Seat No.

B.Sc. (Entrepreneurship) (Semester - I) (Old) (CBCS) Examination: March/April - 2025
English (Comp.)
Communication Skill (EN1101)

Day & Date: Thursday, 08-May-2025   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   Choose the correct alternatives from the options.   08
   1)   Identify prefix from following word.
           Miscommunication
           a)   mis-   b)   communicate
           c)   communication   d)   -tion

   2)   Identify suffix from following word.
           Unimportantly
           a)   un-   b)   import
           c)   important   d)   -ly

   3)   A word which indicates action & state of being is known as _____.
           a)   Pronoun   b)   Preposition
           c)   Noun   d)   Verb

   4)   Rabindranath Tagore got The Noble Prize for Literature in _____.
           a)   1910   b)   1911
           c)   1912   d)   1913

   5)   Short story "A Portrait of a lady" was composed by ____.
           a)   Khushwant Singh   b)   Shakespeare
           c)   Rabindranath Tagore   d)   Vijaya Wad

   6)   What did grandmother fetch for the author before school?
           a)   Books   b)   Shoes
           c)   Uniform   d)   Wooden slate

   7)   Which flowers competed for the title?
           a)   Lily & daisy   b)   Rose and daisy
           c)   Lily and rose   d)   Rose and tulips

   8)   How many times does the son disobey his father in the poem?
           a)   Five   b)   Four
           c)   Eight   d)   Seven

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)   How did the grandmother spend her time at new place?
    d)   Discuss the theme of pride and culture in the poem 'The Lotus'.
    e)   Discuss the poet's state of mind in the poem' Let Me Not Pray To Be Sheltered From Dangers?
    f)   Discuss the theme of guilt in the poem 'The Toys'?

Q.3 Answer the following questions. (Any One)   **10**
    a)   Write in detail the process of communication.
<div align="center">**OR**</div>
    b)   Write in detail about the channels of communication.

Q.4 Explain any five principles of effective communication?   **10**

Seat No.		Set	P

B.Sc. (Entrepreneurship) (Semester - I) (Old) (CBCS) Examination: March/April - 2025
Principles of Entrepreneurship (Paper - I) (EN1102)

Day & Date: Friday, 09-May-2025   Max. Marks: 40
Time: 12:00 PM To 02:00 PM

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

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

1) _____ is the basic feature of entrepreneur.
a) Risk Bearing   b) Innovation
c) Co-ordination   d) Motivation

2) Entrepreneurial competencies deal with _____.
a) Self-Assessment   b) Motivation
c) Competency recognition   d) All the above

3) Major objectives of business is _____.
a) Profit Maximizations   b) Wealth maximization
c) a & b   d) None of these

4) Barriers to Entrepreneurship is _____.
a) Lack of seed capital   b) Lack of market knowledge
c) Lack of technical skill   d) All the above

5) Role of Entrepreneurs are _____.
a) Idea generation
b) Implementation of mechanical skill
c) Systematic innovation
d) All of the above

6) _____ and insurance are basic aids to trade and commerce.
a) Manufacturing   b) Banking
c) Trading   d) Service

7) Entrepreneurship is _____ process.
a) Creative process   b) Imaginative process
c) Real process   d) None of these

8) The most suitable type of entrepreneur for a developing economy like India _____
a) Innovating   b) Drone
c) Fabian   d) Imitative

Q.2   Answer the following. (Any Four)   **08**
    a)   Define Entrepreneurship.
    b)   Define Business.
    c)   Define Economic development.
    e)   Full form of SIDBI & IDBI.
    f)   Full form of NABARD.
    g)   Full form of SIDCO.

Q.3   Write short note. (Any Two)   **08**
    a)   Explain Function of Entrepreneur.
    b)   Explain Concept of Innovation.
    c)   Define Private Ltd Company.

Q.4   Answer the following. (Any Two)   **08**
    a)   Explain Barriers to entrepreneurship.
    b)   Explain the concept of HUF.
    c)   Explain entrepreneurship development process.

Q.5   Answer the following. (Any One)   **08**
    a)   Explain problems faced by Rural Entrepreneurs.
    b)   Define women entrepreneurship. Explain problems of women
           entrepreneurs.

Seat No.	

B.Sc. (Entrepreneurship) (Semester - I) (Old) (CBCS) Examination: March/April - 2025
Fundamental of Economics and Accountancy (Paper - II) (EN1103)

Day & Date: Saturday, 10-May-2025   Max. Marks: 40
Time: 12:00 PM To 02:00 PM

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)   Economics is a science which deals with _____
   a)   matters and substance
   b)   chemical and reactions
   c)   numbers and combinations
   d)   human wants and resources

2)   _____ not a factor of production.
   a)   Land   b)   Labour
   c)   Capital   d)   Bank loan

3)   In economics, desire backed by purchasing power is known as _____
   a)   Utility   b)   Demand
   c)   Consumption   d)   Supply

4)   There is/are _____ number of sellers under perfect competition.
   a)   Two   b)   Three
   c)   Four   d)   Large

5)   According to _____ concepts, every business transaction has two aspects.
   a)   Going concern   b)   Materiality
   c)   Business entity   d)   Dual aspect

6)   Amount which is not recoverable from customer is known as _____
   a)   Debts   b)   Debtors
   c)   Loans   d)   Bad debts

7)   A book containing a chronological record of business transaction & original record is _____
   a)   Journal   b)   Ledger
   c)   Trial Balance   d)   Balance sheet

8) True & fair profit and loss of a business know by _____
   a) Profit and Loss a/c   b) Balance sheet
   c) Trail balance   d) Journal entry

Q.2 Answer any four of the following.   **08**
   a) Define Economics.
   b) Define Market.
   c) Define Monopoly Market.
   d) Define Accountancy.
   e) What is Cash Book?
   f) What do you mean by Capital?

Q.3 Write short notes on any two of the following   **08**
   a) Law and Schedule of demand
   b) Features of perfect competition market
   c) Golden Rules of Accounting

Q.4 Answer any Two of the following.   **08**
   a) Explain any four accounting concepts.
   b) Discuss importance of elasticity of demand.
   c) From the following information prepare Trading a/c of Star Traders for the year ended 31st March, 2023.

Particulars	Debit (Rs)	Particulars	Credit (Rs)
Opening stock	22,000	Sales	1,50,000
Purchases	1,40,000	Purchases Returns	30,000
Carriage Inward	2,000		
Royalty	11,000		
Wages	16,000		
Sales Return	30,000		

Note: Closing Stock was Rs. 46,000

Q.5 Answer Any One of the following   **08**
   a) What is elasticity of demand? Explain types of elasticity of demand.
   b) Journalize following transaction in the Books of Bharat Grocery Stores, Solapur.

Date	Particular	Amount (Rs)
01.10.2023	Business started business with cash	1,00,000
04.10.2023	Purchase goods for cash	60,000
05.10.2023	Deposited cash into bank	10,000
09.10.2023	Sold goods for cash	25,000
19.10.2023	Sold goods to Miss. Prachi on credit	10,000
25.10.2023	Paid Salary	5,000
30.10.2023	Pain Rent	3,000

Seat No.	

B.Sc. (Entrepreneurship) (Semester - I) (Old) (CBCS) Examination: March/April - 2025
Fundamentals of Inorganic Chemistry (Paper - I) (EN1104)

Day & Date: Tuesday, 13-May-2025　　　　　　　　　　　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　Multiple choice questions　　　　　　　　　　　　　　　08

1) By combination of one S & one P orbital gets _____ hybridization.
　a)　SP^2　　　　　　　　　　b)　SP^3
　c)　dSP^2　　　　　　　　　d)　SP

2) Cations & anions are held together by _____ in crystalline solids.
　a)　Covalent bond　　　　　　b)　Co-ordinate bond
　c)　Ordinate bond　　　　　　d)　Electrostatic force of attraction

3) Out of following ____ molecular orbitals having lower energy than combining orbitals.
　a)　Antibonding　　　　　　　b)　Bonding
　c)　a & b　　　　　　　　　　d)　Non- bonding

4) Caesium chloride is having _____ stoichiometry.
　a)　1:1　　　　　　　　　　　b)　1:2
　c)　1:3　　　　　　　　　　　d)　1:4

5) Valency of atom depends on number of _____ electrons that possessed by any atom.
　a)　Unpaired　　　　　　　　b)　Paired
　c)　Non-bonding　　　　　　　d)　a & c

6) _____ is called rock salt.
　a)　KNO_3　　　　　　　　　b)　$NaCl$
　c)　$FeCl_3$　　　　　　　　　d)　$ZnCl_2$

7) When S-orbital of one atom overlap with P- orbital of another atom called ____ overlap.
　a)　S-S　　　　　　　　　　　b)　Px
　c)　S-Px　　　　　　　　　　d)　SPx

8) Radius ratio is the ratio of radius of cation to radius of _____
　a)　cation　　　　　　　　　　b)　anion
　c)　a + b　　　　　　　　　　d)　a x b

Q.2 Answer any four of the following.   **08**
    a) Define covalent bond, Give its example.
    b) Draw structure of unit cell of $CsCl$.
    c) Define antibonding molecular orbital.
    d) Define ionic bond. Give its example.
    e) Give the bond angle in $BeCl_2$ & CH_4.
    f) Draw structure of NaCl.

Q.3 Write short notes on any two of the following.   **08**
    a) Bond Order and stability of molecule
    b) S - S overlap
    c) Hybridisation in BF_3 molecule

Q.4 Answer any two of the following.   **08**
    a) Explain the formation of ionic bond.
    b) Rules for co-valent bond formation.
    c) State characteristic of ionic compounds.

Q.5 Answer any one of the following   **08**
    a) Explain the formation of CH_4 molecule on the basis of hybrization.
    b) How Structure of NaCl is explained Born-Haber Cycle.

Seat No.		Set	P

B.Sc. (Entrepreneurship) (Semester - I) (Old) (CBCS) Examination: March/April - 2025
Fundamentals of Organic Chemistry (Paper–II) (EN1105)

Day & Date: Wednesday, 14-May-2025   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 Multiple choice questions   **08**

1) General formula of alkene is _____
a) C_nH_{2n-2} b) C_nH_n
c) C_nH_{2-2n} d) C_nH_{2n}

2) Alkyl halide reacts with Na metal to form alkane, the reaction is _____

a) Wurtz reaction   b) Kolbe rea^n
c) Condensation reaction   d) None of these

3) Benzene has ____ σ bonds.
a) 10   b) 12
c) 8   d) 6

4) Benzene is _____ compound.
a) antiaromatic   b) aromatic
c) pseudo aromatic   d) non aromatic

5) _____metal is used in Lassaignes test for detection of elements.
a) P   b) K
c) Na   d) Mg

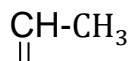**6)** Kjeldahl's method is used for estimation of_____.
a) P   b) K
c) N   d) S

7) Sulphur in organic compound is estimated by _____ method.
a) Kjeldahl's   b) Hess
c) Platinichloride   d) Carius

8) Organic compound contains 60% C, 40% H, the percentage of oxygen is _____
a) 100   b) 60
c) 40   d) 0

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

    a) Name the following alkenes. $\overset{\displaystyle CH\text{-}CH_3}{\underset{\displaystyle ||}{}}$

        a) $CH_3\text{-}CH = CH_2$ b) $CH_3 - CH$

    b) Draw resonating structures of benzene.

    c) State Kolbe's reaction for preparation of alkene.

    d) State & explain Huckel's rule.

    e) Draw neat labelled diagram for estimation of carbon and hydrogen by combustion method.

    f) Define molecular formula.

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

    a) Molecular orbital theory of benzene.

    b) Dehydration of lower alcohols.

    c) Polymerization of ethylene & propylene.

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

    a) How will you prepare cyclopentane by distillation of calcium or barium salt of dicarboxylic acid?

    b) How will you estimate halogen by Carius method?

    c) Give classification of dienes.

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

    a) Explain Kjeldahl's method.

    b) What are dienes? Give preparation methods of 1, 3 – butadiene.

Seat No.	

B.Sc. (Entrepreneurship) (Semester - I) (Old) (CBCS) Examination: March/April - 2025
Fundamentals of Microbiology (Paper - I) (EN1106)

Day & Date: Thursday, 15-May-2025   Max. Marks: 40
Time: 12:00 PM To 02:00 PM

Instructions: 1) All questions are compulsory.
2) Draw neat diagram 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) Study of acid and gas production is _____ approach to bacterial classification.
a) Morphological   b) Genetic
c) Cultural   d) Biochemical

2) Cell wall of Gram positive bacterial contains _____ % of peptidoglycan.
a) 20   b) 90
c) 25   d) 35

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

4) _____ is placing organisms into groups based on their relationship.
a) Identification   b) Nomenclature
c) None of these   d) Classification

5) Bacterial ribosomes are of _____ types.
a) 80 S   b) 60 S
c) 70 S   d) 40 S

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

7) Hot air oven works on the principle of _____ sterilization.
a) chemical   b) gaseous
c) moist heat   d) dry heat

8) _____ is the direct cell counting method.
   a) Microscopy   b) Turbidostat
   c) Chemostat   d) SPC

Q.2 Answer the following (any 4)   08
   a) Pasteurization
   b) Fungi
   c) Disinfection
   d) Slime layer
   e) Auxotroph

Q.3 Write Short Notes (any 2)   08
   a) Tyndallization
   b) Structure of Cell membrane
   c) Heterotrophs

Q.4 Answer the following (any 2)   08
   a) Discuss in brief control of microbes using chemical agents.
   b) Briefly explain Diauxic growth.
   c) Explain the role of chemostat in the continuous growth.

Q.5 Answer the following (any 1)   08
   a) Explain in detail difference between Prokaryotic and Eukaryotic cells.
   b) Enlist contributions of John Tyndall, Winogradsky and Alexander Fleming.

Seat No.		Set	P

B.Sc. (Entrepreneurship) (Semester - I) (Old) (CBCS) : Examination March/April - 2025
Basic Techniques in Microbiology (Paper - II) (EN1107)

Day & Date: Friday, 16-May-2025   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.
               3) Draw neat labeled diagram wherever necessary.

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

1) _____ is used to provide steam under regulated pressure.
    a) Autoclave   b) Incubator
    c) Laminar air flow   d) Hot air oven

2) _____ of the following is used as a solidifying agent for media.
    a) Beef extract   b) Yeast extract
    c) Peptone   d) Agar

3) Resolving power of a microscope is a function of _____
    a) Wavelength of light used
    b) Refractive index
    c) Wavelength of light used and numerical aperture of lens system
    d) Numerical aperture of lens

4) Medium used for urease test is _____
    a) Christensen's urea agar
    b) Kausar's agar medium
    c) Kausar's urease agar medium
    d) Nutrient agar

5) _____ is the nutritional characterization of *Escherichia coli*.
    a) Autotroph   b) Phototroph
    c) Heterotroph   d) Chemolithotroph

6) _____ of the following inhibits DNA replication.
    a) Cathode rays   b) UV light
    c) Gamma rays   d) x-rays

7) In light microscopy_____ of the following is used as fixatives prior to staining technique.
    a) Water   b) Alcohol
    c) Heat   d) Detergent

8) _____ of the following is used in electron microscope.
   a) magnetic fields
   b) light waves
   c) Sunlight
   d) electron beams and magnetic fields

Q.2 Answer any four of the following.   **08**
   a) Function of cell wall
   b) SPC
   c) Define Stain
   d) Applications of TEM
   e) Enriched media

Q.3 Write short note on any two of the following.   **08**
   a) Explain in brief Capsule staining.
   b) Describe in brief Catalase test.
   c) Explain in brief maintenance and preservation of pure cultures.

Q.4 Answer any two of the following.   **08**
   a) Explain in detail Working, Principles & Application of- Bright Field
        Microscopy.
   b) Describe in detail Living media composition and use.
   c) Explain in detail mechanism and significance- IMViC test

Q.5 Answer any one of the following.   **08**
   a) Describe in detail Gram Staining.
   b) Explain in detail natural and synthetic media.

Seat No.		Set	P

**B.Sc. (Entrepreneurship) (Semester - I) (Old) (CBCS) Examination:
March/April - 2025
Cellbiology (Paper-I) (EN1108)**

Day & Date: Saturday 17-05-2025
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 diagrams wherever necessary.
4) Use of logarithmic table and calculators is allowed.
(At. Wts.: H=1, C=12, O=16, N=14, Na=23, Cl=35.5)

Q.1 Select the correct alternative. 08
1) DNA is 'mainly' found in _____.
   a) Nucleus and cytoplasm   b) Nucleus only
   c) Lysosome   d) Cytoplasm

2) In the plasma membrane, lipid molecules are arranged in _____.
   a) Scattered   b) alternate
   c) Head parallel   d) series

3) Nucleoli were discovered by _____.
   a) Robert Hook   b) Felice Fontana
   c) Robert Brown   d) Leeuwenhoek

4) Plasma membrane is made up of _____.
   a) A protein, a lipid and a cellulose layer
   b) Bimolecular lipid layer surrounded by protein layers
   c) A protein layer between two lipid layers
   d) A lipid layer between two protein layers

5) Steroids, a biologically active organic compound, are derived from
   _____.
   a) Cholesterol   b) Chemical
   c) Carbohydrates   d) Hormones

6) The cancerous state of blood is _____.
   a) Leukemia   b) Chloremia
   c) Proteinemia   d) Uremia

7) The nucleus of cancerous cells becomes _____.
   a) Unchanged   b) Abnormally large
   c) Hypertrophied   d) Degenerated

8) Chromosomes found in the salivary gland of drosophila is _____.
   a) Polytene   b) Lampbrush
   c) Supernumerary   d) B-chromosomes

Q.2 Answer any four of the following: **08**
   a) Draw structure of Chloroplast.
   b) Enlist characteristics of Cancer.
   c) Explain Chemical components of biological membranes.
   d) Define intermediate filaments.
   e) Explain membrane as a dynamic entity.
   f) Enlist functions of nucleus

Q.3 Write short notes on any two of the following: **08**
   a) Define Carcinogenesis and a note agents promoting carcinogenesis.
   b) Write a detail note on Structure and function on Nucleus.
   c) Discuss in detail about regulation of receptor expression and its function.

