

Seat
No.

**B.Sc. (Entrepreneurship) (Semester - I) (New) (CBCS) Examination:
Oct/Nov-2023**

**ENGLISH (COMPULSORY)
Communication Skill (EN1101)**

Day & Date: Monday, 20-11-2023
Time: 09:00 AM To 11:00 AM

Max. Marks: 40

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

Q.1 Choose the correct alternative from the given options.**08**

- 1) Where did Gandhi meet his missionary friends?
 - a) Orissa
 - b) Vellore
 - c) Madras
 - d) Panji
- 2) What was the school attached to?
 - a) Bus stand
 - b) Hospital
 - c) Temple
 - d) Library
- 3) According to Rabindranath Tagore what is necessary to win freedom?
 - a) Patience
 - b) Friends
 - c) Allies
 - d) Wars
- 4) Who sang praises for the flowers?
 - a) Bard
 - b) Oracle
 - c) Saints
 - d) Birds
- 5) How does the father discover the son in his room?
 - a) Sleeping
 - b) Sobbing
 - c) Playing
 - d) Reading
- 6) What is the suitable prefix of the word – Legal?
 - a) unlegal
 - b) illegal
 - c) inlegal
 - d) delegal
- 7) What is the suitable suffix of the word – Manage?
 - a) Manage
 - b) Management
 - c) ill manage
 - d) Pre manage
- 8) Which of the following is used to join sentences, clauses and words?
 - a) adverbs
 - b) interjection
 - c) conjunction
 - d) verb

Q.2 Write the answer in short. (Any Four)**12**

- a) What is the context of Gandhi's talk on religion?
- b) What kind of relationship did the author have with his grandmother?
- c) Discuss the poet's state of mind in the poem - Let Me Not Pray to be Sheltered from Danger.
- d) Discuss the theme of the poem - The Lotus.
- e) Define the ending of the poem - The Toys in your words.
- f) What is the significance of the Sparrows in the lesson - The Portrait of a Lady'?

- Q.3 Answer the following questions. (Any One)** **10**
- a) Define what is Communication and the process of Communication?
- OR**
- b) Write in detail about the channels of Communication.
- Q.4 Write a detail note on various intrapersonal skills?** **10**

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Set P

**B.Sc. (Entrepreneurship) (Semester - I) (New) (CBCS) Examination:
Oct/Nov-2023
Principles of Entrepreneurship (Paper - I) (EN1102)**

Day & Date: Tuesday, 21-11-2023
Time: 09:00 AM To 11:00 AM

Max. Marks: 40

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

Q.1 Choose the correct alternatives from the options. 08

- 1) Entrepreneurship development programme is helpful for _____.
 - a) Future generation Entrepreneurs
 - b) First Generation Entrepreneurs
 - c) Existing entrepreneurs
 - d) None of these
- 2) _____ is the first step in Entrepreneurial activity.
 - a) Idea Generation
 - b) Goal orientation
 - c) Business Skill Development
 - d) None of these
- 3) DIC is headed by General Manager in the rank of _____.
 - a) Assistant Director of Industries
 - b) Non Departmental Officer
 - c) Joint Director of Industries
 - d) Departmental Officer
- 4) The minimum financial interest that a women was to have in women entrepreneurship is _____.
 - a) 51%
 - b) 49%
 - c) 50%
 - d) 60%
- 5) For small business owners one of the most important objective is _____.
 - a) Market presence
 - b) Growth
 - c) Profitability
 - d) Adaptability
- 6) SIDBI was set up as a subsidiary of _____.
 - a) IDBI
 - b) IFCI
 - c) ICICI
 - d) SFC
- 7) The main need for entrepreneurship in any country is for _____.
 - a) Making profit
 - b) Economic development
 - c) Socio-cultural development
 - d) None of these
- 8) The most popular form of business organization is _____.
 - a) Sole Proprietorship
 - b) Partnership
 - c) Company
 - d) Joint Hindu Family Business

Q.2 Answer any four of the following. 08

- a) Define Business.
- b) Define DIC.
- c) Define Innovation.
- d) Define Entrepreneur.
- e) Define Financial Risk.
- f) Define Women Entrepreneurship.

- Q.3 Write Short Notes on any two of the following. 08**
- a) Functions of SIDCO
 - b) Characteristics of Entrepreneurship
 - c) Problems of Women Entrepreneurship
- Q.4 Answer any two of the following. 08**
- a) Explain functions of NABARD.
 - b) Explain classification of business activity.
 - c) Explain importance of entrepreneurship.
- Q.5 Answer any one of the following 08**
- a) Define Entrepreneurship. Explain role of entrepreneurship in economic development.
 - b) Define Rural Entrepreneurship. Explain problems of rural entrepreneurship.

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**B.Sc. (Entrepreneurship) (Semester - I) (New) (CBCS) Examination:
Oct/Nov-2023**

Fundamental of Economics and Accountancy (Paper - II) (EN1103)

Day & Date: Wednesday, 22-11-2023
Time: 09:00 AM To 11:00 AM

Max. Marks: 40

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

Q.1 Multiple choice questions.

08

- 1) The main objective of Book-keeping is _____.
 - a) Complete recording of transactions
 - b) Ascertainment of Financial effect on the business
 - c) Analysis and interpretation of data
 - d) 'a' 'b' (Both 'a' and 'b')
- 2) In accounts recording is made of _____.
 - a) Only financial transactions
 - b) Only non-financial transactions
 - c) Financial and non-financial transactions
 - d) Personal transactions of the proprietor
- 3) Which of the following transactions is not of financial character?

a) Purchase of goods on credit	b) Purchase of a building
c) Payment of salaries	d) Strike by employees
- 4) External users of accounting information are _____.

a) Researchers	b) Government
c) Tax authorities	d) All of the above
- 5) _____ is known as father of economics.

a) Marshal	b) Robins
c) Adam smith	d) A C Pigou
- 6) If the income elasticity of demand is that one, the good is a _____.

a) Necessity	b) Luxury
c) Substitute	d) Complement
- 7) The income elasticity of demand is negative for a _____.

a) Positive good	b) Normal good
c) Elastic good	d) Inferior good
- 8) Demand curve slopes downwards because of _____.
 - a) The law of diminishing marginal utility
 - b) The income effect
 - c) Substitution effect
 - d) All of the above

Q.2 Answer the following: (Any Four)**08**

- a) Define Accounting.
- b) Define Personal accounts.
- c) Define Golden Rules of Accounting.
- d) Define Economics.
- e) Define demand.
- f) Define market.

Q.3 Write short notes. (Any Two)**08**

- a) Describe Types of Income Elasticity
- b) Describe Perfect Competition market.
- c) Write Journal Entries for the transactions
2022 January
06 Sold goods for cash 36,000
08 Sold goods to Hari 30,000
14 Received cash from Hari 18,000
26 Received Commission 750
27 Paid Salary to Gopal 1,200
28 Received cash from Hari 12,000
29 Withdrew cash from office for personal use 4,000
30 Wages paid 7,200
30 Bought Machinery for Cash 8,000

Q.4 Answer the following questions. (Any Two)**08**

- a) Describe Importance of Demand Analysis.
- b) Explain Types of Account.
- c) Journalise the following transactions, post them into Ledger, balance the accounts and prepare a Trial Balance: -
2016 March
01 Sham Sunder & Sons commenced business with cash 80,000
02 Purchased goods for cash 36,000
03 Machinery purchased for cash 4,000
04 Purchased goods from: Raghu 22,000, Dilip 30,000
06 Returned goods to Raghu 4,000
08 Paid to Raghu, in full settlement of his account 17,500
10 Sold goods to Mahesh Chand & Co. for 32,000 at 5% trade discount
13 Received cash from Mahesh Chand & Co. 19,800 Discount allowed 200
15 Paid cash to Dilip 14,850 Discount received 150
20 Sold goods for cash 25,000
24 Sold goods for cash to Sudhir Ltd. 18,000
25 Paid for Rent 1,500
26 Received for Commission 2,000
28 Withdrew by Proprietor for his personal use 5,000
28 Purchased a fan for Proprietor's house 1,2000

Q.5 Answer the following questions. (Any One)

- a) Explain law of demand, Schedule and Graph.
 b) The following trial balance has been extracted from the books of Rajesh on 31st December, 2016.

Debit balance	₹	Credit balance	₹
Drawings	44,000	Capital	1,76,000
Plant and machinery	1,00,000	Cash sales	1,72,000
Opening stock	20,000	Provision for bad and doubtful	
Purchases	2,70,000	Debts	2,000
Wages	62,000	Bank overdraft	20,000
Salaries	70,000	Discount received	6,000
Insurance	45,000	Credit sales	3,00,000
Rent and taxes	17,000	Sundry creditors	24,000
Sundry debtors	50,000		
Suspense A/c	22,000		
	7,00,000		7,00,000

The following adjustments are to be made:

- i) Stock on 31st December, 2016 was Rs. 28,000
- ii) Unexpired insurance was Rs. 15,000
- iii) Provision for doubtful debts is to be maintained at 5% on sundry debtors.
- iv) Depreciate plant and machinery at 20%.

You are required to prepare trading and profit and loss account for the year ended 31st December, 2016 and a balance sheet as on that date.

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**B.Sc. (Entrepreneurship) (Semester - I) (New) (CBCS)
Examination: Oct/Nov-2023
Fundamentals of Inorganic Chemistry (Paper - I) (EN1104)**

Day & Date: Thursday, 23-11-2023
Time: 09:00 AM To 11:00 AM

Max. Marks: 40

- Instructions:** 1) All questions are compulsory.
2) Draw neat diagrams and give equations wherever necessary.
3) Figures to the right indicate full marks.
4) Use of logarithmic table and calculator is allowed.

Q.1 Multiple choice questions.

08

- 1) The bond in H-F is _____ covalent bond.
 - a) non polar
 - b) polar
 - c) dative
 - d) co-ordinate
- 2) If bond order is negative or zero, molecule will be _____.
 - a) stable
 - b) exist
 - c) co-ordinate
 - d) unstable and non-existing
- 3) The crystal structure of NaCl is _____.
 - a) FCC
 - b) BCC
 - c) cubic
 - d) hexagonal
- 4) Born Haber cycle _____ law is used to evaluate the lattice energy.
 - a) Boyle's
 - b) Charle's
 - c) Hess's
 - d) K. Fajan's
- 5) According to VBT, the formation of a stable bond requires _____.
 - a) the electrons should have opposite spins
 - b) the two atoms should be close to each other
 - c) the greater overlapping of the electron clouds
 - d) all of the mentioned
- 6) The radius ratio of Cs^+ to Cl^- to CsCl is _____.
 - a) 0.414
 - b) 0.524
 - c) 0.93
 - d) 0.155
- 7) s-s overlap gives _____ molecular orbital.
 - a) σ s antibonding
 - b) σ^* s antibonding
 - c) Π bonding
 - d) Π^* bonding
- 8) Hybridization of methane is _____.
 - a) sp^3
 - b) sp^2
 - c) sp
 - d) dsp^2

- Q.2 Answer any four of the following. 08**
- Define co-ordinate bond with examples.
 - Write any four examples of homonuclear diatomic orbital.
 - What is the Fajan rule.
 - Define unit cell with any one example.
 - What is stoichiometry?
 - What is radius ratio? Calculate radius ratio of octahedral geometry.
- Q.3 Write short notes on any two of the following. 08**
- MO diagram of O_2 molecule
 - Radius ratio effect on geometry
 - VSEPR theory
 - Electron affinity
- Q.4 Answer any Two of the following. 08**
- Discuss the formation of ionic bond with suitable example.
 - Explain the crystal structure of NaCl with respect to unit cell, coordination number.
 - Explain the born-Haber cycle for alkali halide.
- Q.5 Answer any one of the following. 08**
- Explain formation of $BeCl_2$ molecule on the basis of hybridization.
 - Draw the MO diagram of nitrogen molecule. Comment on stability and magnetic property of nitrogen molecule.

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**B.Sc. (Entrepreneurship) (Semester - I) (New) (CBCS) Examination:
Oct/Nov-2023**

Fundamentals of Organic Chemistry (Paper - II) (EN1105)

Day & Date: Friday, 24-11-2023

Max. Marks: 40

Time: 09:00 AM To 11:00 AM

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

Q.1 Choose the correct alternatives from the options.

08

- 1) Which of the following is the general formula of cycloalkane?
 - a) C_nH_{2n+2}
 - b) C_nH_{2n}
 - c) C_nH_{2n-2}
 - d) C_nH_{2n-1}
- 2) Benzene contains how many π electrons?
 - a) 3
 - b) 0
 - c) 6
 - d) 12
- 3) Baeyer's reagent is _____.
 - a) alk. $KMnO_4$ solution
 - b) acidic $KMnO_4$ solution
 - c) neutral $KMnO_4$ solution
 - d) Aq. Br_2 solution
- 4) In Lassaigne's test, an organic compound is fused with _____.
 - a) CuO
 - b) $CuSO_4$
 - c) Na
 - d) $FeSO_4$
- 5) Electrolysis of sodium salt of butanoic acid gives _____.
 - a) n-Hexane
 - b) Isobutane
 - c) But-1-ene
 - d) Butane
- 6) The function of $AlCl_3$ in Friedel crafts reaction is _____.
 - a) To produce water
 - b) To absorb acid
 - c) To produce electrophile
 - d) To absorb water
- 7) Acidic hydrogen are present in _____.
 - a) Ethene
 - b) Ethane
 - c) Ethyne
 - d) Benzene
- 8) Halogen can be estimated by _____.
 - a) Kjeldahl's method
 - b) Combustion method
 - c) Carius method
 - d) None of these

Q.2 Answer any four of the following.

08

- a) Write internal Wurtz reaction for the preparation of alkane.
- b) State and Explain Huckel's rule.
- c) How will you prepare filtrate in Lassaigne's test?
- d) Define Psuedoaromatic compound with its example.
- e) What are dienes? Give their general formula.
- f) How is the molecular formula determined?

- Q.3 Write short notes on any two of the following.** **08**
- Determination of molecular weight of an acid by titration method.
 - What is meant by dehydration? Explain dehydration of ethanol.
 - Explain the action of HBr and Conc, H_2SO_4 on cyclopropane.
- Q.4 Answer any two of the following.** **08**
- Explain Chlorination of Methane with mechanism.
 - Explain estimation of Sulphur by Carius method.
 - Define Nitration, Explain Mechanism of Nitration of Benzene.
- Q.5 Answer any one of the following.** **08**
- Explain E^1 and E^2 mechanisms for dehydrohalogenation of alkyl halide.
 - Explain Kjeldahl's method used for the quantitative analysis of Nitrogen with schematic diagram.
Solve the problem: In a Kjeldahl's estimation, the ammonia evolved from 0.279×10^{-3} kg of an organic compound was absorbed in 50×10^{-3} dm³ of $0.1 N H_2SO_4$. The excess of acid required 20×10^{-3} dm³ of decinormal NaOH for exact neutralization. Calculate % of Nitrogen in the compound.

- Q.3 Write short notes on any two of the following. 08**
- a) Explain in brief Chemical agent of Sterilization.
 - b) Describe in brief principles of Bacterial classification.
 - c) Explain in brief Germ theory of disease.
- Q.4 Answer any two of the following. 08**
- a) Explain in detail Batch Culture.
 - b) Explain in detail differences between Eubacteria and Archaeobacteria.
 - c) Describe in detail Growth phases with diagram.
- Q.5 Answer any one of the following. 08**
- a) Describe in detail Composition of Cell Membrane.
 - b) Explain in detail physical agents of sterilization.

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**B.Sc. (Entrepreneurship) (Semester – I) (New) (CBCS) Examination:
Oct/Nov-2023**

Basic Techniques in Microbiology (Paper - II) (EN1107)

Day & Date: Sunday, 26-11-2023

Max. Marks: 40

Time: 09:00 AM To 11:00 AM

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

Q.1 Multiple choice questions:**08**

- 1) _____ is used to decrease or increase intensity of light in compound microscope.

a) Mirror	b) Condenser
c) Objective lens	d) Eye piece
- 2) _____ developed Electron microscope.

a) Antony Von Leeuwenhoek	b) Louis Pasteur
c) E. Ruska	d) Robert hook
- 3) Heat sensitive liquid media are sterilized by _____.

a) Tyndallization	b) Boiling
c) Autoclave	d) Filtration
- 4) _____ method is used for capsule staining.

a) Maneval's	b) Gram's
c) ZNCF	d) Chance's
- 5) Chemical agent killing the microorganism are called _____.

a) Microbicide	b) Micro biostatic
c) Antiseptic	d) Fungistatic
- 6) _____ acts as mordent in Gram's staining.

a) Alcohol	b) Crystal violet
c) Basic fuchsin	d) Gram's Iodine
- 7) In compound microscope primary image is formed by _____.

a) Eye piece	b) Objective lens
c) Condenser	d) Mirror
- 8) Viruses are observed by _____ microscope.

a) Compound	b) Florescent
c) Bright field	d) Electron

Q.2 Answer any four of the following.**08**

- a) Define magnifying power.
- b) What is Tyndallization?
- c) What is negative staining?
- d) Which method is used for staining of cell wall?
- e) What is principle of Autoclave?
- f) Define Disinfectant.

