



# ARATI PUBLIC SCHOOL DWARKA

## EMPLE QUESTION PAPER (ANNUAL) PHYSICAL EDUCATION XI

TIME ALLOWED: 3 HOURS

MAX. MARKS: 70

### GENERAL INSTRUCTION

- 1) The question paper consists of 4 sections and Questions
- 2) Section A consists of question 1-18 carrying 1 mark each and is multiple choice questions. All questions are compulsory.
- 3) Section B consist of question 19-24 carrying 2 marks each and are very short answer types and should not exceed 60-90 words
- 4) Sections C consist of Question 25 – 29 carrying 3 marks each and are short answer types and should not exceed 100 – 150 words.
- 5) Section D consist of question 30-34 carrying 5 marks each and not exceed 200-300 words

### (SECTION A)

Q1. The Ministry of sports and Youth and affairs introduced Khelo India program in the year:

- (a) 2016                      (b) 2017                      (c) 2018                      (d) 2015

Q2. How many components are included in Khelo India Program?

- (a) 10                      (b) 12                      (c) 8                      (d) 15

Q3. In which of the sport is LED lights technology is used in stumps?

- (a) Tennis                      (b) Cricket                      (c) Badminton                      (d) Football

Q4. The term “Citius” is the Olympic motto denotes-

- (a) Higher                      (b) Stronger                      (c) Faster                      (d) All of these

Q5. The idea for reviving the Olympic Games came from

- (a) Eunice Kennedy Shriver                      (b) Baron Pierre de Coubertin (c) Dion Nash (d) Ludwig Guttmann

Q6. The ancient Olympic Games were initially:

- (a) 3 days event    (b) 2 days event                      (c) 1 day event                      (d) 5-day event

Q7. "Playing beyond the rules of the games" is a violation of which of the following educational values?

- (a) Pursuit of excellence (b) Balance between Body, Will and mind  
c) Joy of Effort (d) Friendship

Q8. Which among the following is NOT an Olympic core value?

- (a) Excellence (b) Commitment (c) Respect (d) Friendship

Q9. Who gave the definition 'Checking the impulses of mind is yoga'?

- (a) Patanjali (b) Shankaracharya (c) Shri Krishna (d) Swami Sivananda

Q10. Out of the Following which one is not an element of Ashtanga Yoga?

- (a) Yama (b) Niyama (c) Dhauti (d) Pratyahara

Q11. Which term is used to describe alternate nostril breathing in yoga?

- (a) Kapalabhati (b) Anulom-Vilom (c) Bhramari Pranayama (d) sheetali Pranayama

Q12. The concentration of mind on an impulse without any divergence is known as :

- (a) Yoga (b) Pranayama (c) Vritti (d) Meditation

Q13. Which of the following are the main stages of Pranayama?

- (a) Puraka (b) Kumbhaka (c) Rechaka (d) All of these

Q14. Which one is Congenital disability?

- (a) Down Syndrome (b) Cerebral palsy (c) Polio (d) Both (a) and (b)

Q15. A genetic disorder is found in an intellectual disability which is known as:

- (a) Autism (b) Cerebral palsy (c) Down syndrome (d) None

Q16. World Disability Day is celebrated on:

- (a) 2<sup>nd</sup> April (b) 21<sup>st</sup> June (c) 29<sup>th</sup> August (d) 3<sup>rd</sup> December

Q17. Which of the following is not Disability etiquette?

- (a) Avoid asking personal questions (b) Use a normal tone of voice  
c) Listen attentively (d) Pretending to understand

@18. You have a new classmate who has a disability and has an interpreter as he/she has just joined your school. He/she speak to you. You will:

- (a) Communicate with the interpreter (b) stare between the interpreter and your classmate
- c) speak directly to your classmate (d) look at neither your classmate nor the interpreter

(SECTION B)

Q19. Write objectives of the Fit India Movement.

Q20. Write down the Olympic Oath.

Q21. What is BMI and formula.

Q22. List the principal of Yama.

Q23. What do you understand by 'Physical Disability'?

Q24. Define Disorder.

(SECTION C)

Q25. Describe Sheldon's body types.

Q26. What is the main difference between muscular strength and muscular endurance?

Q27. Discuss the role of adapted physical education for children with special needs.

Q28. Write three functions of bones.

Q29. Describe three benefits of physical activities for children with special needs.

(SECTION D)

Q30. Explain the history and development of the Paralympic Games.

Q31. What do you understand about circulatory system? explain the classification of muscles.

Q32. Provide a detailed explanation of the components of physical fitness.

Q33. Define khelo India Programme and fit India Programme.

Q34. Explain the various types of disabilities and causes, and their impact on physical activity.



**BAL BHARATI PUBLIC SCHOOL**  
**ANNUAL EXAMINATION (2024-25)**  
**CLASS - XI**  
**SUBJECT- Artificial Intelligence**  
**SAMPLE PAPER**

**TIME: 2 Hrs**

**Maximum Marks: 50**  
**DATE:**

**General Instructions:**

1. Please read the instructions carefully.
2. This Question Paper consists of 21 questions in two sections: Section A & Section B.
3. Section A has Objective type questions whereas Section B contains Subjective type questions.
4. Out of the given (5 + 16 =) 21 questions, a candidate has to answer (5 + 10 =) 15 questions in the allotted (maximum) time of 2 hours.
5. All questions of a particular section must be attempted in the correct order.
6. **SECTION A - OBJECTIVE TYPE QUESTIONS (24 MARKS):**
  - i. This section has 05 questions.
  - ii. Marks allotted are mentioned against each question/part.
  - iii. There is no negative marking.
  - iv. Do as per the instructions given.
7. **SECTION B - SUBJECTIVE TYPE QUESTIONS (26 MARKS):**
  - i. This section has 16 questions.
  - ii. A candidate has to do 10 questions.
  - iii. Do as per the instructions given.
  - iv. Marks allotted are mentioned against each question/part.

	Section A: Objective Type Questions	
Q -1	Answer any 4 out of given 6 questions on Employability skills.	(1 x 4=4 marks)
1)	<b>The 7 Cs of effective communication include all of the following EXCEPT:</b> a) Clarity b) Courtesy c) Complexity d) Conciseness	
2)	<b>Self-motivation helps individuals to:</b> a) Depend on others for inspiration b) Avoid setting goals c) Keep pushing themselves towards success d) Ignore responsibilities	
3)	What is the main function of <b>LibreOffice Writer</b> ? a) Creating and editing documents b) Designing web pages c) Playing multimedia files	

	d) Managing databases	
4)	<b>A business plan mainly helps in:</b> a) Spending money without a plan b) Avoiding competition c) Providing a roadmap for success d) Ignoring customer needs	
5)	<b>Which of the following is a major risk in entrepreneurship?</b> a) Getting a high-paying job b) Financial loss c) Following market trends d) Having a stable income	
6)	<b>What is the primary goal of a green economy?</b> a) Maximizing industrial output b) Reducing environmental risks and promoting sustainability c) Increasing deforestation d) Expanding the use of fossil fuels	
<b>Q2</b>	<b>Answer any 5 out of the given 6 questions</b>	<b>(1 x 5 = 5 marks)</b>
1)	<b>What is the primary goal of Artificial Intelligence?</b> a) To replace human intelligence completely b) To enable machines to perform tasks that require human intelligence c) To make computers operate faster d) To create entertainment applications only	
2)	<b>Which of the following is NOT an example of AI?</b> a) Virtual Assistants like Alexa and Siri b) Automatic Spam Filtering in Emails c) Basic Calculator Operations d) Self-driving Cars	
3)	<b>AI systems learn and improve their performance over time using:</b> a) Pre-written manual codes b) Trial and error without any feedback c) Data and Machine Learning Algorithms d) Human memory storage	
4)	<b>Which of the following industries is least likely to be transformed by AI in the near future?</b> a) Healthcare b) Finance c) Agriculture d) Ancient History Research	
5)	<b>Which of the following is NOT a common job role in the field of Artificial Intelligence?</b> a) AI Ethicist	

	b) AI Software Engineer c) Marine Biologist d) Data Scientist	
6)	<b>What is the primary role of a Machine Learning Engineer in AI development?</b> a) Designing AI-powered hardware components b) Managing financial transactions in AI startups c) Developing and optimizing machine learning models to process large datasets d) Writing blogs about AI ethics	
<b>Q3</b>	<b>Answer any 5 out of the given 6 questions</b>	<b>(1 x 5 = 5marks)</b>
1)	<b>Which of the following is a key component of an Empathy Map in the Capstone Project?</b> a) Coding structure b) User emotions and experiences c) Algorithm efficiency d) Data storage solutions	
2)	<b>Before starting an AI Capstone Project, what fundamental question should be asked?</b> a) Should we do the project? b) Is there a pattern in the problem? c) Can we leave the problem unsolved? d) Is AI mandatory for the solution?	
3)	<b>Which of the following is an example of a secondary data source?</b> a) Survey responses b) Census data c) Personal interviews d) Observational studies	
4)	<b>Which data visualization method is best suited for showing trends over time?</b> a) Bar chart b) Line graph c) Pie chart d) Scatter plot	
5)	<b>What does data normalization aim to achieve?</b> a) Increase data size b) Ensure data is on a similar scale c) Add unnecessary details to datasets d) Remove the need for data cleaning	

6)	<b>What is a key characteristic of Reinforcement Learning?</b> a) Learning from labeled datasets b) Learning through trial and error with rewards and penalties c) Identifying patterns in unlabeled data d) Clustering data points based on similarity	
<b>Q4</b>	<b>Answer any 5 out of the given 6 questions</b>	<b>(1 x 5 = 5marks)</b>
1)	<b>Which of the following algorithms is best suited for regression tasks?</b> a) K-Nearest Neighbors (KNN) b) Support Vector Machines (SVM) c) Linear Regression d) Hierarchical Clustering	
2)	<b>Which of the following is a challenge in machine learning models?</b> a) Lack of training data b) Model overfitting c) Data privacy concerns d) All of the above	
3)	<b>What is the primary goal of clustering in machine learning?</b> a) To find the best hyperparameters for an algorithm b) To assign data points to predefined categories c) To group similar data points together without predefined labels d) To perform text classification tasks	
4)	<b>Which of the following best describes Sentiment Analysis?</b> a) Converting speech into text b) Analyzing text to determine emotional tone (positive, negative, or neutral) c) Translating languages using NLP models d) Identifying grammatical errors in sentences	
5)	<b>What is the function of Named Entity Recognition (NER) in NLP?</b> a) Identifying and classifying words as names, places, organizations, etc. b) Summarizing long documents into shorter versions c) Detecting fake news in digital media d) Encrypting sensitive information in text	
6)	<b>Which phase of NLP involves checking sentence structure and grammar?</b> a) Pragmatic Analysis b) Syntax Analysis c) Text Classification d) Speech Synthesis	

<b>Q5</b>	<b>Answer any 5 out of the given 6 questions</b>	<b>(1 x 5=5 marks)</b>
1)	<b>What is the primary role of a chatbot in NLP?</b> a) To translate text into binary code b) To analyze user emotions in images c) To simulate human-like conversations through AI d) To detect and delete spam messages from emails	
2)	<b>What is a major ethical concern related to AI and privacy?</b> a) AI systems improving data security automatically b) AI technologies accessing and using personal data without consent c) AI enhancing user privacy by default d) None of the above	
3)	<b>Which strategy helps mitigate bias in AI systems?</b> a) Ignoring the bias b) Increasing the complexity of AI algorithms c) Regular audits and inclusive data practices d) Focusing solely on the technological aspects	
4)	<b>Who is responsible for ensuring the ethical use of AI systems?</b> a) AI developers only b) Government bodies only c) Users only d) All stakeholders, including developers, governments, and users	
5)	<b>What is the role of AI ethics in the context of autonomous vehicles?</b> a) To ensure vehicles are aesthetically pleasing b) To navigate ethical dilemmas such as decision-making in critical situations c) To make autonomous vehicles less safe d) None of the above	
6)	<b>What is the output of the following code?</b>  a = [1, 2, 3] a.extend([4]) print(a)  a) [1, 2, 3,[4]] b) [1, 2, 3, 4] c) [4, 1, 2, 3] d) Error	
	<b>Section B: Subjective Type Questions</b>	
	<b>Answer any 3 out of the given 5 questions on Employability skills. Answer each question in 20-30 words.</b>	<b>2X3=6</b>
Q6	What are the barriers to effective communication? Explain any two.	2
Q7	How does time management improve productivity? Mention two benefits.	2
Q8	What are the advantages of using word processing software? Mention any two.	2
Q9	What is the importance of business planning for an entrepreneur?	2



Q10	How do green jobs contribute to environmental sustainability? Give two points.	2
	<b>Answer any 4 out of the given 6 questions in 20 – 30 words each</b>	<b>(2 x 4 = 8 Marks)</b>
Q11	Identify any two essential skills required for a successful career in AI and briefly explain their importance.	2
Q12	What is the purpose of maintaining a project logbook in a Capstone Project?	2
Q13	Explain the difference between qualitative and quantitative data with examples.	2
Q14	Explain the importance of data preprocessing in machine learning.	2
Q15	Explain the difference between NLP and Speech Recognition.	2
Q16	What is the significance of AI transparency in decision-making?	2
	<b>Answer any 3 out of given 5 questions in 50-80 words each:</b>	<b>(4 x 3 = 12 marks)</b>
Q17	<p><b>Case Study: AI in Smart Homes</b></p> <p>A family recently installed a <b>smart home assistant</b> that uses AI to automate various tasks. The assistant <b>controls lighting, sets reminders, plays music, and adjusts the thermostat based on their preferences.</b> Over time, it learns their <b>daily routines</b> and adjusts the environment to suit their needs.</p> <p>a) How does AI help in <b>smart home automation</b>?</p> <p>b) What are the <b>advantages and challenges</b> of using AI in smart homes?</p>	4
Q18	<p>Create an empathy map for the following scenario:</p> <p>Ashmitha daily drives to her office and back. The Office is hardly 30 minutes' drive from her home. However, due to traffic jams, it takes more than 1 hour. Ashmitha is hoping for a solution to this traffic issue. Prepare an Empathy map related to Ashmitha.</p>	4
Q19	What is data visualization? Why is it important? Explain two common visualization techniques.	4
Q20	<p>A healthcare startup wants to build an AI model for predicting heart disease risk.</p> <p>a) Which type of machine learning would be best for this task?</p> <p>b) What data features should be considered for prediction?</p> <p>c) Name one classification algorithm suitable for this task.</p> <p>d) Why is model evaluation necessary in healthcare applications?</p>	4

Q21

**Case Study: Predicting Student Performance Using Python**

4

**A school wants to analyze and predict students' final exam scores based on study hours and attendance percentage. The dataset is as follows:**

Student ID	Study Hours	Attendance (%)	Final Exam Score
S101	10	90	85
S102	8	80	75
S103	6	70	65

- a) Which Python library would be useful for analyzing this dataset and building a prediction model? Justify your answer.
- b) Write a Python code snippet to load this dataset using Pandas.
- c) Which machine learning algorithm would be most appropriate for predicting student performance?
- d) Why is feature selection important in machine learning models like this one?