Q.4 Answer any two of the following: **08**
   a) Write a brief note on Fluid Mosaic Model.
   b) Define cytoskeleton and explain cell motility.
   c) Explain Structure and functions of Ribosomes

Q.5 Answer any one of the following: **08**
   a) Define Mitochondria and explain Structure, functions and its Genome.
   b) Write a detail note on Golgi complex its Structure, biogenesis and functions including role in protein secretion.

| Seat No. | | **Set** | **P** |

B.Sc. (Entrepreneurship) (Semester - I) (Old) (CBCS) Examination: March/April - 2025
Animal and Plant Physiology

Day & Date: Monday, 19-05-2025   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.
3) Draw neat labelled diagrams wherever necessary.

Q.1 Select the correct alternative.   08

1) The location of the neuro centre activity of the heart is _____.
   a) Cerebrum   b) Midbrain
   c) Medulla Oblongata   d) Pons

2) "Heart of heart" is _____
   a) SA node   b) AV node
   c) Purkinji fibers   d) Bundle of HIS

3) Casparian strips occur in _____.
   a) Epidermis   b) Pericycle
   c) Endodermis   d) Cortex

4) The respiratory system, gaseous exchange takes place at _____.
   a) Alveoli   b) Trachea
   c) Pharynx   d) Larynx

5) Nitrogen is absorbed by the plants in the form of _____.
   a) Nitrites   b) Ammonium
   c) Nitrates   d) All

6) Conversion of ammonia to nitrite and then to nitrates is called _____.
   a) Denitrification   b) Nitrification
   c) Assimilation   d) Ammonification

7) _____ is a plant hormone generally present in the gaseous state.
   a) Ethylene   b) Ethane
   c) abscisic acid   d) Argon

8) _____ stimulates the production of gastric juice in the stomach.
   a) Digestin   b) Enterokinase
   c) Gastrin   d) Rennin

Q.2 **Answer any four of the following:** 08
   1) Define Photphosphorylation
   2) Define Haematopoeisis
   3) Define transpiration
   4) Define hypo and hyper-secretions
   5) Define Plasma proteins.
   6) Define Circulation of blood.

Q.3 **A)** **Write short notes on any two of the following:** 08
   1) Discuss about primary structure of shoot and root.
   2) Explain Transport of O_2 and CO_2 in respiration.
   3) Write a detailed note on Calvin cycle.

Q.4 **Answer any two of the following:** 08
   1) Add a note on Mechanism of digestion and absorption.
   2) Explain nitrate reduction and ammonium assimilation in plants.
   3) Discuss in brief about concept of two photo systems.

Q.5 **Attempt any one of the following.** 08
   1) Define Hormone and write d detailed note on plant growth hormone.
   2) Explain in brief about Mechanism of working of heart.

Seat No.

Set **P**

B.Sc. (Entrepreneurship) (Semester - II) (New) (CBCS) : Examination March/April - 2025
English (Comp.)
Communication Skill (EN1201)

Day & Date: Thursday, 22-May-2025　　　　　　　　　　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　Choose the correct alternative from given options　　　　　08

1) Who regards value of education unquestionable
   a) Practical man　　　　　　b) Educated man
   c) Eminent man　　　　　　d) Plutocrats

2) What do teachers invariably believe in
   a) Common knowledge　　　b) Knowledge from books
   c) Knowledge of animals　　d) Common sense

3) What sort of prison did the kings live in?
   a) Dungeon　　　　　　　　b) Isolated tower
   c) Gorgeous unreality　　　d) House arrest

4) Who lynched the lakes
   a) The poet　　　　　　　　b) factories
   c) The vehicles　　　　　　d) The humans

5) What is the profession of the ideal man described in the poem 'Ode on Solitude'
   a) Pastor　　　　　　　　　b) farmer
   c) Cobbler　　　　　　　　d) Teacher

6) What type of place the poet is going to in the poem " Remember"?
   a) Loud place　　　　　　　b) market place
   c) Silent place　　　　　　d) Dull place

7) Write antonyms of the word - Complex
   a) Useful　　　　　　　　　b) Small
   c) Simple　　　　　　　　　d) Ugly

8) Identify tense of the following sentence.
   'He had written a letter to the Principal of the college'
   a) simple sentence　　　　b) Present continuous sentence
   c) Past tense　　　　　　　d) Past perfect tense

Q.2 **Write the answer in short (Any Four)** **12**
1) What is considered the business of education in all countries according to Russel?
2) What kind of people can achieve the true sense of freedom?
3) What is the end of the poem "Our Earth Will Not Die? What does it indicate?
4) What picture of a farmer does Pope present in the poem?
5) Who is happy man according to Alexander Pope?
6) What is the theme of the poem 'Remember?

Q.3 **Answer the following questions (Any One)** **10**
1) You are writing to a person called Ankit Malhotra who is the manager at Winters & Wools . You want to complaint about the winter jacket you bought. The colour has faded away after one wash. Write a letter to Ankit Malhotra, The Manager, Winter & Wools,49,Phoenix Market City, F, 92, LBS Road, Pune, Maharashtra- 400070

2) Write a letter applying for the post of Computer Teacher.

Q.4 **Describe non-verbal ways in which peopie communicate (Any Five)** **10**

Seat
No.

B.Sc. (Entrepreneurship) (Semester - II) (New) (CBCS) Examination: March/April - 2025
Entrepreneurship Science (Paper –III)
Fundamental of Marketing & Management accounting (EN1202)

Day & Date: Friday, 23-May-2025   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.
3) Draw neat labelled diagrams wherever necessary.
4) Use of logarithmic table and calculators is allowed.

Q.1   Multiple choice questions   08

1) Marketing is a process which aims at _____
   a) Satisfaction of customer needs
   b) Selling products
   c) Production
   d) Increase Profit

2) Selling is _____
   a) Different from marketing
   b) function from marketing
   c) Same as marketing
   d) More than marketing

3) Market Segmentation is useful for
   a) Preferential marketing
   b) Targeting existing client
   c) Identifying prospects
   d) All of the above

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 ratio is a _____
   a) Short-term solvency ratio.
   b) Long-term solvency ratio.
   c) Profitability ratio.
   d) Turnover ratio.

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 of the following (Any Four)** 08
    a) Define Selling.
    b) Define market segmentation.
    c) Define e-marketing.
    d) What is working capital?
    e) What is management accounting?

Q.3 **Write short notes of the following (Any Two)** 08
    i) Explain nature of marketing.
    ii) Discuss benefits of e-marketing.
    iii) Write classification of working capital.

Q.4 **Answer the following (Any Two)** 08
    i) Discuss features of e-marketing.
    ii) Explain determinants of working capital.
    iii) A company had following Current Assets and Current Liabilities:
    Debtors Rs. 1,20,000, Creditors Rs. 60,000, Bills Payable Rs. 40,000, Stock Rs. 60,000, Loose Tools Rs. 20,000, Bank Overdraft Rs. 20,000.
    Calculate current ratio.

Q.5 **Answer the following (Any One)** 08
    a) Calculate the Gross Profit Ratio:
    Sales Rs. 2,70,000, Net purchase Rs. 1,50,000, Sales Return Rs. 20.000, Closing stock Rs. 25,000 Opening stock Rs. 45,000

    b) What is management accounting? Explain scope and limitation of management accounting.

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

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

1) Cost Accounting started as a branch of
   a) Financial Accounting   b) Management Accounting
   c) Corporate Accounting   d) Vedic Accounting

2) _____ is the objective of Cost Accounting
   a) Controlling Cost   b) Ascertaining costing profit
   c) Determining Selling Price d) All of the Above

3) Contract Costing is a variant of _____ Costing
   a) Job   b) Process
   c) Unit   d) Batch

4) Annual requirement is 7800 units; consumption per week is 150 units ,Unit price '5, order cost' 10 per order carry cost'1 per unit and lead time is 3 week. The Economic order quantity would be _____
   a) 396 Units   b) 300 Units
   c) 250 Units   d) 150 Units

5) The process of each manager follows during the life of a project is known as
   a) Project Management   b) Manager life cycle
   c) Project Management Lifecycle   d) All of the Mentioned

6) The Basic nature of a project is a/an _____ one
   a) Permanent   b) Temporary
   c) A OR B   d) Both a & b

7) Developing a Technology is an example of
   a) Process   b) Project
   c) Scope   d) All of these

8) Project Performance consists of _____
   a) Time   b) Cost
   c) Quality   d) All of these

Q.2 Answer any four of the following   08
   i) Define Accounting.
   ii) Define Costing.
   iii) Define Project Management
   iv) Define Planning.
   v) What do you mean by Report?

Q.3 A) Write short notes on any Two of the following.   08
   i) Techniques of Costing
   ii) Characteristics of Project
   iii) Concept of Management

Q.4 Attempt any Two of the following.   08
   i) Write down Element of Costs?
   ii) Write down Problem of Cost Sheet
   iii) Write down tools and techniques of Project Management?

Q.5 Answer any one of the following   08
   i) Write down Advantage and Disadvantages of Costing?
   ii) Write down role and responsibilities of Project Manager?

Seat No.		Set P

B.Sc. (Entrepreneurship) (Semester - II) (New) (CBCS) Examination: March/April - 2025
Industrial Chemistry (Paper - III)
Fundamentals of Physical Chemistry (EN1204)

Day & Date: Monday, 26-May-2025   Max. Marks: 40
Time: 12:00 PM To 02:00 PM

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

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

1)   Photochemical union of H_2 and Cl_2 is an example of _____ order reaction.
   a)   first   b)   second
   c)   third   d)   zero

2)   The rate law for the second order reaction is _____.
   a) $rate = k[A]^0$ b) $rate = k[A]^1$

   c) $rate = k[A]^2$ d) $rate = k[A]^3$

3) P_c, V_c and T_c are known as _____.
   a)   gas constants   b)   van der Waals constants
   c)   critical constants   d)   Velocity constants

4)   The SI unit of viscosity is _____.
   a)   Poise   b)   Newton
   c)   Dyne   d)   Pascal

5)   The number of molecules whose concentration changes during the chemical reaction is called as _____ of the reaction,
   a)   molecularity   b)   velocity
   c)   order   d)   rate

6)   The reaction between $K_2S_2O_8$ and KI is an example of _____ order reaction.
   a)   first   b)   second
   c)   third   d)   zero

7)   Gas which obeys the gas laws at all temperatures and pressures is called as _____.
   a)   ideal gas   b)   non ideal gas
   c)   real gas   d)   all of these

8) Cooling of a gas on expansion is known as _____ effect.
   a) warming
   b) Joule-Thomson
   c) both a and b
   d) none of these

Q.2 Answer any four of the following 08
   a) Which are the requirements for the liquefaction of gases?
   b) Define first order reaction. Give the SI unit of rate constant for the first order reaction.
   c) Which are the causes of the deviations of the real gases from ideal behavior?
   d) What is Poiseuille's equation? Explain the terms involved in it.
   e) Define pseudo-unimolecular reaction.

Q.3 Write short notes on any two of the following 08
   a) Macleod equation for parachor
   b) Factors affecting the rate of chemical reaction
   c) van der Waals equation

Q.4 Write any two of the following. 08
   a) Calculate the critical constants P_c and of V_c of a given gas if van der Waals constants 'a' and 'b' are 5.4×10^5 $NM^2 lit^2 mol^{-2}$ and 0.04596 lit mol^{-1} respectively.
   b) Show that for the first order reaction, time taken to complete half of a reaction is independent of initial concentration of the reactant.
   c) Define energy of activation. How it is determined?

Q.5 Answer any one of the following. 08
   a) Derive an expression for rate constant of a second order reaction with equal initial concentration of reactants.
   b) Define surface tension. Discuss drop-weight method for the determination of surface tension.

Seat No.

Set **P**

B.Sc. (Entrepreneurship) (Semester - II) (New) (CBCS) Examination: March/April - 2025
Industrial Chemistry (Paper - IV)
Fundamentals of Analytical Chemistry (EN1205)

Day & Date: Tuesday, 27-May-2025   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.
3) Draw neat labelled diagrams wherever necessary.
4) Use of log table and calculators is allowed.
(At. Wts. H=1, C=12, O=16, N=14, Na=23, Cl=35.5)

Q.1 A)   Select the correct alternative.   08

1) Petroleum mainly contains _____.
   a) Aromatic hydrocarbon   b) cycloalkane
   c) Aliphatic hydrocarbon   d) Inorganic compound

2) The polymer which on starching undergo elongation and when force is removed it regain its original position are known as _____.
   a) Thermoplastic   b) Thermosetting
   c) Elastomers   d) None of these

3) The process of removing extra common salt from the water is known as _____.
   a) Purification   b) Desalination
   c) Disinfection   d) Distillation

4) Octane number is zero for _____.
   a) n-heptane   b) iso-octane
   c) N-hexane   d) Iso-heptane

5) Chloroprene is a monomer of _____.
   a) Natural rubber   b) Buna-s
   c) Buna-N   d) Synthetic rubber

6) Among the following which is synthetic polymer?
   a) Strach   b) Silk
   c) Polythene   d) Wool

7) The lowest temperature at which the oil gives enough vapour is known as _____.
   a) flash point   b) cloud point
   c) pour point   d) fire point

8) When iodine is added in starch containing milk then _____ coloured ppt.

  a) yellow   b) blue

  c) Red   d) Violet

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

  1) Define calorific value and heating value.

  2) Define elastomer with example.

  3) Write any four qualities of ideal drug.

  4) Distinguish between thermoplastic and thermosetting polymer.

  5) What is mean by soft water and hard water?

  6) Define milk give the chemical composition of milk.

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

  1) Vulcanization

  2) Role of magnesium hydroxide as a antacid

  3) Types of fuels

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

  1) What the types of water? Explain the term fresh water.

  2) Explain essential nutrients of plants with their classification.

  3) What is refining? Give the different constituent obtained from refining of petroleum.

Q.5 Attempt any One of the following.   **08**

  1) What are polymers? Explain various types of polymers with suitable example.

  2) What is mean by cracking and hydroforming?

Seat No.

B.Sc. (Entrepreneurship) (Semester - II) (New) (CBCS) Examination: March/April - 2025
Industrial Microbiology - III
Fundamentals of Industrial Microbiology (EN1206)

Day & Date: Wednesday, 28-May-2025　　　　　　　　Max. Marks: 40
Time: 12:00 PM To 02:00 PM

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 alternatives and rewrite the sentences again.　　08

1) Crowded plate technique is example of primary screening of _____ producer microbes.
a) vitamin　　　　　　　　b) antibiotic
c) organic acid　　　　　　d) organic amine

2) Vortex formation in fermenter is prevented by _____.
a) baffles　　　　　　　　b) impeller
c) agitator　　　　　　　　d) sparger

3) Whey is the byproduct of _____ industry.
a) paper and pulp　　　　b) antibiotic
c) sugar　　　　　　　　　d) milk and dairy

4) Chemostat and Turbidostatare are used in _____ fermentation process.
a) batch　　　　　　　　　b) continuous
c) surface　　　　　　　　d) Submerged

5) Inoculum size should be _____.
a) < 0.5 %　　　　　　　　b) 0.5 to 5 %
c) 25 %　　　　　　　　　d) 50%

6) rDNA technology is used for _____.
a) media formulation　　　b) fermentation process
c) strain improvement　　　d) primary screening

7) End point determination assay is example of _____.
a) Diffusion assay　　　　　b) Turbidometric assay
c) Enzymatic assay　　　　d) Metabolic response assay

8) Small 1 to 50 litre fermenters are known as _____.
a) Industrial fermenters　　b) Pilot fermenters
c) Laboratory fermenters　　d) Mini industrial fermenter

Q.2 Answer the following. (Any Four)   **08**
   a) What is fermentation?
   b) What is antifoam agent?
   c) What is sterilization?
   d) What is microbial strain?
   e) What is protoplast?
   f) What is sparger?

Q.3 Write short notes on the following. (Any Two)   **08**
   a) Fermentation media ingredients
   b) Batch fermentation
   c) Microbial assay

Q.4 Answer the following. (Any Two)   **08**
   a) Explain in brief about Inoculum development.
   b) Describe in brief secondary screening.
   c) Write in brief on scale up of fermentation process.

Q.5 Answer the following. (Any One)   **08**
   a) Explain in detail ideal bioreactor design, their parts and functions.
   b) Describe in detail Strain Improvement.

Seat
No.