- Q.3 Write short notes on any two of the following.** **08**
- a) Type of objectives lenses
 - b) Working of Autoclave
 - c) Types of stains
- Q.4 Answer any two of the following.** **08**
- a) Sterilization by alcohol
 - b) Procedure of Gram staining
 - c) Principle of Compound microscope
- Q.5 Answer any one of the following.** **08**
- a) Describe in detail principle working and types of Electron Microscope.
 - b) Describe in detail sterilization by gaseous agents.

- Q.3 Write Short Notes (Any Two) 08**
- a) Fluid mosaic model
 - b) Schematic representation of Plant cell
 - c) Explain Structure and function of Nucleus.
- Q.4 Answer of the following questions. (Any Two) 08**
- a) Schematic representation of Mitosis.
 - b) Write note on Chemical component of biological membrane.
 - c) Describe Structure and function of Lysosomes.
- Q.5 Answer the following questions. (Any One) 08**
- a) Define Carcinogenesis and explain promoting agents of Carcinogenesis.
 - b) Explain in Detail Prokaryotic cell with its example.

- Q.3 Write short notes on any two of the following. 08**
- a) Write a note on CAM plants.
 - b) Define transpiration and write a note on mechanism of opening & closing of stomata.
 - c) Explain in detail about insulin and glucagon hormonal mechanism.
- Q.4 Answer any two of the following 08**
- a) Define Transpiration and explain transport of O₂ and CO₂.
 - b) Discuss in detail about Mechanism of digestion and absorption.
 - c) Explain in detail about concept of two photo systems.
- Q.5 Answer any one of the following 08**
- a) What is coagulation of coagulation of blood? And explain in detail about Mechanism of working of heart.
 - b) Write a detail note on plant growth hormones (Cytokinins, Abscisic acid).

Q.3 Answer the following questions. (Any One) 10

a) Write a letter of complaint to Sony TV Shop in Solapur about a television set you bought recently and was not functioning well. Address your letter to the Manager of the Shop.

OR

b) Write a letter inviting a famous local writer to attend the Annual Prize Distribution Function to be held in your college.

Q.4 Write an elaborate note on the interpersonal intelligence and its significance. 10

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**B.Sc. (Entrepreneurship) (Semester - II) (New) (CBCS) Examination:
Oct/Nov-2023**

**Entrepreneurship Science (Paper - III)
Fundamental of Marketing & Management Accounting (EN1202)**

Day & Date: Sunday, 03-12-2023
Time: 09:00 AM To 11:00 AM

Max. Marks: 40

- Instructions:** 1) All questions are compulsory.
2) Figures to the right indicate full marks.
3) Draw neat labeled diagrams wherever necessary.
4) Use of logarithmic table and calculator is allowed.

Q.1 Choose the correct alternatives from the options.

08

- 1) Mercatus means _____.

a) To buy	b) To sell
c) To trade	d) To assemble
- 2) _____ is the marketing of products in an environmental friendly way.

a) Green marketing	b) Social marketing
c) International Marketing	d) Holistic Marketing
- 3) _____ segmentation classifies consumers on the basis of age, sex, income and occupation.

a) Psychological	b) Geographic
c) Demographic	d) Behavioral
- 4) E-marketing stands for _____.

a) Email Marketing	b) Electronic Marketing
c) Entry Marketing	d) Eco-friendly Marketing
- 5) Management accounting deals with:

a) Quantitative information
b) Qualitative information
c) Both a and b
d) None of the above
- 6) Internationally accepted current ratio is _____.

a) 1:1	b) 1:2
c) 2:1	d) 2:3
- 7) Current assets – current liabilities = _____.

a) Fixed capital	b) Working capital
c) Opening capital	d) Closing capital
- 8) Analysis of any financial Statement comprises _____.

a) Balance sheet	b) P&L Account
c) Trading account	d) All of the above

- Q.2 Answer any four of the following:** **08**
- a) Define Marketing.
 - b) Define Service Marketing.
 - c) Define Segmentation.
 - d) Define Current Assets.
 - e) Define Ratio Analysis.
- Q.3 Write short notes on any two of the following.** **08**
- a) Nature of Marketing
 - b) Benefits of market segmentation
 - c) Explain classification of ratio
- Q.4 Answer any two of the following.** **08**
- a) Discuss features of E-marketing.
 - b) Differentiate between Selling and Marketing.
 - c) A company had following current Assets and Current Liabilities.
Debtors Rs. 60,000, Creditors Rs. 30,000, Bills Payable Rs. 20,000,
Stock Rs. 30,000, Loose Tools Rs. 10,000, Bank Overdraft Rs. 10,000
Calculate current ratio.
- Q.5 Answer any one of the following.** **08**
- a) What is Working Capital? Explain determinants of working capital.
 - b) What is E-marketing? Explain benefits and problems of E-Marketing.

- Q.3 Write notes on any two of the following. 08**
- a) Elements of Cost Sheet
 - b) Characteristic of Project
 - c) Project Life Cycle
- Q.4 Answer any Two of the following. 08**
- a) Differentiate between Cost Accounting and Financial Accounting.
 - b) Discuss classification of project.
 - c) Explain importance of Project Management.
- Q.5 Answer any one of the following. 08**
- a) Explain methods of Costing.
 - b) What is project manager? Explain Roles and responsibilities of project manager.

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**B.Sc. (Entrepreneurship) (Semester - II) (New) (CBCS) Examination:
Oct/Nov-2023**

**INDUSTRIAL CHEMISTRY (Paper - III)
Fundamentals of Physical Chemistry (EN1204)**

Day & Date: Tuesday, 05-12-2023
Time: 09:00 AM To 11:00 AM

Max. Marks: 40

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

Q.1 Multiple choice questions.**08**

- 1) Molecularity never be _____.
 - a) zero
 - b) Integer
 - c) half integer
 - d) All of these
- 2) Van der Waals equation explain the behaviour of _____.
 - a) mixture of gases
 - b) real gas
 - c) ideal gas
 - d) None of these
- 3) The half life period of _____ order reaction is independent of initial concentration of reaction.
 - a) zero
 - b) first
 - c) second
 - d) third
- 4) The apparatus used for the determination of surface tension of a liquid is _____.
 - a) Oedometer
 - b) Consolidometer
 - c) Stalagmometer
 - d) None of the mentioned
- 5) Reaction rate can changes with change in _____.
 - a) temperature
 - b) addition of catalyst
 - c) reactant concentration
 - d) all of these
- 6) V_c , T_c , and P_c are known as _____ constant.
 - a) gas
 - b) ver der Waal
 - c) critical
 - d) Velocity
- 7) The parachor is _____ property.
 - a) additive
 - b) constitutive
 - c) both additive and constitutive
 - d) none of these
- 8) For a second order reaction, what is the unit of the rate reaction?
 - a) $\text{mole dm}^{-3} \text{s}^{-1}$
 - b) $\text{dm}^{-3} \text{mole}^{-1} \text{s}^{-1}$
 - c) s^{-1}
 - d) s^{+1}

- Q.2 Answer any four of the following.** **12**
- a) Define ideal and non ideal gas.
 - b) Define order and molecularity of reaction.
 - c) Write van der Waals equation.
 - d) Define additive and constitutive property with example.
 - e) Give one example of Pseudo unimolecular reaction.
 - f) Write the Macleod equation for parachor.
- Q.3 Write short notes on any two of the following.** **08**
- a) Joule-Thomson effect.
 - b) Expression for first order reaction.
 - c) Determination of viscosity by Ostwald's Viscometer.
- Q.4 Answer any two of the following.** **08**
- a) Explain the factors affecting on rate of reaction.
 - b) Explain Drop - Weight method for determination of surface tension
 - c) Explain applications of parachor in the determination of molecular structures as benzene.
- Q.5 Answer any one of the following.** **08**
- a) What is an ideal gas? Explain with the help of Boyle's law the deviation of gases from ideal behavior.
 - b) Derive characteristics equation for second order reaction in which reactants are at different concentration.

- Q.2 Answer any four of the following. 08**
- a) Draw the structure of linear, branched and cross linked polymer.
 - b) What is mean by chemical oxygen demand?
 - c) Define the term monomer and elastomer.
 - d) What is mean by desalination of water?
 - e) What are anti-knock compounds? Give any two example.
 - f) Define antacid with any one example
- Q.3 Write short notes on any two of the following. 08**
- a) Octane number
 - b) Chemical composition of milk
 - c) Buna- S rubber
- Q.4 Answer any Two of the following. 08**
- a) Explain the condensation and addition polymerisation.
 - b) What is cracking? Why it is necessary to increase the yield of petrol.
 - c) Give the synthesis and use of PVC.
- Q.5 Answer any one of the following. 08**
- a) What is refining of petroleum? How is petroleum refined? Give the constituents of petroleum.
 - b) What are polymers? Give the synthesis and uses of polychloroprene.

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**B.Sc. (Entrepreneurship) (Semester - II) (New) (CBCS) Examination:
Oct/Nov-2023**

**INDUSTRIAL MICROBIOLOGY – III
Fundamentals of Industrial Microbiology (EN1206)**

Day & Date: Thursday, 07-12-2023
Time: 09:00 AM To 11:00 AM

Max. Marks: 40

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

Q.1 Choose the correct alternative and rewrite the sentences again.

08

- 1) A baffle avoids _____ in fermenter.

a) Disinfection	b) Fermentation
c) Vortex formation	d) Mixing of media
- 2) A Crowded plate technique is used for primary screening of _____.

a) Citric acid producer	b) Antibiotic producer
c) Vitamin Producer	d) Amine producer
- 3) Peptone is rich source of _____.

a) Lipids	b) Carbohydrate
c) Nitrogen	d) Oxygen
- 4) Cobalt chloride used in VitB₁₂ production is example of _____.

a) Nitrogen source	b) Precursor
c) Mineral	d) Carbon source
- 5) In the sterilization, steam is passed inside the fermenter using _____.

a) Baffles	b) Spargers
c) Impeller	d) Oven
- 6) Diffusion assay is performed for determination of _____.

a) Antibiotic	b) Vitamin
c) Organic acid	d) Both a and b
- 7) In the fermentation using _____, spore culture is used as inoculums.

a) Bacterial	b) Fungus
c) Yeast	d) Viral
- 8) Nonstop logarithmic growth is obtained in _____ fermentation.

a) Continuous	b) Batch
c) Solid state	d) Surface

Q.2 Answer in short (Any Four)

08

- a) What is antifoam agent?
- b) What is baffle?
- c) What is log phase?
- d) What is protoplast fusion?
- e) What is turbidostat?
- f) What is metabolic response assay?

- Q.3 Write short notes (Any Two) 08**
- a) Primary screening
 - b) Diffusion assay
 - c) Batch sterilization
- Q.4 Answer the following (Any Two) 08**
- a) Write in detail on scale up of fermentation process.
 - b) Describe in detail strain improvement methods.
 - c) Write in detail on Inoculum development.
- Q.5 Answer the following (Any One) 08**
- a) Explain in detail Design of Fermenter.
 - b) Describe in detail batch fermentation.

Seat No.	
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Set **P**

**B.Sc. (Entrepreneurship) (Semester - II) (New) (CBCS) Examination:
Oct/Nov-2023**

**INDUSTRIAL MICROBIOLOGY (Paper - IV)
Basic Techniques in Industrial Microbiology (EN1207)**

Day & Date: Friday, 08-12-2023
Time: 09:00 AM To 11:00 AM

Max. Marks: 40

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

Q.1 Rewrite the sentences by selecting correct alternatives given below. 08

- 1) Biomass is taken for recovery of product when product is _____.
 - a) Extracellular
 - b) Thermolabile
 - c) Intracellular
 - d) Water soluble
- 2) _____ is full form of DDC.
 - a) Direct Digital Control
 - b) Data Digital Control
 - c) Data Direct Control
 - d) Digital Device Control
- 3) _____ test is used for detection of bacterial endotoxins in drugs.
 - a) BOD
 - b) IMUiC
 - c) MPN
 - d) LAL
- 4) Immunoaffinity chromatography is used for purification of _____.
 - a) Sugars
 - b) Antibodies
 - c) Lipids
 - d) Carbohydrates
- 5) _____ test is used for measuring strength of effluent.
 - a) BOD
 - b) MPN
 - c) SPC
 - d) LAL
- 6) Ethanol or methanol are solvents used for recovery of _____.
 - a) Sugars
 - b) Vaccines
 - c) Proteins
 - d) Hormones
- 7) Solid contaminant substances are removed by _____ from fermented broth.
 - a) Centrifugation
 - b) Drying
 - c) Distillation
 - d) Crystallization
- 8) _____ is an example of biological treatment of effluent.
 - a) Sedimentation
 - b) Filtration
 - c) Reverse osmosis
 - d) Activated sludge process

Q.2 Answer any four of the following. 08

- a) What is COD?
- b) What is by-product?
- c) What is cell harvesting?
- d) Define chromatography.
- e) What is meaning of Asepsis?
- f) Define Bioassay.

- Q.3 Write short notes on any two of the following. 08**
- a) Use of computer for monitoring of temperature
 - b) Market potential of product
 - c) Membrane process for product recovery
- Q.4 Answer any two of the following. 08**
- a) Describe in brief biological methods for effluent treatment.
 - b) Describe the control of foam and pressure by computer.
 - c) Describe in brief sterility testing of product.
- Q.5 Answer any one of the following. 08**
- a) Write an essay on “fermentation economics.”
 - b) Describe various types of chromatography for recovery of product.

Seat
No.**B.Sc. (Entrepreneurship) (Semester - II) (New) (CBCS) Examination:
Oct/Nov-2023****INDUSTRIAL BIOTECHNOLOGY (Paper - III)
Basics of Biomolecules (EN1208)**Day & Date: Saturday, 09-12-2023
Time: 09:00 AM To 11:00 AM

Max. Marks: 40

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

Q.1 Rewrite the following sentences by choosing the correct alternative. 08

- 1) Amino acids are mostly synthesised from _____.
a) α -ketoglutaric acid b) Volatile acids
c) Fatty acids d) Mineral salts
- 2) Name the simplest amino acid _____.
a) Asparagine b) Glycine
c) Alanine d) Tyrosine
- 3) Scurvy is caused due to deficiency of _____.
a) Vitamin A b) Vitamin C
c) Vitamin D d) Vitamin E
- 4) The term enzyme was coined by _____.
a) Buchner b) Pasteur
c) Kuhne d) Urey Miller
- 5) The chain of amino acids are _____.
a) Lipids b) Proteins
c) Cellulose d) Nucleic acids
- 6) Nucleoside contains _____.
a) base-sugar b) base-sugar-phosphate
c) base-phosphate d) sugar-phosphate
- 7) The fastest enzyme is _____.
a) Pepsin b) DNA gyrase
c) Carbonic anhydrase d) DNA polymerase
- 8) _____ is fat soluble vitamin.
a) Vitamin B1 b) Vitamin D
c) Vitamin C d) Vitamin B

Q.2 Answer the following (Any Four) 08

- a) Mucopolysaccharides
- b) Metalloenzymes
- c) Phospholipids
- d) Protein Purification
- e) Nucleotides
- f) Enzyme Activity

- Q.3 Write short notes (Any Two) 08**
- a) Write a detailed note on types of DNA.
 - b) Define Vitamins and add a note on fat soluble vitamins.
 - c) Define Carbohydrate and add a note on its structure and function.
- Q.4 Answer the following (Any Two) 08**
- a) Explain in details about denaturation and renaturation of DNA.
 - b) What is Monosaccharide? Enlist properties of Monosaccharides
 - c) Write a detail note on Cholestrol.
- Q.5 Answer the following (Any One) 08**
- a) Write a detailed note on Double helical model of DNA.
 - b) Define Lipids and Explain its classification, nomenclature and properties of fatty acids.

Seat No.	
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**B.Sc. (Entrepreneurship) (Semester - II) (New) (CBCS) Examination:
Oct/Nov-2023**

**INDUSTRIAL BIOTECHNOLOGY (Paper-IV)
Basics of Metabolism (EN1209)**

Day & Date: Sunday, 10-12-2023
Time: 09:00 AM To 11:00 AM

Max. Marks: 40

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

Q.1 Choose the correct alternatives from the options.

