavor   B) Increase keeping quality

    C) Improve color   D) None of these

xi) Food value of ice cream depends to a large extent on its _____

    A) Flavor   B) Volume

    C) Composition   D) Color

xii) _____ is example of perishable food.

    A) Milk   B) Egg   C) Onion   D) Potato

xiii) Yellow color of milk fat is due to presence of _____

    A) Vitamin D   B) Carotinoids   C) Calcium   D) Folic Acid

xiv) Rennin enzyme is used in manufacturing of _____

    A) Vitamin   B) Biodiesel   C) Citric acid   D) Cheese

2. Answer **any seven** of the following :   **14**

  i) Define Cream.

  ii) What is HTST ?

  iii) Define Fermentation.

  iv) What is water activity ?

  v) Define food poisoning.

  vi) Define psychrophilic microorganisms.

  vii) Homogenized milk

  viii) Grading of milk

  ix) Define Canning.

Set P

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

   i) Explain in brief manufacture of tanned milk.

   ii) Write a note on food as substrate for microorganism.

   iii) Describe in brief process of cream preparation.

   B) Explain in brief microbial examination of milk. **4**

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

   i) Describe in detail microbial spoilage of meat and poultry products.

   ii) Write in detail preservation of food by using radiation.

   iii) Describe in detail ice-cream production.

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

   i) Explain in detail various methods of milk pasteurization.

   ii) Describe in detail manufacture of butter.

   iii) Write in detail preservation of food.

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SLR-SB – 48

B.Sc.– III (Entrepreneurship) (Semester – V) (CGPA) Examination, 2018
ENGLISH (Compulsory)
Breakthrough

Day and Date : Thursday, 12-4-2018   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) Shaw believes that a society must not be judged by _____
      a) Its average parson   b) Its few rebels
      c) Its Journalists and editors   d) Its millions of obedient subjects

   2) The average parson teaches _____ at the village school.
      a) Honesty and equality   b) Honesty and religion
      c) Religion and law   d) None of the above

   3) The United States was founded on the principle that _____
      a) All men are equal
      b) White men are superior
      c) It is under God
      d) A government of the people, by the people and for the people

   4) The United States was founded _____ years ago.
      a) Four score and six years
      b) Four score and eight years
      c) Four score and five years
      d) Four score and seven years

   5) The value accorded to _____ prevented women from living a
      free life like a male writers.
      a) Decency   b) Humility   c) Anonymity   d) Chastity

6) _____ declared that it was impossible for any woman to have the genius of Shakespeare.

   a) A priest   b) A bishop

   c) A clergy   d) Nick Greene

7) Those who love _____ are blessed by God.

   a) Their fellowmen   b) God

   c) Father and mother   d) Their duty

8) The angel was writing in the book of _____

   a) Silver   b) God   c) Gold   d) Prayer

9) The ship in the poem 'O Captain ! My Captain !' is a metaphor for _____

   a) Abraham Lincoln   b) Walt Whitman

   c) Shakespeare   d) America

10) Our 'fearful trip' refers to _____

   a) American Civil War   b) Spanish Civil War

   c) British Civil War   d) Indian Civil War

B) Rewrite the following sentences choosing the correct modal auxiliary from the brackets : **2**

   1) Mahesh loves books _____ we take some for him ?

      (Shall, Could, Must, Used to)

   2) _____ I use your mobile, please.

      (Could, Should, Must, Would)

C) Write the following sentences in indirect speech. **2**

   1) Namdeo said, 'Oxygen is essential for life'.

   2) Sneha said, 'Sachin studies for six hours every day'.

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

   1) What does average parson do in the village school ?

   2) What are the opinions of Shaw about Science ?

   3) Why did we all blame ex-Kaisar, according to Shaw ?

Set P

4) What did our fathers do four score and seven years ago, according to Lincoln?

5) Why did the people of America meet together on a great battle-field of the war?

6) Why did Lincoln say that we cannot consecrate the battle-field?

7) What did a bishop declare, according to Virginia Woolf?

8) Where isn't a genius like Shakespeare born, according to Woolf?

9) What would have happened to any woman born with a great gift in 16th century?

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

   1) What is the theme of the poem 'Abou Ben Adhem'?

   2) What dialogue does take place between Abou Ben Adhem and angel?

   3) Why does the poet ask the captain to rise up?

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

   1) Celebration of 'Teachers' Day' in your college.

   2) Prize Distribution Ceremony in your college.

   3) Visit to Indian Institute of Chemical Technology (IICT), Hyderabad.

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

   1) Prepare a presentation consisting of five charts or slides to a "New Samsung Mobile" in the market.

   2) Write a presentation on the topic "Water Management" using charts, transparencies or slides.