B.Sc. (Entrepreneurship) (Semester - II) (New) (CBCS) Examination: March/April - 2025
Industrial Microbiology–IV
Basics Techniques in Industrial Microbiology (EN1207)

Day & Date: Thursday, 29-May-2025   Max. Marks: 40
Time: 12:00 PM To 02:00 PM

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 alternatives from the options.   08
  1) Baffle is mainly use to avoid _____ formation.
      a) Foam   b) Heat
      c) Vortex   d) Metabolite

  2) _____ Microorganisms   is use to carried out Alcoholic fermentation.
      a) *Lactobacillus*   b) *Bacillus*
      c) *Saccharomyces cerevisiae*   d) *E.coli*

  3) Industrial microbiology mainly depends on the phenomenon _____.
      a) Vaccination   b) Fermentation
      c) Purification   d) Pasteurization

  4) _____ of the following is not a product of fermentation.
      a) Oxygen   b) Ethanol
      c) Beer   d) Wine

  5) Phenyl acetic acid is used as precursor in _____ production.
      a) Vitamin B12   b) Penicillin G
      c) Lysine   d) Amylase

  6) AISI 316 grade steel contains _____% chromium.
      a) 10   b) 11
      c) 02   d) 18

  7) Cryopreservation is _____.
      a) preservation at low temperature
      b) preservation at high temperature
      c) preservation with dehydration
      d) preservation in mineral oil

8) The homogenous distribution of nutrient and uniform mixing of microorganisms in the fermenter is carried out by _____.
a) Sparger   b) Baffles
c) Impeller   d) Antifoam agent

Q.2 Answer any four of the following   **08**
a) Precursors
b) Enlist Primary and Secondary Metabolite
c) Pasteurization
d) Auxotroph
e) Enlist the antifoam agents involved in fermentation.

Q.3 Write short notes on any two of the following   **08**
a) Write in detail secondary screening techniques.
b) Scope of Industrial Microbiology.
c) Write in detail Screening procedure for growth factor producer.

Q.4 Write any two of the following.   **08**
a) Write in detail about preservation of industrially important microorganisms.
b) Explain in detail design of fermenter.
c) Write in detail Screening procedure for organic acid producer.

Q.5 Answer any one of the following.   **08**
a) Explain in detail sterilization of fermentation media.
b) Write in detail carbon source fermentation media.

Seat No.

B.Sc. (Entrepreneurship) (Semester - II) (New) (CBCS) Examination: March/April - 2025
Industrial Biotechnology (Paper-III)
Basics of Biomolecules (EN1208)

Day & Date: Friday, 30-May-2025   Max. Marks: 40
Time: 12:00 PM To 02:00 PM

Instructions: 1) All questions are compulsory.
2) Draw neat diagrams and give equation 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 sentences.   08
1)   _____ is sulphar containing amino acid.
   a)   Methionine   b)   Alanine
   c)   Lysine   d)   Honocystine

2)   _____ is also known as invert sugar.
   a)   Sucrose   b)   Fructose
   c)   Dextrose   d)   Glucose

3)   _____ form of lipids are also referred as neutral lipids.
   a)   Triacylglycerol   b)   Steroid
   c)   Phospholipids   d)   Wax

4) α-helix has _____.
   a)   3.4 amino acid residues/turn
   b)   3.6 amino acid residues/turn
   c)   3.8 amino acid residues/turn
   d)   3.0 amino acid residues/turn

5)   The sugar molecule in a nucleotide is _____.
   a)   Pentose   b)   Hexose
   c)   Tetrose   d)   Triose

6)   Fat soluble Vitamins are _____.
   a)   Vitamin A   b)   Vitamin B
   c)   Vitamin B6   d)   Vitamin C

7)   Carbohydrates are also known as _____.
   a)   Hydrates of carbon   b)   Carbonates
   c)   Glycolipids   d)   Polysaccharides

8) _____ is the purine base of nucleic acids.
  a) Cytosine   b) Thymine
  c) Uracil   d) Adenine

Q.2 Answer the following. (Any Four)   **08**
  a) Define Triglycerides
  b) Define Oligosaccharides
  c) Define Apoenzyme.
  d) Define Purines and Pyrimidines
  e) Draw Structure of DNA.
  f) Enlist Sulphar containing amino acids.

Q.3 Write short notes on the following. (Any Two)   **08**
  a) Write a note on Induced fit hypothesis of enzyme action.
  b) Explain in detail about properties of Amino acids.
  c) Discuss in detail about water soluble Vitamins.

Q.4 Answer the following. (Any Two)   **08**
  a) Explain in detail about Nucleosides & Nucleotides.
  b) Write a note on properties of Fatty acids.
  c) What is coenzyme? And add a note on its prosthetic groups.

Q.5 Answer the following. (Any One)   **08**
  a) Define Carbohydrates and add a note on its Structure, Function and
         Properties of Monosaccharides.
  b) Explain in detail about Double helical Right handed structure of DNA.

Seat No.	

B.Sc. (Entrepreneurship) (Semester - II) (New) (CBCS) Examination March/April - 2025
Industrial Biotechnology (Paper - IV)
Basics of Metabolism (EN1209)

Day & Date: Monday, 02-June-2025   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 Multiple choice questions.   **08**

1) The primary function of glycogen synthesis is carried out by _____.
    a) Lysine   b) Arginine
    c) Glycogenin   d) Glutamine

2) _____ of the enzyme catalysis of the conversion of pyruvate to lactate.
    a) Pyruvate reductase   b) Lactate reductase
    c) Lactate dehydrogenase   d) Pyruvate dehydrogenase

3) _____ of the energy source of the brain during starvation.
    a) Fat   b) Ketone bodies
    c) lipid   d) protein

4) _____ macromolecule can most structurally diverse among living world.
    a) Protein   b) Lipid
    c) Carbohydrate   d) Vitamins

5) _____ is considered as both ketogenic and glucogenic
    a) Valine   b) Lysine
    c) Tryptophan   d) Guanine

6) Which of this hereditary disease caused due to an error in amino acid metabolism.
    a) Homocystinuria   b) Phenylketonuria
    c) Albinism   d) None of these

7) The TCA cycle occurs in which region of prokaryotic cell.
    a) Cytosol   b) Mitochondria
    c) Ribosome   d) Golgi apparatus

8) In fermentation which of the following is regenerated _____.
    a) Starch   b) Oxygen
    c) NAD^+ d) NADH

Q.2 Answer the following. (Any Four)   08
   a) Define Fermentation
   b) Define Nucleotide
   c) Define Metabolism.
   d) Define Glycolysis
   e) Define fats
   f) Define Nucleic acid

Q.3 Write short notes on the following. (Any Two)   08
   a) Explain the process Oxidation of fatty acids.
   b) Explain Lactic acid fermentation
   c) Define phenylketonuria and its symptoms.

Q.4 Answer the following. (Any Two)   08
   a) Schematic representation TCA cycle.
   b) Write note on Glycogen synthesis.
   c) Describe Beta oxidation saturated fatty acids.

Q.5 Answer the following. (Any One)   08
   a) Define Carbohydrate metabolism with process and its stages.
   b) Explain in Detail Salvage pathway.

Seat No.		Set	P

B.Sc. (Entrepreneurship) (Semester - III) (New) (CBCS) Examination March/April - 2025
Entrepreneurship (Paper - V)
Principles of Business Management & Business Organization (EN1301)

Day & Date: Thursday, 05-June-2025   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.
4) Use of logarithmic table and calculator is allowed.

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

1)   Who is the Father of Management
   a)   F.W. Taylor   b)   Henri Fayol
   c)   Robinson   d)   Piguo

2)   Principles of Management are not:-
   a)   Absolute   b)   Behavioral
   c)   Universal   d)   Flexible

3)   Sole proprietorship is most suitable for _____.
   a)   Small Scale Concern   b)   Large scale Concern
   c)   Medium Scale Concern   d)   None of these

4)   What is the minimum number of member required to form a public limited Company _____.
   a)   10   b)   2
   c)   5   d)   7

5)   Concentration of authority at one level is called _____.
   a)   Decentralization   b)   Delegation
   c)   Accountability   d)   Centralization

6)   _____ means every employee should get order from one superior only
   a)   Unity of Command   b)   Unity of Direction
   c)   Centralization   d)   Order

7)   Management should find the one best way to perform a task. Which technique of Management states that _____.
   a)   Time study   b)   Motion study
   c)   Fatigue study   d)   Method Study

8) PODC stands for _____.
   a) Planning Orgnizating Directing Controlling
   b) Placement Open Decision System
   c) Posting Organizationing Decision Contralling
   d) None of these

Q.2 Answer the following question: (Any Four)   08
   a) Define Leadership?
   b) Define Staffing?
   c) Define Structure?
   d) Define Business?
   e) Define Organization

Q.3 Write short notes on the following: (Any Two)   08
   a) Role of Manager
   b) Appraisal System
   c) Theory of Motivation

Q.4 Answer the following question: (Any Two)   08
   a) Write down Types of Planning?
   b) Write down Characteristics of Directions
   c) Write down importance of Business Management?

Q.5 Answer the following question: (Any One)   08
   a) Explain the functions and qualities of Leader?
   b) Explain the Decision making process & Types of Decision?

Seat No.		Set	P

B.Sc. (Entrepreneurship) (Semester - III) (New) (CBCS) Examination: March/April – 2025
Entrepreneurship (Paper - VI)
Advanced Accountancy & Auditing (EN1302)

Day & Date: Friday, 06-June-2025   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.
4) Use of logarithmic table and calculator is allowed.

Q.1 Choose the correct alternatives from the options.   08
1) Depreciation is provided on _____.
   a) fixed assets   b) outward charges
   c) current assets   d) intangible assets

2) In cash book, the favorable balance indicates:
   a) Debit   b) Credit
   c) Both (a) & (b)   d) None of these

3) Inter-state trade is presently subject to _____.
   a) CGST   b) SGST
   c) IGST   d) GGST

4) Audit word is derived from Latin term _____.
   a) Autire   b) Audire
   c) Autiti   d) Audira

5) Auditing begins where _____ ends.
   a) Accounting   b) Marketing
   c) Selling   d) Purchase

6) Errors which affect one account can be _____.
   a) errors of omission   b) errors of principle
   c) errors of posting   d) error of commission

7) Internal auditor is appointed by _____.
   a) The management   b) The government
   c) The creditors   d) The investors

8) Increase in working capital is _____.
   a) Application of funds   b) Sources of fund
   c) No effects on funds   d) None of the above

Q.2 Answer the following questions: (Any Four)   08
  a) Define Working Capital.
  b) What is Bank reconciliation?
  c) Define Funds Flow.
  d) Define Auditor.
  e) What is insurance claim?
  f) What is Voucher?

Q.3 Write short notes: (Any Two)   08
  a) Explain any four functions in Tally software.
  b) Explain benefits of cash flow statement.
  c) Prepare Bank reconciliation Statement as on 31st March, 2022 from the following details-
      i) Bank column of Cash book shows debit balance of Rs. 15,000
      ii) Cheque of Rs. 10,000 issued but not presented for payment.
      iii) Customer directly deposited of Rs. 7,000 in to bank.
      iv) Bank debited bank charges of Rs. 200
      v) Cheque of Rs. 3,700 deposited in to the bank but not credited by the bank.
      vi) Bank paid insurance premium of Rs. 2,500 but not recorded in cash book.

Q.4 Answer the following: (Any Two)   08
  a) Explain importance of Vouching.
  b) Explain Internal Audit and External Audit.
  c) Discuss Qualifications and Disqualifications of an Auditor of joint Stock Company.

Q.5 Answer the following: (Any One)   08
  a) Explain advantages and limitation of auditing.
  b) Following are the comparative balance of Godrej Ltd. for the year ended 31.03.2022 and 31.03.2023

Particulars	2022 (Rs.)	2023 (Rs.)
Assets:		
Cash	43,000	58,000
Prepaid Expenses	2,000	2,000
Debtors	80,000	90,000
Stock	32,000	40,000
Long term Investment	50,000	30,000
Machinery	25,000	40,000
Building	75,000	90,000
Land	10,000	10,000
Total	**3,17,000**	**3,60,000**
Liabilities:		
Bills payable	2,000	3,000
Creditors	33,000	40,000
Accumulated Depreciation on Building	15,000	25,500

Outstanding expenses	3,500	4,500
Debentures	40,000	35,000
Equity share capital	2,00,000	2,00,000
Profit and loss account	23,500	52,000
Total	**3,17,000**	**3,60,000**

Prepare statement showing changes in working capital.

Seat No.	

Set **P**

B.Sc. (Entrepreneurship) (Semester - III) (New) (CBCS) Examination: March/April - 2025
Industrial Chemistry Paper-V
Analytical & Industrial Aspects of Inorganic Chemistry (EN1303)

Day & Date: Monday, 09-June-2025   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.

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

1)   Ionic theory of acid-base indicators was proposed by _____.
   a)   Pearson   b)   Bronsted-Lowry
   c)   Arrhenius   d)   Ostwald

2)   Self-stifling _____ the corrosion.
   a)   increases   b)   prevent
   c)   promotes   d)   all of these

3)   Corrosion is nothing but anodic _____.
   a)   oxidation   b)   hydrolysis
   c)   reduction   d)   none of these

4)   _____ is called as king of chemicals.
   a) H_3PO_4 b)   HBr
   c) H_2SO_4 d) HNO_3

5)   The reagent of known concentration is called as _____.
   a)   titrand   b)   titre
   c)   titrant   d)   sample

6)   A biological catalyst is _____.
   a)   an amino acid   b)   catalase
   c)   carbohydrate   d)   protein

7)   Nucleation is the _____ step of precipitation.
   a)   first   b)   second
   c)   final   d)   third

8)   In gravimetric estimation of iron, the amount of iron is estimated from the mass of _____.
   a) $Fe(OH)_3$ b) F_eSO_4
   c) Fe_2O_3 d)   All of these

Q.2   Answer the following question. (Any Four)   08
   a)   Define equivalence point and titrant.
   b)   Define nucleation and digestion.
   c)   Enlist two factors that affects corrosion.
   d)   Write four advantages of contact process.
   e)   Draw the structure of $[M^{2+}$-EDTA] complex.
   f)   What do you mean by catalyst?

Q.3   Write short notes on the following. (Any Two)   08
   a)   Nucleation and its types.
   b)   8-Hydroxy quinolone.
   c)   Define homogenous and heterogeneous catalysis with examples.

Q.4   Answer the following. (Any Two)   08
   a)   Write any four applications of passivity.
   b)   Describe industrial applications of catalysis.
   c)   Explain electrochemical theory of corrosion.

Q.5   Answer the following question. (Any One)   08
   a)   Explain the formation of sulphuric acid by Contact process.
   b)   Explain neutralization curve and choice of indicator for titration of strong acid and weak base.

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B.Sc. (Entrepreneurship) (Semester - III) (New) (CBCS) Examination:
March/April - 2025
Industrial Chemistry Paper–VI
Analytical & Industrial Aspects of Organic Chemistry(EN1304)

Day & Date: Tuesday, 10-June-2025   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 labelled diagrams wherever necessary.
4) Use of logarithmic table and calculators is allowed.

Q.1 A) Multiple choice questions   08
1) Soap is _____ molecule.
   a) Amphipathic   b) Amphoteric
   c) hydrophilic   d) Basic hydrophilic

2) Compound imbibation is used for _____ of juice.
   a) Extraction   b) Clarification
   c) Crystallisation   d) Defecation

3) The process of removing wax & follow during sizing is _____
   a) Singing   b) Scouring
   c) Dyeing   d) None

4) The object of sizing is due to increase of _____
   a) smoothness   b) Yarn elasticity
   c) Strength   d) All

5) Antipyretic drug is used to _____
   a) Control sleep
   b) Increase body temperature
   c) Decrease body temperature
   d) Induce sleep

6) Condensation of indole with chloroacetonitrile followed by hydrolysis yields _____
   a) monocrotophos   b) Endosulphan
   c) Indole acetic acid   d) ethophan

7) _____ is not nature fiber
   a) Jute   b) Nylon
   c) Wool   d) Silk

8) Agrochemicals are used to increase_____.
   a) quality   b) quantity
   c) Pest control   d) all

Q.2 Answer the following question. (Any Four)   **08**
   a) Define Hydrophilic & hydrophobic.
   b) Draw neat labelled diagram of clarifier.
   c) Classify fiber
   d) Define CNS drug give its example
   e) Give uses of pyrethroid

Q.3 Write short notes on. (Any Two)   **08**
   a) By products of sugar industry
   b) Dyeing process to textile
   c) Qualities of ideal drug

Q.4 Answer the following question. (Any Two)   **08**
   a) Give synthesis of Indole Acetic acid
   b) Objects of sizing
   c) Define Rectified spirit, denatured spirit, absolute alcohol, power alcohol.

Q.5 Answer the following question. (Any One)   **08**
   1) Explain hot process of manufacture of soap
   2) Explain extraction of juice & by products of alcohol industry

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B.Sc. (Entrepreneurship) (Semester - III) (New) (CBCS) Examination: March/April - 2025
Microbial Biotechnology (Paper - V)
Genetics (EN1305)

Day & Date: Wednesday, 11-June-2025 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 labelled diagrams wherever necessary.

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

1) Pea plants were used in Mendel's experiments because _____.
   a) they were cheap
   b) they were available easily
   c) they were grown easily
   d) they had contrasting characters

2) Lack of independent assortment of two genes is due to _____.
   a) recombination
   b) linkage
   c) crossing over
   d) repulsion

3) V-shaped chromosomes with centromere in the middle giving rise to two equal arms are _____.
   a) Telocentric
   b) Acrocentric
   c) Metacentric
   d) Acentric

4) In chromosomal aberration, if parts of chromosome lost or deleted is known as _____.
   a) deletion
   b) inversion
   c) translocation
   d) duplication

5) Lambda (λ) phage shows _____ type of transduction.
   a) abortive
   b) generalized
   c) specialized
   d) synthetic

6) Linkage prevents _____.
   a) homozygous condition
   b) segregation of alleles
   c) hybrid formation
   d) heterozygous condition

7) Crossing-over takes place in the _____.
   a) Diakinesis stage
   b) Leptotene stage
   c) Anaphase stage
   d) Pachytene stage

8) The average of all observations in a set of data is known as _____.
   a) mean
   b) median
   c) range
   d) mode

Q.2 **Answer in short answers (Any Four)** 08
   a) What is dihybrid crossing?
   b) What is mutation?
   c) What is allele?
   d) What is crossing over?
   e) What is transposon?
   f) What is probability?