08

- 1) Which of the following has a spiral metabolic pathway?
 - a) Glycolysis
 - b) Citric acid cycle
 - c) Glyoxylate cycle
 - d) Fatty acid biosynthesis
- 2) _____ type of the pathway which is involved in the synthesis of compounds.
 - a) Anabolic pathways
 - b) Catabolic pathways
 - c) Amphibolic pathway
 - d) Anapleurotic pathway
- 3) _____ of the is not lipid.
 - a) Oil
 - b) Fat
 - c) Protein
 - d) Waxes
- 4) Beta-oxidation of fatty acids occurs in _____.
 - a) Peroxisome
 - b) Peroxisome and Mitochondria
 - c) Mitochondria
 - d) Peroxisome, Mitochondria and ER
- 5) _____ is the net gain of ATP during the conversion of glucose to pyruvate.
 - a) 2 ATP
 - b) 4 ATP
 - c) 6 ATP
 - d) 1 ATP +1 GTP
- 6) Which of the following is not the precursor of Purine ring?
 - a) Glutamine
 - b) Lysine
 - c) Aspartate
 - d) Glycine
- 7) Salvage pathway is used in synthesis of _____.
 - a) Amino acid
 - b) Carbohydrate
 - c) Nucleotide
 - d) fatty acid
- 8) A person with phenylketonuria cannot convert _____.
 - a) Phenylalanine to isoleucine
 - b) Phenylalanine to tyrosine
 - c) Phenylalanine to Lysine
 - d) Phenol into ketone

- Q.2 Answer the following (Any Four) 08**
- a) Describe Amino acids.
 - b) Define fatty acids.
 - c) Describe Alkaptonuria.
 - d) Define ATP.
 - e) Define Glycolysis.
 - f) Describe Glycogenolysis
- Q.3 Write short notes on (Any Two) 08**
- a) Write note on Nucleotidyl group transfer.
 - b) Explain in brief Even and odd chain fatty acids.
 - c) Write note on Biologically active amines.
- Q.4 Answers the following (Any Two) 08**
- a) Write note on Gout.
 - b) Explain in brief Primary and secondary metabolism.
 - c) Write note on Pasteur Effect.
- Q.5 Answers the following (Any One) 08**
- a) Explain in detail Recycling of Purine and Pyrimidine nucleotides by salvage pathways.
 - b) Describe in detail Ketogenesis and significance.

Seat No.	
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**B.Sc. (Entrepreneurship) (Semester - II) (Old) (CBCS) Examination:
Oct/Nov-2023
ENGLISH (Comp.)
Literary Voyage (EN201/EN20201)**

Day & Date: Saturday, 02-12-2023
Time: 09:00 AM To 11:00 AM

Max. Marks: 40

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

Q.1 Choose the correct alternative from the option. 08

- 1) _____ is the memorable part of discourse.
 - a) To give opportunity
 - b) To talk
 - c) To listen
 - d) To lead
- 2) According to Bertrand Russell, _____ had only one year of schooling.
 - a) Earnest Barker
 - b) John D. Rockefeller
 - c) Jay Gould
 - d) Vanderbilt Commodore
- 3) _____ plays a huge role and affects to an entire country.
 - a) Intrigue
 - b) Monarchy
 - c) Hope
 - d) Dismay
- 4) _____ release the arsenic urine.
 - a) Chemicals
 - b) Profit factories
 - c) Infected waste
 - d) The earth
- 5) Alexandra Pope wrote in _____ era.
 - a) Anglo-Saxon
 - b) Modern
 - c) Augustan
 - d) Romantic
- 6) The poet wishes to hear _____ from the lover.
 - a) marriage plans
 - b) future plans
 - c) about the work
 - d) about the family
- 7) Identify the correct synonym.
Amazing
 - a) Inquire
 - b) Special
 - c) Incredible
 - d) Idea
- 8) I saw a brown bird when I _____ the window.
 - a) opened
 - b) was open
 - c) will open
 - d) have open

Q.2 Answer the following questions (Any Four) 12

- a) How is humour and jest important of discourse?
- b) What opinions does the author have of education system of his time?
- c) What is the true sense of freedom?
- d) Discuss the theme of the poem – ‘Our Earth Will Not Die.’
- e) What picture of a farmer does Alaxander Pope present in the poem – Ode On Solitude?
- f) What are Rossetti’s thoughts about remembering the dead person?

Q.3 Answer the following questions (Any One) 10

- a) Describe the process of making chapattis. Write the process step by step and use different linkers while writing the process.
- b) Prepare a presentation on your favourite Cricketer / Film Hero / Heroine / National Leader, describing all the important details of them.

Q.4 Read the following advertisement and write an application letter for the post of a teacher based on the advertisement, giving all the details as required by it. 10

Army Public School
Nigdi - Pune
Wanted
Teacher

Educational Qualification: BSc, BEd and as per CBSE by laws

Experience: Minimum 2 yrs. of experience, teaching to high school level

Interested candidates may forward their application letter along with their CV's, certificates at the email address: armypublicschool@gmail.com within 15 days of publishing the advertisement.

Seat No.	
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**B.Sc. (Entrepreneurship) (Semester - II) (Old) (CBCS) Examination:
Oct/Nov-2023**

**Entrepreneurship Science (Paper - III)
Principles of Marketing & Management Accounting (EN202)**

Day & Date: Sunday, 03-12-2023
Time: 09:00 AM To 11:00 AM

Max. Marks: 40

- Instructions:** 1) All questions are compulsory.
2) Figures to the right indicate full marks.
3) Draw neat labeled diagrams wherever necessary.
4) Use of logarithmic table and calculator is allowed.

Q.1 Choose the correct alternatives from the options.

08

- 1) Mercatus means _____.

a) To buy	b) To sell
c) To trade	d) To assemble
- 2) _____ is the marketing of products in an environmental friendly way.

a) Green marketing	b) Social marketing
c) International Marketing	d) Holistic Marketing
- 3) _____ segmentation classifies consumers on the basis of age, sex, income and occupation.

a) Psychological	b) Geographic
c) Demographic	d) Behavioral
- 4) E-marketing stands for _____.

a) Email Marketing	b) Electronic Marketing
c) Entry Marketing	d) Eco-friendly Marketing
- 5) Management accounting deals with:

a) Quantitative information	b) Qualitative information
c) Both a and b	d) None of the above
- 6) Internationally accepted current ratio is _____.

a) 1:1	b) 1:2
c) 2:1	d) 2:3
- 7) Current assets – current liabilities = _____.

a) Fixed capital	b) Working capital
c) Opening capital	d) Closing capital
- 8) Analysis of any financial Statement comprises _____.

a) Balance sheet	b) P&L Account
c) Trading account	d) All of the above

- Q.2 Answer any four of the following:** **08**
- a) Define Marketing.
 - b) Define Service Marketing.
 - c) Define Segmentation.
 - d) Define Current Assets.
 - e) Define Ratio Analysis.
- Q.3 Write short notes on any two of the following.** **08**
- a) Nature of Marketing
 - b) Benefits of market segmentation
 - c) Explain classification of ratio
- Q.4 Answer any two of the following.** **08**
- a) Discuss features of E-marketing.
 - b) Differentiate between Selling and Marketing.
 - c) A company had following current Assets and Current Liabilities.
Debtors Rs. 60,000, Creditors Rs. 30,000, Bills Payable Rs. 20,000,
Stock Rs. 30,000, Loose Tools Rs. 10,000, Bank Overdraft Rs. 10,000
Calculate current ratio.
- Q.5 Answer any one of the following.** **08**
- a) What is Working Capital? Explain determinants of working capital.
 - b) What is E-marketing? Explain benefits and problems of E-Marketing.

- Q.3 Write notes on any two of the following. 08**
- a) Elements of Cost Sheet
 - b) Characteristic of Project
 - c) Project Life Cycle
- Q.4 Answer any Two of the following. 08**
- a) Differentiate between Cost Accounting and Financial Accounting.
 - b) Discuss classification of project.
 - c) Explain importance of Project Management.
- Q.5 Answer any one of the following. 08**
- a) Explain methods of Costing.
 - b) What is project manager? Explain Roles and responsibilities of project manager.

- Q.2 Answers any four of the following. 08**
- a) Define critical pressure and critical temperature.
 - b) Under what condition bimolecular reaction becomes a unimolecular one?
 - c) What are the requirements for liquefaction of gases?
 - d) Draw neat labelled diagram Oswald's viscometer.
 - e) Distinguish between the molecularity and order of reaction.
 - f) Define molarity and molality.
- Q.3 Write short notes on any two of the following. 08**
- a) Percentage by weight and percentage by volume.
 - b) Pseudounimolecular reaction.
 - c) Stalagmometer
- Q.4 Answers any two of the following. 08**
- a) Define viscosity and explain the method for its determination.
 - b) Explain the different methods for determination of concentration.
 - c) Give the characteristics of first order reaction.
- Q.5 Answers any one of the following. 08**
- a) What is an ideal gas? Explain with the help of Boyle's law the deviation of gases from ideal behaviour.
 - b) Derive characteristics equation for second order reaction in which reactants are at different concentration.

- Q.2 Answer any four of the following.** **08**
- a) Draw the structure of linear, branched and cross linked polymer.
 - b) What is mean by chemical oxygen demand?
 - c) Define the term monomer and elastomer.
 - d) What is mean by desalination of water?
 - e) What are anti-knock compounds? Give any two example.
 - f) Define antacid with any one example
- Q.3 Write short notes on any two of the following.** **08**
- a) Octane number
 - b) Chemical composition of milk
 - c) Buna- S rubber
- Q.4 Answer any Two of the following.** **08**
- a) Explain the condensation and addition polymerisation.
 - b) What is cracking? Why it is necessary to increase the yield of petrol.
 - c) Give the synthesis and use of PVC.
- Q.5 Answer any one of the following.** **08**
- a) What is refining of petroleum? How is petroleum refined? Give the constituents of petroleum.
 - b) What are polymers? Give the synthesis and uses of polychloroprene.

Seat No.	
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**B.Sc. (Entrepreneurship) (Semester - II) (Old) (CBCS) Examination:
Oct/Nov-2023**

**INDUSTRIAL MICROBIOLOGY – III
Fundamentals of Industrial Microbiology (EN206)**

Day & Date: Thursday, 07-12-2023
Time: 09:00 AM To 11:00 AM

Max. Marks: 40

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

Q.1 Choose the correct alternative and rewrite the sentences again.

08

- 1) A baffle avoids _____ in fermenter.

a) Disinfection	b) Fermentation
c) Vortex formation	d) Mixing of media
- 2) A Crowded plate technique is used for primary screening of _____.

a) Citric acid producer	b) Antibiotic producer
c) Vitamin Producer	d) Amine producer
- 3) Peptone is rich source of _____.

a) Lipids	b) Carbohydrate
c) Nitrogen	d) Oxygen
- 4) Cobalt chloride used in VitB₁₂ production is example of _____.

a) Nitrogen source	b) Precursor
c) Mineral	d) Carbon source
- 5) In the sterilization, steam is passed inside the fermenter using _____.

a) Baffles	b) Spargers
c) Impeller	d) Oven
- 6) Diffusion assay is performed for determination of _____.

a) Antibiotic	b) Vitamin
c) Organic acid	d) Both a and b
- 7) In the fermentation using _____, spore culture is used as inoculums.

a) Bacterial	b) Fungus
c) Yeast	d) Viral
- 8) Nonstop logarithmic growth is obtained in _____ fermentation.

a) Continuous	b) Batch
c) Solid state	d) Surface

Q.2 Answer in short (Any Four)

08

- a) What is antifoam agent?
- b) What is baffle?
- c) What is log phase?
- d) What is protoplast fusion?
- e) What is turbidostat?
- f) What is metabolic response assay?

- Q.3 Write short notes (Any Two)** **08**
- a) Primary screening
 - b) Diffusion assay
 - c) Batch sterilization
- Q.4 Answer the following (Any Two)** **08**
- a) Write in detail on scale up of fermentation process.
 - b) Describe in detail strain improvement methods.
 - c) Write in detail on Inoculum development.
- Q.5 Answer the following (Any One)** **08**
- a) Explain in detail Design of Fermenter.
 - b) Describe in detail batch fermentation.

**Seat
No.****Set P****B.Sc. (Entrepreneurship) (Semester - II) (Old) (CBCS) Examination:
Oct/Nov-2023****INDUSTRIAL MICROBIOLOGY (Paper - IV)
Basic Techniques in Industrial Microbiology (EN207)**Day & Date: Friday, 08-12-2023
Time: 09:00 AM To 11:00 AM

Max. Marks: 40

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

Q.1 Rewrite the sentences by selecting correct alternatives given below.**08**

- 1) Biomass is taken for recovery of product when product is _____.
a) Extracellular b) Thermolabile
c) Intracellular d) Water soluble
- 2) _____ is full form of DDC.
a) Direct Digital Control b) Data Digital Control
c) Data Direct Control d) Digital Device Control
- 3) _____ test is used for detection of bacterial endotoxins in drugs.
a) BOD b) IMUIC
c) MPN d) LAL
- 4) Immunoaffinity chromatography is used for purification of _____.
a) Sugars b) Antibodies
c) Lipids d) Carbohydrates
- 5) _____ test is used for measuring strength of effluent.
a) BOD b) MPN
c) SPC d) LAL
- 6) Ethanol or methanol are solvents used for recovery of _____.
a) Sugars b) Vaccines
c) Proteins d) Hormones
- 7) Solid contaminant substances are removed by _____ from fermented broth.
a) Centrifugation b) Drying
c) Distillation d) Crystallization
- 8) _____ is an example of biological treatment of effluent.
a) Sedimentation b) Filtration
c) Reverse osmosis d) Activated sludge process

Q.2 Answer any four of the following.**08**

- a) What is COD?
- b) What is by-product?
- c) What is cell harvesting?
- d) Define chromatography.
- e) What is meaning of Asepsis?
- f) Define Bioassay.

- Q.3 Write short notes on any two of the following. 08**
- a) Use of computer for monitoring of temperature
 - b) Market potential of product
 - c) Membrane process for product recovery
- Q.4 Answer any two of the following. 08**
- a) Describe in brief biological methods for effluent treatment.
 - b) Describe the control of foam and pressure by computer.
 - c) Describe in brief sterility testing of product.
- Q.5 Answer any one of the following. 08**
- a) Write an essay on “fermentation economics.”
 - b) Describe various types of chromatography for recovery of product.

Seat No.	
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**B.Sc. (Entrepreneurship) (Semester - II) (Old) (CBCS) Examination:
Oct/Nov-2023**

**INDUSTRIAL BIOTECHNOLOGY (Paper - III)
Basics of Biomolecules (EN208)**

Day & Date: Saturday, 09-12-2023
Time: 09:00 AM To 11:00 AM

Max. Marks: 40

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

Q.1 Rewrite the following sentences by choosing the correct alternative.

08

- 1) Amino acids are mostly synthesised from _____.

a) α -ketoglutaric acid	b) Volatile acids
c) Fatty acids	d) Mineral salts
- 2) Name the simplest amino acid _____.

a) Asparagine	b) Glycine
c) Alanine	d) Tyrosine
- 3) Scurvy is caused due to deficiency of _____.

a) Vitamin A	b) Vitamin C
c) Vitamin D	d) Vitamin E
- 4) The term enzyme was coined by _____.

a) Buchner	b) Pasteur
c) Kuhne	d) Urey Miller
- 5) The chain of amino acids are _____.

a) Lipids	b) Proteins
c) Cellulose	d) Nucleic acids
- 6) Nucleoside contains _____.

a) base-sugar	b) base-sugar-phosphate
c) base-phosphate	d) sugar-phosphate
- 7) The fastest enzyme is _____.

a) Pepsin	b) DNA gyrase
c) Carbonic anhydrase	d) DNA polymerase
- 8) _____ is fat soluble vitamin.

a) Vitamin B1	b) Vitamin D
c) Vitamin C	d) Vitamin B

Q.2 Answer the following (Any Four)

08

- a) Mucopolysaccharides
- b) Metalloenzymes
- c) Phospholipids
- d) Protein Purification
- e) Nucleotides
- f) Enzyme Activity

- Q.3 Write short notes (Any Two) 08**
- a) Write a detailed note on types of DNA.
 - b) Define Vitamins and add a note on fat soluble vitamins.
 - c) Define Carbohydrate and add a note on its structure and function.
- Q.4 Answer the following (Any Two) 08**
- a) Explain in details about denaturation and renaturation of DNA.
 - b) What is Monosaccharide? Enlist properties of Monosaccharides
 - c) Write a detail note on Cholestrol.
- Q.5 Answer the following (Any One) 08**
- a) Write a detailed note on Double helical model of DNA.
 - b) Define Lipids and Explain its classification, nomenclature and properties of fatty acids.

Seat No.	
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**B.Sc. (Entrepreneurship) (Semester - II) (Old) (CBCS) Examination:
Oct/Nov-2023**

**INDUSTRIAL BIOTECHNOLOGY (Paper-IV)
Basics of Metabolism (EN209)**

Day & Date: Sunday, 10-12-2023
Time: 09:00 AM To 11:00 AM

Max. Marks: 40

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

Q.1 Choose the correct alternatives from the options.