**BAL BHARATI PUBLIC SCHOOL**  
**SAMPLE PAPER (2024-25)**  
**CLASS - XI**  
**SUBJECT- CHEMISTRY**

**TIME: 3 Hours**

**Maximum Marks: 70**

**General Instructions :**

(i) Question paper comprises five Sections - A, B, C, D and E. There are 33 questions in the question paper. All questions are compulsory.

(ii) Section A - Question 1 to 16 are MCQs of 1 mark each.

(iii) Section B - Question no. 17 to 21 are Very Short Answer Type Questions, carrying 2 marks each. Answer to each question should not exceed 30-40 words.

(iv) Section C - Question no 22 to 28 are Short Answer Type Questions, carrying 3 marks each. Answer to each question should not exceed 60-80 words.

(v) Section D - Question no.29 and 30 are Case based questions with three sub questions and are of 4 marks .

(vi) Section-E -Question no. 31 to 33 are Long Answer Type Questions, carrying 5 marks each. Answer to each question should not exceed 200-250 words.

(vii) There is no overall choice in the question paper. However, an internal choice has been provided in few questions. Only one of the choices in such questions have to be attempted.

(viii) In addition to this, separate instructions are given with each section and question, wherever necessary.

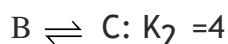
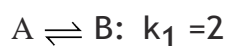
**SECTION A**

The following questions are multiple choice questions with one correct answer. Each question carries 1 mark. There is no internal choice in this section.

1. Among the following compounds, the one which is most reactive towards electrophilic nitration is : (1)
- a. Benzoic acid                      b. Nitrobenzene                      c. Toluene                      d. Benzene

2. Bond length of (I) ethane, (II) ethene, (III) Acetylene, (IV) Benzene follows the order: (1)  
 a. I > II > III > IV      b. I > IV > II > III      c. I > II > IV > III      d. III > IV > II > I
3. In an adiabatic process, no transfer of heat takes place between system and surroundings. Choose the correct option for free expansion of an ideal gas under adiabatic condition from the following. (1)  
 a.  $q = 0, \Delta T \neq 0, w = 0$       b.  $q \neq 0, \Delta T = 0, w = 0$   
 c.  $q = 0, \Delta T = 0, w = 0$       d.  $q = 0, \Delta T < 0, w \neq 0$
4. Which of the following is not a state function? (1)  
 a. Enthalpy      b. Entropy      c. Heat      d. Free Energy
5. According to second law of thermodynamics : (1)  
 a.  $\Delta S_{\text{total}} = +ve$       b.  $\Delta S_{\text{total}} = -ve$       c.  $\Delta S_{\text{system}} = +ve$       d.  $\Delta S_{\text{system}} = -ve$
6. 'I' cannot act as reducing agent in following state: (1)  
 a. -1      b. +1      c. +7      d. +5
7. Which of the following participate in the sulphonation of benzene? (1)  
 a.  $\text{SO}_2$       b.  $\text{SO}_3\text{H}^+$       c.  $\text{SO}_3$       d.  $\text{SO}_3\text{H}^-$
8. 45.4 L of dinitrogen reacted with 22.7 L of dioxygen and 45.4 L of nitrous oxide was formed. The reaction is given below:  $2\text{N}_2(\text{g}) + \text{O}_2(\text{g}) \rightarrow 2\text{N}_2\text{O}(\text{g})$ . This is according to the law of : (1)  
 a. conservation of mass      b. constant proportion  
 c. constant volume by Gay Lussac      d. multiple proportion
9. Which of the following statement is incorrect? (1)  
 a. Empirical formula of a compound helps to determine its molecular formula.  
 b. Empirical formula represents the different atoms present in simplest whole number ratio.  
 c. Empirical formula can be determined only if molecular formula is known.  
 d. Empirical formula may or may not be the same as molecular formula.
10. Which has the maximum number of molecules among the following? (1)  
 a. 44g of  $\text{CO}_2$       b. 8g of  $\text{H}_2$       c. 44g of  $\text{O}_2$       d. 64g of  $\text{SO}_2$
11. The electronegativity of the following elements increase in the order:  
 a. C, N, Si, P      b. N, Si, C, P      c. Si, P, C, N      d. P, Si, N, C

12. For the hypothetical reactions, the equilibrium constant (k) values are given



The equilibrium constant (K) for the reaction  $A \rightleftharpoons D$  is: (1)

- a. 48                                      b. 24                                      c. 12                                      d. 64

**Question No 13 to 16 consist of two statements - Assertion (A) and Reason (R). Answer these questions selecting the appropriate option given below:**

- a. Both A and R are true and R is the correct explanation of A.
- b. Both A and R are true but R is not the correct explanation of A.
- c. A is true but R is false.
- d. A is false but R is true.

13. ASSERTION (A): Enthalpy of formation of HCl is equal to bond energy of HCl. (1)

REASON (R): Enthalpy of formation and bond energy both involve the formation of one mole of HCl from the elements.

14. ASSERTION (A): Chromatography is the method used to separate and purify compounds when present in small amounts. (1)

REASON (R): Dyes present in black ink can be separated by chromatography.

15. ASSERTION (A): If water is heated to 59°C, the pH will increase. (1)

REASON (R):  $K_w$  increases with increase in temperature

16. ASSERTION (A): The opposite lobes of a p-orbital have opposite sign whereas opposite lobes of d-orbital have the same sign. (1)

REASON (R): The opposite lobes of a p-orbital have opposite charge whereas the opposite lobes of d-orbital have the same charge.

## SECTION B

**This section contains 5 questions with internal choice in one question. The following questions are very short answer type and carry 2 marks each.**

17. An organic compound contains 69% carbon and 4.8% hydrogen the remainder being oxygen. Calculate the masses of carbon dioxide and water produce when 0.20 g of this compound is subjected to complete combustion. (2)

18. a. Explain why the uncertainty principle is significant only from the motion of subatomic particles and is negligible for macroscopic particles?
- b. Aufbau Principle states that in the ground state of the atom, the orbitals are filled in order of their increasing energies. Then why does chromium atom have outer shell electronic configuration  $3d^54s^1$  and not  $3d^44s^2$ . (2)

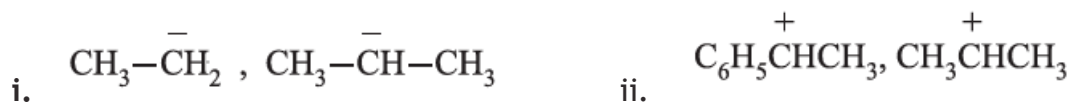
OR

- a. Give the limitations of Thomsons Atomic model.
- b. Why are Bohrs orbit also called Stationary States? (2)
19. A compound made up of two elements A and B has A = 70%, B = 30%. Their relative number of moles in the compound is 1.25 and 1.88, calculate:
- i. Atomic masses of the elements A and B
- ii. Molecular formula of the compound, if its molecular mass is found to be 160. (2)
20. a. Find out whether it is possible to reduce MgO using carbon at 298K. If not, at what temperature it becomes spontaneous? For reaction:  $MgO(s) + C(s) \rightarrow Mg(s) + CO(g)$   
 $\Delta_rH^0 = 91.18 \text{ kJmol}^{-1}$  and  $\Delta_rS^0 = 197.67 \text{ JK}^{-1} \text{ mol}^{-1}$
- b. Is the bond energy of all the four C-H bonds in  $CH_4$  molecule equal? If not then why? (2)
21. What is meant by limiting reagent? Zinc and hydrochloric acid react according to the reaction:  
 $Zn(s) + 2HCl(aq) \rightarrow ZnCl_2(aq) + H_2(g)$ . If 0.30 mol Zn are added to hydrochloric acid containing 0.52 mol of HCl, How many moles of  $H_2$  are produced? (2)

## SECTION C

This section contains 7 questions with internal choice in one question. The following questions are short answer type and carry 3 marks each.

22. a. Name each of the following species and indicate which member of each pair is more stable giving reason for your choice:



- b. Why does  $SO_3$  act as an electrophile? (3)

OR

- a. Write complete structural formula and IUPAC name for the following compound:  
 $HOCH_2CH_2CH_2CH(CH_3)CH(CH_3)COOH$

- b. Electromeric Effect is temporary effect whereas Inductive effect is permanent. Explain. (3)
23. a.  $\text{HNO}_3$  acts as oxidizing agent while  $\text{HNO}_2$  can act both as reducing and oxidizing agent. Why?
- b. Permanganate ion ( $\text{MnO}_4^-$ ) reacts with sulphur dioxide gas in acidic medium to produce  $\text{Mn}^{2+}$  ion and hydrogen sulphate ion. Write ionic equation and balance it. (3)
24. a. Define spontaneous process.
- b. Derive the expression for isothermal irreversible work done and represent it graphically. (3)
25. Answer the following : (3)
- $n + l$  value for 14<sup>th</sup> electron in an atom.
  - Increasing order of filling electron in 4f, 5p and 6d subshells.
  - 'm' and 'l' value for last electron of Mg atom.
  - Subshell in which last electron is present in Ga.
  - Sum of spin of all the electron in element having atomic number 14.
  - An atomic orbital not possible.
26. State Heisenbergs uncertainty principle. Give its significance. Calculate the uncertainty in the position of a dust particle with mass equal to 1 mg if the uncertainty in its velocity is  $5.5 \times 10^{-20} \text{ms}^{-1}$ . (3)
27. a. Out of  $\text{NH}_3$  and  $\text{NF}_3$  which is more polar. Explain with the help of dipole moment?
- b. o-Nitrophenol is steam volatile while p-Nitrophenol is not. Give reason.
- c. Giving one example of each write what is the shape of the molecule of type : i.  $\text{AB}_3\text{E}_1$   
ii.  $\text{AB}_3\text{E}_2$  (3)
28. Explain the following :
- Trans-but-2-ene has higher melting point than cis-isomer.
  - More substituted alkene is more stable.
  - C-C bond length in benzene ring is 139 pm which is in between C-C single bond (154 pm) and C=C double bond (133 pm).

## SECTION D

The following questions are case-based questions. Each question carries 4 (1+1+2) marks. Read the passage carefully and answer the questions that follow.

29. The existing large number of organic compounds and their ever-increasing numbers has made it necessary to classify them on the basis of their structures. Organic compounds are broadly classified as open-chain compounds which are also called aliphatic compounds. Aliphatic compounds further classified as homocyclic and heterocyclic compounds. Aromatic compounds are special types of compounds. Alicyclic compounds, aromatic compounds may also have heteroatom in the ring. Such compounds are called heterocyclic aromatic compounds. Organic compounds can also be classified on the basis of functional groups, into families or homologous series. The members of a homologous series can be represented by general molecular formula and the successive members differ from each other in molecular formula by a  $-CH_2$  unit

**Answer the following questions:**

a. Which of the following has all the effects namely Inductive, Mesomeric and hyperconjugation ? (1)

- i.  $CH_3Cl$       ii.  $CH_3CH=CHCOCH_2Cl$       iii.  $CH_3CH=CH_2$       iv.  $CH_2=CH-CH=CH_2$

b. No bond resonance is also known as ? (1)

- i. Hyperconjugation      ii. Inductive effect      iii. Electromeric effect      iv. Resonance

**OR**

b. Which of the following is not responsible for existence of large number of organic compounds? (1)

- i. catenation      ii. Tetravalency      iii. Isomerism      iv. allotropy

c. What are non benzenoid organic compounds ? Give one example. (2)

30. The molecular orbital theory is based on the principle of a linear combination of atomic orbitals. According to this approach when atomic orbitals of the atoms come closer, they undergo constructive interference as well as destructive interference giving molecular orbitals, i.e. two atomic orbitals overlap to form two molecular orbitals. Each molecular orbital can hold one or two electrons in accordance with Pauli's exclusion principle and Hund's rule of maximum multiplicity.

**Answer the following questions:**



- a. State any one point of difference between bonding molecular orbital and antibonding molecular orbital. (1)
- b. O<sub>2</sub> molecule is : (1)
- i. always paramagnetic  
ii. always diamagnetic  
iii. sometimes paramagnetic  
iv. sometimes diamagnetic
- c. H<sub>2</sub><sup>+</sup> and H<sub>2</sub><sup>-</sup> have same bond order. Which is more stable and why? (2)

OR

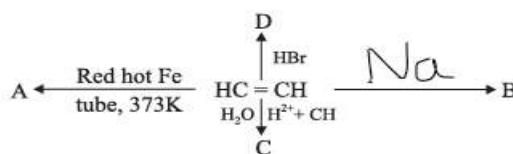
- c. He<sub>2</sub> molecule does not exist. Explain on the basis of Molecular Orbital Theory. (2)

## SECTION E

The following questions are long answer type and carry 5 marks each. All questions have an internal choice.

31. a. An alkene C<sub>4</sub>H<sub>8</sub> reacts with HBr both in the presence and absence of peroxide to give the same product. Identify the alkene. Write the mechanism of the reaction when propene reacts with HBr in the presence of peroxide.

- b. Identify A, B, C and D :



- c. Write the structure of products formed on ozonolysis of 3-Methylpent-2-ene. (5)

OR

- a. Convert : i. 2- Bromopropane to 1-Bromopropane ii. Benzene to m-nitrochlorobenzene
- b. An organic compound 'A' with formula C<sub>4</sub>H<sub>9</sub>Br on treatment with KOH(alc.) gave two isomeric compounds 'B' and 'C' with formula C<sub>4</sub>H<sub>8</sub>. Ozonolysis of 'B' gave only one product CH<sub>3</sub>CHO while 'C' gave two different products. Identify A, B and C.
- c. What effect does branching have on the boiling point of an alkane and why? (5)
32. a. The first (IE<sub>1</sub>) and the second (IE<sub>2</sub>) ionisation enthalpies (kJ mol<sup>-1</sup>) of three elements are given below:

	I	II	III
IE <sub>1</sub>	403	549	1142
IE <sub>2</sub>	2640	1060	2080

Identify the element giving reason which is likely to be :-

- i. non metal      ii. an alkali metal      iii. an alkaline earth metal

- b. The increasing order of reactivity among group I elements is  $\text{Li} < \text{Na} < \text{K} < \text{Rb} < \text{Cs}$  whereas that of group 17 elements is  $\text{F} > \text{Cl} > \text{Br} > \text{I}$ . Explain. (5)

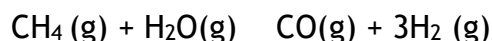
OR

- a. An element has outer shell electronic configuration  $4s^2 4p^3$ . Find:-

- The atomic number of element placed next below it.
- Atomic number of next noble gas.
- Write any two properties of the element.

- b. Oxygen has first electron gain enthalpy exothermic while second endothermic still a large number of ionic oxides are formed. Why? (5)

33. a. Dihydrogen gas is obtained from natural gas by partial oxidation with steam as per the following endothermic reaction:



How will the value of  $K_p$  be affected by i. increasing the pressure ii. using a catalyst, increasing the concentration of methane.