5. Write a transcript of group discussion on the topic "Loan Write-off to Farmers".   **14**

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B.Sc. – III (Semester – V) (CGPA Pattern) Examination, 2018
Entrepreneurship
BUSINESS FINANCE

Day and Date : Friday, 13-4-2018   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. Select the most correct alternative from among those given below and rewrite the
   sentence : **14**

   1) _____ is regarded as the life blood of business.
      a) Finance   b) Marketing
      c) Human resource   d) Management

   2) Business finance deals with _____.
      a) Managerial problems   b) Financial problems
      c) Administrative problems   d) Production problems

   3) Stock market function is under control of _____.
      a) IRDA   b) RBI   c) SEBI   d) Govt. of India

   4) SEBI is established on _____.
      a) 1990   b) 1992   c) 1994   d) 1996

   5) _____ is source of short term business finance.
      a) Equity share   b) Preference share
      c) Debentures   d) Overdraft

   6) Venture capital was first started by _____.
      a) IFCI   b) IDBI   c) ICICI   d) NIC

   7) IMF is established on _____.
      a) 1943   b) 1945   c) 1947   d) 1949

   8) Public deposits are issued for maximum period of _____ years.
      a) One   b) Two   c) Three   d) Four

   9) _____ are the owners of the company.
      a) Share holders   b) Debenture holders
      c) Bond holders   d) Creditors

   10) _____ have come as a boon to the small and medium investors.
      a) Mutual funds   b) Debentures
      c) Equity shares   d) Public deposits

11) Financial planning is the responsibility of _____.
   a) Production Manager   b) Marketing Manager
   c) Finance Manager   d) Human Resource Manager

12) Capital budgeting is investment decision in _____.
   a) Short-term   b) Long-term
   c) Both a) and b)   d) None of the above

13) The members of stock exchange are called as _____.
   a) Associates   b) Brokers   c) Traders   d) investors

14) e-banking is also known as _____.
   a) Online banking   b) Virtual banking
   c) Internet banking   d) All the above

2. Solve **any seven** from the following :   **14**
   1) Meaning of equity share.
   2) Meaning of debenture.
   3) What is a public deposit ?
   4) What is foreign exchange rate ?
   5) What is financial planning ?
   6) What is meant by finance lease ?
   7) What is international finance ?
   8) What is a World Bank ?
   9) Formula of pay back period method.

3. A) Write note on **any two** from the following :   **10**
   1) Importance of business finance.
   2) Explain functions of SEBI.
   3) Explain sources of short-term finance.

  B) State the functions of stock exchange.   **4**

4. Write in brief answer from the following (**any two**) :   **14**
   1) Explain long-term sources of business finance.
   2) Explain public placement method of marketing of securities.
   3) Write note on international financial institutions.

5. Write in brief from the following (**any two**) :   **14**
   1) What is preference share ? Define its types.
   2) Define its advantages and disadvantages of lease financing.
   3) What is venture capital ? State its features and needs.

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B.Sc. (Entrepreneurship) – III (Semester – V) (CGPA) Examination, 2018
HUMAN RESOURCE MANAGEMENT

Day and Date : Monday, 16-4-2018   Max. Marks : 70
Time : 2.30 p.m. to 5.00 p.m.

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

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

   1) A career consist of _____ stages.
      A) three   B) five   C) two   D) six

   2) _____ is the process of choosing the most suitable candidates from among the applications for jobs.
      A) Selection   B) Recruitment
      C) Placement   D) Career planning

   3) A trainee moves from one job to another and from one department/division to another that is called
      A) Job rotation   B) Coaching
      C) Role play   D) None of these

   4) _____ is just like acting out a given role as in a stage play.
      A) Case method   B) Management games
      C) Coaching   D) Role play

   5) _____ refers to the upward movement of an employee from one job to another higher one.
      A) Demotion   B) Training   C) Promotion   D) None of these

   6) When promotion is made without increase in salary, it is called
      A) Horizontal   B) Normal   C) Vertical   D) Dry

   7) _____ is the rating of jobs in an organization.
      A) Job analysis   B) Job description
      C) Job specification   D) Job evaluation

8) The biggest drawback of _____ is the absence of any standard factors of Job.

   A) HRM   B) Job evaluation

   C) Selection   D) Job analysis

9) The _____ and _____ administration is based on three principles, namely, external equity, internal equity and individual worth.

   A) Salary and incentives   B) Wages and incentives

   C) Salary and wages   D) All the above

10) _____ is anything that attracts a worker and stimulates him to work.

   A) Incentive   B) Demotion   C) Promotion   D) Benefits

11) Benefits are membership-based non-financial rewards given to

   A) Entrepreneur   B) Leader

   C) Employee   D) All the above

12) Both preventive and curative measures help protect _____ of industrial workers.

   A) Benefit   B) Health

   C) Safety   D) Development

13) The Factories Act, _____ has laid down detailed provisions for maintaining safety at the work.

   A) 1948   B) 1848   C) 1958   D) 1949

14) The common approaches of _____ include casual approach, traditional approach and mutual goal setting approach.