08

- 1) Which of the following has a spiral metabolic pathway?
 - a) Glycolysis
 - b) Citric acid cycle
 - c) Glyoxylate cycle
 - d) Fatty acid biosynthesis
- 2) _____ type of the pathway which is involved in the synthesis of compounds.
 - a) Anabolic pathways
 - b) Catabolic pathways
 - c) Amphibolic pathway
 - d) Anapleurotic pathway
- 3) _____ of the is not lipid.
 - a) Oil
 - b) Fat
 - c) Protein
 - d) Waxes
- 4) Beta-oxidation of fatty acids occurs in _____.
 - a) Peroxisome
 - b) Peroxisome and Mitochondria
 - c) Mitochondria
 - d) Peroxisome, Mitochondria and ER
- 5) _____ is the net gain of ATP during the conversion of glucose to pyruvate.
 - a) 2 ATP
 - b) 4 ATP
 - c) 6 ATP
 - d) 1 ATP +1 GTP
- 6) Which of the following is not the precursor of Purine ring?
 - a) Glutamine
 - b) Lysine
 - c) Aspartate
 - d) Glycine
- 7) Salvage pathway is used in synthesis of _____.
 - a) Amino acid
 - b) Carbohydrate
 - c) Nucleotide
 - d) fatty acid
- 8) A person with phenylketonuria cannot convert _____.
 - a) Phenylalanine to isoleucine
 - b) Phenylalanine to tyrosine
 - c) Phenylalanine to Lysine
 - d) Phenol into ketone

- Q.2 Answer the following (Any Four) 08**
- a) Describe Amino acids.
 - b) Define fatty acids.
 - c) Describe Alkaptonuria.
 - d) Define ATP.
 - e) Define Glycolysis.
 - f) Describe Glycogenolysis
- Q.3 Write short notes on (Any Two) 08**
- a) Write note on Nucleotidyl group transfer.
 - b) Explain in brief Even and odd chain fatty acids.
 - c) Write note on Biologically active amines.
- Q.4 Answers the following (Any Two) 08**
- a) Write note on Gout.
 - b) Explain in brief Primary and secondary metabolism.
 - c) Write note on Pasteur Effect.
- Q.5 Answers the following (Any One) 08**
- a) Explain in detail Recycling of Purine and Pyrimidine nucleotides by salvage pathways.
 - b) Describe in detail Ketogenesis and significance.

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B.Sc. (Entrepreneurship) (Semester - III) (New) (CBCS)
Examination: Oct/Nov-2023
ENTREPRENEURSHIP (Paper - V)

Principles of Business Management & Business Organization (EN1301)

Day & Date: Wednesday, 13-12-2023
 Time: 09:00 AM To 11:00 AM

Max. Marks: 40

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

Q.1 Multiple choice question.

08

- 1) Management is called a process because _____.
 a) It is applicable to the manufacturing process
 b) It is relevant for social organization
 c) It involves a series of action
 d) All of above
- 2) Management is a _____ Activity.
 a) Single
 b) Group
 c) Both group and single
 d) None
- 3) MBO offers the basis for assessing the _____.
 a) Operations
 b) Performance
 c) Equality
 d) None these
- 4) Management applies to _____.
 a) Business unit
 b) Family
 c) Government
 d) All
- 5) Which of the following is NOT an internal motivational force?
 a) goals
 b) needs
 c) attitudes
 d) feedback
- 6) The basic components of _____ are effort, performance, and outcomes.
 a) equity theory
 b) goal-setting theory
 c) expectancy theory
 d) social cognitive theory
- 7) The _____ leadership style is an expression of the leader's trust in the abilities of his subordinates.
 a) Participative
 b) Delegative
 c) Authoritarian
 d) All of the above
- 8) Work attitudes can be reflected in an organization through _____.
 a) Job satisfaction
 b) Organizational commitment
 c) Both 'A' and 'B'
 d) None of the above

Q.2 Answer Any Four of the following.

08

- a) Define Leadership.
- b) Define Motivation.
- c) Define Job enrichment.
- d) Define Staffing.
- e) Define Controlling.
- f) Define Participative Leadership.

- Q.3 Write short notes on any Two of the following. 08**
- a) Define Features of Planning?
 - b) Define Importance of organization?
 - c) Define Methods of Staffing?
- Q.4 Answer any Two of the following. 08**
- a) Describe Herzberg two factor theory?
 - b) Define qualities of leader?
 - c) Explain types of control?
- Q.5 Answer any One of the following. 08**
- a) Explain Characteristics and Importance of Business organization?
 - b) Explain nature of decision and Types of Decision?

- Q.2 Answer the following. (Any Four) 08**
- a) Draw a format of Ledger
 - b) Meaning of VAT
 - c) Define Co-Operative Society
 - d) Define Bank
 - e) Define Charitable Trust
- Q.3 Write short notes on (Any Two) 08**
- a) Insurance Claims
 - b) Cash Flow Statements
 - c) Features of GST
- Q.4 Answer the following. (Any Two) 08**
- a) Write down Types and Rules of Account
 - b) Draw a main menu of Tally
 - c) Write down final Account?
- Q.5 Answer the following. (Any One) 08**
- a) What is Audit? Explain Scope and types of Audit?
 - b) Explain the function key in tally with Example.

Seat No.	
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**B.Sc. (Entrepreneurship) (Semester - III) (New) (CBCS) Examination:
Oct/Nov-2023**

INDUSTRIAL CHEMISTRY (Paper - V)

Analytical & Industrial Aspects of Inorganic Chemistry (EN1303)

Day & Date: Friday, 15-12-2023
Time: 09:00 AM To 11:00 AM

Max. Marks: 40

- Instructions:** 1) All questions are compulsory.
2) Figures to the right indicate full marks.
3) Draw neat diagrams and give equations wherever necessary.
4) Use of logarithmic table and calculator is allowed.

Q.1 Rewrite the following sentences by choosing the correct alternative.

08

- 1) Ultramarine blue is used as _____ agent.

a) wetting	b) antifoaming
c) brightening	d) humectants
- 2) Proguanil is an _____.

a) antimalarial	b) antibiotic
c) antibacterial	d) CNS
- 3) The detergent suitable for hard water is generally _____.

a) ionic	b) non-ionic
c) cationic	d) Non-cationic
- 4) Jute and wool is the example of _____ fiber.

a) man-made	b) vegetable
c) mineral	d) natural
- 5) Soap is _____ molecule.

a) hydrophilic	b) basic hydrophobic
c) amphipathic	d) All of these
- 6) Typhoid, typhus is cured by _____.

a) ibuprofen	b) tolbutamide
c) isoniazide	d) chloromycetin
- 7) Indole acetic acid is used as _____.

a) fungicide	b) insecticide
c) herbicide	d) none of these
- 8) An insecticide that is cyclic sulphate ester is _____.

a) endosulphan	b) carbaryl
c) ethophon	d) FeSO ₄

- Q.2 Answer Any four of the following.** **08**
- a) Define hydrophobic and hydrophilic.
 - b) What are the agrochemicals? Give any two examples.
 - c) What are the vat dyes?
 - d) Give the synthesis of deriphat.
 - e) Give the synthesis of tolbutamide.
 - f) What is the byproduct of sugar industry?
- Q.3 Write short notes on any two of the following.** **08**
- a) Classification of detergents
 - b) Anti-inflammatory drug
 - c) Synthesis and uses of ethophan
- Q.4 Answer any two of the following.** **08**
- a) What is a drug? How drug is classified.
 - b) Explain cleansing action of soap.
 - c) Explain the plant growth hormones.
- Q.5 Answer any one of the following.** **08**
- a) What is mean by fermentation process? How is the ethyl alcohol obtained from molasses?
 - b) Explain the process of singeing, desizing and scouring in textile chemistry.

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B.Sc. (Entrepreneurship) (Semester - III) (New) (CBCS)
Examination: Oct/Nov-2023
INDUSTRIAL CHEMISTRY (Paper – VI)
Analytical & Industrial Aspects of Organic Chemistry (EN1304)

Day & Date: Saturday, 16-12-2023
Time: 09:00 AM To 11:00 AM

Max. Marks: 40

- Instructions:** 1) All questions are compulsory.
2) Figures to the right indicate full marks.
3) Draw neat diagrams and give equations wherever necessary.
4) Use of logarithmic table and calculator is allowed.

Q.1 Multiple choice questions.

08

- 1) Sugar cane contains _____ percentage of crystallisable sugar.
a) 70-75
b) 10-15
c) 1
d) 100
- 2) _____ stimulates the latex production in rubber trees.
a) Ethophan
b) Methoxychor
c) Monocrotophos
d) Carbaryl
- 3) Phenobarbitone is used as _____.
a) antimalarial
b) antibiotic
c) antibacterial
d) CNS
- 4) Coltex is manufactured from _____.
a) molasses
b) bagasse
c) cane juice
d) None of these
- 5) Pyrethroides are natural _____ insecticides.
a) stomach
b) contact
c) fumigants
d) None of these
- 6) In sizing, poly vinyl alcohol is used as _____.
a) antiseptic
b) anti-mildew agent
c) adhesive
d) humectants
- 7) First line antituberculer drug is _____.
a) isoniazide
b) streptomycine
c) cephaloporins
d) ampicillin
- 8) Among the following, which is not a natural fiber?
a) Nylon
b) Jute
c) Silk
d) Wool

Q.2 Answer Any four of the following.

08

- a) Distinguish between soaps and detergents.
b) What is the antibiotic?
c) Define the term rectified spirit and power alcohol
d) Write the steps involve in synthesis of monocrotophos
e) What are raw materials used in preparation of soaps?
f) What are the example of vegetable fibre?

- Q.3 Write short notes on any two of the following. 08**
- a) CNS drugs
 - b) Hot process of soap manufacturing
 - c) Agrochemicals
- Q.4 Answer any two of the following. 08**
- a) Write the synthesis and uses of Indol-3-acetic acid.
 - b) Give the preparation and uses of teepol.
 - c) What are the qualities of ideal drug?
- Q.5 Answer any one of the following. 08**
- a) What is sizing process? Discuss the different ingredients and functions for sizing.
 - b) Discuss in brief different steps involved in refining of raw sugar.

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B.Sc. (Entrepreneurship) (Semester - III) (New) (CBCS)
Examination: Oct/Nov-2023
MICROBIAL BIOTECHNOLOGY (Paper – V)
Genetics (EN1305)

Day & Date: Sunday, 17-12-2023
Time: 9:00 AM To 11:00 AM

Max. Marks: 40

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

Q.1 Choose the correct alternative and rewrite the following sentences. 08

- 1) The process of transfer of characters from parents to offspring is referred to as _____.
a) Inheritance b) Variation
c) Heritage d) Genetics
- 2) The thread-like structures, which appear inside the nucleus at the time of cell division, are called _____.
a) Spindle fibers b) Centrioles
c) Chromosomes d) Asters
- 3) The deamination of adenine is _____.
a) Guanine b) Hypoxanthine
c) Uracil d) Cytosine
- 4) Chromosome structure can be observed best during _____.
a) Telophase b) Metaphase
c) Anaphase d) Prophase
- 5) Linkage _____ as the distance between two genes _____.
a) Increases, Increases b) Decreases, Increases
c) Decreases, decreases d) Unaffected, Decreases
- 6) Introduction of DNA molecules into the recipient organism is termed as _____.
a) Translation b) Transformation
c) Transduction d) Transcription
- 7) A fully expressed allele is referred to as _____.
a) Dominant b) Recessive
c) Heterozygous d) Homologous
- 8) _____ is the chemical mutagen affects only replicating DNA.
a) Acridine dye b) Alkylating agent
c) Deaminating agent d) Base analog

- Q.2 Answer any four of the following. 08**
- a) Define Mutagenic agent.
 - b) Define Crossing Over.
 - c) Define phenotypic ratio.
 - d) Enlist features of crossing over.
 - e) Define Fate of exogenote.
 - f) Draw structure of Chromosome.
- Q.3 Write short note on any two of the following. 08**
- a) Define Chromosome and explain Types of chromosome.
 - b) Explain Law of Independent assortment with suitable example.
 - c) Define Transposable elements and explain types of Transposable elements.
- Q.4 Answer the following. (Any two) 08**
- a) Write a detailed note on Conjugation.
 - b) Explain Monohybrid Cross with suitable example.
 - c) Define Linkage and explain types and phases of linkage.
- Q.5 Answer any one of the following. 08**
- a) Define Mutation and write a note on Chemical, physical and biological mutagenic agents.
 - b) Define Mutation Chromosomal aberration and explain Translocations, inversions, deletions and duplications.

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**B.Sc. (Entrepreneurship) (Semester - III) (New) (CBCS) Examination:
Oct/Nov-2023**

**MICROBIAL BIOTECHNOLOGY (Paper – VI)
Fermentation Technology (EN1306)**

Day & Date: Monday, 18-12-2023
Time: 9:00 AM To 11:00 AM

Max. Marks: 40

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

Q.1 Choose the correct alternative and rewrite the sentences. 08

- 1) *Bacillus thuringensis* is mainly used as _____.
a) Weedicide b) Insecticide
c) Fungicide d) Rodenticide
- 2) The most commonly used microorganism in alcohol fermentation is _____.
a) *Aspergillus niger* b) *Bacillus subtilis*
c) *Sacharomyces cerevisiae* d) *Escherichia coli*
- 3) Citric acid is used as _____.
a) Flavouring agent in food b) As preservative
c) As an antioxidant d) All of the above
- 4) _____ is the example of algal Biofertilizer.
a) *Pseudomonas* b) *Acetobacter*
c) *Rhizobium* d) *Azolla*
- 5) _____ is raw material commonly used during wine production.
a) Wheat b) Sorghum
c) Grapes d) Maize
- 6) _____ is the example of Asymbiotic nitrogen fixing organism.
a) *Azotobacter* b) *Rhizobium*
c) *Pseudomonas* d) *Bacillus*
- 7) Ethanol recovery and purification is mainly carried out by using _____ technique.
a) Drying b) Precipitation
c) Distillation d) Solvent extraction
- 8) _____ is the dried biomass of single species which is rich in protein.
a) SCP b) RTD
c) SPC d) MPN

Q.2 Answer the following (Any Four) 08

- a) PHB
- b) Biogas uses
- c) SCP
- d) Micro-organisms involved in Amylase production.
- e) PHA

- Q.3 Write short note on (Any Two) 08**
- a) Explain in brief Biofuel production.
 - b) Describe in brief Wine production.
 - c) Explain in brief Biofertilizer production.
- Q.4 Answer the following (Any Two) 08**
- a) Explain in brief Penicillin production.
 - b) Write in detail Classification and Types of Antibiotics.
 - c) Describe in detail Amylase production.
- Q.5 Answer the following (Any One) 08**
- a) Describe in detail streptomycin production.
 - b) Give a detailed account on Citric acid production.

- Q.2 Answer any four of the following. 08**
- a) Horizontal Structure of Organization.
 - b) Vertical Structure of Organization.
 - c) Define Staffing.
 - d) Define Motivation.
 - e) Define Control.
 - f) Define Direction and Leadership.
- Q.3 Write Shorts note on any two of the following. 08**
- a) Explain in Brief Theory X- Motivation.
 - b) Explain Steps in Control.
 - c) Explain in Brief Theory Z- Motivation.
- Q.4 Answer any two of the following 08**
- a) Explain Contribution of Henry Fayola towards School of Management.
 - b) Explain Process of Decision making.
 - c) Explain Leadership style.
- Q.5 Answer any one of the following. 08**
- a) Define planning? Explain types of planning.
 - b) Define Staffing? Explain Methods of Staffing.

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**B.Sc. (Entrepreneurship) (Semester - III) (Old) (CBCS) Examination:
Oct/Nov-2023**

**ENTREPRENEURSHIP (Paper - VI)
Advanced Accountancy & Auditing (EN302)**

Day & Date: Thursday, 14-12-2023
Time: 09:00 AM To 11:00 AM

Max. Marks: 40

- Instructions:** 1) All questions are compulsory.
2) Figures to the right indicate full marks.
3) Draw neat diagrams and give equations wherever necessary.
4) Use of logarithmic table and calculator is allowed.

Q.1 Multiple choice questions.

08

- 1) _____ is not a current asset.
 - a) Debtors
 - b) Bills receivable
 - c) Stock
 - d) Land and Building
- 2) Increases in current asset will _____.
 - a) Increase in working capital
 - b) Decrease in working capital
 - c) No effect on working capital
 - d) None of the above
- 3) The short key to quit from tally is _____.
 - a) Ctrl+L
 - b) Ctrl+P
 - c) Ctrl+M
 - d) Ctrl+Q
- 4) The term _____ refers to unintentional mistake in financial information.
 - a) Mistake
 - b) Errors
 - c) Mismanagement
 - d) Misstatement
- 5) Increases in current asset will _____.
 - a) Increase in working capital
 - b) Decrease in working capital
 - c) No effect on working capital
 - d) None of the above
- 6) An audit which is compulsory by the law _____.
 - a) Government audit
 - b) Internal audit
 - c) Cost audit
 - d) Statutory audit
- 7) Internal auditor is appointed by _____.
 - a) The management
 - b) The government
 - c) The creditors
 - d) The investors
- 8) Cost audit primarily covers the _____ aspects of the enterprise.
 - a) Financial
 - b) Cost
 - c) Management
 - d) Human

Q.2 Answer any four of the following.