Q.3 **Write Short Notes (Any Two)** 08
   a) Types of chromosomes
   b) Law of Independent assortment
   c) Central tendency

Q.4 **Answer the following questions. (Any Two)** 08
   a) Explain in brief the chromosomal aberration.
   b) Describe in brief the conjugation.
   c) Write in brief the linkages.

Q.5 **Answer the following questions. (Any One)** 08
   a) Describe in detail Transformation.
   b) Explain in detail mutation.

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B.Sc. (Entrepreneurship) (Semester - III) (New) (CBCS) Examination: March/April - 2025
Microbial Biotechnology (Paper - VI)
Fermentation Technology (EN1306)

Day & Date: Thursday, 12-June-2025   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 labelled diagrams wherever necessary.
         4) Use of log table and calculators is allowed.

Q.1 **Rewrite the following sentences by choosing correct alternatives given below.**   **10**

   1) _____ is used to produce biogas from biomass.
     a) Anaerobic treatment   b) Aerobic treatment
     c) Fermentation   d) Pyrolysis

   2) Streptomycin is produced by _____.
     a) *Stretomyces noursei*   b) *Streptomyces nodosus*
     c) *Streptomyces fradiae*   d) *Streptomyces griseus*

   3) _____ is the most common source of SCP.
     a) Multicellular yeast   b) Single-celled yeast
     c) Unicellular algae   d) Unicellular bacteria

   4) _____ ion produces a toxic effect in the brewing process.
     a) Manganese   b) Calcium
     c) Copper   d) Sulphate

   5) _____ is a major source of β-Amylase.
     a) *Bacillus amyloliquefaciens*
     b) *Bacillus licheniformis*
     c) *Aspergillus niger*
     d) Malted barley

   6) The pH of molasses solution in the manufacture of ethanol should be _____.
     a) 1-2   b) 2-3
     c) 7-9   d) 4-5

7) _____ is a substrate for biogas production.
   a) Municipal and residential waste
   c) E-waste
   c) Metallic waste
   d) Gaseous effluents

8) _____ is an aerobic nitrogen-fixing bacterium.
   a) *Azotobacter*   b) *Clostridium*
   c) *Rhodospirillum*   d) *Rhodopseudomonas*

Q.2 Answer following question. (Any Four)   **08**
   a) Types of penicillin.
   b) Where is PHB used?
   c) Write the chemical composition of media for citric acid production.
   d) Types of antibiotics.
   e) Define the term Mast.
   f) Define the term fermentation media.

Q.3 Answer following question. (Any Two)   **08**
   a) Write about biofertilizers.
   b) Write about procedure of Alcohol production.
   c) Write short notes on PHB.

Q.4 Answer following question. (Any Two)   **08**
   a) Write in detail biogas production.
   b) Write about SCP production.
   c) Industrial production of Citric acid.

Q.5 Answer following question. (Any One)   **08**
   a) Explain in detail production of penicillin.
   b) Explain in detail wine production from grape.

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B.Sc. (Entrepreneurship) (Semester - IV) (New) (CBCS) Examination: March/April - 2025
Entrepreneurship Paper - VII
Corporate Accounting & Professional Ethics (EN1401)

Day & Date: Wednesday, 30-April-2025   Max. Marks: 40
Time: 12:00 AM To 02:00 AM

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 alternatives and rewrite the sentences again.   08

1) _____ method is used to value shares based on their actual worth.
a) Market Value Method   b) Intrinsic Value Method
c) Fair Value Method   d) None of the above

2) _____ is the primary document required for issuing shares.
a) Debenture
b) Prospectus
c) Memorandum of Association
d) Articles of Association

3) Under _____ section of the Companies Act, 1956 are final accounts prepared.
a) Schedule I   b) Schedule III
c) Schedule VI   d) Schedule IV

4) A liquidator is responsible for _____.
a) Issuing shares
b) Paying off debts during company liquidation
c) Managing company profits
d) Issuing debentures

5) Corporate Governance involves _____.
a) Corporate culture
b) Social responsibility
c) Creating an ethical organization
d) All of the above

6) _____ best describes globalization.
a) Increasing global interdependence of national economies
b) Local business operations in one country
c) Declining use of technology
d) Restricting foreign investments

7) Ethics in marketing involves: _____.
   a) Manipulation of prices
   b) Transparent pricing
   c) Unethical advertising
   d) Exploitation of customer trust

8) In HRM, _____ is considered ethical behavior.
   a) Discrimination based on gender
   b) Fair recruitment practices
   c) Favoritism
   d) Unfair performance appraisals

Q.2 Answer the following questions. (Any Four)   **08**
   a) Define the term "Forfeiture of Shares".
   b) What is meant by the term "Liquidation"?
   c) Define Corporate Governance.
   d) Define Globalization in a business context.
   e) Explain the relationship between ethics and corporate governance.
   f) Explain corporate social responsibility (CSR) in modern business practices.

Q.3 Answer the following questions. (Any Two)   **08**
   a) Define business Ethics. How does it differ from personal ethics?
   b) ABC Ltd. issued 1,000 shares at a face value of ₹ 10 per share, payable as follows:
   - On Application: ₹3 per share
   - On Allotment: ₹4 per share
   - On First and Final Call: ₹3 per share

   X, a shareholder holding 100 shares, fails to pay the first and final call. The company forfeits these shares and later reissues them to **Y** at ₹9 per share, fully paid.
   Required:
   1) Calculate the amount forfeited.
   2) Journalize the entries for the forfeiture and reissue of shares.
   c) Explain the Factors Facilitating Globalization.

Q.4 Answer the following questions. (Any Two)   **08**
   a) Explain the term "Corporate Governance" and its importance in business.
   b) ABC Ltd. went into liquidation on 1st August 2024. The following information is provided:
   - Realized assets:
     - Land and Buildings: ₹ 1,20,000
     - Plant and Machinery: ₹ 80,000
     - Stock: ₹ 40,000
     - Debtors: ₹ 25,000 (but ₹5,000 is irrecoverable)

- Payments made by the liquidator:
  - Secured creditors: ₹ 1,00,000
  - Preferential creditors: ₹ 15,000
  - Liquidation expenses: ₹ 10,000

Adjustment:
1. The company had ₹ 60,000 in unsecured creditors.
2. There was also an unrecorded liability for unpaid wages amounting to ₹ 10,000.

Prepare the **Liquidator's Final Statement of Account** after considering the adjustments.

c) Explain role of Multinational Company in the context of Globalizations.

Q.5 Answer the following questions. (Any One) 08

a) Discuss the role of ethics in Human Resource Management (HRM).

b) XYZ Ltd.

Trial Balance as of 31st March, 2024:

Particulars	Debit (₹)	Credit (₹)
Sales		10,00,000
Purchases	5,00,000	
Opening Stock	1,00,000	
Salaries	80,000	
Rent Expenses	40,000	
Other Expenses	60,000	
Land & Building	10,00,000	
Plant & Machinery	5,00,000	
Capital		10,00,000
Creditors		2,00,000
Outstanding Salaries		20,000
Closing Stock		2,00,000
Reserves & Surplus		1,00,000
Depreciation Reserve		50,000

Adjustments:
1. Closing Stock as of 31st March 2024 is ₹ 2, 00,000.
2. Depreciation: Depreciate Land & Building at 5% & Plant & Machinery at 10%.
3. Provide for Outstanding Salaries of ₹ 20,000.
4. Transfer ₹30,000 to General Reserve.
5. Provision for taxation is to be made at 35% on the current year's profit.

Seat No.

B.Sc. (Entrepreneurship) (Semester - IV) (New) (CBCS) Examination: March/April - 2025
Entrepreneurship (Paper – VIII)
International Marketing & Marketing Decision (EN1402)

Day & Date: Friday, 02-May-2025   Max. Marks: 40
Time: 12:00 PM To 02:00 PM

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

Q.1 Multiple Choice Questions.   08

1) What is the term for a tax imposed on importal goal?
a) Tariff   b) Quota
c) Embargo   d) Subsidy

2) Which of the following is a potential challenge of International Markets?
a) Cultural difference   b) Legal & regulatory issue
c) Political instability   d) All of the above

3) Which of the following is a qualitative market research method?
a) Survey   b) Experiments
c) Focus Grap   d) Sales & Data

4) This kind of product is most likely to require adaptation for overseas markets.
a) Musical Recording   b) Films
c) Automobiles   d) Watches

5) The World largest exporter of services is _____.
a) The United States   b) Canada
c) Belgium   d) Japan

6) Which of the following is not an International Financial Institutions.
a) ICICI   b) IMF
c) IDA   d) World Bam

7) "Many people want BMW, only few are able to buy" this is example of _____.
a) Need   b) Wants
c) Demands   d) Status

8) The Major Objective of any Marketing activity is to _____.
a) Sell   b) Promote
c) Create   d) Increase awareness

Q.2   Answer any Four of the following.   **08**
   a)   Define Product.
   b)   What is Segmentation?
   c)   Define Marketing.
   d)   Foreign Trade
   e)   Customer Loyalty

Q.3   Write short notes on any Two of the following.   **08**
   a)   Global Marketing
   b)   Consumer behavior
   c)   Super Market

Q.4   Answer any Two of the following.   **08**
   a)   Write down types of Product.
   b)   Explain the function of Whole Seller.
   c)   Explain the use of Website in Marketing.

Q.5   Answer any One of the following.   **08**
   a)   Explain the new trends in Marketing.
   b)   Explain the types of Distribution Channel.

Seat No.

B.Sc. (Entrepreneurship) (Semester - IV) (New) (CBCS) Examination: March/April - 2025
Industrial Chemistry (Paper – VII)
Analytical & Industrial Aspects of Physical Chemistry (EN1403)

Day & Date: Saturday, 03-May-2025 Max. Marks:40
Time: 12:00 PM To 02:00 PM

Q.1 Choose the correct options. 08

1) On dilution, equivalent conductance _____.
   a) decreases b) increases
   c) remains steady d) all of these

2) The temperature of the flame is controlled by _____ factors.
   a) type of fuel-oxidant b) type of solvent
   c) type of burner d) all of these

3) The ionic product of water is _____.
   a) 1×10^{-7} b) 1×10^{-14}
   c) 1×10^{-10} d) 1×10^{14}

4) In total consumption burner, _____ of the sample is used.
   a) 100% b) 50%
   c) only 5% d) nearly 95%

5) The titration of AgCl and KCl is _____ type of titration.
   a) Acid-base b) redox
   c) Precipitation d) both a and c

6) The equation $I_t = I_o 10^{-\epsilon ct}$ represent _____.
   a) Lambert's law b) Beer's law
   c) Gilbert's law d) Einstein's law

7) _____ analysis based on the variation of the colour of a system with change in concentration of the analyte.
   a) conductometric b) colorimetric
   c) potentiometric d) turbidimetric

8) The unit of specific conductance is _____.
   a) $ohm^{-1} m^{-2}$ b) $ohm^{-1} cm^{-1}$
   c) $ohm^{-1} cm^{-3}$ d) $ohm^{-1} cm^{-2}$

Q.2 **Answer any four of the following**   08
    a) Mention the demerits of flame photometry.
    b) Define pH and pOH.
    c) What is mean by cell constant?
    d) Define optical density and transmittance.
    e) Draw the neat labelled diagram of calomel electrode.
    f) Give advantages of potentiometric titrations.

Q.3 **Write short notes on any two of the following**   08
    a) Construction and working of photovoltaic cell
    b) Total consumption burner
    c) Applications of Beer's law

Q.4 **Answer any two of the following.**   08
    a) What is flame photometer? Explain its principle.
    b) Explain single cell photoelectric colorimeter.
    c) Explain the determination of transport number by moving boundary method.

Q.5 **Answer any one of the following.**   08
    a) Explain conductometric titration between weak acid and strong base.
    b) Explain Hittorf's rule in detail.

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B.Sc. (Entrepreneurship) (Semester - IV) (New) (CBCS) Examination: March/April - 2025
Industrial Chemistry (Paper - VIII)
Industrial Aspects of Applied Chemistry (EN1404)

Day & Date: Monday, 05-May-2025　　　　　　　　　Total Marks : 40
Time: 12:00 PM To 02:00 PM

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　Fill in the blanks by choosing correct alternatives:　　　　　08

1) The main component of glass is ____.
a) silica　　　　　　　　　b) silicon
c) caustic　　　　　　　　d) alumina

2) In electroplating, the electro- deposition takes place at ____.
a) Cathode　　　　　　　　b) Anode
c) anode and cathode　　　d) None of these

3) In the process of electroplating ____ plays an important role.
a) Electrolysis　　　　　　b) Electro-osmosis
c) Electrophoresis　　　　d) None of these

4) In gravity separation method ____ is used.
a) blast furnace　　　　　　b) reverberatory furnace
c) Wilfley table　　　　　　d) Sintered furnace

5) L.D. Process was first operated in ____.
a) India　　　　　　　　　b) France
c) Italy　　　　　　　　　d) Austria

6) Porcelain is a type of ____ceramic.
a) whiteware　　　　　　　b) stone
c) abrasives　　　　　　　d) cement

7) Urea contains ____ % nitrogen.
a) 45　　　　　　　　　　b) 60
c) 15　　　　　　　　　　d) 80

8) Diamond and corundum are examples of ____ ceramics.
a) glass　　　　　　　　　b) stone
c) refractories　　　　　　d) abrasives

Q.2 Answer the following questions briefly (Any Four). 08
1) State the faradays first law.
2) What is anode efficiency?
3) What are the advantages of L.D. Process?
4) Write any two properties of ceramics.
5) Give the different types cement.
6) What is a commercial glass?

Q.3 Write short notes (Any Two). 08
1) Electroplating of chromium
2) Properties of ceramics
3) Colored glass

Q.4 Answer (Any Two) of the following. 08
1) Explain in brief heat treatment on steel.
2) Discuss in detail the manufacture of glass material by pot furnace.
3) Describe in detail electroplating of Nickel.

Q.5 Answer (Any One) of the following. 08
1) Explain the construction and working of blast furnace.
2) What is fertilizer? Explain in brief the process of manufacture of urea.

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B.Sc. (Entrepreneurship) (Semester - IV) (New) (CBCS) Examination: March/April - 2025
Microbial Biotechnology (Paper-VII)
Molecular Biology (EN1405)

Day & Date: Tuesday, 06-May-2025　　　　　　　　　　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　Multiple choice questions.　　　　　　　　　　　　　　　　　08

1) Transcription is the transfer of genetic information from ____.
　　a) DNA to RNA　　　　　　　b) DNA to mRNA
　　c) mRNA to tRNA　　　　　　d) tRNA to mRNA

2) In both prokaryotic and eukaryotic cells, the synthesis of protein chains is initiated with ____.
　　a) Arginine　　　　　　　　b) Methionine
　　c) Serine　　　　　　　　　d) Valine

3) Watson and Crick model proposes ____ structure of DNA.
　　a) linear　　　　　　　　　b) supercoiled
　　c) double helix　　　　　　d) pleated

4) More than one triplet coding for single amino acids is the ____ of genetic code.
　　a) reproducibility　　　　　b) degeneracy
　　c) semi conservation　　　d) flexibility

5) In this type of DNA replication, of the two newly formed molecules, one is purely a new one and the other is an old one ____.
　　a) Dispersive　　　　　　　b) Conservative
　　c) Semi conservative　　　d) Both (b) and (c)

6) How many structural genes are present in a lac operon?
　　a) Three　　　　　　　　　b) Two
　　c) One　　　　　　　　　　d) Five

7) The ____ repair mechanism recovers DNA from damage by external stress.
　　a) COS　　　　　　　　　　b) LUX
　　c) EXE　　　　　　　　　　d) SOS

8) The process of DNA replication is affected by an enzyme known as
____.
  a) Mutase   b) Ligase
  c) Polymerase I   d) Ribonuclease

Q.2 Answer the following questions. (Any Four)   08
  a) Define DNA Polymerase.
  b) Define Operon.
  c) Define Central Dogma.
  d) Labeled diagram of DNA Structure.
  e) Define Transcription.
  f) Define DNA repair.

Q.3 Write short notes. (Any Two)   08
  a) Describe in detail Genetic code.
  b) Explain the rolling circle model of replication.
  c) Write note on Post transcriptional modification.

Q.4 Answer the following questions. (Any Two)   08
  a) Define DNA replication and enzymes involved in DNA replication.
  b) Write note on Lactose Operon.
  c) Explain Salient features of DNA double helix.

Q.5 Answer the following questions. (Any One)   08
  a) Explain Direct repair mechanism.
  b) Explain in translation in eukaryotic cell.

Seat No.