   A) HRM   B) P.A.

   C) Training and development   D) Promotion

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2. Solve **any seven** from the following :   **14**

   1) Introduce what is HRM ?

   2) What is recruitment ?

   3) What is performance appraisal ?

   4) What is allowance ?

   5) Introduce accident prevention.

   6) Meaning of succession planning.

   7) What is external mobility ?

   8) What is demotion ?

3. A) Solve **any two** from the following :   **10**

   1) Function of HRM.

   2) What are the types of promotion ?

   3) Various types of external mobility.

   B) Limitations of career planning.   **4**

4. Solve **any two** from the following :   **14**

   1) What are the role of Human Resource Management ?

   2) Various types of training method.

   3) Elements of career development programme.

5. Solve **any two** from the following :   **14**

   1) Explain in detail employee health and safety.

   2) Need of performance appraisal.

   3) Various methods of P.A.

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B.Sc. – III (Semester – V) (Entrepreneurship) (CGPA) Examination, 2018
## INDUSTRIAL CHEMISTRY
Spectroscopic Methods

Day and Date : Tuesday, 17-4-2018   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.
3) Draw **neat** labelled diagram.

1. Select most correct alternative among the following and rewrite the following :   **14**

   i) IR spectroscopy is mainly useful in the determination of
      a) Conjugation   b) Functional group
      c) Molecular weight   d) Atomic weight

   ii) An example of Auxochrome is
      a) $C \equiv C$ b) $-CO-$
      c) $-NH_2$ d) All these

   iii) In mass spectroscopy, the intensity assigned to base peak is
      a) 50%   b) 90%   c) 0%   d) 100%

   iv) When a halogen atom is attached to methyl group, then the δ values
      a) decreases with electronegativity of halogen atom
      b) not affected by electronegativity
      c) increases wirh electronegativity
      d) negligible

   v) The finger print region of the IR spectrum lies in the range
      a) 1350 – 650 cm^{-1} b) 4000 – 1350 cm^{-1}
      c) 4000 – 650 cm^{-1} d) 650 – 50 cm^{-1}

   vi) The transition energy for $\pi \rightarrow \pi^*$ is _____ than n$\rightarrow \pi^*$ transition.
      a) less   b) equal   c) half   d) greater

vii) Molecular ions peak is not generally visible in case of
   a) halides   b) alcohols
    c) aldehydes   d) ketones

viii) Among the following which is magnetic nuclei
    a) $_1H^1$ b) $_6C^{12}$ c) $_1H^2$ d) $_7N^{14}$

ix) _____ is an example of homocyclic diene.

a)

b)

c)

d)
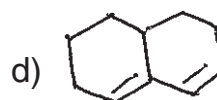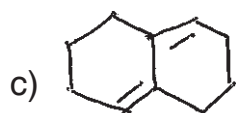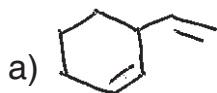
x) Mass spectroscopy is a _____ technique.
    a) high pressure   b) low temperature
    c) low pressure   d) high temperature

xi) The proton is charged spinning nuclei with a nuclear spin equal to
    a) $\frac{1}{2}$ b) 0   c) $\frac{1}{3}$ d) $\frac{2}{3}$

xii) The stretching frequency of $\diagup C = C \diagdown$ chromophore is _____ than that of C – C.
    a) more   b) less   c) half   d) equal

xiii) In NMR spectroscopy, absorption of long wavelength radio frequency radiations by molecule causes change in
    a) Electronic state
    b) Vibrational state
    c) Rotational state
    d) Spin state

xiv) For a non-linear molecule the number of fundamental modes of vibrations are calculated by the relation
    a) 3N   b) 3N – 5
    c) 3N – 6   d) 3N – 2

Set P

2. Answer **any seven** of the following : **14**

   i) Calculate the modes of vibration in CO_2 molecule.

   ii) What is delta scale and Tau scale ?

   iii) Deifne the term :
     a) bathochromic shift
     b) hypsochromic shift.

   iv) Predict the frequency shift of the carbonyl absorption in the following aldehyde.

I)
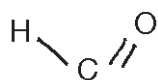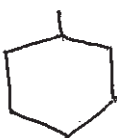
II)
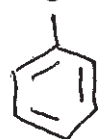
   v) Define coupling constant with example.

   vi) What is magnetic nuclei and non magnetic nuclei ?

   vii) Define parent ion and fragment ion.

   viii) Name the different transitions involved in UV spectroscopy.

   ix) Explain peak area.

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

   i) Why tetramethyl silane (TMS) is used as internal reference in NMR spectroscopy ?

   ii) Explain application of mass spectroscopy.

   iii) Discuss on functional group region.

  B) State and explain Lambert's-Beer Law with mathematical expression. **4**

Set P

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

 i) Calculate λ_{max} of the following compound.