08

- a) Define GST.
- b) What is bank pass book?
- c) Define funds Flow
- d) Define Audit.
- e) What is insurance claim?
- f) What is Voucher?

Q.3 Write short notes on any two of the following.**08**

- a) Write Classification of Accounts.
- b) Objectives of auditing
- c) State difference between Internal Audit and External Audit.
- d) From the following particulars prepare Bank Reconciliation Statement as on 31st June 2023.
 - i) Credit balance as per Pass Book Rs. 20,000.
 - ii) Cheque deposited Rs. 9,700 collected by bank was not recorded in Cash Book
 - iii) Electricity bill paid by bank Rs. 6,200 was recorded twice in Pass Book
 - iv) Bank charges Rs. 500 was debited in Pass Book.

Q.4 Answer any two of the following.**08**

- a) Prepare a schedule of changes in working capital from the summary of balance sheets given below:

Liabilities	31-12-21	31-12-22	Assets	31-12-21	31-12-22
Share Capital	70,000	95,000	Fixed Assets	90,000	1,00,000
Reserves	30,000	35,000	Current Assets	30,000	50,000
Current Liabilities	15,000	30,000			

- b) Explain need of Internal Audit.
- c) Discuss Qualifications and Disqualifications of an Auditor of Joint Stock Company.

Q.5 Answers any one of the following.**08**

- a) Explain various types of Audit.
- b) State difference between Funds Flow Statement and Cash Flow Statement

- Q.3 Write short notes on any two of the following. 08**
- a) Digestion of precipitate
 - b) Name only types of catalysis
 - c) Classification of catalytic reaction
- Q.4 Answer any Two of the following. 08**
- a) Draw neat labeled diagram for manufacture of ammonia by Haber process.
 - b) Give 4 merits of contact process.
 - c) Explain the term galvanizing.
- Q.5 Answer any one of the following. 08**
- a) Explain nucleation & co precipitation.
 - b) Explain neutralization curve & choice of indicator of titration between strong acid & strong base.

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B.Sc. (Entrepreneurship) (Semester - III) (Old) (CBCS)
Examination: Oct/Nov - 2023
INDUSTRIAL CHEMISTRY (Paper – VI)
Analytical & Industrial Aspects of Organic Chemistry (EN304)

Day & Date: Saturday, 16-12-2023
 Time: 09:00 AM To 11:00 AM

Max. Marks: 40

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

Q.1 Multiple Choice Questions.**08**

- 1) Which of the following methods can be used to remove the permanent hardness in water due to calcium or magnesium sulphates?
 - a) Zeolite method
 - b) Sulphonate method
 - c) Nitrate method
 - d) All of the above
- 2) _____ is added to the spirits to enhance it.
 - a) Flavor additives
 - b) Alcohol
 - c) Acid
 - d) Water
- 3) Solution dyeing is mostly used for _____ fibers.
 - a) Wool
 - b) Synthetic
 - c) Natural
 - d) Cellulose
- 4) Paludrin is an _____.
 - a) antimalarial
 - b) antibacterial
 - c) CNS
 - d) antidiabetic
- 5) Defecation is a process used in _____ of cane juice.
 - a) filtration
 - b) concentration
 - c) purification
 - d) extraction
- 6) _____ is used as a common salt in detergents.
 - a) Sulphate
 - b) Carbonate
 - c) Sulphonate
 - d) Nitrate
- 7) The chemicals used to control weeds are called as _____.
 - a) insecticide
 - b) pesticides
 - c) herbicides
 - d) warmicides
- 8) The process of removal of starch materials is called as _____.
 - a) desizing
 - b) sizing
 - c) scouring
 - d) bleaching

Q.2 Answer the following. (Any Four)**08**

- a) Define antibiotics with suitable example.
- b) Write the uses of carbaryl.
- c) What are the types of soaps?
- d) Write the synthesis of teepol.
- e) Name the general idea of properties of starch.
- f) What are the reactive dyes?

- Q.3 Write short notes. (Any Two) 08**
- a) Describe the Cleansing action of soaps.
 - b) Define fibers. Give the classification of fibers in details.
 - c) Draw the block diagram for manufacturing process of alcohol in industry.
- Q.4 Answer the following. (Any Two) 08**
- a) Explain the types of detergents with suitable examples.
 - b) What are the agrochemicals? Give the general idea about agrochemicals.
 - c) Write the synthesis and uses of antidiabetic drugs with suitable example.
- Q.5 Answer the following. (Any One) 08**
- a) What are sizing process and discuss different ingredients used for sizing?
 - b) Give the synthesis and uses of following.
 - 1) Monocrotophos
 - 2) Ethophan

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**B.Sc. (Entrepreneurship) (Semester - III) (Old) (CBCS) Examination:
Oct/Nov - 2023
MICROBIAL BIOTECHNOLOGY (Paper – V)
Genetics (EN305)**

Day & Date: Sunday, 17-12-2023
Time: 09:00 AM To 11:00 AM

Max. Marks: 40

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

Q.1 Choose the correct alternatives and rewrite the following sentence. 08

- 1) The structure of DNA by _____ received the Nobel Prize in 1962.
 - a) Maurice Wilkins
 - b) Francis Crick
 - c) Rosalind Franklin
 - d) Erwin Chargaff
- 2) Introduction of DNA molecules into the recipient organism is termed as _____.
 - a) translation
 - b) transduction
 - c) transformation
 - d) transcription
- 3) Recombination occurs in _____.
 - a) Single strand stage
 - b) Two strand stage
 - c) Three strand stage
 - d) Four strand stage
- 4) Genotype of dominant plant can be determined by _____.
 - a) pedigree analysis
 - b) dihybrid cross
 - c) back cross
 - d) test cross
- 5) Conjugation can't take place between _____.
 - a) F' and F-
 - b) F- and F+
 - c) HFR and F-
 - d) HFR and F+
- 6) The Hfr chromosome is transferred to the F⁻ cell in a _____ fashion.
 - a) Dimer
 - b) coiled
 - c) linear
 - d) circular
- 7) _____ is the chemical mutagen affects only replicating DNA.
 - a) Acridine dye
 - b) Alkylating agent
 - c) Deaminating agent
 - d) Base analog
- 8) _____ cells of E.coli are referred to as F⁻.
 - a) Male cells
 - b) Female cells
 - c) Both male and female cells
 - d) Neither male nor female cells

- Q.2 Answer any four of the following: 08**
- a) Define Translation
 - b) Draw structure of Chromosome
 - c) Define epitasis
 - d) Explain Chi square Test
 - e) Enlist factors affecting crossing over
 - f) What is Fate of exogenote?
- Q.3 Write short notes on any two of the following: 08**
- a) Define Mutation and add a note on Mutagenic agent.
 - b) What is Gene Interaction and add a note on Supplementary Gene Interaction.
 - c) Define and Explain Genotypic and phenotypic ratio.
- Q.4 Answer any two of the following: 08**
- a) Define Linkage and explain types and phases of linkage.
 - b) Explain Law of Independent assortment with suitable example.
 - c) Write a detailed note on types of Chromosomal aberration.
- Q.5 Answer any one of the following: 08**
- a) Define Transposable elements and explain types of Transposable elements.
 - b) Define and explain process of Conjugation in detail.

Seat No.	
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**B.Sc. (Entrepreneurship) (Semester - III) (Old) (CBCS) Examination:
Oct/Nov-2023**

**MICROBIAL BIOTECHNOLOGY (Paper - VI)
Fermentation Technology (EN306)**

Day & Date: Monday, 18-12-2023

Max. Marks: 40

Time: 09:00 AM To 11:00 AM

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

Q.1 Choose the correct alternatives from the options.

08

- 1) _____ is present in structure of Vitamin B12
 - a) Zinc
 - b) Cobalt
 - c) Iron
 - d) Calcium
- 2) Streptomycin fermentation occurs in _____ phases.
 - a) 2
 - b) 4
 - c) 3
 - d) 5
- 3) Grape juice is used for production of _____.
 - a) Wine
 - b) Beer
 - c) Whisky
 - d) Brandy
- 4) _____ is used as precursor for penicillin fermentation.
 - a) Lactic acid
 - b) Cobalt
 - c) Phenylacetic acid
 - d) Penicilloic acid
- 5) Hops are added during _____ fermentation.
 - a) Beer
 - b) Streptomycin
 - c) Citric acid
 - d) Lysine
- 6) Azotobacter is used for production of _____.
 - a) Bioinsecticide
 - b) Biofuel
 - c) SCP
 - d) Biofertilizer
- 7) _____ discovered antibiotic streptomycin.
 - a) Alexande Fleming
 - b) Waksman
 - c) Louis Pasteur
 - d) Ed. Jenner
- 8) Major disadvantage of using bacteria as SCP is _____.
 - a) Higher Protein
 - b) Higher growth
 - c) Higher Nucleic acid
 - d) Higher cost

Q.2 Answer Any Four of the following:

08

- a) Define antibiotics
- b) Give applications of Citric acid.
- c) What is Biofuel?
- d) What is Malt?
- e) What is significance of bioinsecticides?
- f) What is full form of PHA?

- Q.3 Write short notes on any Two of the following.** **08**
- a) Biofuel production.
 - b) Streptomycin production
 - c) SCP production.
- Q.4 Answer any Two of the following.** **08**
- a) Describe in brief production biofertilizer by using Azotobacter.
 - b) Describe in brief Alcohol production.
 - c) Describe in brief Amylase fermentation.
- Q.5 Answer any One of the following.** **08**
- a) Describe in detail Beer production.
 - b) Describe in detail Vitamin B₁₂ production.

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**B.Sc. (Entrepreneurship) (Semester - IV) (New) (CBCS) Examination:
Oct/Nov-2023**

**ENTREPRENEURSHIP (Paper - VII)
Corporate Accounting & Professional Ethics (EN401)**

Day & Date: Wednesday, 13-12-2023
Time: 12:00 PM To 02:00 PM

Max. Marks: 40

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

Q.1 Choose the correct alternative and rewrite the sentences again. 08

- 1) A company issues its shares of Rs. 100 each at Rs. 110 per share. The excess money of Rs. 10 each is _____.
 - a) Share premium
 - b) Share discount
 - c) Nominal value
 - d) Operating profit
- 2) The call demanded by company if not paid by a shareholder, will be debited to _____ A/c.
 - a) Share Capital
 - b) Capital Reserve
 - c) Reserve fund
 - d) Calls in arrears
- 3) The document inviting offers from public to subscribe its share is called _____.
 - a) Share certificate
 - b) Table A
 - c) Prospectus
 - d) None of the above
- 4) Capital stated in the capital clause of Memorandum of Association is called _____.
 - a) Issued Capital
 - b) Subscribed Capital
 - c) Reserve capital
 - d) Authorized Capital
- 5) As per Schedule VI of the Companies Act, 1956, Forfeited Shares Account will be _____.
 - a) Added to paid up capital
 - b) Deducted from paid up capital
 - c) Shown as a capital reserve
 - d) Shown as a revenue reserve
- 6) Dividend declared in between two annual general meetings are called _____.
 - a) Final dividend
 - b) Half dividend
 - c) Interim dividend
 - d) Full dividend
- 7) Debtors are _____.
 - a) Current liability
 - b) Fixed asset
 - c) Current asset
 - d) Long term liability
- 8) On liquidation of company, the preferential payment in respect of salary or wages is restricted to _____.
 - a) Rs. 10,000
 - b) Rs. 20,000
 - c) Rs. 30,000
 - d) Rs. 40,000

- Q.2 Answer any four of the following.** **08**
- Define authorized share capital.
 - Define subsidiary company.
 - Define liquidation of a company.
 - What is holding company?
 - What is a merger?
 - Define MNC.

- Q.3 Write Shorts note on any two of the following.** **08**
- Explain in brief business ethics.
 - Explain factors influencing valuation of share.
 - Briefly explain corporate social responsibility.

- Q.4 Answer any two of the following** **08**
- From the following information prepare the balance sheet of XYZ Ltd. as per the (revised) Schedule VI:

Particulars	Rs.	Particulars	Rs.
Stock	7,00,000	Equity share capital	16,00,000
Plant & machinery	8,00,000	Preference share capital	6,00,000
General reserve	6,00,000	Bills payable	1,50,000
Provision for taxation	2,50,000	Land & building	16,00,000
Investments	10,00,000	Cash at bank	5,00,000
Creditors	2,00,000	12% debentures	12,00,000
Profit & loss 3a/c (cr.)	50,000	Debtors	50,000

- Explain importance of corporate governance.
- Explain Role of MNC's in globalization.

- Q.5 Answer any one of the following.** **08**
- The OMG Co. Ltd. went in to voluntary liquidation on 31st March, 2021. Its balance sheet as follows:

Particulars	Rs.	Particulars	Rs.
Issued and paid up 19,500 shares of Rs. 10 each	1,95,000	Freehold property	98,000
Loan secured by freehold property	55,000	Plant & Machinery	65,000
Preferential Creditors	24,300	Stock	55,400
Unsecured Creditors	1,12,000	Sundry debtors	64,000
		Cash	3,900
		Profit & loss A/c	1,00,000
	3,86,300		3,86,300

The liquidator realized the assets as follows:

Leasehold property Rs. 95,000

Plant and machinery Rs.51,000

Stock Rs. 39,000

Debtors Rs. 58,500

The expenses of liquidation amounted to Rs. 2,000 and remuneration to liquidator was agreed at 2.5% on the amount realized including cash and 2% on the amount paid to unsecured creditors including preference creditors.

Prepare Liquidators Final Statement of Account

- b)** Explain factors influencing the globalization in India.

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**B.Sc. (Entrepreneurship) (Semester - IV) (New) (CBCS) Examination:
Oct/Nov-2023**

ENTREPRENEURSHIP (Paper –VIII)

International Marketing & Marketing Decision (EN402)

Day & Date: Thursday, 14-12-2023

Max. Marks: 40

Time: 12:00 PM To 02:00 PM

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

Q.1 Rewrite the following sentences by choosing the correct alternative.

08

- 1) Designs are periodically modified to _____.
 - a) Improve product performance
 - b) Strive for zero-based rejection and waste
 - c) Make products easier and faster to manufacture
 - d) all of the mentioned
- 2) Person's own living or interacting and acting pattern is classified _____.
 - a) Lifestyle
 - b) Personality and self-concept
 - c) Social class
 - d) None of above
- 3) Needs of customers are triggered by _____.
 - a) Internal stimuli
 - b) External stimuli
 - c) Both a and b
 - d) None of above
- 4) Customers keeping such information that supports their attitudes towards brand is classified as _____.
 - a) Selective attention
 - b) Selective distortion
 - c) Selective retention
 - d) All of above
- 5) Extension of marketing activities across the globe is called as _____.
 - a) International Business
 - b) Universal Marketing
 - c) International Marketing
 - d) Borderless Marketing
- 6) _____ factors affect international marketing decisions.
 - a) Political
 - b) Economical
 - c) Social
 - d) All of the above
- 7) EPRG stands for _____.
 - a) Ethical, Political, Regional or Geographical orientation
 - b) Ethnographic, Polygraphic, Regiographic or Geographic orientation
 - c) Ethnocentric, Polycentric, Regiocentric or Geocentric orientation
 - d) Ethical, Political, Regional or Geometrical orientation
- 8) _____ is not a major type of electronic commerce.
 - a) Consumer to Business
 - b) Business to Consumer
 - c) Business to Business
 - d) Consumer to Consumer

- Q.2 Answer Any four of the following.** **08**
- a) Define E- marketing.
 - b) Define Trade
 - c) Define E- commerce
 - d) Define Sales promotion
 - e) Define Brand Management.
 - f) Define Globalization
- Q.3 Write short notes on any two of the following.** **08**
- a) Explain Whole sellers and its Types & Function?
 - b) Define Models of behavior?
 - c) Define Product idea & its process?
- Q.4 Answer any two of the following.** **08**
- a) Describe Market Selection, Emergence of Global Marketing?
 - b) Define Meaning of consumer behavior, Determinants of consumer behavior.
 - c) Explain Types of Product?
- Q.5 Answer any one of the following.** **08**
- a) Describe Foreign Trade and steps involved in import & Export Internet marketing?
 - b) Explain Definition of price decision and its objectives?

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No.

**B.Sc. (Entrepreneurship) (Semester - IV) (New) (CBCS) Examination:
Oct/Nov-2023**

INDUSTRIAL CHEMISTRY (Paper – VII)

Analytical & Industrial Aspects of Physical Chemistry (EN403)

Day & Date: Friday, 15-12-2023
Time: 12:00 PM To 02:00 PM

Max. Marks: 40

- Instructions:** 1) All questions are compulsory.
2) Figures to the right indicate full marks.
3) Draw neat labelled diagrams must be drawn wherever necessary.
4) Use of log table and calculator is allowed.