B.Sc. (Entrepreneurship) (Semester - IV) (New) (CBCS) Examination: March/April - 2025
Microbial Biotechnology (Paper-VIII) (EN1406)

Day & Date: Wednesday, 07-May-2025　　　　　　　　　　Max. Marks: 40
Time: 12:00 PM To 02:00 PM

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

Q.1　Multiple choice questions　　　　　　　　　　　　　　　　　08

1) Which test is used to check the efficiency of pasteurization?
　　a)　MBRT　　　　　　　　　b)　Resazurin Test
　　c)　Phosphatase Test　　　　d)　Catalase Test

2) What is the major factor affecting microbial growth in food?
　　a)　Temperature only
　　b)　pH only
　　c)　Intrinsic and extrinsic factors
　　d)　Light

3) UHT stands for:
　　a)　Ultra Heat Transfer　　　　b)　Ultra High Temperature
　　c)　Under High Treatment　　　d)　Ultra Hygiene Treatment

4) Which of the following is a defect in butter?
　　a)　Creaminess　　　　　　　b)　Rancidity
　　c)　Sweetness　　　　　　　d)　Hardness

5) Which food is most susceptible to microbial spoilage?
　　a)　Dried beans　　　　　　　b)　Fresh fish
　　c)　Canned vegetables　　　　d)　Sugar

6) Ice cream hardening is done at what stage?
　　a)　Before packaging　　　　　b)　After freezing
　　c)　Before mixing　　　　　　d)　Before flavoring

7) The definition of cheese involves:
　　a)　Only milk solids　　　　　b)　Fermented fats
　　c)　Coagulated milk protein　　d)　Butter and cream

8) Which of the following is NOT a method of food preservation?
　　a)　Drying　　　　　　　　　b)　Freezing
　　c)　Frying　　　　　　　　　d)　Canning

Q.2 Answer the following questions. (Any Four) 08
- **a)** Define homogenized milk.
- **b)** List any two defects of butter.
- **c)** What is pasteurization?
- **d)** What are canned foods?
- **e)** Mention any two uses of cheese.
- **f)** Define Food Poisoning.

Q.3 Answer the following questions. (Any Two) 08
- **a)** Write a note on MBRT.
- **b)** Write a short note on the classification and composition of butter.
- **c)** Discuss the process of canning and its importance in food technology.

Q.4 Answer the following questions. (Any Two) 08
- **a)** Explain the process and significance of phosphatase test.
- **b)** Describe microbial spoilage of fruits and vegetables.
- **c)** Explain food poisoning caused by microorganisms and preventive measures.

Q.5 Answer the following questions. (Any One) 08
- **a)** Describe the intrinsic and extrinsic factors affecting microbial growth in food.
- **b)** Explain different methods of food preservation with examples.

Seat No.

Set P

B.Sc. (Entrepreneurship) (Semester - V) (New) (CBCS) : Examination March/April - 2025
Business Finance (EN1502)

Day & Date: Sunday, 18-May-2025 Max. Marks: 80
Time: 09:00 AM To 12:00 PM

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) Where is the Head quarter of NPCI located _____.
   a) Delhi b) Bangalore
   c) Chennai d) Mumbai

2) Which of the following is NOT a source of working Capital.
   a) Commercial Paper b) Bank Overdraft
   c) Discounting of Bills d) unsecured term loan

3) Operational technique includes _____.
   a) Diversification of company Operation
   b) Purchasing of Currency
   c) exposure network
   d) Both A & c

4) Purchasing goods from a foreign country is called _____.
   a) Import b) Export
   c) entrepot d) None of these

5) IMF stands for _____.
   a) International Monetary Fund
   b) Internal Monetary Fund
   c) Import Monetary Fund
   d) International More Fund

6) Equity share holder are Called _____.
   a) Owner of Company b) Partner of Company
   c) Execute of the Company d) Guardian of the Company

7) FE stands for _____.
   a) Foreign Exchange b) Fast Exchange
   c) First Entry d) None of these

8) SEBI stands for _____.
   a) Security Exchange Board of India
   b) Simple Exchange Board of India
   c) Social Exchange Board of India
   d) None of these

9) Who is the only Prime Minister to have server as the Governor of RBI?
   a) P.V. Narsimha Rao   b) Manmohan Singh
   c) Lal Bahadur Shastri   d) Indira Gandhi

10) GDR stands for _____.
   b) Global Depositary Receipt
   b) Global Decrease Report
   c) Gold Depositary Report
   d) None of these

B) Answer in one sentence: **06**
   1) BSE Long Form?
   2) Define Planning?
   3) Define Finance?
   4) Define Lease?
   5) Define Capital?
   6) Define Value?

Q.2 Solve any Eight of the following.   **16**
   1) What is Equity?
   2) What is Foreign Exchange?
   3) What is Shares?
   4) Define Security?
   5) What is Management?
   6) What is Online Trading?
   7) What is Budget?
   8) What is Global share?
   9) What is Business?

Q.3 A) Attempt any Two of the following.   **10**
   1) Explain the concept of Capital Budgeting.
   2) Write down Objective of Finance of Planning.
   3) Explain the function of Stock Exchange.

B) Write down Short note of "E-Trading".   **06**

Q.4 A) Attempt any Two of the following.   **08**
   1) Write down function of Foreign Exchange?
   2) Write down Concept of Business Finance?
   3) Write down Concept of Venture Capital?

B) Describe "Stock Exchange".   **08**

Q.5 Attempt any Two of the following.   **16**
    a)   What is Marketing? Explain the Issue of Marketing Security?
    b)   Explain the new Dimension of Business Finance?
    c)   Explain the E-Banking.

Seat No.		Set	P

B.Sc. (Entrepreneurship) (Semester - V) (New) (CBCS) Examination: March/April - 2025
Human Resource Management (EN1503)

Day & Date: Sunday, 25-May-2025   Max. Marks: 80
Time: 09:00 AM To 12:00 PM

Instructions: 1) All questions are compulsory.
     2) Draw neat diagrams and give equations whenever 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) HRM is _____
a) A Staff Function   b) A Line function
c) A Company Function   d) All of the Above

2) Strategic thinking is a _____Process
a) Short Term   b) long Term
c) Continuous   d) All of the above

3) HRM aims to maximize employee "as well as" organization
a) Effectness   b) Economy
c) Efficiency   d) Permanantvity

4) Who takes an active role HRM..
a) CEO   b) Employee
c) HR Staff   d) Senior Manager

5) Which one of the first step in any Human Resource Program
a) Selection   b) Planning
c) Training   d) Appraising

6) Which of the following is a stated our come of" Job Analysis" ?
a) Job Description   b) Job Specification
c) Job Evaluation   d) All of these

7) OJT stands for _____
a) On the Job Training   b) Off the job Training
c) On the join Training   d) None of these

8) First impression in a performance appraisal bias denotes
a) Hallo Effect   b) Primary Effect
c) Horn Effect   d) Sterao tunpering

9) Remuneration include
   a) Gifts b) Transfer
   c) Training d) Bonus

10) The actual achievement compared with the objectives of the is
   _____
   a) *Job performance* b) Job evaluation
   c) Job Description d) None of these

B) Answer one Sentence **06**
   1) Define Resource
   2) Define Allowance
   3) Define Performance
   4) Define Gratuity
   5) Define Career
   6) Define Security

Q.2 Solve any Eight of the following **16**
   1) What is Management?
   2) What is Maintenance?
   3) What is Appraisal?
   4) What do you System?
   5) What is Development Plan?
   6) What is Online Training?
   7) What is Meaning of Job Specification?
   8) What is Meaning of Mobility?
   9) What is Human Resource?

Q.3 A) Attempt any Two of the following **10**
   1) Write down Need of Performance Appraisal?
   2) Write down Objective Recruitment?
   3) Explain the role of Human Resource Management?

B) Write down Short note of "Provident Fund" **06**

Q.4 A) Attempt Any Two of the following **08**
   1) Write down need of Internal Mobility?
   2) Write down Steps in Career development system?
   3) Write down Concept of Management?

B) Describe "Training and Development" **08**

Q.5 Attempt any Two of the Following **16**
   1) What is Human Resource? Explain the Role of HRM?
   2) Explain the Recent Trends in Selection Process?
   3) Explain the Internal and External resource of recruitment?

Seat No.		Set	P

B.Sc. (Entrepreneurship) (Semester - V) (New) (CBCS) Examination: March/April - 2025
Spectroscopic Methods (EN1504)

Day & Date: Monday, 05-May-2025   Total Marks: 80
Time: 09:00 AM To 12:00 PM

Instructions: 1) All questions are compulsory.
2) Draw neat labelled diagrams wherever necessary.
3) Figures to right indicate full marks.
4) Use of log table and calculators is allowed.

Q.1   A)   Multiple choice questions.   **10**

1) In NMR spectroscopy, higher δ values show ____.
   a) upfield   b) resonance
   c) downfield   d) flipping

2) Mass spectra, is obtained by plotting ____ and ____ on X and Y-axis respectively.
   a) charge, abundance   b) abundance, mass / charge
   c) mass, charge on ions   d) mass, abundance

3) The functional group region is in between ____.
   a) $4000 - 1350$ cm^{-1} b) $1350 - 650$ cm^{-1}
   c) $4000 - 650$ cm^{-1} d) $2000 - 950$ cm^{-1}

4) Due to hydrogen bonding, the IR absorption band becomes ____.
   a) Sharp   b) Intense
   c) Broad   d) Weak

5) The mass spectrometer was discovered by ____.
   a) Francis Aston   b) Walter Kaufmann
   c) Ernest O. Lawrence   d) J. J Thomson

6) When absorption maximum value is shifted towards longer wavelength, this phenomenon known as ____ shift.
   a) Hyperchromic   b) Hypochromic
   c) Bathochromic   d) Hypsochromic

7) In an applied magnetic field, the number of orientations of nucleus is given by ____.
   a) $2I + 1$ b) $2I - 1$
   c) $2I + 2$ d) $2I - 2$

8) In Beer-Lambert's law the term epsilon is known as _____.
    a) molarity   b) molar coefficient
    c) molality   d) molar extinction coefficient

9) The separation of ions in mass spectrometer takes place on the basis of _____.
    a) Mass   b) Charge
    c) Molecular weight   d) Mass to charge ratio

10) Unit of chemical shift is _____.
    a) Hz   b) ppm
    c) Cps   d) Unit less

B) **Fill in the blank**   **06**
    a) According to Hook's law, vibrational frequency of vibration is directly proportional to the _____ of the bond.
    b) In mass spectroscopy, the intensity assigned to _____ peak is 100%.
    c) _____ is bending vibration that take place in different planes.
    d) _____ type of electronic transition required highest energy.
    e) IR spectroscopy is mainly useful in the determination of _____.
    f) The intensity of transmitted light to that incident light is known as _____.

Q.2 **Solve any Eight of the following.**   **16**
    a) Calculate the modes of vibration of H_2O.
    b) Write the $(n + 1)$ rule in spin-spin coupling.
    c) What is mean by IR active transition?
    d) Why TMS used as internal reference?
    e) Write about magnetic and non-magnetic nuclei with suitable example.
    f) Explain hypsochromic shift.
    g) Define coupling constant with example.
    h) Define parent ion and fragment ion.
    i) What is mean by auxochrome and chromophore.
    j) Calculate X_{max} for the following diene and enone by using Woodward-Fieser rule:
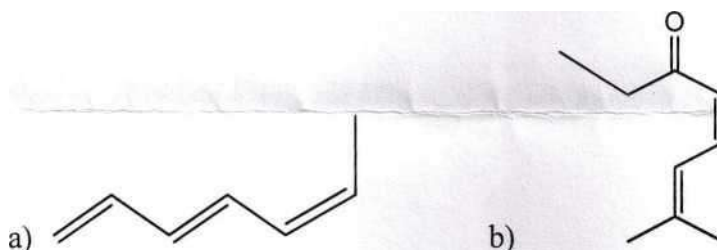
Q.3 **A)** **Attempt any Two of the following.** **10**
a) How Mass Spectroscopy can be used for the determination of molecular weight.
b) Explain principle and application of IR spectroscopy.
c) Calculate the fundamental mode of vibrations of methane and benzene.

B) Using (N+1) rule predict the splitting pattern in the following compounds **06**
 i) 2-Chloro-2-methyl butane
ii) 1,2-dibromoethane
iii) 2-Nitropropane

Q.4 **A)** **Attempt any Two of the following.** **08**
a) Discuss the effect of conjugation on the position of UV bands with example.
b) Explain in detail the basic principle of mass spectroscopy.
c) What is mass spectrum? Explain with suitable example.

B) What are the scale used in NMR spectroscopy for the measurement of chemical shift? how they are related to each other? **08**

Q.5 **Attempt any Two of the following.** **16**
a) Sketch the mass spectrophotometer and explain it's working in brief.
b) 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, δ 2.32 (2H); ii) s, δ 2.03 (3H); iii) Sextet, δ 1.56 (2H); iv) Triplet, δ 0.89 (3H)

c) Discuss in detail the applications of UV spectroscopy.

| Seat No. | | Set | P |

B.Sc. (Entrepreneurship) (Semester - V) (New) (CBCS) Examination: March/April - 2025
Advances in Fermentation Technology (EN1505-A)

Day & Date: Tuesday, 06-May-2025   Max. Marks: 80
Time: 09:00 AM To 12:00 PM

Instructions: 1) All questions are compulsory.
                 2) Draw neat labelled diagrams wherever necessary.
                 3) Figures to right indicate full marks.
                 4) Use of log table and calculators is allowed.

Q.1   A)   Multiple choice questions.   **10**

1)   The term "WIPO" stands for _____
     a)   World Investment Policy Organization
     b)   World Intellectual Property Organization
     c)   Wildlife Investigation and Policing Organization
     d)   World Institute for Prevention of Organized Crime

2)   What protects the intellectual property created by artists?
     a)   Patents   b)   Copyright
     c)   Trademarks   d)   Registered designs

3)   What protects the intellectual property created by inventors?
     a)   Trademarks   b)   Copyright
     c)   Patents   d)   Geographical indications

4)   What does BSL stand for in laboratory safety?
     a)   Biosecurity Level   b)   Biosafety Laboratory standard
     c)   Biological Safety Level   d)   Biotechnology Safety Level

5)   Types of vector for vaccine _____
     a)   Heterologous   b)   Homologues
     c)   Both a & b   d)   None of the above

6)   The concept of vaccination was first developed by _____
     a)   Edward Jenner   b)   Carl Landsteiner
     c)   Louis Pasteur   d)   Joseph Meister

7)   The process of introduction of weakened pathogen into human body is called _____
     a)   Immunization   b)   Attenuation
     c)   Vaccination   d)   None of these

8) Which enzyme is used to join together two different types of DNA molecules?
  a) Endonuclease
  b) ligase
  c) Exonuclease
  d) Protease

9) Which is a genetically modified crop?
  a) Bt-cotton
  b) Bt-brinjal
  c) Golden rice
  d) All of the above

10) Excision and insertion of a gene is called ____.
  a) Genetic engineering
  b) Biotechnology
  c) Cytogenetics
  d) Gene therapy

Q.1 B) Fill in the blank/Definition/One sentence answer/ One-word answer/ Give the 06 name/Predict the product etc.　　06
  1) ____ is the right granted by a government to an inventor to prevent Others from the commercial use of his invention.
  2) Types of BSL Laboratories
  3) Salk vaccine is used against?
  4) Types of vaccine
  5) Define vector
  6) GEAC stands for ____.

Q.2 Solve (Any Eight) of the following.　　16
  a) Test for sterility
  b) Biosafety Level 3
  c) WTO
  d) Test for Carcinogenicity
  e) Basics of bioethics principles
  f) Bioethics and Biosafety codes and guidelines in India
  g) Vaccine
  h) Interferon
  i) Bacteriocin
  j) PHB

Q.3 A) Attempt (Any Two) of the following.　　10
  1) Describe in detail quality management for good manufacturing practices and safety.
  2) Explain in detail WTO.
  3) Discuss in detail Plant Variety & Farmer's Right Act.

  B) Short note/Solve.　　06
  Short note on copyrights

Q.4 A) Attempt (Any Two) of the following.　　08
  1) Discuss in detail Biosafety levels and laboratory.
  2) Explain in brief pre-clinical and clinical trials.
  3) Explain in detail basics of bioethics principles.

Q.4 B) Short Note/ Solve.   **08**
Short note on recombinant DNA technology for Cultivation of Mushroom.

Q.5 Attempt (Any Two) of the following.   **16**
    a) Discuss in detail Nicin as a natural bio preservative.
    b) Explain in brief Genetic Engineering in Microbes with suitable example.
    c) Describe in detail Production of glycerol.

| Seat No. | | **Set** | **P** |

**B.Sc. (Entrepreneurship) (Semester - V) (New) (CBCS) Examination:
March/April - 2025
Wine Technology (EN1505-B)**

Day & Date: Tuesday, 06-May-2025   Max. Marks: 80
Time: 09:00 AM To 12:00 PM

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

Q.1   **A)** **Multiple choice questions.**   **10**

1) ____ yeast used in wine fermentation.
   a) S. cerevisiae   b) S. ellipsoideus
   c) Both a & b   d) Only a

2) From where did winemaking most likely originate?
   a) Georgia and Iran   b) Morocco and Egypt
   c) France   d) Italy

3) White wines can be made from only ____.
   a) Green grapes only   b) Any colour of grapes
   c) White skinned grapes only   d) Red or black

4) ____ factor greatly influences the fermentation process of wine yeast.
   a) pH level   b) Oxygen concentration
   c) Soil temperature   d) CO_2 & water

5) Most wines in the market are made from the ____ grapes species.
   a) VitisLabrusca   b) VitisVinifera
   c) Vitis Concord   d) VitisRotundifolia

6) What answer best completes this wine making equation?
(Grapes) Sugar + Yeast =
   a) Alcohol + Acid   b) Acid + Water + Heat
   c) Fruit Flavors + Water   d) Alcohol + CO_2 + Heat

7) ____ is an example of post-fermentation wine production technique.
   a) Crushing   b) Yeast inoculation
   c) Blending   d) Cap management

8) The clarification of wine takes place ____.
   a) After primary fermentation b) After aging
   c) Before bottling   d) After secondary fermentation

9) Fermentation occurs in the _____.
  a) Presence of oxygen   b) Absence of oxygen
  c) Presence of nitrogen   d) Presence of carbon

10) Preservatives are commonly used to prevent bacterial spoilage and oxidation _____ is an example of such a preservative.
  a) Hydrogen Dioxide   b) Calcium Dioxide
  c) Potassium Dioxide   d) Potassium metabisulphite

B) Fill in the blank/Definition/One sentence answer/ One-word answer/ Give the name/Predict the product etc.   **06**
  1) Define natural wine.
  2) Give examples of yeast used in wine fermentation.
  3) Define must?
  4) What are the properties of wine?
  5) Enlist the acids used to lower the pH of must and wine.
  6) Define Wine technology.