 I)

 II)

 III)
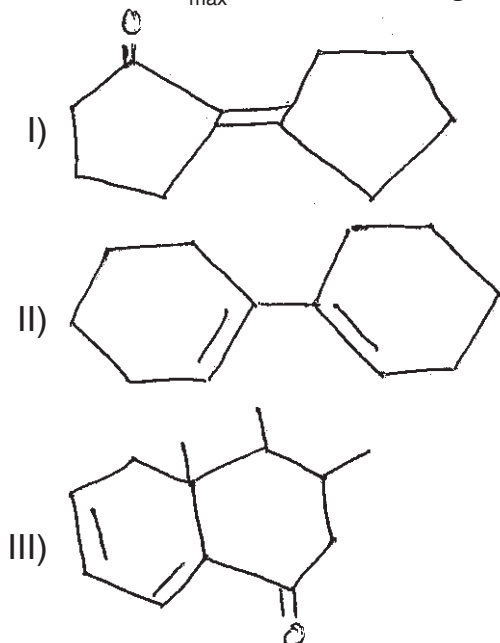
 ii) Write the different basic parts used in proton nuclear magnetic resonance spectroscopy with schematic diagram.

 iii) State Hooke's law. How it is used to calculate the vibrational frequency of diatomic group ?

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

 i) State and explain the theory of mass spectrometer with diagram.

 ii) Explain what types of vibrations are observed in IR spectroscopy.

 iii) Define chemical shift and deduce the structure of compound with following data :

   Molecular formula : C_4H_8O

   IR : 1720 cm^{-1}

   M/e : 88

   PMR : 2.7 δ(q, 2H)

   1.05 δ(3H, t)

   1.12 δ(S, 3H)

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B.Sc. – III (Semester – V) (Entrepreneurship) (CGPA) Examination, 2018
ADVANCES IN FERMENTATION TECHNOLOGY

Day and Date : Wednesday, 18-4-2018   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 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) Intellectual Property Rights (IPR) protect the use of information and ideas that are of _____ value.
   a) Ethical   b) Commercial
   c) Social   d) Moral

   ii) _____ can be patented.
   a) Basmati rice   b) Machine
   c) Process   d) All of these

   iii) The antiviral glycoprotein released by living cells in response to viral attack is called as _____
   a) Interferon   b) Pyrogen
   c) Phagocytes   d) Antibody

   iv) Plasmid encoding antigenic protein of pathogen if injected directly into the cell its expression constitute _____ vaccine.
   a) Attenuated   b) Pollysacchride
   c) DNA   d) Subunit

   v) _____ is used for production of xanthan gum.
   a) *Xanthomonas campestris*   b) *E.Coli*
   c) *Pseudomonas*   d) Yeast species

   vi) The hormone insulin helps in the regulation of _____ level in the blood.
   a) Nucleic acid   b) Lipid
   c) Protein   d) Sugar

P.T.O.

vii) GMP is _____
    a) Good manufacturing practices
    b) Good laboratory practices
    c) Quality control
    d) All of these

viii) A legal rights of inventors over the literary and artistic material is known as _____
    a) Copyright   b) Trademark
    c) Patent   d) Secret

ix) The discipline which deals with pathogen and containment of infectious agents is known as _____
    a) Bioethics   b) Biosafety
    c) Risk assessment   d) International code

x) _____ is a chemically modified toxin from a pathogenic microorganism, which is no longer toxic but is still antigenic and can be used as a vaccine.
    a) Toxoid   b) Toxin
    c) Bacteriocin   d) Nisin

xi) Mushroom is _____ types of fungus.
    a) Saprhophytic   b) Autotrophic
    c) Heterotrophic   d) Phototrophic

xii) _____ a system of maintaining standards in manufactured products by testing a sample of the output against the specification.
    a) Quality control   b) Quality assurance
    c) Quality management   d) None

xiii) *Clostridium acetobutylicum* commercially used for the production of _____
    a) Ployhydroxybutyrate   b) Polysorbate
    c) Polyhydroxide   d) Acetone and Butanol

xiv) Oxidation of ethanol to acetic acid by Acetobacter used for the production of _____
    a) Citric acid   b) Vinegar
    c) Malic acid   d) Ethanol

Set P

2. Attempt **any seven** (out of nine) of the following : **14**

   i) Define bioethics.

   ii) What is vaccine ?

   iii) Define IPR.

   iv) Define Quality control.

   v) Define Secrets.

   vi) Write applications of Xanthan gum.

   vii) What is GLP ?

   viii) What is interferon ?

   ix) Define Biosafety.

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

      i) Explain in detail copyright and trademarks.

      ii) Explain in detail production of Pullulan.

      iii) Describe in detail PHB production.

   B) Write a detailed account on edible mushroom cultivation. **4**

4. Answer **any two** (out of three) of the following : **14**

   i) Describe in detail insulin production.

   ii) Explain in detail the process of acetone-butanol production.

   iii) Define patent and give suitable example of patenting of biological material.