Q.1 Multiple choice questions.

08

- 1) To determine cell constant, _____ electrolyte is used.
 - a) HCl
 - b) H₂SO₄
 - c) NaCl
 - d) KCl
- 2) The determination of _____ is the basic requirement of potentiometric titration.
 - a) cell constant
 - b) conductance
 - c) electrode potential
 - d) transmittance
- 3) In conductivity cell, the electrodes used are made up of _____.
 - a) gold
 - b) silver
 - c) leads
 - d) platinum
- 4) The sum of transport number of cation and anion is equal to _____.
 - a) 1
 - b) 0
 - c) 0.6
 - d) 0.5
- 5) If Propane and air are used in burner how many °C temp. is produced?
 - a) 3000
 - b) 2800
 - c) 2200
 - d) 1900
- 6) In case of uni-univalent electrolyte, the value of equivalent conductivity and molecular conductivity are _____.
 - a) equal
 - b) unequal
 - c) remains same
 - d) none of these
- 7) In premix burner _____ of the sample used.
 - a) 100%
 - b) only 5%
 - c) 50%
 - d) nearly 95%
- 8) Glass electrode is made up of a special glass of relatively low melting point and _____.
 - a) low electrical conductivity
 - b) high electrical conductivity
 - c) low ionic conductivity
 - d) none of these

Q.2 Answer any four of the following.

08

- a) Define metallic conductor and electrolytic conductor.
- b) Give the statement of Lambert's law.
- c) List the various burner used in flame photometer.
- d) Define pH and pOH
- e) What is mean by conductance and give its unit.
- f) Draw the neat labeled diagram of calomel electroded.

- Q.3 Write short notes on any two of the following. 08**
- a) Transport number
 - b) Total consumption burner
 - c) Photoelectric colorimeter
- Q.4 Answer any two of following. 08**
- a) Explain moving boundary method
 - b) Explain Beer's law and give its limitation.
 - c) Give the limitations of flame photometer.
- Q.5 Answer any one of the following. 08**
- a) Explain in detail quinhydrone and glass electrode and their uses in determination of pH.
 - b) Define conductometric titration. Give the types of acid-base titration with suitable example. Explain strong acid strong base conductometric titration.

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**B.Sc. (Entrepreneurship) (Semester - IV) (New) (CBCS) Examination:
Oct/Nov-2023**

**INDUSTRIAL CHEMISTRY (Paper – VIII)
Industrial Aspects of Applied Chemistry (EN404)**

Day & Date: Saturday, 16-12-2023
Time: 12:00 PM To 02:00 PM

Max. Marks: 40

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

Q.1 Choose the correct alternatives from the options.

08

- 1) The pieces of waste glass is known as _____.
a) flux
b) swag
c) slag
d) cullets
- 2) In electroplating, the electro-deposition take place at _____.
a) anode
b) cathode
c) cathode and anode
d) None of these
- 3) In manufacture of urea _____ is used as raw material.
a) NH_3 and CO_2
b) $(\text{NH}_4)_2\text{CO}_3$ and H_2
c) HCl and HNO_3
d) H_2SO_4 and CO_2
- 4) Stainless steel contains _____ % chromium along with nickel.
a) 12 to 20
b) 20 to 25
c) 15 to 20
d) 30 to 35
- 5) N, P, and K consumed in large quantities by the plants for their growth are called _____ nutrients.
a) tertiary
b) secondary
c) primary
d) micro
- 6) The word keromos means _____.
a) glass
b) cement
c) polymer
d) ceramics
- 7) The rate of electrodeposition _____ with increase in applied electric current.
a) increases
b) decreases
c) not affected
d) None of these
- 8) What change is observed when a glass is heated?
a) It bursts
b) It solidifies
c) It become softer
d) It disintegrates

- Q.2 Answers any four of the following. 08**
- a) Give the classification of ceramics.
 - b) Write the properties of superphosphate fertilizers.
 - c) Comment on occurrence of metals.
 - d) What are the colored glasses?
 - e) Give the application of alloy steel.
 - f) What is the role of brighteners in electroplating.
- Q.3 Write short notes on any two of the following. 08**
- a) Bessemer convertor
 - b) Triple phosphate fertilizer
 - c) Colored glass
- Q.4 Answers any two of the following. 08**
- a) Explain in detail classification and chemical properties of glass material.
 - b) Explain in detail froth flotation method.
 - c) What are the good qualities of an ideal fertilizer?
- Q.5 Answers any one of the following. 08**
- a) Describe fully electroplating of nickel. Mention its application.
 - b) Explain the manufacture of cement by Portland method.

- Q.3 Write short notes on any two of the following.** **08**
- a) Genetic code
 - b) Rolling circle model
 - c) Transcription in prokaryotes
- Q.4 Answer any two of the following.** **08**
- a) Write in brief on DNA structure.
 - b) Explain in brief Lac operon.
 - c) Describe in brief transcription in eukaryotes.
- Q.5 Answer any one of the following.** **08**
- a) Explain in detail types of DNA.
 - b) Describe in detail DNA replication.

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**B.Sc. (Entrepreneurship) (Semester - IV) (New) (CBCS) Examination:
Oct/Nov-2023**

**MICROBIAL BIOTECHNOLOGY (Paper – VIII)
Food & Dairy Technology (EN406)**

Day & Date: Monday, 18-12-2023
Time: 12:00 PM To 02:00 PM

Max. Marks: 40

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

Q.1 Choose the correct alternative and rewrite the sentences again. 08

- 1) In LTH method of Pasteurization, _____ °C temperature is used.
 - a) 71.1
 - b) 100
 - c) 121
 - d) 62.8
- 2) Cold sterilization refers to the preservation of food by _____.
 - a) Refrigeration
 - b) Lyophilization
 - c) Radiation
 - d) Salting
- 3) Sun drying food preservation method is most suitable for _____.
 - a) fruits
 - b) meat
 - c) vegetables
 - d) grains
- 4) The most common organisms causing food spoilage are bacteria, _____.
 - a) yeasts and molds
 - b) yeasts and insects
 - c) molds and insects
 - d) insects and parasites
- 5) _____ of the following microbe is used in the production of blue cheese.
 - a) Streptococcus thermophilus
 - b) Penicillium roqueforti
 - c) Rhizopus stolonifer
 - d) Lactobacillus bulgaricus
- 6) Microbial quality of milk is determine by _____ test
 - a) Crowded plate
 - b) Caseinase
 - c) Amylase
 - d) MBRT
- 7) Food value of ice cream depends to a large extent on its _____.
 - a) volume
 - b) flavor
 - c) taste
 - d) composition
- 8) Principal protein in milk is _____.
 - a) Albumin
 - b) Lactalbumin
 - c) Casein
 - d) Lactoglobulin

Q.2 Answer any four of the following. 08

- a) Define Cream.
- b) What is ultra pasteurization?
- c) Define Fermentation.
- d) What is water activity?
- e) Define food poisoning.
- f) Define psychrophilic microorganisms.

- Q.3 Attempt any two of the following.** **08**
- a) Give the composition of Cheese and its uses.
 - b) Describe in detail dye reduction tests used in dairy industry.
 - c) Explain in brief various methods of pasteurization.
- Q.4 Answer any two of the following.** **08**
- a) Write in detail preservation of food by heat.
 - b) Describe in detail manufacture of butter.
 - c) Explain in brief Phosphates Test.
- Q.5 Answer any one of the following.** **08**
- a) What is food adulteration? Describe in detail.
 - b) Describe in detail microbial spoilage of fish and poultry foods.

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**B.Sc. (Entrepreneurship) (Semester - V) (New) (CBCS) Examination:
Oct/Nov-2023
ENGLISH
Business English (EN501)**

Day & Date : Saturday, 02-12-2023
Time: 03:00 PM To 05:00 PM

Max. Marks: 40

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

Q.1 Rewrite the sentence by filling the blanks with the correct answer from the given options. 08

- 1) What occasion is being celebrated in the story 'The Gift of the Magi'?
a) Easter
b) Christmas
c) New Year's
d) Della's birthday
- 2) Who came to visit Phatik's mother?
a) Their grandfather
b) Their uncle
c) Their aunt
d) Cousin
- 3) The girl in the poem 'The Solitary Reaper' was _____.
a) reaping and singing
b) cutting and bending
c) singing and dancing
d) reaping and quarrelling
- 4) The Queen Gulnaar desires _____.
a) The King's attention
b) more jewellery
c) a rival
d) more clothes
- 5) The schoolmaster lives in _____.
a) cottage
b) bungalow
c) mansion
d) apartment
- 6) The 'road' in the poem of Robert Frost is the symbol of _____.
a) the difficulties of life
b) the fun in life
c) the attractive aspects in life
d) the choice in life
- 7) He has sold his car. (change the voice of this sentence)
a) His car had been sold by him
b) His car has been sold by him
c) His car have being sold by him
d) His car having been sold by him
- 8) Don't lose hope. Keep _____ and you will surely succeed. (Fill in the blanks with choosing correct phrasal verb of the following alternatives)
a) going
b) going on
c) going with
d) going at

Q.2 Answer the following questions. (Any Four) 12

- 1) Who are the Magi? Why are Della and Jim called Magi?
- 2) Why did Phatik suffocated in the big city?
- 3) Describe the use of nature and harmony in the poem 'The Solitary Reaper.'
- 4) Why is the Queen Gulnaar unsatisfied and seeks a rival?
- 5) Describe the character of the village schoolmaster.
- 6) What is the significance of the two roads in the poem?

Q.3 Answer the following (Any One) 10

1) What is the importance of 21st Century skill?

OR

2) Explain the types of 21st Century skill.

Q.4 Write down long answer of the following question 10

What are the most important learning skills of 21st century?

Seat No.	
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**B.Sc. (Entrepreneurship) (Semester - V) (New) (CBCS) Examination:
Oct/Nov-2023
Business Finance (EN502)**

Day & Date: Sunday, 03-12-2023
Time: 03:00 PM To 06:00 PM

Max. Marks: 80

- Instructions:** 1) All questions are compulsory.
2) Draw neat diagrams and give equations wherever necessary.
3) Figures to the right indicate full marks.
4) Use of logarithmic table and calculator is allowed.

Q.1 A) Multiple Choice Questions.

10

- 1) Funds are required for the _____.
a) purchase of land & building b) purchase of machinery
c) need of working capital d) All of the above
- 2) _____ have a control over the management of the company.
a) Equity Shareholder b) Debenture holder
c) Government d) Creditors
- 3) Trade credit is a source of _____.
a) Short term finance b) Medium term finance
c) Long term finance d) All the above
- 4) Return paid on debenture is _____.
a) Interest b) Dividend
c) Commission d) Tax
- 5) ADRs are issued banks in _____.
a) USA b) India
c) Europe d) Russia
- 6) The immediate (two-day) exchange of one currency for another is a _____.
a) forward transaction b) spot transaction
c) money transaction d) daily transaction
- 7) Preference shareholders are eligible to get fixed rate of _____.
a) Interest b) Dividend
c) Commission d) Tax
- 8) The document inviting to subscribe to the shares of a company is _____.
a) Prospectus b) Memorandum of Association
c) Articles of Association d) Share certificate
- 9) BSE was established on _____.
a) 1875 b) 1975
c) 1955 d) 1855
- 10) First step in financial planning is _____.
a) Forecasting b) Setting objective
c) Policy formation d) None of the above

- B) Answer in One Sentence. 06**
- 1) What is Finance?
 - 2) Write any one name of commercial bank.
 - 3) In Which year NSE is Established?
 - 4) Long Form of RBI.
 - 5) Long Form of NSE.
 - 6) Long Form of IRR.
- Q.2 Solve the following (Any Eight) 16**
- a) Define Debentures.
 - b) What is capital?
 - c) What is venture capital?
 - d) State any two names of National Level Financial Institutions.
 - e) What is GDRs?
 - f) What is Forward rate?
 - g) Define E-banking.
 - h) Define stock exchange.
 - i) Define financial planning.
 - j) Define capital budgeting.
- Q.3 a) Attempt the following (Any Two) 10**
- 1) Functions of commercial banks.
 - 2) Factors that influence foreign exchange rates.
 - 3) Methods of Capital Budgeting.
- b) Write short note. 06**
Write note on SEBI.
- Q.4 a) Answer the following (Any Two) 08**
- 1) Explain scope of business finance.
 - 2) Explain steps in public issue of share.
 - 3) Explain steps in financial planning.
- b) Describe the following. 08**
Explain methods of issue of share.
- Q.5 Answer the following (Any Two) 16**
- a) What is business finance? Explain long term sources of business finance.
 - b) What is stock exchange? Write note on BSE and NSE.
 - c) What is lease financing? Explain types of lease finance.

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**B.Sc. (Entrepreneurship) (Semester - V) (New) (CBCS) Examination:
Oct/Nov-2023**

Human Resource Management (EN503)

Day & Date: Monday, 04-12-2023
Time: 03:00 PM To 06:00 PM

Max. Marks: 80

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

Q.1 A) Choose the correct alternatives from the options. 10

- 1) Which of the following is the correct abbreviation of HRM?
 - a) Human Resource Management
 - b) Human Resourcefulness Management
 - c) Human Relation Management
 - d) Humanistic Relation Management
- 2) Human factor can be defined as _____.
 - a) The entire concept of human behavior
 - b) Interrelated Physiological, Psychological and Socio-ethical aspects of a human being.
 - c) Micro and macro issues of socioeconomic factor
 - d) None of the above
- 3) What is the need for Human Resource Planning?
 - a) For undergoing an effective employee development program
 - b) To represent a base for recruitment
 - c) To represent a base for selection policy
 - d) All of the above
- 4) Which is not an advantage of internal Source of recruitment?
 - a) Time saving
 - b) New blood
 - c) less expensive
 - d) increased car
- 5) _____ can be defined as process of choosing the right person for the right job.
 - a) Selection
 - b) Recruitment
 - c) Induction
 - d) Orientation
- 6) _____ is not an internal source of recruitment.
 - a) Promotion
 - b) Transfer
 - c) Job rotation
 - d) Departmental exam
- 7) Which of the following is not a stage in the systematic training cycle?
 - a) Evaluation
 - b) Assessing training needs
 - c) Planning the training
 - d) Job instruction on a one to one basis

- 8) Training and development is a _____ of an organization.
 - a) System
 - b) Sub-system
 - c) Element
 - d) Component
- 9) Learning is a _____.
 - a) Cognitive process
 - b) Emotional process
 - c) Both a and b
 - d) None of the above
- 10) Learning by identifying one's own learning objectives refers to _____.
 - a) Other directed learning
 - b) Self-directed learning
 - c) Structured learning
 - d) Unstructured learning

B) Fill in the blank/Definition/One sentence answer /one-word answer 06
/Give the name /predict the product etc.

- 1) Business
- 2) Management
- 3) Job
- 4) Selection
- 5) Mobility
- 6) Demotions

Q.2 Solve any Eight of the following. 16

- a) What is Recruitment?
- b) What is job?
- c) What is Business?
- d) Job Specification.
- e) Definition of Management.
- f) Job Description.
- g) What is profession?
- h) What is Human Resource?
- i) Define selection.
- j) Concept of selection.

Q.3 a) Answer the following. (Any two) 10

- 1) Explain HRM and its role.
- 2) Describe Function and Imp of HRM.
- 3) Define Selection and its procedure.

b) Short note/Solve. 06

Explain career planning and steps in career planning.

Q.4 a) Answer the following. (Any two) 08

- 1) Define Essential of selection procedure.
- 2) Explain IMP of training.
- 3) Define various training method.

b) Describe/Explain/Solve. 08

Describe transfer and its types.

Q.5 Answer the following. (Any two)

- a) Define reasons and principle of demotion.
- b) Explain need and objective of training.
- c) Define various training method.

Seat No.	
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**B.Sc. (Entrepreneurship) (Semester - V) (New) (CBCS) Examination:
Oct/Nov-2023
Spectroscopic Methods (EN504)**

Day & Date: Tuesday, 05-12-2023
Time: 03:00 PM To 06:00 PM

Max. Marks: 80

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

Q.1 A) Choose the correct alternative and rewrite the sentences again. 10

- 1) The UV light is obtained by _____.
a) Tungsten lamp b) Mercury lamp
c) Deuterium discharge lamp d) Incandescent lamp
- 2) In an applied magnetic field, the number of orientation of nucleus is given by _____.
a) $2I + 1$ b) $2I - 1$
c) $2I + 2$ d) $2I - 2$
- 3) Spectroscopy deals with study of interaction of _____ with matter.
a) radio wave b) Ultra wave
c) electromagnetic radiation d) Sonic wave
- 4) In mass spectroscopy, the intensity assigned to base peak is _____.
a) 50% b) 90%
c) 100% d) 0%
- 5) The IR Absorption peaks due to -OH stretch in alcohol is _____.
a) Sharp b) Intense
c) broad d) Weak
- 6) Smaller δ values implies _____.
a) upfield b) downfield
c) flipping d) resonance
- 7) An example of Auxochrome is _____.
a) $C \equiv C$ b) $-CO -$
c) $-NH_2$ d) $C = O$
- 8) In Lambert-Beer's law the term epsilon is known as _____.
a) Molality b) Molar extinction coefficient
c) Molarity d) Molar coefficient
- 9) The ratio of I_t / I_0 is called as _____.
a) Absorbance b) Opacity
c) Transmittance d) Optical activity
- 10) The characteristic frequency range of carbonyl group is _____.
a) 3080 cm^{-1} b) 1700 cm^{-1}
c) 3300 cm^{-1} d) 950 cm^{-1}

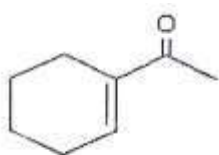
- B) Fill in the blank** **06**
- 1) The number of vibrational modes for non linear molecule is _____.
 - 2) _____ spectrophotometer measures the light absorption of substance in a cuvette.
 - 3) NMR is the study of absorption of _____ by nuclei in a magnetic field.
 - 4) _____ discovered the mass spectrometer.
 - 5) Frequency is _____ proportional to masses of the atom involved in bonding.
 - 6) The wavelength range of the UV spectrum is _____ nm.