- b. The values of  $K_{sp}$  of two sparingly soluble salts  $\text{Ni}(\text{OH})_2$  and  $\text{AgCN}$  are  $2.0 \times 10^{-15}$  and  $6 \times 10^{-17}$  respectively. Which salt is more soluble? Explain.
- c. Why can pure solids and liquids be ignored while writing the equilibrium constant expression? (5)

OR

- a. All Lewis bases are also Bronsted bases but all Bronsted acids are not Lewis acids. Explain.
- b. The ionization constant of phenol is  $1 \times 10^{-10}$ . Calculate the degree of ionization of the acid in its 0.05M solution. Also what is the concentration of phenolate ions in the solution.
- c. The following system is in equilibrium:  $2 \text{NO}_2(\text{g}) \rightleftharpoons \text{N}_2\text{O}_4(\text{g})$   
(Brown)                      (Colourless)

What change will you observe when the test tube containing the above system is placed in a beaker with water at 373 K. Give reason for your answer. (5)

<b>CLASS XI</b> <b>BUSINESS STUDIES (054)</b> <b>SAMPLE QUESTION PAPER (2024-25)</b>		
<b>MM – 80</b>	<b>TIME: 3 HOURS</b>	
	<p><b>General instructions :</b></p> <ol style="list-style-type: none"> <li><b>1. This question paper contains 34 questions.</b></li> <li><b>2. Marks are indicated against each question.</b></li> <li><b>3. Answers should be brief and to the point.</b></li> <li><b>4. Answers to the questions carrying 3 marks may be from 50 to 75 words.</b></li> <li><b>5. Answers to the questions carrying 4 marks may be about 150 words.</b></li> <li><b>6. Answers to the questions carrying 6 marks may be about 200 words.</b></li> <li><b>7. Attempt all parts of the question together.</b></li> </ol>	
1.	<p><b>Assertion (A):</b> Though WTO is a successor to GATT, it is much more powerful body than GATT.  <b>Reason (R):</b> It governs trade not only in goods but also in services and intellectual property rights (IPR).</p> <ol style="list-style-type: none"> <li>a) Both A &amp; R are true, But R is not the correct explanation of A.</li> <li>b) Both A &amp; R are false.</li> <li>c) A is true, but R is false.</li> <li>d) Both A &amp; R are true and R is the correct explanation of A.</li> </ol>	1
2.	<p>Select the type of hundi where the merchant on whom the hundi is drawn has to have certain level of creditworthiness in the market.</p> <ol style="list-style-type: none"> <li>a) Nam-jog Hundi</li> <li>b) Sahyog –Hundi</li> <li>c) Dhani- jog Hundi</li> <li>d) Furman- jog Hundi</li> </ol>	1
3.	<p>According to section 464 of _____ maximum number of partners in a partnership firm can be 100, But as per the Companies Rules 2014, the maximum of members in partnership can be _____.</p> <ol style="list-style-type: none"> <li>a) Companies Act 2013, 50</li> <li>b) Partnership Act 1932, 50</li> <li>c) Companies Act 2013, 200</li> <li>d) Partnership Act 1932, 200</li> </ol>	1

4.	<p>Infer the correct option from the following statements, that doesn't hold true about „Trade Credit“.</p> <p>a) It appears in the records of the buyer firm as 'accounts payable'</p> <p>b) It depends upon the financial strength of the seller</p> <p>c) Large amount of funds can be generated through trade credit</p> <p>d) It depends upon the reputation of the buyer</p>	1										
5.	<p>Identify the service highlighted in the picture.</p>  <p>a) Banking</p> <p>b) Communication</p> <p>c) Insurance</p> <p>d) Advertisement</p>	1										
6.	<p>Match the columns and choose the correct alternatives:</p> <table border="1"> <thead> <tr> <th>Column I</th> <th>Column II</th> </tr> </thead> <tbody> <tr> <td>A. Protects the scientific Inventions</td> <td>i. Copyright</td> </tr> <tr> <td>B. A right conferred upon the creators of a Cinematographer</td> <td>ii. Trademark</td> </tr> <tr> <td>C. Protection given to aesthetic appearance</td> <td>iii. Patent</td> </tr> <tr> <td>D. Helps in distinguishing similar products</td> <td>iv. Design</td> </tr> </tbody> </table> <p>a) A – iv, B – iii, C – i, D – ii</p> <p>b) A – ii, B – iv, C – i, D – iii</p> <p>c) A – iii, B – i, C – iv, D – ii</p> <p>d) A – iii, B – iv, C – ii, D – i</p>	Column I	Column II	A. Protects the scientific Inventions	i. Copyright	B. A right conferred upon the creators of a Cinematographer	ii. Trademark	C. Protection given to aesthetic appearance	iii. Patent	D. Helps in distinguishing similar products	iv. Design	1
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B. A right conferred upon the creators of a Cinematographer	ii. Trademark											
C. Protection given to aesthetic appearance	iii. Patent											
D. Helps in distinguishing similar products	iv. Design											
7.	<p>The funds required by „Meesho“ to advertise in the newspapers are an example of_____.</p> <p>a) Ploughing back of profits</p> <p>b) Trade credit</p> <p>c) Fixed capital requirements</p> <p>d) Working capital requirements</p>	1										

8.	<p>Malkeet Kaur has initiated a food chain specializing in different varieties of baked snacks in India with branches in Delhi, Ahmedabad and Indore. She managed the initial capital for starting the business by investing her personal savings and resources. Recognize the funding method used by Malkeet Kaur for her startup.</p> <p>(a) Venture capital  (b) Angel investment  (c) Crowd funding  (d) Bootstrapping</p>	1
9.	<p>The society aims to fight against the big capitalists and enhance the bargaining power of the small producers. Select the type of cooperative society highlighted in above case</p> <p>a) Consumers cooperative societies  b) Marketing cooperative societies  c) Producers cooperative societies  d) Farmers" cooperative societies</p>	1
10.	<p>_____ is an acknowledgment that a company has borrowed a certain amount of money which it promises to repay at a future date.</p> <p>a) Debenture  b) Public Deposits  c) Inter corporate deposits  d) Loan from Commercial Banks</p>	1
11.	<p>Name the segment in which Flipkart and Amazon belongs to.</p> <p>a) B2B Commerce  b) B2C Commerce  c) C2C Commerce  d) Intra-B Commerce</p>	1
12.	<p>The capital of the company is divided into number of parts each of which is called _____.</p> <p>a) Dividend  b) Profit  c) Interest  d) Share</p>	1
13.	<p>Indicate the type of trade which aims at equitable distribution of goods within a nation, speedily and at a reasonable cost.</p> <p>a) Internal trade  b) Wholesale trade  c) Retail trade  d) External trade</p>	1

14	<p>Select the correct option that doesn't fall within the scope of geographical indication.</p> <ul style="list-style-type: none"> <li>a) Handicrafts</li> <li>b) Food stuff</li> <li>c) Agricultural Products</li> <li>d) Bottles</li> </ul>	1
15	<p>From the following statements, choose the correct option referring to example of insurable interest.</p> <ul style="list-style-type: none"> <li>(1) Trustee holding the property on the behalf of others.</li> <li>(2) A company insuring the life of brand ambassador.</li> <li>(3) Father taking insurance policy on the life of his son.</li> <li>(4) Ms. Harshita taking insurance policy in the name of her friend.</li> </ul> <ul style="list-style-type: none"> <li>a) 1, 2, 3 are correct but 4 is incorrect.</li> <li>b) 1 and 2 are incorrect but 3 and 4 are correct.</li> <li>c) 1 is incorrect but 2, 3 and 4 are correct.</li> <li>d) 1, 4 are correct and 3, 2 are incorrect.</li> </ul>	1
16	<p>Memorize the service offered by the retailer which helps them to manage their business with relatively small amount of working capital.</p> <ul style="list-style-type: none"> <li>a) Availability of goods.</li> <li>b) Grant of credit</li> <li>c) Specialized knowledge</li> <li>d) Sharing of risk</li> </ul>	1
17	<p>Identify the product that people are most likely to be uncomfortable buying on the Internet.</p> <ul style="list-style-type: none"> <li>a) Books</li> <li>b) Movies</li> <li>c) Furniture</li> <li>d) Medicines</li> </ul>	1
18	<p>Read the following statements carefully and choose the correct alternative:</p> <p><b>Statement I:</b> Bill of Lading is also a document of title to the goods and as such is freely transferable by the endorsement and delivery.</p> <p><b>Statement II:</b> Like a Bill of Lading, an Airway Bill is a document wherein an airline company gives its official receipt of the goods on board its aircraft and at the same time gives an undertaking to carry them to the port of destination.</p> <ul style="list-style-type: none"> <li>a) Both the statements are true.</li> <li>b) Both the statements are false.</li> <li>c) Statement I is true, Statement II is false.</li> <li>d) Statement II is true, Statement I is false.</li> </ul>	1

19	<p>It simply earns an income by investing in shares, bonds, bills, or notes in a foreign country or providing loans to foreign business firms</p> <p>a) Foreign investment b) Portfolio investment c) Foreign Direct Investment d) Cross licensing</p>	1
20	<p>_____type of GST is payable on all interstate supply of goods and services.</p> <p>a) IGST b) FGST c) CGST d) DSGST</p>	1
21.	<p>(A) The Department of Posts (DoP), trading as India Post, is a government-operated postal system in India, which is part of the Ministry of Communications under Government of India. It was formed on 1st October 1854.</p> <p>a) Identify the type of public sector enterprise which has been described above b) Describe any two features of this form of organisation other than the one which have been mentioned in the given paragraph.</p> <p style="text-align: center;">OR</p> <p>(B) NTPC is carrying on various projects of energy and power. Majority of its shares are held by the government of India. It was registered under the previous Companies Act. It enjoys all the characteristics of a company. The boards of directors are appointed by the government. The Board and shareholders are responsible for the efficient working of the company. The company prepares its annual report and submits to the appropriate authorities.</p> <p>a) Name the type of public sector enterprise referred to in the above para. b) State any two features of the type of public sector enterprise identified in part (a).</p>	3
22.	<p>(A) Differentiate between Life , Fire and Marine Insurance on any three basis</p> <p style="text-align: center;">OR</p> <p>(B) Categories any three types of telecom services</p>	3
23.	<p>Hari tells Mohan in the presence of Keshav that Keshav is the partner in the firm of Hari Enterprises. Keshav shows no objection to the statement of Hari. Mohan gives a loan of ₹ 50,000 to Hari Enterprises under the impression that Keshav is a partner in the firm. Later on, Hari enterprise was unable to repay the loan to Mohan. Therefore, Mohan filed a suit against Keshav to repay the loan. In return Keshav refused to repay the loan on the ground that he is not a partner in Hari Enterprises. But court took decision in the favour of Mohan as Keshav knowingly allowed himself to be represented as a partner in the firm.</p> <p>a) Identify and explain the type of partner being highlighted in the above case. b) Mention the way-out through which Keshav can get away from the claim of Mohan.</p>	3

24.	<p>Healtho Ltd.' is a popular health management company offering a wide range of healthcare products to the customers. Two years back, the company started a series of online fitness classes and this segment of business has been a big hit right from its inception. It has helped the company to make huge profits. By taking into consideration, the requests from many of its regular clients, the company has now decided to start fitness centres at five strategic locations within the country. The management of the company has decided to use the portion of their undistributed earnings to finance the new business venture.</p> <p>Identify and explain any two merits and one limitation of the source of business finance that the company intends to use for financing its expansion plans.</p>	3
25.	<p>Three friends Arun, Tarun and Varun are engaged in different types of activities to earn their livelihood. Arun describes his occupation by saying that, transfer of interest is not possible in case of my occupation and at the same time it does not require any capital investment." Tarun remarks," in my occupation also transfer of interest is not possible, but one needs to possess high degree of specialized knowledge in a particular field." Varun shares that, in his occupation transfer of interest is possible with some formalities and also capital investment is essential. In context of the above case:</p> <p>(a) Identify the different types of economic activities in which Tarun and Varun are involved.</p> <p>(b) Give any three points of difference that have not been mentioned in the above para between the activities in which Tarun and Varun are involved.</p>	4
26.	<p>(A) Explain the meaning and three advantages of „Mail Order House“.</p> <p style="text-align: center;">OR</p> <p>(B) Explain the meaning and three limitations of „Chain Stores“</p>	4
27.	<p>Latha has decided to persue a Startup Venture to offer organic pet food. She has already done a self-introspection to be assured of her potential in the concerned field. Furthermore, she has conducted an online research with participation of pet owners, regarding the extent to which the need for availability of organic pet food is unsatisfied.</p> <p>a) Identify the concept through which Latha decided to persue its set up.</p> <p>b) State the three features of the concept identified.</p>	4
28.	<p>Identify the following documents of external trade:</p> <p>a) This receipt is given by the commanding officer of the ship to the exporter after the cargo of loaded on the ship.</p> <p>b) A statement of the no. of cases/packs and the details of the goods contained in these packs.</p> <p>c) It is a written instrument whereby the person issuing the instrument directs the other party to pay a specified amount to a certain person / the bearer of the instrument.</p> <p>d) It is also known as a vehicle / gate pass.</p>	4



29.	The conduct of industry, trade and commerce using the computer networks is gaining popularity now days. Identify the concept highlighted in the given statement and also state its three benefits.	4
30.	(A) The businessmen are responsible for aggravating pollution, so it becomes the moral duty of businessmen to take some positive steps for controlling this problem." In the light of this statement, explain the role of businessmen in environmental protection.  OR (B) Business assumes various responsibilities towards different interested groups. Explain such responsibilities towards government and consumers.	4
31.	(A) Radhika Ltd. has good growth prospects. So it is planning to expand its business. For this the company needs additional funds. The finance manager reports that the company"s assets are free to be mortgaged for the purpose of borrowings. However, the existing owners have to dilute their voting powers.  a) Suggest and explain the source of finance most suitable for Radhika Ltd. b) Explain the advantages of the source of finance identified above.  OR (B) Mayur is running a business enterprise needs financial, technical and managerial services for the smooth functioning of his business enterprise. He went to an institution that provides medium and long term finance also aims at promoting industrial development of the country and conduct market services for his convenience.  a) Recognize the appropriate source of finance discussed in above. b) Write five merits of the source identified in part (a)	6
32.	(A) Mohit started buying goods from Germany. He collected information about export price and terms of export. He got registered with the DGFT & obtained an IEC number. Discuss the next four steps he needs to undertake before buying goods from Germany.  OR (B) "The Government has passed export quality control and inspection act 1963 for compulsory inspection of certain products by a competent agency as designated by the government for exporting goods". Enumerate the four steps that immediately precedes the step mentioned in above statement	6
33.	Master Ltd., a foreign company, started its business in an under-developed country. The size of the business is quite large. The company has plenty of resources. It employs thousands of people in the under-developed country. The raw materials used by the company are readily available here. However, since there was not demand for these raw materials here, the producers were unable to get the best price for it. Due to this reason, the producers were discouraged. Some local businessmen used to act arbitrarily earlier, but now they have corrected themselves. The reason for their becoming better is competition with the foreign company. Now their arbitrary approach has ended	6

	<p>altogether. Master Ltd. is using completely the latest technology in its various business activities. As a result, the local people also have got the opportunity to learn the new technology. Because of using the modern technology and doing production at a large scale, the company's cost of production is very low. Because of its huge size and status, the company occupied a dominant position in the market and took over some domestic firms.</p> <p>a) Identify and explain the type of business enterprise is referred to in the above para</p> <p>b) Also explain any three features of the enterprise identified in (a) by quoting the lines from the above para.</p>	
34.	<p>Axis Ltd. made an application for registration to the registrar of the company on 3<sup>rd</sup> March 2024, with an objective of manufacturing jute bags to sell it with in the country. The registrar issued the document on 8<sup>th</sup> of March, mentioning the date of 5<sup>th</sup> March on it. Later on it was discovered that company had already entered into a contract with Alia Ltd. On 4<sup>th</sup> March, which it couldn't complete and Alia Ltd. filed a suit against the company and also questioned on the existence of Axis Ltd. But the court refused the claim of Alia Ltd.</p> <p>a) Mention the document of formation of company is highlighted here.</p> <p>b) Identify and explain the type of contract in which Axis Ltd. Has entered.</p> <p>c) Why the claim of Alia Ltd. was refused by the court of law. Explain by quoting lines from case.</p>	6

CLASS -XI  
BUSINESS STUDIES (054)  
Sample Paper (2024-25)

Maximum Marks: 80

Marking Scheme/Hints to solutions

[Note: Any other relevant answer, not given here under but given by the candidates, be suitably awarded.]