5. Attempt **any two** (out of three) of the following : **14**

   i) Describe in detail GMP.

   ii) What is interferon and explain in detail its production.

   iii) Explain in detail the process of vinegar production.

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B.Sc. – III (Semester – VI) (Entrepreneurship) Examination, 2018
ENGLISH (Compulsory) (CGPA)
Breakthrough

Day and Date : Wednesday, 28-3-2018

Max. Marks : 70

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

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

1. Choose the correct alternative. **14**

   1) William Shakespeare adapts and retells the story of Pyramus and Thisbe in his play _____
     a) As You Like It   b) A Midsummer Night's Dream
     c) Comedy of Errors   d) Love's Labour Lost

   2) Speaking of Davy's Safety Lamp, Moore is reminded of _____ that separated Thisbe and her lover.
     a) the fate   b) parents   c) the wall   d) the lion

   3) The party given by the Minister of Education of Mathilde and Loisel was scheduled on _____
     a) Sunday, January 18   b) Monday, January 19
     c) Sunday, January 19   d) Monday, January 18

   4) Loiselhad saved four hundred francs to buy a gun because _____
     a) he had interest in shooting
     b) there was a threat to his life
     c) he wanted to present it to the Minister
     d) he wanted to present it to his wife

   5) Mark Twain's *Whitewashing the Fence* is an extract from _____
     a) The Adventures of Tom Sawyer
     b) The Adventures of Huckleberry Finn
     c) The Prince and the Pauper
     d) The Great American Novel

P.T.O.

6) A great law of human action that Tom discovered to make a person covet a thing was _____
   a) to make the thing easy to do
   b) to make the thing difficult to attain
   c) to make the thing simple to attain
   d) to neglect the thing

7) In the poem *'In the Bazaars of Hyderabad'* the goldsmith makes girdles of gold for _____
   a) Musicians   b) Maidens   c) Queens   d) Dancers

8) In the poem *On Virtue*, Phillis Wheatley says that wisdom is higher than _____ can reach.
   a) a rich   b) a poor   c) a fool   d) a wise

9) In the poem On Virtue the phrase 'the false joys of time' indicates _____
   a) joy that cannot be real
   b) joy that is only transitory
   c) joy that cannot be measured by time
   d) joy which is actually sadness

10) In the poem *'In the Bazaars of Hyderabad'* , tunics, mirrors and daggars are sold by _____
    a) Goldsmiths   b) Merchants   c) Ironsmiths   d) Magicians

11) The snails <u>that he eats voraciously</u> are expensive. The underlined clause is _____
    a) a noun clause   b) a relative clause
    c) an adverbial clause   d) a prepositional clause

12) 'Ramesh asked me <u>how I grow my carrots</u>'. The underlined clause is _____
    a) an adverbial clause   b) an adjectival clause
    c) a relative clause   d) a noun clause

13) The tag question for the sentence "No one is asleep" is _____
    a) are they ?   b) isn't it ?   c) aren't they ?   d) isn't he ?

14) "You can pay the bill in cash or by cheque". This sentence is a _____
    a) simple sentence
    b) complex sentence
    c) compound sentence
    d) none of the above

Set P

2. Answer **any seven** of the following in brief : **14**

   1) What is metamorphosis ? How it is used in the story *Pyramus and Thisbe* ?

   2) What is the source of the story *Pyramus and Thisbe* ?

   3) What is the importance of the wall in the story *Pyramus and Thisbe* ?

   4) What is the moral of the story *The Necklace* ?

   5) What was the reaction of Mathilde after reading the invitation for the party ?

   6) Why was Tom in melancholic spirit on the Saturday morning ?

   7) What did Tom acquire at the end of the day ?

   8) What did Loisel do to replace the necklace ?

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

   1) What is Phillis Wheatley's attitude to life on earth ?

   2) What is the theme of the poem *In the Bazaars of Hyderabad* ?

   3) What does the pursuit of virtue lead to ?

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

   1) When you do feel stressed, how do you manage it ?

   2) You are an attendant in a multinational company in Mumbai and you have been recently married. You find it difficult to pay house rent and other bills in Mumbai. Besides your parents are old and medical treatment is needed. What will you do to solve the financial problem ?

   3) Suppose that you have just been completed your B.Sc. and admitted to M.Sc. in JNU, Delhi. How will you adapt to the new surrounding there ?

4. Write in detail the description of your favorite national leader. Remember to convey the character, thoughts and mood of him/her. **14**

       OR

Imagine that you are going to college by bus which meets an accident in which three old men get injured. You take them to the hospital. Narrate in detail the accident and your experience in the hospital.