- Q.2 Solve Any Eight of the following.** **16**
- a) Calculate the modes of vibration of H_2O .
 - b) Define coupling constant with example.
 - c) Principle of mass spectroscopy.
 - d) Name the types of transitions in UV spectroscopy.
 - e) Write the $(n + 1)$ rule in spin-spin coupling.
 - f) What do you mean by base peak?
 - g) Define parent ion and fragment ion.
 - h) What is the meaning of Inductive effect and Mesomeric effect?
 - i) Why TMS used as internal reference?
 - j) State Nitrogen rule for the determination of structure of the compound.

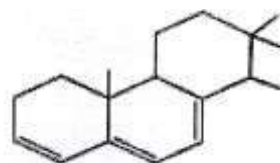
- Q.3 a) Attempt any Two of the following.** **10**
- 1) Explain Principle and application of IR spectroscopy.
 - 2) How Mass Spectroscopy can be used for the determination of molecular weight?
 - 3) What is PMR? Explain principles of PMR Spectroscopy.
- b)** State and Explain Hooke's law. **06**

- Q.4 a) Answer any Two of the following.** **08**
- 1) What is delta scale and Tau Scale?
 - 2) Explain the stretching and Bending Vibrations.
 - 3) Calculate λ_{max} of the following compound.

i)



ii)



- b)** State and Explain lamberts- Beer's law for diatomic molecule. **08**

- Q.5 Answer any two of the following.** **16**
- a) Explain Bathochromic, Hypsochromic Hypochromic and Hyperchromic shift with figure.
 - b) Write the different basic parts used in proton nuclear magnetic resonance spectroscopy with schematic diagram.
 - c) A compound having molecular formula $C_5H_{10}O$ exhibits the following spectral data:
 IR = sharp, strong band at 1735 cm^{-1}
 NMR =

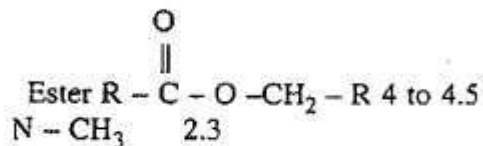
i) $t, 2.32\ \delta\ (2H)$	ii) $s, 2.03\ \delta\ (3H)$
iii) Sextet, $1.56\ \delta\ (2H)$	iv) Triplet, $0.89\ \delta\ (3H)$

TABLE - 1
Characteristic Infrared Absorptions of Functional Groups

GROUP	FREQUENCY RANGE cm^{-1}	INTENSITY
A. Alkyl		
C - H (stretching)	2853 - 2962	(m - s)
Isopropyl - $\text{CH}(\text{CH}_3)_2$	1380 - 1385	(s)
	and 1365 - 1370	(s)
tert - Butyl - $\text{C}(\text{CH}_3)_3$	1385 - 1395	(m)
	and - 1365	(s)
B. Alkenyl		
C-H (stretching)	3010 - 3095	(m)
C = C (stretching)	1620 - 1680	(v)
R - CH = CH ₂	985 - 1000	(s)
	and 905 - 920	(s)
R ₂ C = CH ₂ (out of plane	880 - 900	(s)
cis - RCH = CHR C-H bendings)	675 - 730	(s)
trans - RCH = CHR	960 - 975	(s)
C. Alkynyl		
≡ C - H (stretching)	- 3300	(s)
C ≡ C (stretching)	2100 - 2260	(v)
D. Aromatic		
Ar - H (stretching)	- 3030	(v)
Aromatic substitution type (C-H out-of-plane bendings)		
Monosubstituted	690 - 710	(very s)
	and 730 - 770	(very s)
o - Disubstituted	735 - 770	(s)
m - Disubstituted	680 - 725	(s)
	and 750 - 810	(very s)
p - Disubstituted	800 - 840	(very s)
E. Alcohols, Phenols, Carboxylic Acids		
OH (alcohols, phenols, dilute solutions)	3590 - 3650	(sharp v)
OH (alcohols, phenols, hydrogen bonded)	3200 - 3550	(broad s)
OH (carboxylic acids, hydrogen bonded)	2500 - 3000	(broad v)
F. Aldehydes, Ketones, Esters and Carboxylic Acids		
C = O stretch 1720	1630 - 1780	(s)
aldehydes - 1720 (Stre 2700 - 2900)	1690 - 1740	(s)
ketones	1680 - 1750	(s)
esters	1735 - 1750	(s)
carboxylic acids	1710 - 1780	(s)
amides	1630 - 1690	(s)
G. Amines		
N - H	3300 - 3500	(m)
H. Nitriles		
C ≡ N	2220 - 2260	(m)

TABLE - 2
Approximate Proton Chemical Shifts in NMR

TYPE OF PROTON	CHEMICAL SHIFT, DELTA, PPM (δ)
1° Alkyl, RCH_3	0.8 - 1.0
2° Alkyl, RCH_2R	1.2 - 1.4
3° Alkyl R_3CH	1.4 - 1.7
Allylic, $\text{R}_2\text{C} = \underset{\text{R}}{\text{C}} - \text{CH}_3$	1.6 - 1.9
Benzylic, ArCH_3	2.2 - 2.5
Alkyl chloride, RCH_2Cl	3.6 - 3.8
Alkyl bromide, RCH_2Br	3.4 - 3.6
Alkyl iodide, RCH_2I	3.1 - 3.3
Ether, ROCH_2R	3.3 - 3.9
Alcohol, HOCH_2R	3.3 - 4.0
Ketone, RCCH_3 O	2.1 - 2.6
Aldehyde, RCH O	9.5 - 9.6
Vinylic, $\text{R}_2\text{C} = \text{CH}_2$	4.6 - 5.0
Vinylic $\text{R}_2\text{C} = \underset{\text{R}}{\text{CH}}$	5.2 - 5.7
Aromatic, ArH	6.0 - 9.5
Acetylenic, $\text{RC} \equiv \text{CH}$	2.5 - 3.1
Alcohol hydroxyl, ROH	0.5 - 6.0 ^a
Carboxylic, RCOH O	10 - 13 ^a
Phenolic, ArOH	4.5 - 7.7 ^a
Amino $\text{R}-\text{NH}_2$	1.0 - 5.0



Spectroscopic Chart

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

A) For substituted dienes (Ethanol solution)

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

B) Rules for α, β - Unsaturated Enones (Ethanol Solution)

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

Substituents	Position			
	α	β	γ	δ
a) - R alkyl (including part of carbocyclic ring)	10	12	18	18
b) - OR (alkoxy)	35	30	17	31
c) - OH (hydroxy)	35	30	-	50
d) - SR (thioether)	-	85	-	-
e) - Cl (chloro)	15	12	-	-
f) - Br (bromo)	25	30	-	-
g) - OCOR (acyloxy)	6	6	-	6
h) - NH ₂ , - NHR ₁ , - NR ₂	-	95	-	-

Solvent correction

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

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**B.Sc. (Entrepreneurship) (Semester - V) (New) (CBCS) Examination:
Oct/Nov-2023**

Advances in Fermentation Technology (EN505)

Day & Date: Wednesday, 06-12-2023
Time: 03:00 PM To 06:00 PM

Max. Marks: 80

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

Q.1 A) Multiple choice questions.

10

- 1) _____ is main purpose of IP.

a) Encourage new creation	b) More marketing
c) More investment	d) All of the above
- 2) Which Of the Following is NOT the type of intellectual property?

a) Patent	b) Copyright
c) Trademark	d) None of these
- 3) _____ of the following is a major role for the industry.

a) GMP compliance	b) Product recall System
c) Costumer service	d) All of the mentioned
- 4) GMP Stands for _____.

a) Good manufacturing practices	b) Good microbial practices
c) Good metabolic process cell	d) None
- 5) Alcoholic fermentation is carried out by _____.

a) Lactobacillus	b) Bacillus
c) Saccharomyces cerevisiae	d) E. coli
- 6) _____ is NOT Product of fermentation.

a) Oxygen	b) Carbon dioxide
c) Ethanol	d) Lactate
- 7) _____ is Not an example of a live attenuated vaccine?

a) Tetanus vaccine	b) MMR vaccine
c) Varicella (chickenpox) vaccine	d) Influenza vaccine
- 8) Acetic acid and lactic acid are used for _____.

a) curing meats	b) preservation of color
c) preservation of pickles	d) inhibiting mold growth
- 9) _____ includes rules of conduct that may be used to regulate our activities concerning the biological world.

a) Bio-piracy	b) Biosafety
c) Bioethics	d) Bio-patents

- 10) Various measures taken to prevent any risks to normal organisms from transgenic organisms are known as _____.
- a) Biosafety
 - b) patent
 - c) bio-patent
 - d) bio-piracy

B) Fill in the blank/Definition/One sentence answer /one-word answer 06
Give the name /predict the product etc.

- 1) Peptide vaccine.
- 2) WIPO Stands for?
- 3) Describe Insulin.
- 4) Describe Carcinogenicity.
- 5) Mean by IPR?
- 6) Describe Nisin.

Q.2 Solve any Eight of the following. 16

- a) Write note on Xanthan gum.
- b) Write note on Recombinant protein.
- c) Explain in brief Mushroom.
- d) Write note on Self-inspection.
- e) Explain in brief Trade secret.
- f) Write note on Preclinical trials.
- g) Explain in brief Interferon.
- h) Explain in brief Inoculation Room.
- i) Write note on Contract Analysis.
- j) Define Patent.

Q.3 A) Attempt any Two of the following. 10

- 1) Explain Microbial Biosynthesis of Rubber
- 2) Risk and risk assessment.
- 3) Explain test for sterility and its methods.

B) Short note/ Solve. 06
Explain Biosafety guidelines.

Q.4 A) Attempt any Two of the following. 08

- 1) Ethics in post genomic era.
- 2) Write Subunit vaccine and attenuated vaccine.
- 3) Explain TRIPS agreement and their features.

B) Describe /Explain /Solve. 08
Explain Quality management, premises and equipment.

Q.5 Attempt any Two of the following. 16

- a) Describe in detail Bioethics principal, international codes and their guidelines.
- b) Explain Natural bio preservatives with biopolymers.
- c) Explain Production of Recombinant protein with Insulin and Interferon.

Seat No.	
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**B.Sc. (Entrepreneurship) (Semester - V) (New) (CBCS) Examination:
Oct/Nov-2023**

Wine Technology (EN506)

Day & Date: Thursday, 07-12-2023
Time: 03:00 PM To 06:00 PM

Max. Marks: 80

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

Q.1 A) Choose the correct alternative and rewrite the sentences again. 10

- 1) Gin is the national drink of _____.
 - a) Holland
 - b) Italy
 - c) France
 - d) India

- 2) Wine yeast _____.
 - a) is sensitive to Sulphur dioxide
 - b) is resistant to Sulphur dioxide
 - c) shows enhanced enzyme production in presence of Sulphur dioxide
 - d) None of the above

- 3) Sonti is _____.
 - a) Rice beer or wine of India
 - b) Wheat beer or wine
 - c) Barley beer or wine
 - d) Rice beer or wine of Japan

- 4) _____ type of press products the most high-quality juice or wine.
 - a) Membrane press
 - b) Circular basket
 - c) Vertical basket press
 - d) Horizontal basket press

- 5) The term Racking refers to _____.
 - a) Stacking unlabeled wine in bins for aging
 - b) Storing hoses to drain on a slanted board
 - c) Adding yeast to initiate fermentation
 - d) Removing clear liquid from sediment

- 6) _____ is the desirable sugar content of the grapes required for the wine production.
 - a) 5-10%
 - b) 2-5%
 - c) 14-20%
 - d) 10-14%

- 7) Ales are the beer in which fermentation is carried out using _____.
 - a) Top yeast
 - b) Bottom yeast
 - c) Either of the above
 - d) Middle yeast

- 8) Sherry is a type of _____.
 - a) Wine
 - b) Brandy
 - c) Beer
 - d) None of these

- 9) Alcohol content of sake varies from _____.
 - a) 10-20%
 - b) 12-15%
 - c) 4-17%
 - d) All of these

- 10) Wort is boiled with the hops _____.
 a) To help in protein coagulation
 b) To provide bitter taste and flavour to the beer
 c) To help in the coagulation of tannins
 d) All of the above

B) Fill in the blank/Definition/One sentence answer /one-word answer /Give the name /predict the product etc. 06

- 1) Status of Indian brewing.
 2) Define Fermentation
 3) Clarification
 4) Enlist Chemical constituents of Grapes
 5) Aging
 6) Odor Assessment in Wine Tasting

Q.2 Solve the following (Any Eight) 16

- a) Write note on Wine history.
 b) Write note on Environmental Factors Affecting Fermentation
 c) Explain in brief Rejuvenation of Old Wines.
 d) Write note on Wine classification
 e) Explain in brief Biochemistry of wine production.
 f) Write note on Factors Affecting on Aging.
 g) Explain alcoholic beverages & human health
 h) Explain in brief New concept in wine production.
 i) Write note on Wine Laws and Authentications.
 j) Write Visual Sensations in wine

Q.3 a) Attempt the Following (Any Two) 10

- 1) Explain Importance of automation operation in wine industries.
 2) Explain Acidity and pH Adjustment in wine.
 3) Explain in detail conditions for Sensory Analysis.

b) Short note/Solve. 06
 Explain in detail Wine Assessment Method.

Q.4 a) Attempt the following (Any Two) 08

- 1) Explain in brief Odor Assessment in Wine Testing.
 2) Explain in detail Physiology of matured grapes
 3) Explain in brief Advantages and Disadvantages of Oak Cooperage.

b) Describe /Explain /Solve. 08
 Write in brief must preparation and clarification.

Q.5 Attempt the following (Any Two) 16

- a) Write in detail basic procedures in wine making
 b) Explain in detail Post-fermentation Treatments.
 c) Describe in detail Pre-fermentation Practices.

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**B.Sc. (Entrepreneurship) (Semester-VI) (New) (CBCS) Examination:
Oct/Nov-2023**

ENGLISH

Literary Mindscapes - I (EN601)

Day & Date: Monday, 20-11-2023
Time: 03:00 PM To 05:00 PM

Max. Marks: 40

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

Q.1 Choose the correct alternative.

08

- 1) _____ are the names of the children in the story 'Growing up'.
a) Joss and Kady b) Jane and Karli
c) Jade and Katie d) Jenny and Kate
- 2) What was Aksionov fond of when he was younger?
a) dancing b) sleeping
c) singing d) reading
- 3) _____ children are listening to the story in the poem 'Sita'.
a) One b) Two
c) Three d) Four
- 4) What was the cause of the death of the duchess?
a) illness b) accident
c) drowning d) the duke
- 5) Complete the following line.
'A thing of beauty is a _____ forever'.
a) cheerful b) pleasant
c) joy d) truth
- 6) Charlotte Bronte says that _____ possess the golden wings.
a) Morning dew b) Hope
c) Butterflies d) None of the above
- 7) Choose the correct adverb to fill in the blank
I am _____ tired. I want to sleep for a couple of hours.
a) extremely b) extreme
c) insufficiently d) sufficient
- 8) My teacher often says to me "If you do not work hard, you will fail"
The correct indirect speech of the above sentence is _____.
a) My teacher often says to me that If I do not work hard, I will fail.
b) My teacher told to me that if I do not work hard, I will fail
c) My teacher said that if I does not work hard, I would fail.
d) My teacher ordered that if I am not working hard, I would fail.