Q.No	Value points/ Key points	Marks allotted to each key point	Total marks
1.	d) Both A & R are true and R is the correct explanation of A.	1	(1)
2.	b) Sahyog -Hundi	1	(1)
3.	a) Companies Act, 2013, 50	1	(1)
4.	c) Large amount of funds can be generated through trade credit	1	(1)
5.	c) Insurance	1	(1)
6.	c) A - iii, B - i, C - iv, D - ii	1	(1)
7.	d) working capital requirements	1	(1)
8.	d) Bootstrapping	1	(1)
9.	c) Producers cooperative societies	1	(1)
10.	a) Debenture	1	(1)
11.	b) B2C Commerce	1	(1)
12.	d) Shares	1	(1)
13.	a) Internal trade	1	(1)
14.	d) Bottles	1	(1)
15.	a) 1, 2, 3 are correct but 4 is incorrect.	1	(1)
16.	b) Grant of credit	1	(1)
17.	c) Furniture	1	(1)
18.	a) Bothe the statements are true	1	(1)
19.	b) Portfolio Investment	1	(1)
20.	a) IGST	1	(1)
21.	a. Departmental Undertaking b. Features:-  The funding of these enterprises come directly from the Government Treasury and are an annual appropriation from the budget of the Government. The revenue earned by these is also paid into the treasury; (ii) They are subject to accounting and audit controls applicable to	1 mark for identification + 1 mark for each feature	(3)

	<p>other Government activities;</p> <p>(iii) The employees of the enterprise are Government servants and their recruitment and conditions of service are the same as that of other employees directly under the Government. They are headed by Indian Administrative Service (IAS) officers and civil servants who are transferable from one ministry to another;</p> <p>(iv) It is generally considered to be a major subdivision of the Government department and is subject to direct control of the ministry;</p> <p>(v) They are accountable to the ministry since their management is directly under the concerned ministry. ( Any Two)</p> <p style="text-align: center;">OR</p> <p>a. Government Company</p> <p>b. Features:-</p> <p>(i) It is an organisation created under the Companies Act, 2013 or any other previous Company Law.</p> <p>(ii) The company can file a suit in a court of law against any third party and be sued;</p> <p>(iii) The company can enter into a contract and can acquire property in its own name;</p> <p>(iv) The management of the company is regulated by the provisions of the Companies Act, like any other public limited company;</p> <p>(v) The employees of the company are appointed according to their own rules and regulations as contained in the Memorandum and Articles of Association of the company. The Memorandum and Articles of Association are the main documents of the company, containing the objects of the company and its rules and regulations; ( any other suitable point )</p>				1 mark for identification + 1 mark for each benefit	
22.	a)				1 mark for each difference	(3)
Basis	Life Insurance	Fire Insurance	Marine Insurance			
Subject Matter	The subject matter of insurance is human life.	The subject matter is any physical property or assets	The subject matter is a ship, cargo or freight.			
Element	Life Insurance has the elements of protection and investment or both.	Fire insurance has only the element of protection and not the element of	Marine insurance has only the element of protection			

			investment.			
	Insurable interest	Insurable interest must be present at the time of affecting the policy but need not be necessary at the time when the claim falls due.	Insurable interest on the subject matter must be present both at the time of effecting policy as well as when the claim falls due	Insurable interest must be present at the time when claim falls due or at the time of loss only.		
(ANY OTHER RELEVANT DIFFERENCE)						
OR						
<p><b>i) Cellular mobile services:</b> These are all types of mobile telecom services including voice and non-voice messages, data services and PCO services utilizing any type of network equipment within their service area. They can also provide direct inter connectivity with any other type of telecom service provider.</p> <p><b>(ii) Fixed line services:</b> These are all types of fixed services including voice and non-voice messages and data services to establish linkages for long distance traffic. These utilize any type of network equipment primarily connected through fiber optic cables laid across the length and breadth of the country. They also provide inter connectivity with other types of telecom services.</p> <p><b>(iii) Cable services:</b> These are linkages and switched services within a licensed area of operation to operate media services, which are essentially one-way entertainment related services. The two-way communication including voice, data and information services through cable network would emerge significantly in the future. Offering services through the cable network would be similar to providing fixed services ; ( any other suitable point )</p>					<p>½ mark for each heading + ½ mark for explanation</p>	
23.	<p>a) <b>Partner by holding out:</b> A partner by „holding out“ is a person who though is not a partner in a firm but knowingly allows him/her to be represented as a partner in a firm. Such a person becomes liable to outside creditors for repayment of any debts which have been extended to the firm on the basis of such representation.</p>				<p>1 mark for identification + 1 mark each for explanation</p>	
					(3)	

	b) In case he is not really a partner and wants to save himself from such a liability, he should immediately issue a denial, clarifying his position that he is not a partner in the firm. If he does not do so, he will be responsible to the third party for any such debts.														
24.	<p>Retained earnings as a source of funds has the following merits</p> <p>(i) Retained earnings is a permanent source of funds available to an organisation.</p> <p>(ii) It does not involve any explicit cost in the form of interest, dividend or floatation cost.</p> <p>Retained earnings as a source of funds has the following limitations:</p> <p>(i) Excessive Ploughing back may cause dissatisfaction amongst the shareholders as they would get lower dividends.</p> <p>( any other suitable point )</p>	1 mark for each explanation	(3)												
25.	<p>a) Varun – Business, Tarun- Profession</p> <p>b) The difference between business and profession is as follow:</p> <table border="1"> <thead> <tr> <th>Basis</th> <th>Business</th> <th>Profession</th> </tr> </thead> <tbody> <tr> <td>Mode of establishment</td> <td>Entrepreneur's decision and other legal formalities, if necessary</td> <td>Membership of a professional body and certificate of practice</td> </tr> <tr> <td>Nature of work</td> <td>Provision of goods and services to the public</td> <td>Rendering of personalized, expert services</td> </tr> <tr> <td>Return</td> <td>Profit earned</td> <td>Professional fee</td> </tr> </tbody> </table> <p>(ANY OTHER RELEVANT DIFFERENCE)</p>	Basis	Business	Profession	Mode of establishment	Entrepreneur's decision and other legal formalities, if necessary	Membership of a professional body and certificate of practice	Nature of work	Provision of goods and services to the public	Rendering of personalized, expert services	Return	Profit earned	Professional fee	<p>½ mark for each identification</p> <p>1 mark for each difference</p>	(4)
Basis	Business	Profession													
Mode of establishment	Entrepreneur's decision and other legal formalities, if necessary	Membership of a professional body and certificate of practice													
Nature of work	Provision of goods and services to the public	Rendering of personalized, expert services													
Return	Profit earned	Professional fee													



27.	<p>a) Entrepreneurship is the process of setting up one's own business as distinct from pursuing any other economic activity, be it employment or practicing some profession.</p> <p>b) The following are the characteristics of entrepreneurship:</p> <p><b>(i) Systematic Activity:</b> Entrepreneurship is not a mysterious gift or charm and something that happens by chance! It is a systematic, step-by-step and purposeful activity. It has certain temperamental, skill and other knowledge and competency requirements that can be acquired, learnt and developed, both by formal educational and vocational training as well as by observation and work experience. Such an understanding of the process of entrepreneurship is crucial for dispelling the myth that entrepreneurs are born rather than made.</p> <p><b>(ii) Lawful and Purposeful Activity:</b> The object of entrepreneurship is lawful business. It is important to take note of this as one may try to legitimize unlawful actions as entrepreneurship on the grounds that just as entrepreneurship entails risk, so does illicit businesses. Purpose of entrepreneurship is creation of value for personal profit and social gain.</p> <p><b>(iii) Innovation:</b> From the point of view of the firm, innovation may be cost saving or revenue-enhancing. If it does both it is more than welcome. Even if it does none, it is still welcome as innovation must become a habit!</p> <p>Entrepreneurship is creative in the sense that it involves creation of value. By combining the various factors of production, entrepreneurs produce goods and services that meet the needs and wants of the society. Every entrepreneurial act results in income and wealth generation. Entrepreneurship is creative also in the sense that it involves innovation-introduction of new products, discovery of new markets and sources of supply of inputs, technological breakthroughs as well as introduction of newer organisational forms for doing things better, cheaper, faster and, in the present context, in a manner that causes the least harm to the ecology/ environment.</p>	1 mark for identification + 1 mark for each feature.	(4)
28.	<p>a) Mate receipt  b) Packaging list  c) Bill of exchange  d) Cart Ticket</p>	1 mark for each point	(4)
29.	<p>E- Business  Benefits:  i) Ease of formation and lower investment requirements  (ii) Convenience  (iii) Speed  (iv) Global reach/access  (v) Movement towards a paperless society (any three)</p>	1 mark for identification ½ mark for each heading and ½ mark for explanation	(4)



30.	<p>(i) A definite commitment by top management of the enterprise to create, maintain and develop work culture for environmental protection and pollution prevention.</p> <p>(ii) Ensuring that commitment to environmental protection is shared throughout the enterprise by all divisions and employees.</p> <p>(iii) Developing clear-cut policies and programmes for purchasing good quality raw materials, employing superior technology, using scientific techniques of disposal and treatment of wastes and developing employee skills for the purpose of pollution control.</p> <p>(iv) Complying with the laws and regulations enacted by the Government for prevention of pollution.</p> <p style="text-align: center;">OR</p> <p><b>Responsibility towards the government:</b> An enterprise must respect the laws of the country and pay taxes regularly and honestly. It must behave as a good citizen and act according to the well accepted values of the society.</p> <p><b>Responsibility towards the consumers:</b> Supply of right quality and quantity of goods and services to consumers at reasonable prices constitutes the responsibility of an enterprise toward its customers. The enterprise must take proper precaution against adulteration, poor quality, lack of desired service and courtesy to customers, misleading and dishonest advertising, and so on.</p>	<p>1 mark for each point</p> <p>2 marks for each point</p>	(4)
31.	<p>a) Equity Shares Equity shares are the most important source of raising long term capital by a company. Equity shares represent the ownership of a company and thus the capital raised by issue of such shares is known as ownership capital or owner"s funds.</p> <p>b)The important merits of raising funds through issuing equity shares are given as below:</p> <p>(i) Equity shares are suitable for investors who are willing to assume risk for higher returns;</p> <p>(ii) Payment of dividend to the equity shareholders is not compulsory. Therefore, there is no burden on the company in this respect;</p> <p>(iii) Equity capital serves as permanent capital as it is to be repaid only at the time of liquidation of a company. As it stands last in the list of claims, it provides a cushion for creditors, in the event of winding up of a company;</p> <p>(iv) Equity capital provides credit worthiness to the company and confidence to prospective loan providers;</p> <p>(v) Funds can be raised through equity issue without creating any charge on the assets of the company. The assets of a company</p>	<p>½ mark for identification ½ mark for meaning +1 mark for each merit.</p>	(6)

	are, therefore, free to be mortgaged for the purpose of borrowings, if the need be;		
32.	<p>1. Obtaining foreign exchange  2.Placing order or indent  3.Obtaining letter of credit  4.Arranging for finance (with suitable explanation)</p> <p style="text-align: center;">OR</p> <p>1. Production or procurement of goods  2. obtaining pre shipment finance  3. Obtaining export license  4. Assessing the importer"s creditworthiness and securing a guarantee for payments  (with suitable explanation)</p>	<p>½ mark for heading + 1½ mark for each explanation</p> <p>½ mark each heading and 1½ mark for explanation</p>	(6)
33.	<p>a) Global enterprise/ Multinational corporation/ transnational corporations</p> <p>b)  1. Huge capital resources: <i>"The company has plenty of resources."</i></p> <p>2. Advanced technology: <i>"Master Ltd. is using completely the latest technology in its various business activities"</i></p> <p>3. Expansion of market territory: <i>"the company occupied a dominant position in the market and took over some domestic firms"</i></p>	<p>½ mark for identification + 1 mark for explanation + ½ mark each for quoting the line + ½ mark for heading + ½ mark for each explanation</p>	(6)
34.	<p>a) Certificate of incorporation</p> <p>b) Preliminary Contracts:  During the promotion of the company, promoters enter into certain contracts with third parties on behalf of the company. These are called preliminary contracts or pre-incorporation contracts. These are not legally binding on the company.</p> <p>c) The Certificate of Incorporation is a conclusive evidence of the regularity of the incorporation of a company. The Certificate of Incorporation once issued, is a conclusive evidence of the existence of the company. Even when a company gets registered</p>	<p>1mark for Identification</p> <p>+ 1 mark of identification +1mark for each explanation+ 2 marks for explanation+ 1 mark for quoting lines</p>	(6)

	<p>with illegal objects, the birth of the company cannot be questioned. The only remedy available is to wind it up. Because the Certificate of Incorporation is so crucial, the Registrar has to go very carefully before issuing it.</p> <p><i>“The registrar issued the document on 8<sup>th</sup> of March, mentioning the date of 5<sup>th</sup> March on it”.</i></p>		
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**BAL BHARATI PUBLIC SCHOOL, DWARKA**  
**ANNUAL EXAM SAMPLE PAPER (2024-25)**  
**CLASS XI**  
**SUBJECT: COMPUTER SC**

**TIME: 3 HOURS**

**MM: 70**

**General Instructions:**

- This question paper contains 37 questions.
- All questions are compulsory. However, internal choices have been provided in some questions. Attempt only one of the choices in such questions
- The paper is divided into 5 Sections- A, B, C, D and E.
- Section A consists of 21 questions (1 to 21). Each question carries 1 Mark.
- Section B consists of 7 questions (22 to 28). Each question carries 2 Marks.
- Section C consists of 3 questions (29 to 31). Each question carries 3 Marks.
- Section D consists of 4 questions (32 to 35). Each question carries 4 Marks.
- Section E consists of 2 questions (36 to 37). Each question carries 5 Marks.
- All programming questions are to be answered using Python Language only.
- In case of MCQ, text of the correct answer should also be written