5. Read the following passage and write the summary of it : **14**

The great advantage of early rising is the good start it gives us in our day's work. The early riser has done a large amount of hard work before other men have got out of bed. In the early morning the mind is fresh and there are few sounds or other distractions, so that work done at that time is generally well done. In many cases the early riser also finds time to take some exercise in

Set P

fresh morning air and this exercise supplies him with a fund of energy that will last until the evening. By beginning so early, he knows that he has plenty of time to do thoroughly all the work he can be expected to do, and is not tempted to hurry over any part of it. All his work being finished in good time, he has a long interval of rest in the evening before the timely hour when he goes to bed. He gets to several hours before midnight, at the time when sleep is most refreshing and after a sound night's rest rises early next morning in good health and spirits for the labours of a new day.

It is very plain that such a life as this is far more conductive to health than that of the man who shortens his waking hours by rising late and so can afford in the course of the day little leisure for necessary rest. Anyone who lies in bed late must, if he wishes to do a full day's work, go on working to a correspondingly late hour and deny himself the hour or two of evening exercise that he ought to take for the benefit of his heath. But in spite of all his efforts, he will probably produce as good results as the early riser, because he misses the best working hours of the day.

It may be objected to this that some find the perfect quiet of midnight by far the best time for working. This is no doubt true in certain cases. Several great thinkers have found by experience that their intellect is clearest and they can write best, when they burn the midnight oil. But even in such cases the practice of working late at night cannot be commended. Few men, if any, can exert the full power of their intellect at the time when nature prescribes sleep, without ruining their health thereby; and of course the injury done to the health must in the long run have a bad effect on the quality of the work done.

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**B.Sc – III (Semester – VI) (Entrepreneurship) (CGPA) Examination, 2018
INTERNATIONAL BUSINESS**

Day and Date : Saturday, 31-03-2018   Max. Marks : 70
Time : 10.30 a.m. to 1.00 p.m.

Instructions : 1) **All** questions are **compulsory**.
                     2) Marks indicate to the **right** side.

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

    1) _____ are the operations objectives of the International Business.
        a) Sales expansion   b) Resource acquisition
        c) Diversification   d) All of these

    2) GATT came into force on
        a) 1947   b) 1949   c) 1959   d) 1956

    3) A global company sometimes called a _____ company.
        a) A joint stock company   b) A globally integrated
        c) A multidomestic company   d) All of these

    4) The membership of the 'ADB' is open to all countries in
        a) Asia   b) South Asia
        c) Europe   d) Africa

    5) The 'Reciprocal Demand Theory' of International Business was formulated
       by
        a) J. S. Mill   b) D. Ricardo   c) M. Porter   d) A. Smith

    6) _____ are also called as 'Integrated Global Enterprise'.
        a) Joint Ventures   b) Foreign Institutions
        c) Global Firms   d) Multinational Corporations

    7) The member countries of the NAFTA includes U.S.A., Canada and
        a) U. K.   b) Brazil
        c) Argentina   d) Mexico

P.T.O.

8) _____ is that rate at which one currency is exchanged for another.
   a) Fixed Exchange Rate
   b) Foreign Exchange Rate
   c) Flexible Exchange Rate
   d) Domestic Rate

9) Most favoured nation treatment is the basic principle of
   a) GATT   b) WTO   c) IMF   d) World Bank

10) FDI means
   a) Flexibility Direct Investment
   b) Foreign Direct Investment
   c) Full Direct Investment
   d) None

11) _____ is merely a way of listing receipts and payments in international transactions for a country.
   a) Balance of Payment
   b) Balance of Trade
   c) Deficit in Balance of Payment
   d) None

12) The highest authority of the WTO is
   a) Dispute Settlement Body
   b) General Council
   c) Trade Policy Review Body
   d) Ministerial Conference

13) _____ co-ordinates and monitor the implementation of SAARC programme.
   a) Council of Ministers of SAARC
   b) Standing Committee of SAARC
   c) SAARC Secretariat
   d) Programme Committee of SAARC

14) _____ means any type of business activity.
   a) Export   b) International Trade
   c) International Business   d) Import

Set P

2. Solve **7** questions out of 10 questions : **14**

   1) What is meant by International Business ?

   2) What is meant by MNC ?

   3) Give the meaning of balance of payment.

   4) Objectives of ADB.

   5) What are the forms of FDI ?

   6) What is meant by Joint Venture ?

   7) Define the concept of E-Commerce.

   8) Meaning of SAP retail model.

   9) Give the meaning of EEC.

   10) Franchising.

3. A) Attempt **any 2** questions out of 3 questions : **10**

   1) What are the features of International Business ?

   2) Give the theory of comparative cost advantage.

   3) What are the components of balance of payments ?

   B) Solve : What are the objectives of GATT ? **4**

4. Attempt **any 2** questions out of 3 questions : **14**

   1) What is meant by Globalisation and its advantages ?

   2) What is meant by MNC and give its advantages and disadvantages ?

   3) What is meant by EU and give its objectives ?