Q.2 Solve (Any Eight) of the following.   **16**
  a) Define fermentation.
  b) What is sulphurization process?
  c) Enlist the Grape varieties used in wine production.
  d) Define aging.
  e) What is Fortified Wine?
  f) Which factors influencing taste perception of wine?
  g) What is chemical constituents of oak?
  h) Define clarification.
  i) What is organic wine?
  j) Define maceration.

Q.3 A) Attempt (Any Two) of the following.   **10**
  1) Pre fermentation practices in wine production.
  2) Describe in short Wine classification.
  3) Explain advantages and disadvantages of oak cooperage in wine production.

Q.3 B) Write a short note on effect of alcoholic beverages on human health. **06**

Q.4 A) Attempt (Any Two) of the following.   **08**
  1) Write a note on Wine Laws and Authentication.
  2) Chemical constituents of wine
  3) Importance of automation operation in Wine Technology.

Q.4 B) Describe in short spoilage of wine.   **08**

Q.5 A) Attempt (Any Two) of the following.   **16**
  a) Write in detail on environmental factors affecting wine fermentation.
  b) Describe in detail sensory perception and assessment of wine.
  c) Write in details on post fermentation treatment of wine.

Seat No.

Set P

B.Sc. (Entrepreneurship) (Semester - V) (Old) (CBCS) : Examination March/April - 2025
English
Business English (EN501)

Day & Date: Wednesday, 30-April-2025   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.

Q.1   Choose the correct alternatives 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)   What did Della sell off to buy a gift for Jim?
a)   jewellery   b)   fur coat
c)   her hair   d)   combs

2)   What did Phatik loose?
a)   school textbook   b)   fishing rod
c)   marbles   d)   shoe

3)   What was the solitary reaper doing in the field in the poem 'The Solitary Reaper'?
a)   Tilling the field   b)   Watering
c)   Reaping the harvest   d)   Planting

4)   Who snatched the Queen's mirror?
a)   King   b)   Her daughter
c)   A rival   d)   New bride

5)   The poem 'The Village School Master' is composed by _____.
a)   Alexander Pope   b)   Robert Frost
c)   Oliver Goldsmith   d)   William Shakespeare

6)   Where did the two roads diverge in the poem 'The Road Not Taken'?
a)   on the brown road   b)   in the yellow wood
c)   on the grey road   d)   on the green road

7)   Rohan loves Rajeev. (change the voice of this sentence)
a)   Rajeev is loving Rohan.
b)   Rajeev loved Rohan.
c)   Rohan is being loved by Rajeev.
d)   Rajeev is loved by Rohan.

8) You must _____ your social work despite the pandemic.
  a) carry up   b) carry on
  c) carry with   d) carry in

Q.2 Answer the following questions. (Any Four)   **12**
  a) How did Jim react to Della's haircut?
  b) Why did Phatik's mother readily agree to the uncle's offer?
  c) Describe the use of nature and harmony in the poem 'The Solitary Reaper'.
  d) Why is the Queen unsatisfied and seek a rival in the poem 'The Queen's Rival'?
  e) How did the villagers regard the school master?
  f) What is the significance of two roads in poem 'The Road Not Taken'?

Q.3 Answer the following questions. (Any One)   **10**
  a) What are 21st century skills? Describe any five skills.
  b) What is importance of 21st century skills?

Q.4 Write down long answer of the following question.   **10**
  What are most important learning skills of 21st century?

Seat No.	

B.Sc. (Entrepreneurship) (Semester - V) (Old) (CBCS) : Examination March/April - 2025
Business Finance (EN502)

Day & Date: Sunday, 18-May-2025   Max. Marks: 80
Time: 09:00 AM To 12:00 PM

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) Business finance is primarily concerned with _____.
     a) Managing a company's financial
     b) Marketing a company's products and services
     c) Hiring and managing employees
     d) None of the above

2) The difference between current assets and current liabilities is _____.
     a) Equity Share Capital   b) Working Capital
     c) Owners Equity   d) Fixed assets

3) Trade credit is a source of _____.
     a) Short term finance   b) Medium term finance
     c) Long term finance   d) All the above

4) The Reserve Bank of India was established in _____.
     a) 1934   d) 1945
     c) 1948   d) 1949

5) The primary function of the RBI is to _____.
     a) Promote exports
     b) Regulate the monetary system
     c) Provide loans to individuals
     d) Collect taxes

6) The first computerized online stock exchange in India was _____.
     a) NSE
     b) BSE
     c) Ahmadabad stock exchange
     d) Pune stock exchange

7) _____ is the term used for a bank that operates exclusively online.
   a) Retail bank
   b) Investment bank
   c) NBFC
   d) Neobank

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) A lease agreement is a contract between _____.
    a) A lessor and a lessee
    b) A bank and a customer
    c) A seller and a buyer
    d) A borrower and a lender

B) Answer in one sentence: **06**
   1) What is debenture?
   2) What is venture capital?
   3) What is stock exchange?
   4) Long Form of SEBI.
   5) Long Form of BSE.
   6) Long Form of FEMA.

Q.2 Solve any Eight of the following.   **16**
   1) What is finance?
   2) What is preference share?
   3) What is equity share?
   4) What do you mean by commercial bank?
   5) Define foreign exchange rate.
   6) What is Prospectus?
   7) Define E-banking.
   8) What is spot rate?
   9) Define financial plan.
   10) What is pay bank period?

Q.3 A) Attempt any Two of the following.   **10**
   1) Objective of business finance.
   2) Sources of working capital finance.
   3) Types of lease financing.

B) Write Short Note.   **06**
   Explain role of SEBI.

Q.4 A) Answer any Two of the following.   **08**
   1) Discuss recent developments in commercial banking.
   2) Write note on Forex market.
   3) Explain methods of marketing of securities.

    B) **Describe the following.**   **08**
        Explain functions of stock exchange.

Q.5 **Answer any Two of the following.**   **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 capital budgeting? Explain methods of ranking project.

Seat No.	

B.Sc. (Entrepreneurship) (Semester - V) (Old) (CBCS) Examination March/April - 2025
Human Resource Management (EN503)

Day & Date: Sunday, 25-May-2025
Time: 09:00 AM To 12:00 PM

Max. Marks: 80

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

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

1) Human resource management emphasizes on _____
a) Development of people
b) Punishment of people
c) Adoption of people
d) None of these

2) Off-the-job training methods include _____
a) Syndicate
b) Vestibule training
c) Sensitivity training
d) All of these

3) Methods of job evaluation are _____
a) Qualitative method
b) Quantitative method
c) Both (a) and (b)
d) None of these

4) _____ is a factual statement of tasks and duties involved in a job.
a) Job description
b) Job Specification
c) Job Evaluation
d) Job Analysis

5) _____ is the systematic, periodic, and impartial rating of an employee's excellence in matters pertaining to their present job and their potential for a better job.
a) Performance appraisal
b) Compensation & motivation
c) Training and development
d) Performance indicator

6) Traditional methods of performance appraisal include _____
a) Free form or essay method
b) Paired comparison method
c) Confidential reports
d) All of these

7) Modern methods of performance appraisal are _____
a) Assessment center method
b) Management by objectives
c) BARS (Behaviorally Anchored Rating Scale)
d) All of these

8) The combination of peer, superior, subordinate, and self-review appraisal is known as _____
   a) 360^0 appraisal system b) Human resource accounting
   c) All round review   d) Feed forward

9) _____ is a performance appraisal technique that involves agreement between employee and manager on goals to be achieved in a given period.
   a) MBO   b) Rating scales
   c) BARS   d) BOS

10) HRM is _____
   a) Interrelated   b) Interdependent
   c) Interacting   d) All of these

B) Answer in one Sentence/Fill in the blanks   06
   1) _____ is the process of imparting or enhancing the knowledge or skills of an employee to perform a specific job.
   2) Method of job evaluation include _____.
   3) The process of studying and gathering information about a job is known as _____.
   4) On-the-job training includes _____.
   5) The process of familiarizing new employees with the organization's rules and regulations is known as _____.
   6) The main objective of a _____ is to provide retirement saving for employees.

Q.2   Solve any Eight of the following   16
   1) Define Human Resource Management (HRM).
   2) Enumerate the functions of Human Resource Management (HRM).
   3) What is Allowance?
   4) What is meant by job satisfaction? Provide a definition.
   5) Define promotion and transfer in the context of HRM.
   6) List various types of employee benefits provided by organizations.
   7) Provide a definition for performance appraisal (P.A.).
   8) Identify and describe the elements of a career development program.
   9) Explain the concept of selection and discuss its importance.
   10) Describe the need for training within an organization.

Q.3   A)   Attempt any Two of the following   10
   1) Provide an example of an internal source of recruitment and explain its benefits.
   2) Analyze the objectives of HRM in achieving organizational goals.
   3) Differentiate between the recent trends in selection and traditional methods.

Q.3   B)   Write short note on Elements of accident prevention.   06

Q.4   A)   Attempt Any Two of the following   08
   1)   Assess the overall impact of training on employee development and organizational growth.
   2)   Evaluate the impact of HRM on employee performance and satisfaction.
   3)   Design a job description for a new role in your organization.

  B)   Critically evaluate the essential elements of an effective selection   **08**
   procedure.

Q.5   Attempt any Two of the Following   16
  a)   Evaluate the need for internal mobility in enhancing employee.
  b)   Assess the effectiveness of succession planning in organizational.
  c)   Assess the impact of employee health and safety programs on overall employee well-being.

| Seat No. | | **Set** | **P** |

B.Sc. (Entrepreneurship) (Semester - V) (Old) (CBCS) Examination: March/April - 2025
Spectroscopic Methods (EN504)

Day & Date: Monday, 05-May-2025   Max. Marks: 80
Time: 09:00 AM To 12:00 PM

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

Q.1   A   Multiple Choice Questions.   **10**

1) Bathochromic shift involves _____ in wavelength.
   a) increase   b) decrease
   c) remains as it is   d) None of these

2) IR spectroscopy is also called as _____ spectroscopy.
   a) electronic   b) Raman
   c) vibrational   d) Mossbauer

3) In NMR spectroscopy _____ radiations are used.
   a) visible   b) non-visible
   c) ultraviolet   d) radiofrequency

4) A cation is formed in mass spectrometer having unpaired electron is _____.
   a) radical cation   b) molecular ion
   c) a & b   d) zwitter ion

5) _____ is example of chromophore.
   a) NH_2 b) CO
   c) OH   d) CH_3

6) _____ spectroscopy is used to determine functional group.
   a) IR   b) NMR
   c) UV   d) Mass

7) Higher δ values shows _____.
   a) upfield   b) resonance
   c) flipping   d) deshielding

8) Compound having normal mass is 44 then its structural formula is _____.
   a) $CH_3CH = CH_2$ b) $CH_3C \equiv CH$
   c) $CH_3CH_2CH_3$ d) $CH_3CH - CH_3$
                                                        $|$
                                                        CH_3

9) λ max is shifted to longer wavelength due to presence of _____.
   a) cyclic structure
   b) conjugation
   c) saturated group
   d) hydrogen

10) _____ molecule does not show IR absorption.
    a) CCl_4
    b) N_2
    c) Cl_2
    d) all

B) Fill in the blanks. 06
   1) _____ is used as internal reference in NMR spectroscopy.
   2) Fragment ions of methane are _____.
   3) Shift of absorption maxima to shorter wavelength is _____.
   4) The range of IR radiation is _____.
   5) 1,3-dibromobutane has _____ types of protons.
   6) The deflection of ions in mass spectroscopy depends on _____.

Q.2 Answer any Eight of the following. 16
   a) Define auxochrome, give its example.
   b) Define chromogen, give its example.
   c) State & explain selection rule.
   d) State & explain Hook's law.
   e) What is the principle of IR spectroscopy?
   f) Give the classification of vibrations.
   g) Explain processional motion of nuclei.
   h) Define peak area.
   i) Explain coupling constant.
   j) Give the principle of mass spectroscopy.

Q.3 A) Answer any Two of the following. 10
   1) Explain application of UV spectroscopy.
   2) What do you understand the term chemical shift?
   3) Explain formation of ions by ionization.

B) Explain fundamental group region 06

Q.4 A) Answer any Two of the following. 08
   1) Explain λ_{max} values of following compound.

   i)

   ii)

   iii)

iv)
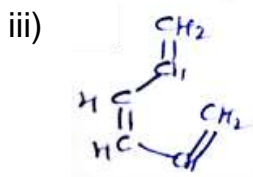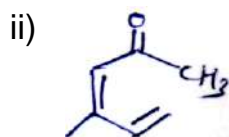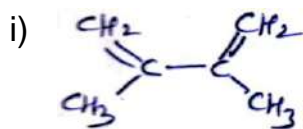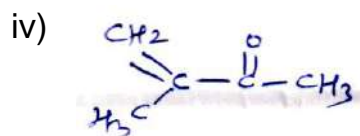
2) Draw neat labelled diagram of double beam spectrophotometer.
3) Draw neat labelled diagram of NMR instrument.

B) Explain various types of ions produced in mass spectroscopy.   **08**

Q.5 Answer any Two of the following.   **16**
   a) Explain various types of electronic transitions in UV spectroscopy.
   b) Draw neat labelled diagram of mass spectrophotometer. Give the applications of mass spectroscopy.
   c) Deduce the structure of compound with the help of following data.
   Molecular formula – $C_3H_6O_2$

m/e	– 76
IR	– 1720, 3600 cm^{-1}.
PMR	1.15 δ (3H, t)
	2.28 δ (2H, q)
	11.73 δ (1H, S)

TABLE – 1
Characteristic Infrared Absorptions of Functional Groups

GROUP		FREQUENCY RANGE cm^{-1}	INTENSITY
A. Alkyl			
C – H (stretching)		2853 – 2962	(m – s)
Isopropyl – $CH(CH_3)_2$		1380 – 1385	(s)
	and	1365 – 1370	(s)
tert – Butyl – $C(CH_3)_3$		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, $R_2C = C - CH_3$ $\quad$ $|$ $\quad$ R	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, $RCCH_3$ $\quad$ $\overset{\|}{O}$	2.1 – 2.6
Aldehyde, RCH $\quad$ $\overset{\|}{O}$	9.5 – 9.6
Vinylic, $R_2C = CH_2$	4.6 – 5.0
Vinylic $R_2C = CH$ $\quad$ $|$ $\quad$ R	5.2 – 5.7
Aromatic, ArH	6.0 – 9.5
Acetylenic, $RC \equiv CH$	2.5 – 3.1
Alcohol hydroxyl, ROH	0.5 – 6.0[a]
Carboxylic, $RCOH$ $\quad$ $\overset{\|}{O}$	10 – 1.3[a]
Phenolic, $ArOH$	4.5 – 7.7[a]
Amino $R- NH_2$	1.0 – 5.0

$$\text{Ester } R - \overset{\overset{\textstyle O}{\|}}{C} - O - CH_2 - R \quad 4 \text{ to } 4.5$$

$N - CH_3 \quad 2.3$

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 : $-\overset{\beta}{C}=\overset{\alpha}{C}-CO-$	
	a) Acyclic or 6 – membered ring	215
	b) 5 – membered ring	202
2)	Aldehydes $-C=C-CHO$	207
3)	Extended Conjugation	30
	$-\overset{\delta}{C}=\overset{\gamma}{C}-\overset{\beta}{C}=\overset{\alpha}{C}-CO-$ etc.,	
4)	Homodiene component	39
5)	a) If one double bond is exocyclic to one ring	5
	b) If exocyclic to two rings simultaneously	10
6)	Addition for substituents	

	Substituents	Position			
		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, – 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

Seat No.		Set	P

B.Sc. (Entrepreneurship) (Semester - V) (Old) (CBCS) Examination: March/April - 2025
Advances in Fermentation Technology (EN505)

Day & Date: Tuesday, 06-May-2025   Max. Marks: 80
Time: 09:00 AM To 12:00 PM

Instructions: 1) All questions are compulsory.
2) Draw neat labelled diagrams wherever necessary.
3) Figures to right indicate full marks.
4) Use of log table and calculators is allowed.

Q.1   A)   Multiple choice questions.   10

1)   _____ is used for production of xanthan gum.
a) Yeast species   b) *E. Coli*
c) *Pseudomonas*   d) *Xanthomonas campestris*

2)   _____ production is an example of dual step process.
a) Amylase   b) Xanthan
c) Ethanol   d) Vinegar

3)   _____ is an antiviral substance produced by host cell after viral infection.
a) Insulin   b) DNA
c) Interferon   d) RNA

4)   A symbol, word, or words legally registered or established by use as representing a company or product is _____.
a) Copyright   b) Trademark
c) Secret   d) Patent

5)   _____ is a polycyclic antibacterial peptide produced by the bacterium *Lactococcus lactis* that is used as a food preservative.
a) Pancreas   b) Cheese
c) Antibiotic   d) Nisin

6)   _____ a system of maintaining standards in manufactured products by testing a sample of the output against the specification.
a) Quality control   b) Quality management
c) Quality assurance   d) Quality nuisance

7) *Agaricusbisporus* is an example, of _____ type of mushroom.
a) Right   b) Button
c) Class   d) Straight

8) Intellectual Property Rights (IPR) protect the use of information and ideas that are of _____ value.
   a) Ethical   b) Moral
   c) Social   d) Commercial

9) PHB is _____.
   a) Polyhydroxybutyrate   b) Polyhydroxide
   c) Polysorbate   d) Polyhydroxyaldonate

10) Plasmid encoding antigenic protein of pathogen if injected directly into the cell its expression constitutes _____ vaccine.
   a) DNA   b) Polysaccharide
   c) Subunit   d) Attenuated

B) **Answer the following.**   **06**
1) What is IPR?
2) Enlist the applications of Xanthan gum.
3) Define Biosafety
4) What is GLP?
5) Define Toxoid.
6) What is attenuated vaccine?