<b>SECTION A</b>		<b>18 Marks</b>
<b>1</b>	Which of the following is the common measurement of unit of computer memory? a) IQ b) Byte c) Terabyte d) Gigabyte	<b>1</b>
<b>2</b>	_____ performs all the four arithmetic (+ - * /) and some logical (> < = !=) operations.	<b>1</b>
<b>3</b>	Match the base of the following number systems  Octal            10 Binary         16 Hexadecimal   2 Decimal        8	<b>1</b>
<b>4</b>	Find the output of the following 5*1**3 20//3 20/3 a) 125    6.6        6 b) 25    6            6.6 c) 5    6            6.6 d) 5    6.6         6	<b>1</b>
<b>5</b>	Which of the following is invalid identifier(s)? You Can select more than one. a) My_sal b) break c) sal.123 d) _ds	<b>1</b>

6	<p>Unauthorised monitoring of other people's communications is called _____</p> <p>a) Phishing b) Eavesdropping c) Adware d) Spyware</p>	1
7	<p>The hexadecimal digits are 1 to 0 and A to ____</p> <p>a) E    b) F    c) G    d) D</p>	1
8	<p>What will be the output of the following code?</p> <pre>t1=(15,11,17,16,12) t1.pop(2) print(t1)</pre> <p>a) (15,11,16,12) b) (15,17,16,12) c) (15,11,17,16,12) d) Error</p>	1
9	<pre>str1="mission2025" str2="2025" print(str1.isdigit(), str2.isdigit())</pre>	1
10	<p>Methods used for interpretation of computer media for digital evidence, are collectively known as _____</p> <p>a) Digital Investigation b) Digital clearing c) E-forensics d) Digital forensics</p>	1
11	<p><b>Find the output of the following code</b></p> <pre>lst1 = [10, 15, 20, 25, 30] lst1.insert(1, 2) lst1.insert(2, 4) print (lst1[-5])</pre> <p>a) 15 b) 1 c) 2 d) 4</p>	1
12	<p>Which of the following function can not be used in a tuple?</p> <p>a) append()    (b) index()    c) sum()    d) max()</p>	1
13	<p><b>Find the output</b></p> <pre>d1={1:1, 1:2, 3:3}</pre> <p>a) {1: 2, 3: 3} b) Error, duplicate keys are not allowed c) {1:1, 1:2, 3:3} d) {1: 1, 3: 3}</p>	1
14	<p><b>Find the output</b></p> <pre>print("I", "am", "in", "class", "XI", sep="-", end="@")</pre> <p>a) I-am-in-class-XI-@ b) I-am-in-class-XI@ c) I@am@in@class@XI- d) I-am-in-class-XI</p>	1

15	What will the following expression be evaluated to in python? <pre>print(15.0/4+(8+3.0))</pre> (a) 14.75                      b) 14.0                      c) 15                      d) 15.5	1
16	The rights of the owner of information to decide how much information is to be shared/exchanged/distributed, are collectively known as _____ a) Intelligent Property Right b) Intellectual Property Right c) Interactive Property Right d) Instance Property Right	1
17	<b>Which of the following is not a cyber crime?</b> a) Data theft                      b) Forgery c) Damage to data and systems d) Installing antivirus for protection	1
18	What is the value of x when this loop has been terminated? <pre>x=45 while x&gt;0:     sum=sum+x     x=x-10 print(x)</pre> (a) 25                      (b) 45                      (c) 5                      (d) -5	1
19	<b>Write the import statement for the following</b> a) To find the square root. b) To find the mean, median.	
	<b>Q.20 and 21 are ASSERTION and REASONING based questions.</b> <b>Mark the correct choice as:</b> a. Both A and R are True and R is the correct explanation for A b. Both A and R are True and R is not the correct explanation for A c. A is True but R is False d. A is False but R is True	
20	<b>Assertion A:-</b> A variable in python represents named location that refers to a value and whose values can be used and processed during program run. <b>Reasoning R:-</b> In python, a variable is created when you write the print().	
21	<b>Assertion A:-</b> The keys of a dictionary must be immutable types such as numbers or strings. <b>Reasoning:-</b> A tuple can also be a key provided it contains immutable elements.	
	<b>SECTION B ( 7 x 2=14 Marks)</b>	
22	Write the difference between application software and system software. Give an example of each. OR Write the difference between RAM and ROM.	1+1
23	State the following laws a) Absorption Law                      b) Distributive Law	2

24	Match the following <table border="1"> <thead> <tr> <th>COLUMN A</th> <th>COLUMN B</th> </tr> </thead> <tbody> <tr> <td>1. IT ACT 2000</td> <td>A. Established grievance redressal mechanisms</td> </tr> <tr> <td>2. IT ACT 2008</td> <td>B. User education about the privacy policies</td> </tr> <tr> <td>3. IT ACT 2021</td> <td>C. Defined cybercrimes for the first time</td> </tr> <tr> <td></td> <td>D. Introduction of data protection rules</td> </tr> </tbody> </table>	COLUMN A	COLUMN B	1. IT ACT 2000	A. Established grievance redressal mechanisms	2. IT ACT 2008	B. User education about the privacy policies	3. IT ACT 2021	C. Defined cybercrimes for the first time		D. Introduction of data protection rules	2
COLUMN A	COLUMN B											
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3. IT ACT 2021	C. Defined cybercrimes for the first time											
	D. Introduction of data protection rules											
25	Name any two best practices that you will ensure for the confidentiality of information. OR What do you understand by plagiarism? Why it is a punishable offence?	2										
26	<b>Find the output of the following code</b> <pre> D={1: "one", 2: "two", 3: "Three",10:"Ten"} L=[ ] for K,V in D.items( ):     if V[0]== "T":         L.append(K) print (L) </pre>	2										
27	<b>Convert the following</b> a) $108_{10}$ to _____ $_{16}$ b) $ABC_{16}$ to _____ $_{8}$ c) $517_8$ to _____ $_{10}$ d) $11011_2$ to _____ $_{8}$ e) $45_{10}$ to _____ $_{2}$	2										
28	Find the possible output from the following. Also find the maximum and minimum value that rnum variable will generate.  <pre> import random str1="computer\$C" rnum=random.randint(1,10) for i in range(0,rnum,3):     print(str1[i], end="\$") </pre> a) c\$    b) c\$P\$e\$    c) c\$m\$t\$    d) c\$P\$e\$C\$	2										
<b>SECTION C ( 3 x 3 = 9 Marks)</b>												
29	1) What is the difference between proprietary software and open-source software? 2) Explain any two gender issues while teaching and using computer. 3) Define the term Plagiarism.  OR  <b>Define the following cyber crime.</b> <b>a) Cyber Trolling    b) Ransomware    c) Cyber Bullying</b>	3										
30	a) Write a program to input a variable size from the user and input tuple of size elements from the user. Find the sum of all values, maximum value and smallest value from the tuple.  b) Input a number n and count how many times that number is appearing in the tuple.	[2]  [1]										
31	Write a program to display the words starting with “H” or “h” in a string entered by the user. Example: str1=“THE ALPS HEALS WITHOUT hurting” the output will be displayed as: “HEALS” “hurting”	3										

<b>SECTION D ( 4 x 4 = 16 Marks)</b>		
<b>32</b>	<p>a) Rashmi has joined a new school. She does not know many people in her new school. But all of a sudden, someone started posting negative and demeaning comments on her social media handles, school forum etc. She is also getting repeated emails from unknown people.</p> <p>1) Which problem is faced by Rashmi? 2) What action should be taken to stop them?</p> <p>b) Raghav wanted to gift his brother a football or a wrist watch. So he searched for many sports items and wrist watches online. But after that every time he goes online, his web browser shows him advertisements about sports items and wrist watches.</p> <p>(1) Why is this happening? (2) How could have Raghav avoided them?</p>	<b>1x4=4</b>
<b>33</b>	<p><b>a) Find the output</b>  <b>LS = [ "HIMALAYA", "NILGIRI", "ALASKA", "ALPS"]</b>  <b>D = {}</b>  <b>for S in LS :</b>              <b>if len(S)%4 == 0:</b>                  <b>D[S] = len(S)</b>  <b>for K in D:</b>              <b>print(K, D[K], sep = "#")</b></p> <p><b>b) Write the difference between the following functions? Also write the suitable python code for the same.</b>              (i) split() and partition()                      (ii) append() and extend()</p>	<b>[2]</b>          <b>[1+1]</b>
<b>34</b>	<p>a) Write the python statement for each of the following tasks using built in functions/methods only.</p> <p>(i) To display the number of occurrences of the substring "is" in stri message. For example, if the string message contains "This is his book", then will be 3. (ii) To count the occurrence of number 20 in the list [10,20,20,50,20]</p> <p>b) Find the output  <b>l=[2,6,9,10]</b>  <b>print(l)</b>  <b>for i in range(len(l)):</b>              <b>if l[i]%2==0:</b>                  <b>l[i]=l[i]*2</b>              <b>if l[i]%3==0:</b>                  <b>l[i]=l[i]*3</b>              <b>else:</b>                  <b>l[i]=l[i]*5</b>  <b>print(l)</b></p>	<b>[1+1]</b>          <b>[2]</b>
<b>35</b>	<p>Given the dictionary Yearly_Avg_sale in which year is the key and average_sale made by the salesman is the value.          Yearly_Avg_sale={1995 : 10000, 2000 : 11000 , 2010 : 20000, 2020 : 4000}</p> <p><b>Write the python statements to do the following tasks:</b></p> <p>i) Make a list of years and extract those years in which sale made is greater than 10000 e.g. the output list will be List=[2000, 2010]          ii) To replace the sale made in year 2020 as 30000 in the original dictionary          iii) To remove the last added value from the dictionary</p>	<b>[1x4=4]</b>



	iv) Find the sum of the average_sale(All the values of dictionary). The output value should be $(10000+11000+20000+40000)= 81000$	
<b>SECTION E (2 X 5 = 10 Marks)</b>		
<b>36</b>	a) Write a program to input a number and find the factorial of that number.	<b>2</b>
	b) Write Python code to create a list of numbers that are multiple of 3 or 5 between n1 and n2 where n1 and n2 are numbers entered by the user. For example, if user has entered n1=4 and n2=12 then the list will be [5,6,9,10,12] Note: Assumption n1 is less than n2 always.	<b>3</b>
<b>37</b>	a) Write a program that will take a string w and ch as character and return the string where every ch of the string W is replace with # sign e.g. if the string is TELEVISION and ch is E then the output string will be T##L#VISION	<b>2</b>
	b) Write a program to input 3 digit number from the user and swap the first digit and last digit. E.g. if number is 789 then output should be 987	<b>3</b>



**BAL BHARATI PUBLIC SCHOOL, DWARKA**

**CLASS - XI**

**SAMPLE PAPER**

**SUBJECT – ECONOMICS**

**Time Allowed: 3hours**

**Max. Marks: 80**

**General Instructions:**

- (1) This question paper contains: Part A- Statistics(40 marks) and Part B-Microeconomics (40 marks)**
- (2) This paper contains 20 Multiple Choice Type Questions of 1 mark each**
- (3) This paper contains 4 Short Answer Type Questions of 3 marks each to be answered in 60 to 80 words.**
- (4) This paper contains 6 Short Answer Type Questions of 4 marks each to be answered in 80 to 100 words**
- (5) This paper contains 4 Long Answer Type Questions of 6 marks each to be answered in 100 to 150 words**

**PART A – STATISTICS**

1. Which of the following cannot be found graphically 1  
a) mean b) median c) mode d) none of these
2. Index number for the base. Is always taken as 1  
a) 50 b) 100 c) 1 d) 200

OR

In Index number, Base year is also known as-

- a) Current year b) reference year  
c) periodic year d) both (a) and (C)
3. Median of a series 19,10,25,14,36 is \_\_\_\_\_ 1  
a) 10 b) 25 c) 19 d) 36
4. The arithmetic mean of a series 1,3,5,6,X, 10 is 6. The value of X will be \_\_\_\_\_

a) 10 b) 0 c) 11 d) 12 1

5.Data collected for the first time from the source of the origin is called- 1

- a) Primary data b) secondary data
- c) internal data d) none of these

OR

Which of the following is a merit of good questionnaire--

- a) Difficulty b) less number of questions
- C) not in proper order (d) invalid questions

6.From the set of the statements given in column one and column 2 choose the correct pair of statements 1

Column I	Column II
A Geographical classification	i classification on the basis of time
B Inclusive series	ii which includes both lower limit and upper limit
C Individual series	iii includes class interval
D Ascending order	iv higher value is placed first

Alternatives:

- (a) A— (i) (b) B –(ii) (C) C – (iii) (d) D—(iv)

7.Read the following statements carefully: 1

Statement 1: Census method is that method in which data are collected covering every item of the universe.

Statement 2 :sample method is an economical method of investigation.

In the light of given statements choose the correct alternative:

- (a)statement 1 is true and statement 2 is false
- (b)statement 1is false and statement 2 is true
- (C)Both statements 1 and 2 are true
- (d)Both statements 1 and 2 are false

8. .Read the following statements carefully: 1

Statement 1:Arithmetic mean is unstable and hence cannot be used for comparison.

Statement 2:.. An average value should not be based on all the observations of the series

In the light of given statements choose the correct alternative:

- (a) statement 1 is true and statement 2 is false
- (b) statement 1 is false and statement 2 is true
- (C) Both statements 1 and 2 are true
- (d) Both statements 1 and 2 are false

9. Read the following statement-Assertion (A) and Reason (R). Choose one of the correct alternatives given below: 1

Assertion (A): Mode is the best representative value of all items of the series.

Reason (R): Mode value is that value which occurs most frequently in the series.

Alternatives:

- (a) Both Assertion (A) and Reason (R) are true and Reason (R) is the correct explanation of Assertion (A)
- (b) Both Assertion (A) and Reason (R) are true and Reason (R) is not the correct explanation of Assertion (A)
- (c) Assertion (A) is true but Reason (R) is false
- (d) Assertion (A) is false but Reason (R) is true

10. Read the following statement-Assertion (A) and Reason (R). Choose one of the correct alternatives given below: 1

Assertion (A) : Statistics studies only the aggregates of quantitative facts.

Reason (R): no conclusions can be drawn from a single number.

Alternatives:

- (a) Both Assertion (A) and Reason (R) are true and Reason (R) is the correct explanation of Assertion (A)
- (b) Both Assertion (A) and Reason (R) are true and Reason (R) is not the correct explanation of Assertion (A)
- (c) Assertion (A) is true but Reason (R) is false
- (d) Assertion (A) is false but Reason (R) is true

11. What are the essentials of a good average? 3

Or

60 boys of a class obtained average 40 marks in a subject, 40 girls of the same class obtained average 35 marks in the same subject. Find out the average marks of whole class.