5. Attempt **any 2** questions out of 3 questions : **14**

   1) Define in detail India and WTO.

   2) Define SAARC objectives and functions and organisation.

   3) Modes of entering in International Business of Merger and Acquisitions.

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B.Sc. – III (Semester – VI) (Entrepreneurship) Examination, 2018
(CGPA Pattern)
ORGANISATIONAL BEHAVIOUR

Day and Date : Monday, 2-4-2018   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) _____ is defined as an interdisciplinary behavioral science, studying phenomenon related to dynamics of an organization and their various Human Science.
        a) Human psychology   b) Organization behaviour
        c) Human relations   d) Organization dynamics

    2) Every human being is in some respects
        a) Unique-is unlike all others   b) Like some other people
        c) Like all other people   d) All of the above

    3) _____ was a pioneering theorist in the field of Cognitive Psychology.
        a) Edward Tolman   b) B. F. Skinner
        c) Ivan Pavlov   d) Douglas McGregor

    4) An individual's behavior is caused by
        a) Family help   b) Attitudes
        c) Society's response   d) All

    5) What corrects problems of conflict ?
        a) MDs attitude   b) People's attitude
        c) Built in rules of organization   d) Courts of law

    6) One single factor that mainly contributes to reducing conflict is
        a) Money   b) Employee status
        c) Trust   d) Authority

    7) _____ explains internal processes of choice among different behaviors.
        a) Equity Theory   b) Expectancy Theory
        c) Goal Attain Theory   d) Goal Setting Theory

P.T.O.

8) The least used communication channel in an organization is usually

   a) Upward   b) Downward   c) Diagonal   d) Horizontal

9) _____ 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

10) 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

11) According to Edward Tolman, _____ consists of the expectancy that a particular event will lead to a particular consequence.

   a) Eventual   b) Behavior   c) Learning   d) Attitude

12) _____ is the force of action or motivation.

   a) Behavior   b) Stimulus   c) Perception   d) Attitude

13) Every individual is _____ by their personality.

   a) Intellectual   b) Specific   c) Unique   d) Systematic

14) A process of receiving, selection, organizing, interpreting, checking and reacting to sensory stimuli or data so as to form a meaningful and coherent picture of the worlds is

   a) Attitude   b) Thinking

   c) Perception   d) Communication

2. Solve **any seven** of the following.   **14**

   1) Job satisfaction.

   2) Nature of OB.

   3) Social Learning Theory.

   4) Nature of motivation.

   5) Define personality and perception.

   6) Electronic market.

   7) Electronic commerce with www/internet.

   8) Group level stresses.

   9) Emotion.

Set P

3. A) Short note (**any 2**). **10**
    1) Internet monetary payment and security requirements.
    2) Types of group
    3) Goal setting theory.

   B) Group structure. **4**

4. Attempt **any two** of the following. **14**
   1) Types of political activity.
   2) Determinants of group behavior.
   3) Factors in flouncing perception.

5. Attempt **any two** of the following. **14**
   1) Theories of Motivation.
   2) Payment and purchase order process.
   3) What is O.B. ? Explain nature and scope of O.B.

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B.Sc. – III (Semester – VI) (Entrepreneurship) (CGPA) Examination, 2018
TECHNIQUES IN INDUSTRIAL CHEMISTRY

Day and Date : Tuesday, 3-4-2018   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. Select the most correct alternative from among those given below and rewrite
the sentence.   **14**

    i) The lower the Rf value the greater is the _____
       a) affinity for the mobile phase
       b) affinity for the solvent phase
       c) affinity for the stationary phase
       d) support number

   ii) In paper chromatography, paper acts as _____ phase.
       a) solid   b) liquid   c) stationary   d) support

  iii) A biocatalyst is _____
       a) protein   b) lipid   c) carbohydrates   d) none of these

  iv) In electroplating, _____ plays an important role.
       a) Electrolysis   b) Electro-osmosis
       c) Osmosis   d) None of these

   v) If cathode efficiency > anode efficiency, the bath becomes _____ in
metal content.
       a) rich   b) poor   c) both a) and b)   d) none of these

  vi) _____ is the process which gives the coating of oxide film on the
surface of Al and its alloys.
       a) Electrolysis   b) Electrophoresis
       c) Anodizing   d) All of these

vii) It is better to _____ waste than to treat or clean up waste after it is formed.
   a) Burn   b) Burry   c) Present   d) Dump in sea

viii) In gas chromatography, _____ is used as mobile phase.
   a) Helium   b) Hydrogen cyanide
   c) Petroleum ether   d) Ethyl alcohol

ix) Water is hard due to presence of _____ ions.
   a) Al^{+3} and Si^{+2} b) Na^+ and K^+
   c) Ca^+ and Mg^{+2} d) None of these

x) Halon-13-ol is also known as _____
   a) Bromotrifluromethane   b) Bromodifluromethane
   c) Bromotetrafluromethane   d) None of these

xi) The catalytic activity of zeolites depends on the presence of _____
   a) Crystalline nature   b) Acid centers
   c) Amorphous nature   d) None of these

xii) Current density expressed in _____
   a) sq.ft.   b) A/dm^2 c) sq.cm   d) None of these

xiii) _____ is an example of type B fire.
   a) Oils   b) Wood   c) Cloths   d) Paper

xiv) Separation of volatile components of the mixture can be done by _____ chromatography.
   a) Gas   b) Column   c) Paper   d) None of these