Q.2 **Solve (Any Eight) of the following.**   **16**
   a) What is TRIPS?
   b) What is subunit vaccine?
   c) Define bioethics.
   d) What is international code?
   e) What is pyrogen?
   f) Enlist the names of rubber producing microorganisms.
   g) Enlist applications of glycerol.
   h) What is Trade secret?
   i) What is significance of sterility testing?
   j) Enlist application of bacteriocin.

Q.3 **A)** **Write (Any Two) of the following.**   **10**
   a) Discuss in brief test for carcinogenicity.
   b) Explain in detail production of Xanthan gum.
   c) Describe in detail production of peptide vaccine

Q.3 **B)** Explain in detail the process of acetone – butanol production with its applications.   **06**

Q.4 **A)** **Attempt (Any Two) of the following.**   **08**
   a) Describe in detail production of Pullulan and its role.
   b) Describe in detail GMP.
   c) Explain in detail the process of vinegar production.

   B) Write detail account on mushroom cultivation   **08**

Q.5 Attempt (Any Two) of the following. **16**
a) Define patent and give suitable example of patenting of biological material.
b) Write in detail insulin production.
c) Explain in detail IPR and its types.

Seat No.

Set **P**

B.Sc. (Entrepreneurship) (Semester - V) (Old) (CBCS) Examination: March/April - 2025
Wine Technology (EN506)

Day & Date: Wednesday, 07-May-2025   Max. Marks: 80
Time: 09:00 AM To 12:00 PM

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

Q.1 A) Multiple choice questions.   **10**

1) _____ product is not formed during fermentation.
   a) Lactate   b) Carbon dioxide
   c) Ethanol   d) Oxygen

2) Anaerobic respiration by yeast results in the production of _____.
   a) Wine and Beer   b) CO_2
   c) Alcohol   d) All of the above

3) _____ is a downstream process.
   a) Screening   b) Product recovery
   c) Media formulation   d) Sterilization of media

4) Alcoholic fermentation is carried out by yeast_____.
   a) Lactobacillus
   b) *Escherichia coli*
   c) Bacillus
   d) Saccharomyces cerevisiae

5) The yeast generated during the fermentation of beer is generally separated by _____.
   a) centrifugation
   b) filtration
   c) cell disruption
   d) all of these

6) Wine is obtained after alcoholic fermentation of _____.
   a) Rice   b) wheat
   c) grapes   d) barley

7) A hydrometer _____.
   a) measures wine acid
   b) requires a few drops of juice
   c) measures alcohol in the wine
   d) measures grape sugar

8) Wine yeast _____.
   a) is sensitive to sulphur di oxide
   b) is resistant to sulphur di oxide
   c) shows enhanced enzyme production in presence of sulphur di oxide
   d) none of the above

9) The crushed grapes are known as _____.
   a) malt   b) must
   c) wort   d) sonti

10) Final alcohol content in wine varies from _____.
   a) 6-9% by weight   b) 8-13% by weight
   c) Both (a) and (b)   d) 13-15% by weight

B) Definition & One sentence answer.   **06**
   1) Grape varieties
   2) Define Fermentation.
   3) What is Wine Score Cards?
   4) Define aging processes.
   5) Role of yeast in wine
   6) What is Maceration?

Q.2 Solve any Eight of the following.   **16**
   a) What is must clarification?
   b) List of Natural Bio preservatives.
   c) What is organic wine?
   d) Factors Affecting Aging
   e) Factors Affecting Olfactory Perception.
   f) What is curing of wine?
   g) Name any two metabolites produced in wine.
   h) What are antifoam agents?
   i) Enlist the carbon sources used in fermentation media.
   j) Advantages of Oak Cooperage.

Q.3 A) Attempt any Two of the following.   **10**
   1) Classify the wine on the basis of chemical composition.
   2) Biochemistry of Alcoholic Fermentation.
   3) Write in details on sensory perception of wine.

B) Write a new concept in wine production.   **06**

Q.4 A) Attempt any Two of the following.   **08**
   1) Write a note on wine Assessment and Sensory Analysis.
   2) Describe alcoholic beverage and effect on human health.
   3) Importance of automation operation in wine industries.

B) Describe Basic Procedures of Wine Production.   **08**

Q.5 **Attempt any Two of the following.** 16
    a) Write in detail rejuvenation of Old Wines.
    b) Describe history of wine and wine classification.
    c) Describe factors Affecting Fermentation process.

Seat No.		Set	P

B.Sc. (Entrepreneurship) (Semester - VI) (New) (CBCS) Examination
March/April - 2025
English
Business English (EN1601)

Day & Date: Wednesday, 30-April-2025   Max. Marks: 40
Time: 03:00 PM To 05:00 PM

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) 'Ivan Dmitrich Aksionov lived in _____.
a) Siberia   b) Pennsylvania
c) Moscow   d) Vladimir

2) _____ was digging a tunnel under his sleeping shelf.
a) Jailor   b) Semyonich
c) Aksionov   d) Czar

3) Lal Bahadur Shastri emphasized that _____ to the country should come first.
a) Love   b) Care
c) Dishonesty   d) Loyalty

4) _____ Confesses that it was he who killed the other merchant.
a) Makar Semyonich   b) Aksionov
c) Dmitrich   d) Jailor

5) Rabindranath Tagore presents the idea that time is _____.
a) Slave   b) Endless
c) Limited   d) Clueless

6) Duchess gave everyone else the same _____.
a) Respect   b) Coins
c) Reverence   d) Smile

7) Rohit said to Shaurya, "I am your brother". (Change into Indirect Narration)
a) Rohit told Shaurya that he was her brother.
b) Rohit told Shaurya that she was her brother.
c) Rohit said to Shaurya, he is her brother.
d) Rohit told Shaurya that I was her brother.

8) We must accept the changes _____ (Fill in the blanks by choosing the correct adverb)
   a) Happily   b) Happy
   c) Sad   d) Prompt

Q.2 Write short answers. (Any Four) **12**
   a) Why was Aksionov arrested?
   b) What are the responsibilities of the young citizens according to Shastriji?
   c) Comment on the theme of the poem *My Last Duchess.*
   d) What is the central idea of the poem *Endless Time?*
   e) What is the central idea of the poem *Ode to Beauty?*
   f) Comment on the misfortunes of Aksionov.

Q.3 Answer the following question. (Any One) **10**
   a) What is the significance of the 21st century Literacy Skills?
   OR
   b) What are the 21st century life skills?

Q.4 What is the importance of 21st century life skills? **10**

Seat No.		**Set**	**P**

B.Sc. (Entrepreneurship) (Semester - VI) (New) (CBCS) Examination: March/April - 2025
International Business (EN1602)

Day & Date: Sunday, 18-May-2025　　　　　　　　　　Max. Marks: 80
Time: 03:00 PM To 06:00 PM

Instructions: 1) All questions are compulsory.
　　　　　　　　2) Draw neat labelled diagrams and give equation whenever necessary
　　　　　　　　3) Figures to the right indicate full marks.
　　　　　　　　4) Use of log table and calculators is allowed.

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

1) Which one is not International Institution
　a) IMF　　　　　　　　　b) IDA
　c) IBRD　　　　　　　　d) TRAI

2) The 21 st member to join the G-20 is
　a) Shrilanka　　　　　　b) Uzbekistan
　c) Myanmar　　　　　　d) Urugen

3) Which one is the source of external finance?
　a) WTO funds　　　　　b) World Bank Group
　c) Export Credit　　　　d) Foreign Direct Investment

4) Foreign exchange andd Foreign currencies in india are governed by
　a) RBI　　　　　　　　　b) banking Regulation Act
　c) FEMA Act　　　　　　d) SEBI Act

5) Which one of the following is not amongst India's major export items?
　a) Textile and Garments
　b) Gems and Jewelry
　c) Oil and Petroleum
　d) Basmati Rice

6) International trade in goods and services in sometimes used as a substitute for all the following except
　a) International Movement of Capital
　b) International Movement of Labor
　c) International Movement of Technology
　d) Domestic production of different goods and Services

7) Emerging Markets includes _____.
a) OECT Country
b) Brazil, China, Russia, India
c) Korea, Japan and USA
d) Hungary, Poland, Slovakia

8) Where is the headquarters of the WTO
a) New York
b) Washington DC
c) Geneva
d) Austria

9) SAP stands for _____.
a) System, Application and Products in Data processing
b) Software Application & programming
c) Systematic Application Programming
d) Server Application Processing

10) _____ is the first step in the internationalization procress.
a) License
b) Foreign Investment
c) Sales
d) Export

B) Answer the following in one sentence. 06
1) Long form GATT?
2) Long form EEC?
3) Long from ASEAN?
4) Long form SAARC?
5) Long form IMF?
6) Long form SAFTA?

Q.2 Solve the following: (Any Eight) 16
a) Define International?
b) Define Business?
c) What is Foreign Trade?
d) What is Corporation?
e) What is Tariffs?
f) What is Organization?
g) What is Marketing Management?
h) What is Maintenance?

Q.3 A) Solve the following: (Any Two) 10
1) Explain the nature of International Business?
2) Write down International Law?
3) Write down Modes of Entry in IB?

Q.3 B) Short notes. 06
Short Notes On "World Bank"

Q.4 A) **Attempt the following. (Any Two)** 08
1) Write down Production Planning?
2) Write down Human Resource module?
3) Write down Intenational Business Approach?

Q.4 B) What is WTO? Explain Objective and function of WTO? 08

Q.5 Attempt the following. (Any Two) 16
a) Explain the role of Economic Development?
b) Write down procedure of Import/Export ?
c) Write down advantage of MNCs?

Seat No.

Set **P**

B.Sc. (Entrepreneurship) (Semester - VI) (New) (CBCS) Examination: March/April - 2025
Organizational Behavior (EN1603)

Day & Date: Sunday, 25-May-2025   Max. Marks: 80
Time: 03:00 PM To 05:00 PM

Instructions: 1) All questions are compulsory.
2) Draw neat labelled diagrams wherever necessary.
3) Figure to the right indicates full marks.
4) Use of log table and calculator is allowed.

Q.1 A) Choose correct alternative (MCQ)   10

1) Communication begins with ____
   a) Encoding   b) Idea Organization
   c) Decoding   d) channel Selection

2) Forces affecting orgnizational behaviour are ____.
   a) People   b) Environment
   c) Technology   d) All of the above

3) The problem-solving process begins with ____.
   a) Clarification of the situation
   b) establishment of alternatives
   c) Identification of the difficulty
   d) isolation of the cause

4) Contributions of human relations movement are ____.
   a) Great Depression   b) Labor Movement
   c) Hawthorne Studies   d) all of these

5) In present context, challenges for OB are ____.
   a) Employee Expectations   b) Work force diversity
   c) Globalization   d) All of the above

6) A manager with good ____ can make the work place more pleasant.
   a) Communication   b) Knowledge
   c) Experience   d) Interpersonal skill

7) OB is the study of ____ in the organization.
   a) Human   b) Human Behavior
   c) Employer   d) Employees

8) Basis of "Collegial Model of Ob is ____".
   a) Economic Resource   b) Power
   c) Leadership   d) Partnership

9) Which of the following is/are method of Managing stress?
   a) Job relocation   b) Career Counselling
   c) Recreational Facility   d) All of the above

10) Organizational Behavior is ____.
   a) A Science   b) An Art
   c) A Science an well as art d) None of these

B) Answer One Sentence: 06
   a) Define Behavior.
   b) Define Industries.
   c) Define Memory.
   d) Define E-Commerce.
   e) Define Motivation.
   f) Define Politics.

Q.2 Answer the following: (Any Eight)   16
   a) Define Web Commerce.
   b) EDI Stands for.
   c) What is Stress?
   d) What is Organization?
   e) What is Security?
   f) What is Network?
   g) What is Power Tactics?
   h) What is Time Management?
   i) Define Electronic Cash.
   j) Definition of personality.

Q.3 A) Answer the following: (Any Two)   10
   a) Write down scope of OB?
   b) Write down source of power.
   c) Explaining importance of motivation.

B) Short Notes On "Work Stress Model".   06

Q.4 A) Answer the following: (Any Two)   08
   a) Maslow Theory of Motivation.
   b) Write down type of Personality.
   c) Write down types of political activity.

B) What is e-Commerce? Write down advantages of e-commerce.   08

Q.5 Answer the following: (Any Two)   16
   a) What are perceptions? Write down perceptions process.
   b) Explain Individual and Interpersonal behavior.
   c) Difference between E-Cash vs E-Payment.

Seat No.

B.Sc. (Entrepreneurship) (Semester - VI) (New) (CBCS) Examination: March/April - 2025
Techniques in Industrial Chemistry (EN1604)

Day & Date: Monday, 05-May-2025 Max. Marks: 80
Time: 03:00 PM To 06:00 PM

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

Q.1 A) Select the correct alternative. 10

1) In TLC, the stationary phase is made up of _____.
   a) solid b) gas
   c) liquid d) plasma

2) A mixture of o-nitrophenol and p-nitrophenol can be separated by _____.
   a) crystallization b) distillation
   c) chromatography d) sublimation

3) This is not separated by distillation.
   a) chloroform and aniline b) impurities in seawater
   c) milk and water d) acetone and water

4) Fire can be reduced by removing _____.
   a) oxygen b) fuel
   c) heat d) any of above

5) There are _____ principles of green chemistry.
   a) 12 b) 13
   c) 11 d) 14

6) Class _____ are the fires involving flammable liquids, combustible liquids, petroleum greases, tars, oils, oil-based paints, solvents, alcohols, and flammable gases.
   a) A b) B
   c) C d) D

7) Paper Chromatography is a separatory technique that is used to separate _____.
   a) simple mixtures b) viscous mixtures
   c) complex mixtures d) metals

8) Green chemistry is also called as _____ chemistry.
   a) sustainable b) industrial
   c) organic d) nuclear

9) In which of the following methods are liquid samples injected into the column in gas chromatography?
   a) Gas tight syringe
   b) Micro-syringe
   c) Rotary sample valve
   d) All of these

10) Column chromatography is _____ method of separation.
   a) biochemical
   b) chemical
   c) physical
   d) both a and b

B) Write the answer of the following.   **06**
1) Give any one example of type fire C.
2) Define thin layer chromatography.
3) Write any one name of zeolite.
4) Which material is used as stationary phase in HPLC?
5) Why porcelain pieces are put into the distillation flask?
6) What is fractionating distillation?

Q.2 Solve any Eight of the following.   **16**
a) Draw a neat labelled diagram of continuous distillation.
b) Write any two applications of HPLC.
c) Enlist different types of fire.
d) What is mean by vacuum distillation?
e) Write about solvent front?
f) What are biocatalytic reactions?
g) What is the range of microwaves in electromagnetic radiation?
h) Write the components of soda ash fire extinguishers.
i) Which technique is used for separation of hydrocarbons in crude oil?
j) Write factors affecting enzyme activity.

Q.3 A) Write short notes on any two of the following.   **10**
1) Explain the soda acid extinguishers.
2) Write the applications of GC.
3) Explain separation of acetone and water by fractional distillation.

B) Write short note on principles of green chemistry.   **06**

Q.4 A) Answer of the following (Any Two)   **08**
1) Draw neat labelled diagram of batch distillation.
2) Write any two examples of microwave assisted reactions.
3) Explain classification of chromatography technique.

B) Explain the principle and instrumentation of HPLC with labelled diagram.   **08**

Q.5 **Answer of the following (Any Two)** 16
   a) Explain the continuous distillation process with neat labelled diagram.
   b) Explain Halon-1301 fire extinguisher.
   c) What are zeolites? Give their sources. Explain its structure and applications.

Seat
No.

B.Sc. (Entrepreneurship) (Semester - VI) (New) (CBCS) Examination: March/April - 2025
Genetic Engineering (EN1605-A)

Day & Date: Tuesday, 06-May-2025   Max. Marks: 80
Time: 03:00 PM To 06:00 PM

Instructions: 1) All questions are compulsory.
2) Draw neat labelled diagrams whenever necessary.
3) Figures to the right indicate full marks.
4) Use of log table and calculators is allowed.

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

1) In the restriction endonuclease *Eco*RI, letter R is used for ____.
   a) restriction endonuclease   b) strain
   c) order of identification   d) genus or species of organism

2) Thymidine kinase is a ____ enzyme.
   a) decarboxyl   b) polymerase
   c) phosphotransferase   d) dehydrating

3) ____ facilitates the joining of DNA strands together by catalyzing the formation of a phosphodiester bond.
   a) Polymerase   b) Deoxynucleotidyl transferase
   c) Kinase   d) Ligase

4) In the cloning vector pBR, letter p stands for ____.
   a) plasmid   b) phage
   c) phase   d) phosphate

5) Transformation of DNA by chemical method is achieved using ____.
   a) Calcium phosphate   b) DEAE-dextran
   c) Lipofection   d) all of these

6) Tungsten or gold particles in the gene gun are accelerated by ____.
   a) helium   b) neon
   c) xenon   d) krypton

7) Polymerase used for PCR is extracted from ____.
   a) *Escherichia coli*   b) *Homo sapiens*
   c) *Thermus aquaticus*   d) *Saccharomyces cerevisiae*

8) The samples in Sanger's method after reaction are separated using _____.
   a) AGE   b) PFGE
   c) 2-D Gel   d) PAGE

9) Active insulin consists of _____ polypeptide chains.
   a) 1   b) 2
   c) 3   d) 4

10) The genes cryllAb produce toxins against _____.
   a) com borer   b) nematode
   c) cotton Bollworm   d) protozoa

B) Answer the following in one sentence.   **06**
   1) What is Cosmid?
   2) What is linker in GE?
   3) What is Western blotting?
   4) What is edible vaccine?
   5) What is DNA microarray?
   6) What is rDNA technology?