12. The government and the policymakers use statistical data to formulate suitable policies of economic development. Illustrate with examples. 3

13. A school organised an educational trip for the students of class 11 for 160 persons. Out of which 120 were students, 28 were teachers, 12 were peon (all males). Out of the total persons 32 were females including 2 lady teachers. Present the given information in a table. 4

14. Government of India is interested in knowing the demographic status of India. Which method of collecting the data would be involved for this task? State its merits and demerits too. 4

15. For the given data compute index number by (a) Laspeyre's method (b) Paasche's method 4

Items	Price 2011	Qty 2011	Price 2021	Qty 2021
A	2	100	3	100
B	8	9	10	10
C	12	5	15	6
D	7	7	10	8

16. Calculate coefficient of correlation between the price and quantity demanded by Karl Pearson's method. 6

Price (₹)	Demand (kg)
5	40
10	35
15	30
20	25
25	20

Or

From the following data calculate Spearman's rank correlation

X	Y
66	58
90	76
89	65
55	58
58	53
44	49
42	56

17. Determine the median graphically using ogive curves and verify using formula- 6

Marks	No. of students
0-10	3

10-20	7
20-30	15
30-40	9
40-50	6
50-60	4

**PART B—MICRO ECONOMICS**

18. In situation of excess supply market price tends to 1

(a) rise (b) fall (c) remains constant (d) none of these

19.  $\Delta X / \Delta Y$  on an IC indicates 1

- (a) marginal rate of substitution of X for Y
- (b) marginal rate of technical substitution of X for Y
- (c) marginal rate of substitution of Y for X
- (d) marginal rate of technical substitution of Y for X

Or

In a situation when  $MRS_{xy} < P_x / P_y$ , the consumer would react by:

- (a) increasing the consumption of commodity-X
- (b) increasing the consumption of commodity-
- (c) decreasing the consumption of commodity-Y
- (d) none of these

20. Producer's equilibrium refers to a stage of output at which: 1

- (a) the firm earns maximum profits
- (b) the firm has no intention of changing the level of output
- (c) the firm suffers minimum losses
- (d) all of these

Or

Minimum return that the producer expects from his capital invested in the business called:

- (a) normal profit (b) sub-normal profit
- (c) abnormal profit (d) all of these

21. When  $ES=2$ , supply is \_\_\_\_\_ 1

(a) perfectly elastic (b) perfectly inelastic

(c) elastic (d) inelastic

22. Identify the correct sequence of alternatives given in Column II by matching them with respective items in Column I: 1

Column I	Column II
A. Monotonic preference	i. $\Delta Y/\Delta X$
B. non feasible combination	ii More of a good always gives more satisfaction to consumer
C. Slope of ICC	iii $P_1X_1+P_2X_2=Y$
D. budget set equation	iv Any point beyond the budget line

(a) A(iv), B(i), C(ii), D(iii)

(b) A(ii), B(i), C(iv), D(iii)

(c) A(iii), B(iv), C(ii), D(i)

(d) A(ii), B(iv), C(i), D(iii)

23. Read the following statements carefully: 1

Statement 1: Marginal revenue should be more than marginal cost at the point of equilibrium.

Statement 2: Marginal cost should be falling at the point of producer's equilibrium.

In the light of the given statements, choose the correct alternative:

(a) Statement 1 is true and statement 2 is false

(b) Statement 1 is false and statement 2 is true

(c) Both statements 1 and 2 are true

(d) Both statements 1 and 2 are false

24. Read the following statements carefully: 1

Statement 1 : MU tends to diminish in accordance with the law of diminishing marginal utility.

Statement 2 : At the point of equilibrium, IC must be convex to the origin.

In the light of the given statements, choose the correct alternative:

(a) Statement 1 is true and statement 2 is false

(b) Statement 1 is false and statement 2 is true

(c) Both statements 1 and 2 are true

(d) Both statements 1 and 2 are false.

25. The specific amount offered for sale at a specific price of the commodity is called 1

- (a) quantity demanded (b) quantity supplied
- (c) stock (d) supply function

26. Read the following statement-Assertion (A) and Reason (R). Choose one of the correct alternatives given below: 1

Assertion (A): Perfect mobility of factors of production is a unique feature of perfect competition

Reason (R) : In case of perfect competition, buyers and sellers do not have perfect knowledge of the market.

Alternatives:

- (a) Both Assertion (A) and Reason (R) are true and Reason (R) is the correct explanation of Assertion (A)
- (b) Both Assertion (A) and Reason (R) are true and Reason (R) is not the correct explanation of Assertion (A)
- (c) Assertion (A) is true but Reason (R) is false
- (d) Assertion (A) is false but Reason (R) is true

27. Read the following statement-Assertion (A) and Reason (R). Choose one of the correct alternatives given below: 1

Assertion (A): The ordinal utility analysis is an improvement over cardinal utility analysis

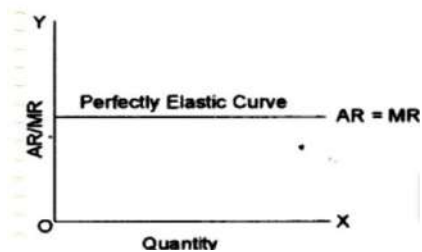
Reason (R): Cardinal utility analysis is based on the basic assumption that utility can be expressed in terms of cardinal numbers, while ordinal utility analysis is free of this assumption.

Alternatives:

- (a) Both Assertion (A) and Reason (R) are true and Reason (R) is the correct explanation of Assertion (A)
- (b) Both Assertion (A) and Reason (R) are true and Reason (R) is not the correct explanation of Assertion (A)
- (c) Assertion (A) is true but Reason (R) is false
- (d) Assertion (A) is false but Reason (R) is true

28. Identify the type of market structure whose demand curve is shown below. Also, state the main conditions of that market structure. 3





29. Distinguish between ceiling price and floor price. 3

Or

Explain the economic value of support price policy in India.

30. Group A : Ink and Pen

Group B : Tea and Coffee

Identify the type of goods as mentioned above. Also, explain the effect of rise in price of first good on demand of second good. 4

31. Suppose an economy produces only two goods wheat and cloth with its available resources. Following table shows different possibilities of production of these 2 goods. calculate marginal opportunity cost of cloth and also draw a PPC 4

Cloth	0	1	2	3	4
Wheat	100	90	70	40	0

32.(a) An individual is both the owner and the manager of a mall taken on lease (rent) Identify implicit and explicit costs from this information. Also, give reasons. 2

(b) Giving reason, find whether the following statements are true or false; 2

(1) When total revenue is maximum, marginal revenue will also be maximum.

(ii) When marginal revenue falls to zero, average revenue should be rising.

33.(a) Draw a diagram indicating the following situation: 3

$$MRS_{xv} = P_x/P_y$$

Is it indicates highest level of consumer's satisfaction and why?

(b) Why does demand curve slope downwards ? Explain. 3

34. Read the following case study carefully and answer the questions 1-2 on the basis of the same:

The production function is a mathematical expression which relates the quantity of factor inputs to the quantity of outputs that result. The short run production function is defined in economics

as a period of time where at least one factor of production is assumed to be fixed. The analysis of short run production sets the stage to better understand the supply-side of the market. How producers respond to price depends, in part, on their ability to combine inputs to produce output. This ability is guided by the law of diminishing marginal returns, which states that the productivity of a variable input declines as more is added to a fixed input. If productivity declines, then more of the variable input is needed as the quantity produced increases. This results in an increase in production cost, which means producers need to receive a higher price.

-Bashir, Furrukh and others, Estimation of Short Run Production Function (A Case Study of Shakarganj Mills Limited)

1. Define Production function. Give its types. 3
2. Describe various stages of law of returns to factor. 3



**BAL BHARATI PUBLIC SCHOOL**  
**ANNUAL EXAMINATION (2024-25)**  
**CLASS - XI**  
**SUBJECT- ENGLISH**  
**SAMPLE PAPER**

**TIME: 3 HOURS**

**Maximum Marks: 80**

**General Instructions :**

(i) Question paper comprises three Sections - A, B, and C. There are 15 questions in the question paper. All questions are compulsory.

(ii) Section A - Reading Skills (Question no 1 to 3 are MCQ and Short Answer and long answers Type Questions).

(iii) Section B - Grammar & Writing (Question no 4 to 9 are MCQ and Long Answer Type Questions).

(iv) Section C - Literature (Question no 10 to 15 are MCQ, Short and Long Answer Type Questions).

(v) There is no overall choice in the question paper. However, an internal choice has been provided in few questions. Only one of the choices in such questions have to be attempted.

(vi) In addition to this, separate instructions are given with each section and question, wherever

**SECTION A (READING SKILLS) 26 MARKS**

**UNSEEN PASSAGE (FACTUAL, DESCRIPTIVE LITERARY)**

1. Read the following passage carefully and answer the questions that follow: (1x10=10)
  1. The Food Bill is still in the works but has provoked a furious debate on the lack of grain storage facilities rotting grains and whether they should be distributed free to the hungry masses. Waking up to that no food security programme can be effective without proper storage, the government is now planning to upgrade existing warehousing facilities and also add new ones. However, between food security and large scale storage, there is a missing link that needs to be taken note of: storage at the farm level. No one can deny the importance of decentralised storage; at least 25-30 percent grains in the country are stored at the farm level.
  2. However, it's not as if there hasn't been enough thrust on this issue: there are State Institutes to look into the storage problems.

3. Yet, policy-wise we did have a sound start: the Save Grain Campaign, which was initiated 43 years ago, was supposed to do what we are floundering on now. Through this campaign, the centre was to initiate and train states in warehousing and storage of grains. The centre wanted the states to take it up on a large scale but the latter did not want any "added responsibility." Finding no takers, the campaign was withdrawn in 2008
4. "Around 15-20 percent food grain loss occurs in large storage godowns. Along with investment in large storage capacities, we must encourage farm-level storage. This can be in the form of refining and improving the local/indigenous storage technologies and providing technical and financial support at that level," says M.B. Chetti, Dean, College of Agriculture, University of Agricultural Sciences, Dharwad, Karnataka.
5. He and many experts like him suggest that if we want to leapfrog in storage capacity at the farm-level (since setting up large storages is time-consuming and expensive), new technologies like vacuum packaging could be the answer. They assure quality as well as a chance to store grains almost anywhere and that it can be done in villages by trained persons.
6. "Alternatively, we have to go for cold storage facilities for food grains, which is very costly since it involves electricity supply", says Chetti. "Instead, vacuum packing," say experts," helps preserve grains and seeds for long periods without any deterioration in quality. In fact, an experiment was carried out in the university on the usefulness of the packaging system (using chilli) and the results were satisfactory. The available technology offers a seven-layer packing to preserve quality for long periods of time and once sealed, climatic changes have no effect on it. Elimination of oxygen from the pack helps in extending shelf life."
7. "At present only three-layer plastic films are manufactured in India. The seven-layered film needs to be imported. But the import duty is high," says Mohan Bajikar," of course, such technologies are expensive, but then delivering to the hungry isn't enough-quality must be ensured."
8. Food policy analyst Devinder Sharma, however, says "Expensive solutions like Silos and warehousing are not the answer to procurement and storage problems." Instead, he says, "Local production, local procurement and local distribution" is the answer, something like what Chhattisgarh has been doing. It procures paddy directly from farmers, buying it through cooperative societies and procurement centres at the village level." To store," he adds, "the government can add a small godown next to each panchayat ghar."
9. Whichever way we look at it, decentralised storage cannot be left out of the loop if we want to ensure food security and reduce stock losses.

**A. On the basis of your understanding of the passage answer the following questions by choosing the most appropriate option.**

**Q.1. The necessity of proper storage has been realized because:**

- (a) there is lack of grain storage facilities. (b) grain is lying in the open and rotting.  
 (c) no food security is possible without it. (d) masses are hungry and without grain.

**Q.2. Decentralised storage stresses upon :**

- (a) storage at farm level. (b) storage at block level.  
 (c) storage at district level. (d) storage at state level.

**Q.3. The 'Save Grain Campaign' was withdrawn after 43 years because:**

- (a) the centre did not spare funds.
- (b) proper training in warehousing was lacking.
- (c) the state did not show any interest.
- (d) the states did not want any added responsibility

**Q.4. The most cost-effective solution for storage of grain is :**

- (a) cold storage facilities.
- (b) decentralised storage.
- (c) setting up large warehouses.
- (d) vacuum packaging.

**Q.5. Experts reject silos and warehousing because:**

- (a) these are very costly solutions.
- (b) local storage and distribution is more effective.
- (c) these are inadequate for storage.
- (d) these fail to reduce stock losses.

**Q.6. The word 'facilities' in para 6 means :**

- (a) aptitude
- (b) dexterity
- (c) conveniences
- (d) buildings for a particular purpose.

**Q.7. What should we do if we want to leapfrog in storage capacity at farm-level?**

- (a) Set up large storages with state funds.
- (b) Use new technologies like vacuum packaging.
- (c) Involve state governments in the storage systems.
- (d) Use cold storage facility.

**Q.8. Find the words from the passage which are similar in meaning:**

- (a) improve (Para 1).
- (b) native (Para 4).

**Q.9. What is the alternate to large storage godowns ?**

- (a) Small storage godowns.
- (b) Cold storage facilities.
- (c) Farm-level storage.
- (d) Seven-layer packing.

**Q.10. What are the advantages of vacuum packing ?**

- (a) It helps preserve grains and seeds for long periods.
- (b) It can be done in villages by trained persons.
- (c) It can be done without any technical and financial support.
- (d) It eliminates oxygen and bacteria.

**2. Read the given passage and answer the questions that follow. (1x8=8)**

1. Life on our planet earth began with the sea; it is the birth place of life on the earth. The earth is the only planet of the solar system so far known which contains plenty of water and this water has made our earth colourful, pulsating with life of a vast variety.
2. At present sea occupies about 70 percent of the earth's surface. In the southern hemisphere it occupies more area than that in the northern. About 97 percent of the total water on the surface of the earth is found in the seas and the remaining three percent, which is generally fresh, in lakes, rivers, ponds, etc.
3. Sea has given food and shelter to countless creatures. It is a potential source of protein. In 1900 the world population was only 150 crore (1500 million), now it is more than 560 crore and it is increasing at a very fast rate. As a result there is a terrible hunger in many parts of the world. In Africa, Asia and South America, millions of people do not get enough to

eat. Many die of malnutrition. Sea, if used scientifically and judiciously, can meet most of our demands.

4. Plankton or algae mostly constitutes the plant life. Some are tiny microbes which cannot be seen by the naked eye but they are found in abundance in the sea.
5. These marine plankton form the basis of entire sea life. Like plant plankton there are also animal plankton, the smallest living creatures of the sea. These animal plankton feed on plant plankton and small fish. Thus, there is an unbroken chain of life in the sea. Arctic and Antarctic seas abound in plankton and algae and so in fish also. Blue whales, the largest living creatures of the world, are also found here in great number.
6. Some countries have developed sea farming to a great extent. The Japanese and Hawaiians relish eating sea plants but it is not in other countries though some use them to feed their cattle or as manure in their fields. The fact is that sea plants contain rich nutrients not found in other vegetarian food. It is good that even in our country some scientists have developed some recipes for curries, jams etc. to be made from algae.
7. But we must remember one thing that sea is not to be exploited indiscriminately. For example, man in his greed has hunted whales and some other sea creatures so recklessly that some of their species have either become extinct or are on the verge of extinction. Now nations or the world have realized their folly and have taken some joint decisions. For example, one such decision is that the size of the holes in fishing nets should be big enough to let baby fish escape through. Otherwise, killing of large quantities of very young fish would have an adverse effect on the fish population. In the same way, another decision is for the protection of blue whales.