2. Answer **any seven** of the following :   **14**

   i) Give the Faraday's law of electrolysis.

   ii) What is Green chemistry ?

   iii) Name the different types of fires.

   iv) What is Chromatography ?

   v) Give the advantages of gas chromatography.

   vi) What is cathode and anode efficiency ?

   vii) What is meant by Rf value ?

   viii) Write the two applications of column chromatography.

   ix) Define zeolite with example.

Set P

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

    i) Write a short note on cleaning of articles.

    ii) Discuss the application of nickel plating.

    iii) Explain Friedel craft alkylation reaction.

  B) Discuss classification of Chromatography. **4**

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

    i) Describe all the details involved in the electroplating of chromium

    ii) What is paper chromatography ? Discuss in detail experimental procedure of paper chromatography.

    iii) Give the twelve principles of green chemistry.

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

    i) Give base estimation of water and water base extinguishers.

    ii) What do you understand by anodizing ?

    iii) What are the biocatalysts ? Write the advantages and disadvantages of biocatalyst.

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B.Sc. – III (Sem. – VI) (Entrepreneurship) (CGPA) Examination, 2018
GENETIC ENGINEERING AND TECHNIQUES IN PLANT TISSUE CULTURE

Day and Date : Wednesday, 4-4-2018   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) Figure to the *right* indicates *full* marks.

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

   i) _____ is an excised piece of leaf or stem tissue used in micropropagation.
      a) Microshoot   b) Medium   c) Explants   d) Scion

   ii) Plant tissue culture technique is a redefined method of _____
       a) Hybridization   b) Vegetative propagation
       c) Selection   d) None of these

   iii) Restriction endonucleases are used in genetic engineering, because it cut the DNA and produce _____
        a) Two fold symmetry   b) SS DNA
        c) DS DNA   d) None of these

   iv) _____ is used surface cleaning agent of seed or plant material.
       a) NaCl   b) $HgCl_2$ c) KCl   d) HCl

   v) Somatic hybridization is achieved through _____
      a) Conjugation   b) Grafting
      c) Protoplast fusion   d) Isolated ovary culture

   vi) _____ is called as the father of plant tissue culture.
       a) P. R. White   b) C. D. Larue
       c) J. P. Nitsch   d) Gotlib Hyberlandt

   vii) Totipotency is the genetic potential of a plant cell to produce _____
        a) Only leaf   b) Only fruit   c) Only shoot   d) Entire plant

P.T.O.

viii) The first hormone at industrial level produced by using bacteria is _____

   a) Insulin   b) thyroxin

   c) testosterone   d) none of these

 ix) The most widely used chemical for protoplast fusion, as fusogens is _____

   a) Mannitol   b) Sorbitol

   c) Polyethylene Glycol   d) Lysosomes

  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) The first transgenic crop is _____

   a) Maize   b) Tobacco   c) Jowar   d) Wheat

 xii) A medium which is chemically composed of specifically defined components is called as _____

   a) Synthetic media   b) Seminatural media

   c) Natural media   d) None of these

xiii) The technique of obtaining identical copies of the desired gene is called as _____

   a) Gene therapy   b) Gene sequence

   c) Gene cloning   d) rDNA technology

 xiv) _____ vector is mainly used in crop improvement.

   a) Mitochondrion   b) Cosmid

   c) Plasmids   d) Agrobacterium

2. Answer **any seven** of the following :   **14**

   i) Define Bacteriophage.

  ii) Define Genetic Engineering.

 iii) Transgenic plants.

 iv) Applications of PCR.

  v) What is callus ?

 vi) Restriction Endonucleases.

 vii) Ligases.

viii) cDNA Library.

 ix) Flavor savor tomato.

3. A) Answer **any two** of the following : **10**
    i) Describe in brief Nutritional requirements of the explants.
    ii) Discuss in detail PCR.
    iii) Describe in detail History and Ethical issues of genetic engineering.

   B) Give a detailed account on PGR. **4**

4. Answer **any two** of the following : **14**
    i) Describe in detail Western blotting.
    ii) Explain in detail Enzymes involved in genetic engineering.
    iii) Explain in detail Suspension Culture.

5. Answer **any two** of the following : **14**
    i) Write in detail Micro propagation and its applications.
    ii) Discuss in detail PAGE.
    iii) Describe in detail applications of Plant Tissue Culture with example.

_____

Set P