Q.2 Answer the following: (Any Eight)   **16**
   a) Write two names of plasmid vectors.
   b) Explain properties of SV40 based expression vector.
   c) Write in short on Agarose gel electrophoresis.
   d) Discuss in short RAPD.
   e) What is an antisense molecule?
   f) Explain rubber from microbial origin.
   g) What is Northern blotting?
   h) What is site directed mutagenesis?
   i) What is cloning?
   j) What is cDNA?

Q.3 A) Answer the following: (Any Two)   **10**
   1) Explain in detail on restriction modification enzymes with examples.
   2) Discuss in detail various gene delivery methods.
   3) Write in detail on PCR?

B) Write short note on rDNA vaccines.   **06**

Q.4 A) Attempt the following. (Any Two)   **08**
   1) Explain in short shotgun DNA sequencing method.
   2) Discuss in short protein engineering.
   3) Write in short about cloning vectors.

B) Describe in detail SDS-PAGE.   **08**

Q.5 Attempt the following. (Any Two)   **16**
   a) Explain in detail DNA modifying enzymes.
   b) Discuss in detail DNA transformation methods.
   c) Write in detail on cDNA libraries.

Seat No.		**Set**	P

B.Sc. (Entrepreneurship) (Semester - VI) (New) (CBCS) Examination: March/April - 2025
Techniques in Plant Tissue Culture (EN1605-B)

Day & Date: Tuesday, 06-May-2025   Max. Marks: 80
Time: 03:00 PM To 06:00 PM

Instructions: 1) All questions are compulsory.
                 2) Draw neat labelled diagrams whenever necessary.
                 3) Figures to the right indicate full marks.
                 4) Use of log table and calculators is allowed.

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

1) Addition of _____ avoids many of the contamination problems in animal culture media.
   - a) protein
   - b) carbohydrate
   - c) vitamin
   - d) antibiotic

2) Solid media are_____.
   - a) agar
   - b) broth
   - c) suspension
   - d) saline

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 advantage of using serum in culture media.
   - a) Source of contamination by viruses, mycoplasma, prions
   - b) Composition varies a lot
   - c) Increases cost of downstream processing
   - d) Binds and neutralizes toxins

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) Nicotinic acid (B3) is _____.
   - a) growth hormone
   - b) carbohydrate
   - c) amino acid
   - d) vitamin

8) Auxins and Cytokinins are _____.
   a) antibiotics   b) salts
   c) energy sources   d) growth hormones

9) Heat sensitive media are sterilized by _____.
   a) hot air oven   b) autoclave
   c) filtration   d) microscope

10) The nucleus of the cell was discovered by _____.
   a) Robert Hooke   b) Aristotle
   c) Robert Brown   d) Matthias Schleiden

B) Answer the following 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 the following: (Any Eight) 16
   a) What is incubation room?
   b) What is sterilization?
   c) What is cell synchronization?
   d) What is suspension?
   e) What is protoplast fusion?
   f) What is leaf culture?
   g) What is broth culture?
   h) What is blood plasma?
   i) What is cell separation?
   j) What is cell enumeration?

Q.3 A) Solve the following: (Any Two) 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 the following. (Any Two) 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 the following. (Any Two) 16
    a) Explain in detail nutritional requirements of the explants.
    b) Describe in detail anther and pollen Culture.
    c) Write in detail equipment and instruments used in tissue culture laboratory.

Seat No.

Set **P**

B.Sc. (Entrepreneurship) (Semester - VI) (New/Old) (CBCS) Examination: March/April - 2025
English
Business English (EN601)

Day & Date: Wednesday, 30-04-2025   Max. Marks: 40
Time: 03:00 PM To 05:00 PM

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

Q.1   Choose the correct alternatives from the given options.   08
   1)   What did the girls call Robert?
      a)   Sourface   b)   Paleface
      c)   No-face   d)   Sweetface

   2)   What did Askiono's wife see in her dream about Askiono's hair?
      a)   he lost his hair   b)   his hair had become gray
      c)   he became ill   d)   he got arrested

   3)   What are names of the children from the story 'Growing up'?
      a)   Joss & Kady   b)   Jane & Karli
      c)   Jade & Katie   d)   Jenny & Kate

   4)   Who dwells in peace of forest in the poem 'Sita'?
      a)   the animals   b)   the poet-anchorite
      c)   the king   d)   the children

   5)   Who is the narrator of the poem 'My Last duchess'?
      a)   the poet   b)   the emissary
      c)   the duchess   d)   the duke

   6)   What are the things of beauty mentioned in the poem 'Ode to Beauty'?
      a)   The sun and the moon   b)   Young trees and streams
      c)   Flowers   d)   All of the above

   7)   The police searched _____ the house but didn't find any evidence.
            (choose correct adverb to fill in the blanks)
      a)   through in   b)   throughout
      c)   thought   d)   through

   8)   He said, "Anu is at home." (Convert into indirect speech)
      a)   He said that Anu was at home.
      b)   He said Anu is at home.
      c)   He told Anu is in the home.
      d)   He told that Anu were at home.

Q.2 **Answer the following questions. (Any Four)** **12**
   a) How was Robert and the dog attacked in the story 'Growing Up'?
   b) What was the major change in character of Askionov in the prison?
   c) What is the tragic story told by the narrator from the poem 'Sita'?
   d) How does the duke reveal his role in the death of the duchess?
   e) Why is 'Ode to Beauty' considered to be romantic poem?
   f) Who do you think are 'our best' that poet refers to in the poem 'Life'?

Q.3 **Answer the following questions. (Any One)** **10**
   a) Explain what is information literacy & its importance?
   b) What is media literacy and what is its importance?

Q.4 What are life skills? Explain in detail. **10**

| Seat No. | | Set | P |

B.Sc. (Entrepreneurship) (Semester - VI) (New/Old) (CBCS) : Examination March/April - 2025
International Business (EN602)

Day & Date: Sunday, 18-May-2025   Max. Marks: 80.00
Time: 03:00 PM To 06:00 PM

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

Q.1 A) Multiple choice questions.   **10**

1) Comparative Cost Trade Theory is given by _____.
    a) Adam smith   b) David Ricardo
    c) Heckscher Ohlin   d) David miller

2) A tax imposed on certain type of imported goods is _____.
    a) A tariff   b) A surcharge
    c) A goods and service tax   d) A quota

3) Balance of payments of a country includes _____.
    a) Capital Account   b) Current Account
    c) Official Reserve Account   d) All the above

4) Full form of ASEAN:
    a) Association of South East Asian Nations
    b) Administration of South East Asian Nations
    c) Administration of southern eastern Asian nations
    d) Organisation of South East Asian Nation

5) _____ is a written commitment to pay by importer's bank to exporter's bank.
    a) Bill of exchange   b) Letter of credit
    c) Bill of entry   d) Bill of sight

6) Globalization implies _____ trade.
    a) Free   b) Protected
    c) Restricted   d) All the above

7) Headquarter of WTO is in _____.
    a) Geneva   b) Washington D.C.
    c) Berlin   d) Mumbai

8) NAFTA is an example of _____.
    a) Common Market   b) Customers Union
    c) Economic Community   d) Free Trade Area

9) Build, operate and transfer is the basic principle of _____.
   a) Contract manufacturing   b) Licensing
   c) Franchising   d) Turnkey project

10) Expand SAP _____.
   a) Systems, Applications and Products in data processing
   b) Search Analysis Program
   c) Soft analysis program
   d) Software Analysis Program

B) Give one word/parse/term for the following statement.   **06**
1) Removal or reduction of restrictions or barriers on the free exchange of goods between nations.
2) The portfolio investment by foreign institutional investors.
3) A company that owns or controls production in more than one nation.
4) When two or more firms come together to create a new business entity that is legally separate and distinct from its parents.
5) An instrument which establishes evidence on origin of goods imported into any country.
6) A legal document issued by a carrier to a shipper that details the type, quantity, and destination of the goods being carried.

Q.2 Solve any Eight of the following.   **16**
1) What is absolute cost advantage?
2) Define Balance of payment.
3) What do you mean by trade policy?
4) Define Globalisation.
5) Define Franchising.
6) Explain Tariff.
7) Explain Open Account.
8) Define MNC?
9) Define Free Trade Area.
10) Long form of GATT and WTO.

Q.3 A) Attempt any Two of the following.   **10**
1) Explain Comparative cost advantage theory.
2) Importance of international business.
3) Advantages of MNCs.

B) Write Short Note.   **06**
Explain components of balance of payment.

Q.4 A) Attempt any Two of the following.   **08**
1) Write note on Tariffs and Quota.
2) Write note on Trade Blocs.
3) Objectives of WTO.

B) Describe Import/Export procedure.   **08**

Q.5 Attempt any Two of the following.   **16**
    a) Briefly explain modes of entering into international business.
    b) Explain in brief documents used in International trade.
    c) Explain role of IMF and WTO in economic development.

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Set **P**

B.Sc. (Entrepreneurship) (Semester - VI) (New/Old) (CBCS) Examination: March/April - 2025
Organizational Behavior (EN603)

Day & Date: Sunday, 25-May-2025　　　　　　　　　　　Max. Marks: 80
Time: 03:00 PM To 06:00 PM

Instructions: 1) All questions are compulsory.
　　　　　　　　2) Draw neat diagrams and give equations whenever 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)　Organization Behavior is _____
　　　　a)　An interdisciplinary approach
　　　　b)　A humanistic approach
　　　　c)　Total system approach
　　　　d)　All of these

　　2)　_____ groups are composed of officers or executives who report directly to their superiors.
　　　　a)　Formal　　　　　　　b)　Informal
　　　　c)　Command　　　　　d)　Friendship

　　3)　_____ is how people look at and understand the things.
　　　　a)　Attitude　　　　　　b)　Learning
　　　　c)　Perception　　　　　d)　All of the above

　　4)　_____ is any relative permanent change in behavior that occurs as a result of experience.
　　　　a)　Perception　　　　　b)　Values
　　　　c)　Learning　　　　　　d)　Attitudes

　　5)　_____ advocated that humans are essentially motivated by levels of needs.
　　　　a)　Follet　　　　　　　b)　Maslow
　　　　c)　Alderfer　　　　　　d)　McClelland

　　6)　Motivation through fear and punishment is _____
　　　　a)　Negative motivation　b)　Positive motivation
　　　　c)　Wrong motivation　　d)　All the above

　　7)　Sum total of personal traits, qualities and psycho-physical systems of an individual that determine his behavior is known as _____
　　　　a)　Personality　　　　　b)　Perception
　　　　c)　Learning　　　　　　d)　values

8) The state of conflicts among the members of group is called _____ stage.
a) Forming b) Storming
c) Performing d) Adjourning

9) The viruses spread through _____.
a) Mails b) Pen drives and CDs
c) Websites d) All the above

10) OTP stands for _____
a) On Time password b) On Time processing
c) One time processor d) All the above

B) Answer one Sentence 06
1) How many levels are in Maslow's pyramid?
2) Who developed the expectancy theory?
3) Mention any two examples of e-commerce.
4) Long Form of EDL.
5) Long From of HTML.
6) Long From of WWW.

Q.2 Solve any Eight of the following 16
1) Why do people join group?
2) What is job satisfaction?
3) What is stress?
4) Define politics.
5) Define motivation.
6) Define perception.
7) Define learning.
8) Define electronic market.
9) Define financial planning.
10) What is online e-cash?

Q.3 A) Attempt any Two of the following 10
1) Explain Types of Learning Organization.
2) Explain sources of power.
3) Write note on Herzberg's two-factor theory of motivation.

B) Write note on Maslow's hierarchy of needs. **06**

Q.4 A) Attempt Any Two of the following 08
1) Explain in short Types of group.
2) Explain sources of stress.
3) Explain purchase Order Process Steps.

B) Explain the factors influencing perceptions. **08**

Q.5 Attempt any Two of the Following   **16**
   a)   What is organizational behavior? Explain nature & scope of organizational behavior.
   b)   Explain stages in group development.
   c)   What is personality? Explain in brief Types of personality.

Seat No.		**Set**	**P**

B.Sc. (Entrepreneurship) (Semester - VI) (New/Old) (CBCS) Examination: March/April - 2025
Genetic Engineering (EN605)

Day & Date: Tuesday, 06-May-2025   Max. Marks: 80
Time: 03:00 PM To 06:00 PM

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

Q.1   A)   Multiple choice questions.   **10**
   1) Genomic library can be prepared by ____.
   　a) PCR technique　　　　　b)　Shotgun method
   　c) colony hybridization　　d)　all of these

   2) A Method used to insert DNA molecules into the cell by using short electrical impulses is known as _____.
   　a) Biolistic　　　　　　　b)　Microinjection
   　c) liposome　　　　　　　d)　Electroporation

   3) The enzymes commonly used in genetic engineering are ____.
   　a) Ligase and polymerase
   　b) Restriction endonuclease and polymerase
   　c) Restriction endonuclease and ligase
   　d) None of the above

   4) Transgenic plants are having
   　a) No gene　　　　　　　　b)　Genes in transposition
   　c) Genes have no function　d)　Genes of other organism

   5) Which of the following bacterium is considered as 'Natural genetic engineering'?
   　a) Agrobacterium tumefaciens　　b)　Agrobacterium radiobactor
   　c) Pseudomonas putida　　　　　d)　Thermos aquatics

   6) Size of the DNA that can be a Lambda phage is ____.
   　a) 50kb　　　　　　　　　b)　35-53kb
   　c) 40-50kb　　　　　　　　d)　Any Size

   7) 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

8) Bt Cotton is the ____.
  a) Cloned plant
  b) Hybrid plant
  c) Transgenic plant
  d) Mutated plant

9) DNA sequencing is done by ____.
  a) Maxam Gilbert method
  b) Sanger didoxy method
  c) Both a & b
  d) None of these

10) Telomeric sequence are found in ____.
  a) HAC
  b) BAC
  c) YAC
  d) PAC

Q.1 B) Fill in the blank/Definition/One sentence answer /one word answer /Give the name /predict the product etc.   **06**
  1) Ligation
  2) DNA polymerase
  3) SDS-PAGE long form
  4) Agarose gel electrophoresis
  5) Vectors
  6) Cosmid

Q.2 Solve (Any Eight) of the following.   **16**
  a) Write note on Antisense molecule.
  b) Write note on Synthetic oligonucleotide.
  c) Explain in brief Electroporation.
  d) Write note on Liposomes.
  e) Explain in brief genomic library.
  f) Write note on p Insulin.
  g) Explain in brief Annealing.
  h) Explain in brief DNA microarray.
  i) Write note on Restriction enzyme.
  j) Write note UC series.

Q.3 A) Attempt (Any Two) of the following.   **10**
  a) Type II restriction enzyme in genetic engineering.
  b) Write note on DNA polymerases.
  c) Write note on Shotgun method.

Q.3 B) Short note/Solve.   **06**
  Write short note on antisense molecule.

Q.4 A) Attempt (Any Two) of the following.   **08**
  a) Write Yeast Yip Vector.
  b) Sanger's Method of DNA sequencing
  c) Microbial synthesis of Rubber.

Q.4 B) Describe /Explain /Solve.   **08**
  Basics of PCR technology

Q.5 **A)** **Attempt (Any Two) of the following.** **16**

a) Describe in detail Restriction modification systems types, action and applications.

b) Describe in detail Mammalian SV40 based expression vector.

c) Agarose gel electrophoresis techniques, Applications.

Seat No.

B.Sc. (Entrepreneurship) (Semester - VI) (New/Old) (CBCS) Examination: March/April - 2025
Techniques in Plant Tissue Culture (EN606)

Day & Date: Tuesday, 06-May-2025   Max. Marks: 80
Time: 03:00 PM To 06:00 PM

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

Q.1 A) Choose the correct alternative and rewrite the sentences again.   **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 sensitive media are sterilized by _____.
   a) hot air oven   b) autoclave
   c) filtration   d) microscope

3) Solid media are _____.
   a) agar   b) broth
   c) suspension   d) saline

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) Nicotinic acid (B3) is ____.
   a) growth hormone   b) carbohydrate
   c) amino acid   d) vitamin

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 tissue?
   2) What is subculture?
   3) What is totipotency?
   4) What is explant?
   5) What is hemocytometer?
   6) What is antibiotics?

Q.2 Solve any eight of the following.   **16**
   a) What is incubation room?
   b) What is cell separation?
   c) What is cell enumeration?
   d) What is leaf culture?
   e) What is inoculation room?
   f) What is cell synchronization?
   g) What is gametic cell?
   h) What is blood plasma?
   i) What is PGR?
   j) What is cell theory?

Q.3 A) Answer any two of the following.   **10**
   1) Explain in detail animal tissue culture Laboratory design.
   2) Describe in detail cell Separation techniques.
   3) Write in detail on nutritional requirements of explant.

B) Explain in detail aseptic techniques.   **06**

Q.4 A) Answer any two of the following.   **08**
   a) Describe in brief root tip culture.
   b) Write in brief nutritional requirements of animal cell.
   c) 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 anther and pollen Culture.

    b) Explain media sterilization.

    c) Write in detail equipment and instruments used in tissue culture laboratory.