Answer the following questions choosing the appropriate option.

**Q.1. Fresh water refers to the water of**

- (a) Sea      (b) Lakes, rivers, ponds etc      (c) Rainwater      (d) Processed water

**Q.2. There is terrible hunger in many parts of the world due to:**

- (a) Overpopulation   (b) High pollution level   (c) Global warming   (d) Industrialisation

**Q.3. Blue whale, the largest living creatures of the world, are found in great number in:**

- (a) Indian Ocean   (b) Pacific Ocean   (c) Mediterranean Sea   (d) Arctic and Antarctic Sea

**Q.4. The largest trash site on the planet, the Great Pacific Garbage Patch, is twice the size of which city?**

- (a) Arizona   (b) Florida   (c) Colorado   (d) Texas

**Q.5. The size of the holes in fishing nets should be big enough to let**

- (a) Big fish stay in.      (b) Water flow out.  
(c) Baby fish escape through.   (d) More fish enter

**Q.6. Sea plants contain rich nutrients not found in**

- (a) Other plant      (b) Other vegetarian food  
(c) Non vegetarian food   (d) Milk and milk products

**Q.7. Find a word from the passage which means the same as 'wisely'. (Para 3)**

- (a) judiciously      (b) scientifically      (c) countless      (d) terrible

**Q.8. Find a word from the passage which means the same as 'unfavourable'. (Para 7)**

- (a) indiscriminately      (b) adverse      (c) exploited      (d) recklessly

**3. Read the passage given below and answer the questions that follow: (8)**

1. The mynah perhaps needs to make some apology for his yellow stockings, since such mustard-coloured understandings are not usual among small birds, pertaining rather to the rapacious tribe, and being thus a badge of anything but respectability. But the mynah atones for his yellow legs, feet and face, by the exceedingly decorous plumage which covers the rest of him; no objection can be to his black hood, or the sober chocolate of his body colour, or to the plain black, diversified with white, of his quills and tail.
2. Nevertheless as a starling our present subject is a rather big and showy bird, being certainly equal in looks to any of his relatives in Calcutta, none of which bear the shot silk sheen of green and purple which adorns the home starling, also a visitor to India, for this starling or mynahs are in great force in the East, which is their true home, and the common mynahs is a good type of the clan.
3. Bold, vigorous and pushing, he secures to himself a large share of all the good things in the way of insects and fruit that may be going, and is a bird of remarkably all round abilities, though not particularly graceful in his movements. On the ground he runs and walks well, hopping when he wants to put an extra spurt, albeit there is a swing in his gait which is not particularly elegant. No doubt, however, he is proud of this, as it is a family character; geese, which do not suffer from excessive modesty, have a similar style of going, are known to bare doubtful pedestrians in their quiet way.
4. Mynah, unlike other ground birds, is nimble and active in a tree as well; and his flight, though not remarkably fast, is tolerant enough for ease and he feels sufficient confidence in it to occasionally attempt a little insect-catching on the wing, when his quarry has got away from him on foot. When he flies, he tucks up his long yellow shanks to his breast, showing conclusively that birds which stow their legs this way when on the wing do so by custom, not for convenience, for from their size one would think that he would do better to stow them astern like the paddy bird and other waders.

(a) On the basis of your reading the passage, make notes using recognisable abbreviations wherever necessary. Use a format you consider suitable, supply a suitable title. **(5 marks)**

(b) Make a short summary of the passage in about 80 words. **(3 marks)**

### **SECTION B : GRAMMAR & WRITING ( 23 marks)**

**4. Attempt any one question A or B.**

**A.** Indian Institute of Foreign Language is going to start a course in various foreign languages. Draft an advertisement for the classified columns of a newspaper given details (3 Marks) same (word limit 50 words)

**OR**

**B.** You want to launch a tuition centre for class X to XII. Draft a classified advertisement with all relevant details.

**5. Attempt any one question A or B.**

A. Draft a poster for the abolition of Child Labour. Invent necessary details in 50 words. **(3 Marks)**

**OR**

B. Design a poster on 'SAVE THE EARTH' on behalf of Pollution Control Board, Rajasthan State.

**6. Attempt any one question A or B.**

A. Private cars should be banned in the congested commercial areas of the cities. Write in 150-200 words either for or against the motion. **(5 Marks)**

**OR**

B. 'The policy of reservation of seats for admission to the professional courses is good for the deprived sections of society.' Write a debate in 150-200 words either for or against the motion.

**7. Attempt any one question A or B.**

A. Human activities are leading to serious environmental changes globally. It is going to cause much trouble for the future generation, write a speech to be delivered in the morning assembly. Do not exceed the word limit of 120-150 words.

**OR**

b. Write a speech to be delivered in the morning assembly on the topic, 'Social Media and the Risks Involved'. **(5 Marks)**

**8. Fill in the blanks with the correct options given below. (1x4=4)**

Growth gets retarded if the environment in which we live (i)..... Polluted The pollution (ii)..... us today. We (iii)..... the environment that (iv)..... Us. Slowly we are gliding towards an unhealthy environment.

- |       |               |                |                    |                    |
|-------|---------------|----------------|--------------------|--------------------|
| (i)   | (a) is        | (b) being      | (c) was            | (d) was being      |
| (ii)  | (a) threatens | (b) threatened | (c) is threatening | (d) was threatened |
| (iii) | (a) pollute   | (b) polluted   | (c) is polluting   | (d) was polluted   |
| (iv)  | (a) sustain   | (b) sustains   | (c) sustained      | (d) is sustaining  |

**9. Rearrange the following words or phrases to make meaningful sentences: (1x3=3)**

- (a) a/lover/is /animal/passionate/he  
(b) campaigned/ birds/he /caged /free /to  
(c) the class/at once/ ordered/ you/ are/ to leave

**SECTION: C- LITERATURE ( 31 MKS )**

**10. Read the following extract and answer the questions that follow. (1x3=3)**

Then with the eerie delicate whistle-chirrup whisperings  
She launches away, towards the infinite

**(a) Identify the sound words in the poem.**

- (i) Whistle (ii) Chirrup (iii) Whisperings (iv) All of the above

**(b) What does 'infinite' refer to?**

- (i) Space (ii) Sky (iii) Tree leaves (iv) Water

**(c) Who launches away?**

**OR**

I would have Him prodigal,  
returning to His father's house, the home he knew,  
Rather than see him make and move



- (a) Why does father see his son as prodigal?  
 (i) Because the son is arrogant  
 (ii) Because the son lives somewhere else  
 (iii) Because the son does not consult his father  
 (iv) Because the son is extravagant

- (b) What would poet like in the end?  
 (i) To see his son doing what he likes  
 (ii) To see his son reconciling with him  
 (iii) To see his son coming back to his house  
 (iv) To get all his money back from his son

(c) Identify the poem and the poet.

11. Read the given passage and answer the questions that follow: (1x3=3)

(A) We protested. But she ignored our protests. She lay peacefully in bed praying and telling her beads. Even before we could suspect, her lips stopped moving and the rosary fell from her lifeless fingers.

Q.1. Who is 'we' here ?

- (a) Author and his wife (b) Author and his family  
 (c) Author and his friends (d) The village people

Q.2. What had happened to her ?

- (a) Lost consciousness (b) Went into delirium (c) Died (d) None of these

Q.3. What does 'telling her beads' mean ?

- (a) Chanting hymns (b) Talking to beads  
 (c) Distributing beads (d) Arranging beads as in a necklace

**OR**

(B) By late afternoon we had reached the small town of Hor, back on the main east-west highway that followed the old trade route from Lhasa to Kashmir. Daniel, who was returning to Lhasa, found a ride in a truck so Tsetan and I bade him farewell outside a tyre-repair shop.

Q.1. How many tyre punctures had they suffered?

- (a) One (b) Two (c) Three (d) Five

Q.2. Where was Daniel headed to/towards?

- (a) Lhasa (b) Kashmir (c) Lake Mansarovar (d) Salt Lake

Q.3. What type of place was Hor ?

- (a) Happy and decorated (b) Rich and plentiful  
 (c) Grim and miserable (d) Not mentioned in the story

12. Read the given passage and answer the questions that follow: (4x1=4)

(A) That afternoon my uncle Khosrove came to our house for coffee and cigarettes. He sat in the parlour, sipping and smoking and remembering the old country. Then another visitor arrived.

- Q.1. What was the name of the other visitor ?**  
 (a) Mourad (b) Aram (c) John Byro (d) Zorab
- Q.2. What was the mood of the other visitor ?**  
 (a) Happy (b) Sad (c) Unpleasant (d) Indifferent
- Q.3. What was the other visitor thinking about?**  
 (a) His surrey (b) His homeland (c) His legs (d) His white horse
- Q.4. What was the visitor's profession ?**  
 (a) Horseman (b) Shopkeeper (c) Sailor (d) Farmer

**OR**

- (B)** The chief of builders was led  
 He passed the King.  
 He gave a shout.  
 'O King, it was the workmen's fault'  
 'Oh!' said the King and called halt.

- Q.1. The chief of builders was summoned because.....**  
 (a) he was to be punished  
 (b) he was responsible for the king losing his crown under the arch  
 (c) he had broken the crown  
 (d) Both (A) & (B)
- Q.2. Which word in these lines has the same meaning as 'stop' ?**  
 (a) Fault (b) Halt (c) Led out (d) Passed
- Q.3. Later, what suggestion did the wisest man give to the king ?**  
 (a) Not to punish anyone (b) To postpone everything  
 (c) To hang the arch (d) To build the arch again
- Q.4. These lines have been written by .....**  
 (a) Markus Natten (b) Elizabeth Jennings  
 (c) Vikram Seth (d) Shirley Toulson

**13. Answer the following questions in 40-50 words each. (3x3=9)**

- (a)** Explain 'Terribly transient feet'.

**OR**

Why is rain compared to music?

- (b)** What do you think made Rajendra realize that facts can be stranger than fantasies?

**OR**

Why is January 5, 2005 significant in Tutankhamun's Saga?

- (c)** How was the narrator convinced that she had made no mistake and had reached the right address?

**OR**

How did the workmen escape being hanged?

**(6 marks)**

14. Answer any one of the following questions in about 120-150 words:

Describe how the common bond of friendship was broken when the narrator's parents called them in the city.

OR

What impression do you form of the author, Nick Middleton, on the basis of reading 'Silk Road'?

15. Answer the questions in about 120-150 words :

(6 marks)

What impression do you form of cousin Mourad and Uncle Khoshrovo in the story "The Summer of the Beautiful white Horse"?

OR

What did the narrator learn about Mrs. Dorling from her mother?



## 2BAL BHARATI PUBLIC SCHOOL, DWARAKA

### ANNUAL SAMPLE PAINTING (049) CLASS XI

Time – 2 hrs.

Total Marks – 30

#### General Instructions

Section-A Attempt all Questions (Each Question will carry 1 mark)

Section-B Attempt all Questions (Each Question will carry 2 Marks)

Section-C Attempt any two Questions (Each Question will carry 6 Marks)

S.No.	SECTION-A	Marks
<b>Q1.</b>	<b>Select the right answer from the given options:</b>	
<b>a</b>	The construction of Qutub Minar was completed during the reign of a. Alauddin Khilji b. Qutbuddin Aibak c. Iltutmish d. Balban	<b>1</b>
<b>b</b>	What form of fine arts are depicted at Ajanta and Ellora Caves? a. Magnificent Paintings and Wall-Carved Sculptures b. Paleolithic Art c. Handprints	<b>1</b>
<b>c</b>	The theme of Mara-Vijaya during Buddha's Maha Parinibbana was depicted in which of the following caves? a. Ajanta cave no 26 b. Ellora caves c. Elephanta caves d. Nachna Kathura caves	<b>1</b>
<b>d</b>	Which mudra is depicted in "Seated Buddha from Sarnath" (Gupta Period) a. Dharma chakra Pravartana Mudra b. Anjali Mudra c. Abhay Mudra d. Gyan Mudra	<b>1</b>
<b>e</b>	The .....is the disc like crown of a Temple. a. Amalaka b. Jagati c. Transepts d. Mandapa	<b>1</b>
<b>f</b>	Which animal family depicted in the huge composition of Arjuna's Penance a. Cats Family b. Deer Family c. Elephants Family d. Horse Family	<b>1</b>

<b>g</b>	<p><b>Assertion (A): The Bhimbetka paintings are primarily done in shades of red, white, and yellow.</b></p> <p><b>Reason (R):</b> Early humans used readily available natural pigments from minerals, plants, and soil to create colors for their paintings.</p> <p>a. Both A and R are true and R is the correct explanation of A  b. Both A and R are true but R is not the correct explanation of A.  c. A is true but R is false.  d. A is false but R is true.</p>	<b>1</b>
<b>h</b>	<p><b>Which of the following is a unique feature of the Dancing Girl statue?</b></p> <p>A detailed face  A naturalistic and dynamic posture  Intricate jewelry  A large headdress</p>	<b>1</b>
<p><b>SECTION-B</b>  <b>(Short answer type questions)</b>  <b>Answer for this question is expected in around 100 words</b></p>		
<b>Q2.</b>	During the Chandela period, the sculptures made in Khajuraho temples have appeared in their most beautiful form. Justify these statements with example	<b>2</b>
<b>Q3.</b>	Discuss the compositional aspects as well as main feature of Mara Vijay relief Sculpture	<b>2</b>
<b>Q4.</b>	“Trimurti” is one of the best examples of qualitative achievements in sculptural images in rock-cut caves, Justify	<b>2</b>
<b>Q5.</b>	Discuss important features of Bodhisattva Head	<b>2</b>
<b>Q6.</b>	Silent features of “Dancing Girl” from Mohenjo-Daro?	<b>2</b>
<b>Q7.</b>	<p><b>SECTION-C</b>  <b>(Long answer type questions)</b>  <b>Answer for this question is expected in around 200 words</b></p>	
<b>a</b>	Discuss the different classification of Bhimbetka Rock Paintings in details	<b>6</b>
<b>b</b>	Identify and explain the famous arts form from Mauryan Period included in your course of study comprising of the following features and explain them in that Sculpture accordingly. It Consisted of Five Components, which is also included as a national emblem of India	<b>6</b>



**BAL BHARATI PUBLIC SCHOOL, DWARKA, NEW DELHI**  
**SAMPLE PAPER 2024-25**  
**CLASS – XI**  
**SUBJECT: PSYCHOLOGY**

**MM: 70**

**TIME: 3 HOURS**

**General Instructions:**

- The question paper has 6 Sections A, B, C, D, E, and F.
- All questions are compulsory.
- Section A has 14 questions, from Question No. 1 to 14 carrying 1 mark each. Answer these questions in one word or one sentence.
- Section B has 5 questions, carrying 2 marks each. Answer to these questions should not exceed 40 words.
- Section C has 4 questions, carrying 3 marks. Answer to these questions should not exceed 80 words.
- Section D has 4 questions, carrying 4 marks. Answer to these questions should not exceed 100 words.
- Section E has 2 questions, carrying 6 marks. Answer to these questions should not exceed 120 words.
- Section F has two case studies.