- Q.2 Write short answers of the following questions. (Any Four)** **12**
- 1) What do you know about Robert Quick's wife?
 - 2) Why did Aksionov leave the inn early?
 - 3) What is the tragic story told by the narrator in the poem 'Sita'?
 - 4) Describe the personality of the duchess.
 - 5) What objects of nature does John Keats mention as a source of joy?
 - 6) What is the theme of the poem "Life"?
- Q.3 Answer any one of the following.** **10**
- a) Explain the three most important literacy skills (IMT).
- OR**
- b) Discuss in detail the life skills, known as (FLIPS).
- Q.4** There is a spate of motor cycle robberies in your city. Give three steps that you would take as a civically literate person and as a leader. **10**

Seat No.	
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**B.Sc. (Entrepreneurship) (Semester-VI) (New) (CBCS) Examination:
Oct/Nov-2023
International Business (EN602)**

Day & Date: Tuesday, 21-11-2023
Time: 03:00 PM To 06:00 PM

Max. Marks: 80

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

- Q.1 A) Choose correct alternatives from the options. 10**
- 1) The headquarters of International Monetary Fund (IMF) is located at _____.
 - a) Geneva
 - b) London
 - c) Paris
 - d) Washington D. C.
 - 2) A source of supply of foreign exchange is _____.
 - a) imports
 - b) exports
 - c) donations
 - d) gifts
 - 3) International finance is concerned with _____.
 - a) Exchange rates of currencies
 - b) monetary system of the world
 - c) Foreign direct investment
 - d) all of the above
 - 4) The World Trade organization was formed in the year _____.
 - a) 1993
 - b) 1994
 - c) 1995
 - d) 1996
 - 5) Most favored nation treatment is the basic principle of _____.
 - a) WTO
 - b) GATT
 - c) IMF
 - d) WB
 - 6) FDI means _____.
 - a) Flexibility Direct Investment
 - b) Foreign Direct Investment
 - c) Full Direct Investment
 - d) None of these
 - 7) The comparative cost advantage theory of international business was formulated by _____.
 - a) D. Ricardo
 - b) J. S. Mill
 - c) M. Porter
 - d) A. Smith
 - 8) The highest authority of the World Trade organization is _____.
 - a) Dispute settlement body
 - b) General council
 - c) Ministerial conference
 - d) Trade policy review body
 - 9) _____ means any type of business activity that crosses the national border.
 - a) Export
 - b) Import
 - c) International Marketing
 - d) International business

- 10) GATT came into force on _____.
- | | |
|---------|---------|
| a) 1947 | b) 1949 |
| c) 1959 | d) 1956 |

B) Fill in the blanks/ Definition/One sentence answer/One word answer/Give the name/Predict the product: 06

- 1) Define Imports.
- 2) Full form of SAARC
- 3) Define merger.
- 4) Full form of ASEAN
- 5) Define exports
- 6) Full form of GATT

Q.2 Solve any Eight of the following: 16

- a) Define international business.
- b) Define MNC.
- c) Define business firm.
- d) Define e-commerce.
- e) Define joint venture.
- f) Define contract.
- g) Define Turnkey Projects.
- h) Define licensing.
- i) Define SAP retail model.
- j) Define balance of payment.

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

- 1) Components of balance of payment
- 2) International business approaches
- 3) Objectives of World Trade organization

B) Short Note/Solve 06

Explain documentation of export and imports.

Q.4 A) Attempt any two of the following: 08

- 1) Nature of international business.
- 2) Give the theory of comparative cost advantage of international business.
- 3) Advantages of globalization

B) Describe/Explain/Solve 08

What is mean by EU? Explain objectives of EU.

Q.5 Attempt any two of the following. 16

- a) Define the SAARC. Explain function and organization of SAARC.
- b) Explain factors influence in foreign direct investment.
- c) Explain problems of international trade.

Seat No.	
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**B.Sc. (Entrepreneurship) (Semester - VI) (New) (CBCS) Examination:
Oct/Nov-2023
Organizational Behavior (EN603)**

Day & Date: Wednesday, 22-11-2023
Time: 03:00 PM To 06:00 PM

Max. Marks: 80

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

Q.1 A) Choose the correct alternatives from the options. 10

- 1) Managerial Orientation towards teamwork is created under the _____.
 a) Autocratic Model b) Collegial Model
 c) Supportive Model d) Custodial Model
- 2) The process of receiving, organizing, interpreting, checking and reacting sensory stimuli is known as _____.
 a) Ability b) Attitude
 c) Personality d) Perception
- 3) A study of human behavior in organizational settings is _____.
 a) Individual behavior b) Group behavior
 c) Organizational behavior d) None of these
- 4) OD intervention techniques includes _____.
 a) Sensitivity training b) MBO
 c) Quality of work life d) All the above
- 5) Complex man model assumes that man is _____.
 a) Predictable in behavior b) Unpredictable in behavior
 c) Social animal d) None of these
- 6) A study of human behavior in organizational settings is _____.
 a) Individual behavior b) Group behavior
 c) Organizational behavior d) None of these
- 7) Groups established by the organization to achieve organizational goals are called _____ groups.
 a) Informal b) Formal
 c) Friendship d) All of these
- 8) Understanding the real needs of two parties and finding a satisfactory solution to conflict is known as _____.
 a) Lose-Lose strategy b) Win-lose strategy
 c) Win- Win strategy d) All of the above

SLR-DC-55

- 9) Stress can be reduced with the help of _____.
a) Over time b) Hard work
c) Meditation d) All of the above
- 10) _____ is a planned process of change in an organization's culture through the utilization of behavioral science, technology, research and theory.
a) Organizational development
b) Organizational change
c) Organizational culture
d) Organizational conflicts

**B) Fill in the blank/Definition/One sentence answer /one-word answer/ 06
Give the name/predict the product etc.**

- 1) Motivation
- 2) Management
- 3) Planning
- 4) Co-ordination
- 5) Stress
- 6) Control

Q.2 Solve any Eight of the following: 16

- 1) Define behavior.
- 2) What is emotion?
- 3) Define ability.
- 4) What is Group?
- 5) What is intelligence?
- 6) Long form of OB?
- 7) Definition of personality.
- 8) Definition of Perceptions.
- 9) Define Web Commerce
- 10) Define Electronic Cash.

Q.3 A) Attempt Any Two of the following. 10

- 1) Explain Importance of motivation.
- 2) Define coping the stress.
- 3) Explain Electronic commerce environment.

B) Short Note/Solve: 06

Herzberg Factor Two theory

SLR-DC-55

- Q.4 A) Attempt Any Two of the following. 08**
- 1) Explain payment and purchase order process.
 - 2) Describe Electronic data interchange.
 - 3) Describe sources of stress.
- B) Describe /Explain /Solve: 08**
Explain Maslow's hierarchy of needs Theory.
- Q.5 Attempt Any Two of the following. 16**
- a) Describe Modes of Electronic commerce.
 - b) Describe Type of group.
 - c) Explain Sources of power.

Seat No.	
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B.Sc. (Entrepreneurship) (Semester - VI) (New) (CBCS)**Examination: Oct/Nov-2023****Techniques in Industrial Chemistry (EN604)**

Day & Date: Thursday, 23-11-2023

Max. Marks: 80

Time: 03:00 PM To 06:00 PM

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

Q.1 A) Choose the correct alternative and rewrite the sentences again. 10

- 1) Zeolites are inorganic _____ exchangers.
 - a) Cation
 - b) Anion
 - c) Neutral
 - d) none of these
- 2) The lower the R_f value, the greater is the _____.
 - a) affinity for mobile phase
 - b) affinity for solvent phase
 - c) affinity for stationary phase
 - d) support media
- 3) _____ the components of soda ash fire extinguishers.
 - a) Sodium chloride
 - b) Sodium bicarbonate
 - c) Bromotrifluoromethane
 - d) Ethanol
- 4) Which of the following fire extinguishers would you use in order to extinguish an electrical fire?
 - a) Water Fire Extinguisher
 - b) Foam Fire Extinguisher
 - c) Wet Chemical Fire Extinguisher
 - d) Carbon Dioxide Fire Extinguisher
- 5) The silica gel is used in column chromatography as _____.
 - a) effluent
 - b) Adsorbent
 - c) column support
 - d) Absorbent
- 6) Biocatalytic reactions are _____.
 - a) highly specific
 - b) equilibrium is established rapidly
 - c) occur at room temperature
 - d) all of these
- 7) Halon-1301 is also known as _____.
 - a) Bromotrifluoromethane
 - b) Bromodifluoromethane
 - c) Bromotetrafluoromethane
 - d) Bromopentafluoromethane
- 8) The aniline has high boiling point, high vapor pressure at 100° C and is insoluble in water. aniline is therefore, separated by _____.
 - a) steam distillation
 - b) simple distillation
 - c) distillation at low pressure
 - d) Sublimation

- 9) Which of the following colors allows you to identify a foam fire extinguisher?
- | | |
|---------|-----------|
| a) Blue | b) Yellow |
| c) Red | d) Cream |
- 10) Paper chromatography is _____ form of chromatography.
- | | |
|------------------|-----------------|
| a) liquid-gas | b) liquid-solid |
| c) liquid-liquid | d) all of these |

B) Write the answers of the following questions.**06**

- 1) Write any one name of zeolite.
- 2) Why porcelain pieces are put into the distillation flask?
- 3) Give the any one example of type fire A.
- 4) What is mean by solvent front?
- 5) Write any two names of enzymes.
- 6) Write the oxidation of benzene to phenol.

Q.2 Solve any Eight of the following.**16**

- a) What is the basic principle of chromatographic process?
- b) Write the properties of enzymes.
- c) How does fractional distillation separate crude oil?
- d) Which materials are used in class D fire extinguishers?
- e) Write the any two application of thin layer chromatography.
- f) Explain Williamson's synthesis of ethers.
- g) Write the different types of the fire.
- h) What is mean by distillation?
- i) Write the components of soda ash fire extinguishers.
- j) Why porcelain pieces are put into the distillation flask.

Q.3 A) Attempt any TWO of the following.**10**

- 1) Write structure and uses of Zeolite.
- 2) Describe the portable fire extinguishers.
- 3) Explain the separation of acetone and water by fraction distillation.

B) Write a short note on following.**06**

What are the biocatalysts? Write the advantages of biocatalyst.

Q.4 A) Attempt any TWO of the following.**08**

- 1) How do antifreeze fire extinguishers work?
- 2) Explain in detail in vacuum distillation.
- 3) Write any two examples of microwave assisted reaction.

B) Describe the following.**08**

Describe in details how paper chromatography is carried out?

Q.5 Attempt any two of the following.**16**

- a) Give the brief description of the principle and working of continuous distillation.
- b) Describe Halon-1301 fire extinguisher.
- c) Explain the High pressure liquid chromatography.

Seat No.	
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**B.Sc. (Entrepreneurship) (Semester - VI) (New) (CBCS) Examination:
Oct/Nov-2023
Genetic Engineering (EN605)**

Day & Date: Friday, 24-11-2023
Time: 03:00 PM To 06:00 PM

Max. Marks: 80

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

Q.1 A) Multiple choice Questions.

10

- 1) Protein can be visualized directly in gels _____.
 - a) Staining them with dye
 - b) Using electron microscope only
 - c) Measuring their molecular weight
 - d) None of these
- 2) In SDS PAGE _____.
 - a) Protein are denatured by the SDS
 - b) Protein have same charge-to-mass ratio
 - c) Smaller protein migrate more rapidly through the cell
 - d) All of the above
- 3) The first genomic libraries were cloned in _____.
 - a) Plasmid
 - b) Bacteria
 - c) Human
 - d) Plants
- 4) What is the process of binding of primer to the denatured strand is called _____.
 - a) Annealing
 - b) Renaturation
 - c) Denaturation
 - d) None of these
- 5) Which of the following technique is suitable for identification mRNA molecule in the sample _____.
 - a) Western Blotting
 - b) Southern Blotting
 - c) Northern Blotting
 - d) Eastern Blotting
- 6) Molecular marker included _____.
 - a) RFLP
 - b) RAPD
 - c) AFLP
 - d) All of these
- 7) Genomic library can be prepared by _____.
 - a) PCR technique
 - b) Shotgun method
 - c) Colony hybridization
 - d) All of these
- 8) Which of the following bacterium is considered as 'Natural genetic engineering'.
 - a) Agro bacterium tumefaciens
 - b) Agro bacterium radiobactor
 - c) Pseudomonas putida
 - d) Thermos aquatics

- 9) Cosmids lack _____.
 a) Genes coding for viral protein
 b) Origin of replication
 c) Marker genes coding for replication
 d) Cleavage site for the insertion of foreign DNA
- 10) Size of the DNA that can be a Lambda phage is _____.
 a) 50kb
 b) 35-53kb
 c) 40-50kb
 d) Any Size
- b) Fill in the blank/Definition/One sentence answer /one word answer/ Give the name /predict the product etc. 06**
- 1) hGH
 - 2) Edible vaccine
 - 3) Cosmid
 - 4) Ligation
 - 5) DNA polymerase
 - 6) SDS-PAGE long fome
- Q.2 Solve any Eight of the following. 16**
- a) Explain in brief Kinases.
 - b) Write note on Gene delivery.
 - c) Explain in brief pBR322.
 - d) Explain in brief DNA denaturation.
 - e) Write note on Phosphatases.
 - f) Write note RNA.
 - g) Explain in brief Annealing.
 - h) Write note on Recombinant Vaccine.
 - i) Explain in brief genomic library.
 - j) Write note on Synthetic oligonucleotide.
- Q.3 a) Attempt Any Two of the Following. 10**
- 1) Write Bacteriophage lambda.
 - 2) Uses of linkers and adaptors.
 - 3) Type II restriction enzyme in genetic engineering
- b) Short note/Solve. 06**
 Southern blotting technique
- Q.4 a) Attempt any Two of the following. 08**
- 1) Write note on M13 based vector.
 - 2) Write note on Automated sequencing
 - 3) Microbial synthesis of Rubber.
- b) Describe /Explain /Solve. 08**
 Explain PCR and its types.
- Q.5 Attempt any Two of the following. 16**
- a) Explain Protein engineering and its site directed mutagenesis.
 - b) DNA modifying enzyme and their application.
 - c) Agarose gel electrophoresis technique and its Applications.

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**B.Sc. (Entrepreneurship) (Semester-VI) (New) (CBCS) Examination:
Oct/Nov-2023
Techniques in Plant Tissue Culture (EN606)**

Day & Date: Friday, 24-11-2023
Time: 03:00 PM To 06:00 PM

Max. Marks: 80

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

Q.1 A) Choose correct alternatives from the options. 10

- 1) _____ are used as natural media in the animal tissue culture laboratory.
 - a) Plasma clot
 - b) Serum
 - c) Embryo extract
 - d) All of these
- 2) Heat resistant media are sterilized by _____.
 - a) hot air oven
 - b) autoclave
 - c) filtration
 - d) microscope
- 3) Liquid media are known as _____.
 - a) broth
 - b) slant
 - c) agar
 - d) stab
- 4) Balanced salt solutions provide the cells _____.
 - a) water and inorganic ions
 - b) a physiological pH
 - c) maintaining an osmotic pressure
 - d) all of these
- 5) _____ is prepared by inoculating cell / tissue directly from an organism.
 - a) Primary cell culture
 - b) Secondary cell culture
 - c) Cell lines
 - d) Transformed cell culture
- 6) Disaggregating of cells can be achieved by _____.
 - a) physical disruption
 - b) enzymatic digestion
 - c) treating with chelating agents
 - d) all of the above
- 7) The nucleus of the cell was discovered by _____.
 - a) Robert Hooke
 - b) Aristotle
 - c) Robert Brown
 - d) Matthias Schleiden
- 8) Auxins and Cytokinins are _____.
 - a) antibiotics
 - b) salts
 - c) energy sources
 - d) growth hormones
- 9) The plant part used for tissue culture is known as _____.
 - a) tissue
 - b) callus
 - c) explant
 - d) organ

10) _____ is a culture of excised radical tips of aseptically germinated seeds in a liquid medium.

- a) Root culture
- b) Leaf culture
- c) Shoot tip culture
- d) Anther culture

B) Answer in one sentence.

06

- 1) What is cell?
- 2) What is subculture?
- 3) What is protoplast?
- 4) What is explant?
- 5) What is hemocytometer?
- 6) What is somatic cell?

Q.2 Solve any eight of the following:

16

- a) What is balanced salt solution?
- b) What is cell separation?
- c) What is cell enumeration?
- d) What is root tip culture?
- e) What is inoculation room?
- f) What is totipotency?
- g) What is gametic cell?
- h) What is blood serum?
- i) What is PGR?
- j) What is cell theory?

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

10

- 1) Explain in detail animal tissue culture Laboratory design.
- 2) Describe in detail cell synchronization in animal tissue culture.
- 3) Write in detail on nutritional requirements of explant.

B) Explain in detail aseptic techniques.

06

Q.4 A) Attempt any two of the following:

08

- 1) Describe in short shoot tip Culture.
- 2) Write in brief nutritional requirements of animal cell.
- 3) Explain in brief establishment of cell lines.

B) Write in detail micropropagation.

08

Q.5 Attempt any two of the following.

16

- a) Describe in detail suspension culture.
- b) Explain media sterilization.
- c) Write in detail equipment and instruments used in tissue culture laboratory.