**Section A (1 mark each)**

Q1.) A publishing company is designing new activity books for children of various age groups. They want to consult a psychologist to help them understand and design age-appropriate cognitive activities. Whom should the company consult?

- a. A clinical psychologist
- b. Counselor
- c. An organizational psychologist
- d. educational psychologist

Q2.) Organizational psychologists are most likely to be hired by:

- a. Businesses interested in maximizing worker productivity.
- b. Elementary schools to create programs to help struggling students.
- c. Schools to enhance student well-being
- d. Law-enforcement agencies to analyze crime scene

Q3.) The experiments in which independent variable is selected rather than manipulated are called:

- a. Field Experiments
- b. Quasi Experiments
- c. Lab Experiments
- d. Pseudo Experiments

Q4.) \_\_\_\_\_ proposed linguistic relativity hypotheses.

Q5.) Assertion (A) – Introspection method failed as an effective method of research as it is not scientific.

Reasoning (R) – Introspective reports cannot be verified by outside observers.

- a. A is true but R is false
- b. Both A and R are true and R is correct explanation of A

c. Both A and R are correct but R is not correct explanation of A

d. Both A and R are false

Q6.) Identify the incorrect statement:

a. A large number of hospitals now employ psychologists

b. Doctors have felt the need for counseling in post-operative cases

c. Economics and Psychology are two independent fields which are completely unrelated

d. Abraham Maslow and Carl Rogers emphasized the free will of human beings.

Q7.) Macrosystem in Bronfenbrenners model emphasize the role of cultural beliefs and ideology in influencing the development of a child. **(True/False)**

Q8.) Which of the following is not an effective anger management tip?

a.) Recognizing the power of thoughts

b.) Ascribing intentions and ulterior motives to actions of others

c.) Keeping control inward

d.) Not having irrational thoughts about people.

Q9.) Assertion (A) Thinking is one of the most important cognitive activities.

Reasoning (R) Thinking is the foundation of all cognitive activities.

a. Both A and R are true and R is correct explanation of A

b. Both A and R are true but R is not correct explanation of A

c. A is true but R is false

d. A is false but R is true

Q10.) Sudden solution is the principle of:

a. classical conditioning

b. operant conditioning

c. insight learning

d. latent learning

Q11.) \_\_\_\_\_ layer includes components such government policies and parent workplace according to Bronfenbrenner's model.

Q12.) \_\_\_\_\_ are responses or reactions we make or activities we engage in.

Q13.) Who is the founder and principal proponent of Structuralist approach?

(a) Sigmund Freud

(b) Wilhelm Wundt

(c) C.G. Jung

(d) Alfred Adler

Q14.) The newborns movements are governed by:

a.) Object permanence

b.) Reflexes

c.) Teratogens

d.) Fine motor skills

### **Section B (2 marks each)**

Q15.) Differentiate between generalization and discrimination.

Q16.) Differentiate between negative and positive correlation with the help of examples.

Q17.) What are developmental milestones?

Q18.) What are the drawbacks of mnemonics?

Q19.) Explain any two factors influencing sustained attention.

**Section C (3 marks each)**

- Q20.) Explain any three ethical concerns that psychologists must adhere to while conducting research.
- Q21.) What are the goals of psychological enquiry?
- Q22.) What treatments are suitable for ADHD?
- Q23.) What are the obstacles to problem solving?

**Section D (4 marks each)**

- Q24.) What is attachment? Explain
- Q25.) Explain the various psychosocial motives.
- Q26.) What factors influence development according to model by Durganand Sinha?
- Q27.) Explain the different types of long term memory.

**Section E (6 marks each)**

- Q28.) What are the different types of psychological tests?

Or

What are the features of a good psychological test? What are the various ways in which we utilize psychological tests?

- Q29.) What difficulties will be faced by a child with learning disability?

**Section F- Case Study**

Case Study A:

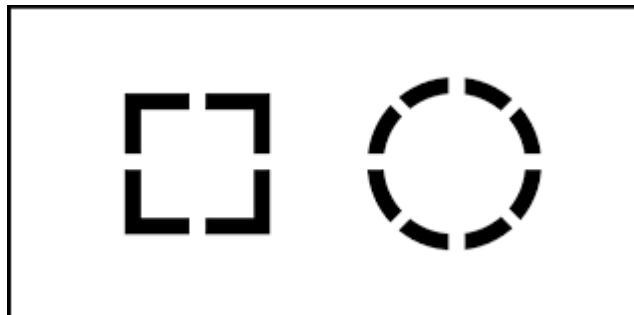
Shailendra interviewed a famous politician on a famous TV show. However, the politician asked him to submit the list of questions that will be asked, and Shailendra was specifically told not to deviate from the list of questions. Shailendra also interviewed voters in the politician's constituency to know about their attitudes and views regarding the status of work done. Shailendra freely asked people questions without any prior preparation of questions.

- Q30.) What kind of interview did Shailendra conduct on the politician? (1)

- a. Structured
- b. Unstandardized
- c. Unstructured
- d. Objective

- Q31.) What are the advantages of interview method? (2)

Case Study B:



- Q32.) Which principle of perceptual organization is being exhibited in the above figure? (1)

- Q33.) On what basis is figure segregated from ground? (2)







**This question paper has 10 printed page(s)**  
**BAL BHARATI PUBLIC SCHOOL, DWARKA, NEW DELHI**  
**SAMPLE PAPER(ANNUAL EXAM)**  
**CLASS – XI(2024-25)**  
**SUBJECT:ACCOUNTANCY**

**MM: 80**

**TIME: 3 hrs**

**DATE:**

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**GENERAL INSTRUCTIONS:**

1. This question paper contains 34 questions. All questions are compulsory.
2. Question Nos. **1 to 16** and **27 to 30** carries **1** mark each.
3. Questions Nos. **17 to 20, 31 and 32** carries **3** marks each.
4. Questions Nos. from **21, 22 and 33** carries **4** marks each
5. Questions Nos. from **23 to 26 and 34** carries **6** marks each
6. There is no overall choice. However, an internal choice has been provided in **7** questions of **one** mark, **2** questions of **three** marks, **1** question of **four** marks and **2** questions of **six** marks.

**PART A**

- Q1. Which of the following limitations of accounting states that accounts may be manipulated to conceal vital information?
- (a) Accounting leads to window dressing  
(b) Accounting is not fully exact  
(c) Accounting ignores price level changes  
(d) Accounting ignores qualitative concepts
- Q2. Which term is used for an accrual accounting technique used to allocate the cost of extracting natural resources such as timber, minerals and oil from the earth
- (a) Amortization (b) Obsolescence  
(c) Depletion (d) None of these
- Q3. Using 'lower of cost and net realisable value' for the purpose of inventory valuation is the implementation of which of the following concept
- (a) Cost (b) Money measurement  
(c) Objectivity (d) Prudence
- Q4. Under which method of depreciation, the value of fixed asset could become to zero at the expiry of the working life
- (a) Straight line method (b) written down value method  
(c) both a and b (d) none of these

**OR**

Book value of an asset after 2 years is Rs 80,000 .Rate of depreciation is 10% p.a under straight line method

the original cost of an assets would be

- (a) Rs 8,000 (b) Rs 1,00,000  
(c) Rs 8,00,000 (d) Rs 80,000

Q5. From the following, which accounting equation is not correct?

- (a) Assets – Liabilities = Capital (b) Asset - Capital = Liabilities  
(c) Liabilities + Capital = Assets (d) None of these

**OR**

From the following calculate liabilities

Capital Rs 5,00,000 , cash in hand Rs 40,000 , building Rs 8,00,000, bank overdraft Rs 50,000

- (a) Rs 1,39,0000 (b) Rs 4,20,000  
(c) Rs 3,90,000 (d) none of these

Q6. Goods purchased from Raghav for ₹ 4,500 but goods recorded as ₹ 5,400 in the Purchases Book. The type of error related to:

- (a) Error of Omission (b) Error of Commission  
(c) Error of Partial Omission (d) Error of Principle

**OR**

Bank Reconciliation Statement is prepared by:

- (a) Debtors of the firm (b) Creditors of the firm  
(c) Account holder of bank (d) Bank

Q7. The revenue recognition principle dictates that all types of income should be recorded or recognized when

- (a) Cash is received  
(b) At the end of accounting period  
(c) When they are earned  
(d) When interest is paid

Q8. The depreciation value after two years of an asset costing Rs 10,000 depreciated at 10% on fixed instalment is Rs ----- and on reducing balance method is -----

- (a) Rs 8100 and Rs 8000  
(b) Rs 9000 and Rs 8000  
(c) Rs 8000 and Rs 8100  
(d) Rs 8000 and Rs 9000

**OR**

Which is not advantage of written down value method

- (a) Income tax act accept this method for tax purpose  
(b) Assets can be depreciated up to the net scrap value or zero.  
(c) Large portion of depreciation charge in earlier years.  
(d) None of these

- Q9. Which of the following is not a sub field of accounting?
- Financial accounting
  - Book keeping
  - Management accounting
  - Cost accounting
- Q10. The accounting concept which suggested that each transaction should be recorded in the books of account by supporting vouchers of transactions\_\_\_\_
- Objectivity
  - Dual aspect
  - Materiality
  - Consistency
- Q11. Given below are two statements : one labelled as assertion A and other labelled as Reason R  
**Assertion (A)** : provision is the amount of any known liability to be determined with substantial accuracy.  
**Reason (R)**: provision and reserves used interchangeably
- In the light of the above statement choose the most appropriate answer from the options given below:
- (A) and (R) are true and (R) is the correct explanation of (A)
  - Both (A) and (R) are true and (R) is not the correct explanation of (A)
  - (A) is true ,but (R) is false
  - (A) is false ,but (R) is true
- Q12. 12 television sets of Rs 10,000 each are purchased on 1.4.2022 , then on 1.10.2022 14 computer set of Rs 11,000 each are purchased. On 01.06.2023 6 typewriter purchased for Rs 2,000 each and order given for another 6 typewriter then according to concept of accounting in books which closed on 31.03.2024 must record
- Rs 12000
  - Rs 24000
  - Rs. 286000
  - RS 274000
- Q13. If the rent of one month is still to be paid, the adjustment entry will be:
- Debit Outstanding Rent A/c and Credit Rent A/c
  - Debit Profit and Loss A/c and Credit Rent A/c
  - Debit Rent A/c and Credit Profit and Loss A/c
  - Debit Rent A/c and Credit Outstanding Rent A/c
- Q14. Which is not qualitative characteristics of accounting information
- Relevance
  - Understandability
  - Comparability
  - Materiality
- Q15. When two or more errors are committed in such a way that the net effect of these errors on the debits and credits of accounts are nil, such errors are called.....
- Compensating errors
  - errors of principle
  - Errors of omission
  - Errors of commission

**OR**

If credit purchases from Raghu Rs 20000 were recorded through sales book. Rectifying

entry will be

- (a) Sales a/c Dr 20000  
Purchase a/c Dr 20000  
    To raghu's a/c 40000
- (b) Sales a/c Dr 20000  
Purchase a/c Dr 20000  
    To suspense a/c 40000
- (c) Raghu's a/c Dr 40000  
    To Sales a/c 20000  
    To Purchase a/c 20000

(d) None of these

Q16. Goods costing ₹ 8,000 destroyed by fire and insurance company admitted a claim for ₹ 5,000 only. Give Journal entry to adjust in final accounts.

- (a) Loss by Fire A/c Dr. 3,000  
Insurance Claim Receivable A/c Dr. 5,000  
    To sales A/c 8,000
- (b) Loss by Fire A/c Dr. 3,000  
Insurance Claim Receivable A/c Dr. 5,000  
    To Purchase A/c 8,000
- (c) Loss by Fire A/c Dr. 3,000  
Insurance Claim Receivable A/c Dr. 5,000  
    To trading A/c 8,000
- (d) P & L a/c Dr 8000  
    To Loss by Fire A/c 3,000  
    To Insurance Claim Receivable A/c 5,000

**OR**

The trail balance of a firm shows debtors Rs 30,000, bad debts Rs 200 and provision for doubtful debt at Rs 1400. A 10% provision for doubtful debts is to be created on debtors, the profit and loss account for the current year is to be debited by

- (a) Rs 3200 (b) Rs 3000  
(c) Rs 4600 (d) Rs 1800

Q17. a) Calculate closing stock and Gross profit from the following details :

Particulars	Amount	Particulars	Amount
Opening Stock	20,000	Purchases	70,000
Cash sales	60,000	Credit Sales	40,000
		Rate of Gross Profit on cost	
		33 1/3%	

Q18 Journalise the transactions:

- a) Withdrawn goods for personal use (Cost Rs. 5,000 + IGST@18%; Sale Price Rs. 7,000)
- b) Sold goods to Kiran of Delhi at the list price Rs. 20,000 less trade discount 10% add CGST and SGST @ 9% each and allowed cash discount @5%. He paid amount immediately.

**OR**

Classify the following accounts into Personal, Real and Nominal Accounts. Also mention on which side following account will be recorded :

1. Interest payable
2. Trademark
3. Carriage inwards
4. Sales
5. Unsold stock
6. Repair

Q19. Prepare Accounting Equation from the following:

- a) Started business with cash Rs. 60,000 and goods Rs. 30,000.
- b) Purchased goods from Sohan Rs. 40,000. Paid by raising loan from SBI .
- c) Bought refrigerator for personal use Rs. 8,000 .
- d) Goods costing Rs. 20,000 sold at a loss of 5%, out of which Rs. 12,000 received in cash.

Q20. Prepare a Trial Balance from the following items:

Account	₹	Account	₹
Capital	24,000	Building	12,000
Opening stock	8,500	Returns inward	1,900
Furniture	2,600	Returns outward	350
Purchases	8,950	Trade expenses	1,000
Cash	7,300	Discount received	970
Carriage	300	salary	3,000
Sales	22,500	Office rent	2,270

Q21. Prepare Subsidiary Books of M/s Gupta Brothers ,Delhi from the following transactions:-

2012	
<b>March 7</b>	Sold goods on credit to Sethi & Co. Mumbai 10 Electric irons @ Rs.25 each 4 electric stoves @ Rs.15 each Less: Trade Discount @10%
<b>10</b>	Purchased on credit from Hari & sons, Delhi 25 heaters @ Rs.40 each 10 water heaters @ Rs.20 each Less: Trade Discount @5%
<b>20</b>	Purchased for cash from Mohan and Co., Mumbai 10 electric irons @ Rs.30 each
<b>25</b>	Sold to Gems Bros. on credit, Delhi 10 heaters @ Rs.30 each

<b>30</b>	4 water coolers @ Rs.25 each  Returned to Hari & Sons, Delhi 5 heaters being defective
<b>30</b>	Purchased from Kohli., Amritsar 10 toasters @ Rs.20 each 10 water heaters @ Rs.30 each

**CGST and SGST is levied @6% each and IGST is levied @12%.**

**OR**

Following transactions are recorded in the books of Darshan traders, Mumbai:

2017	
March 1	Sold to Chandra light house, Mumbai: 50 Tubelights @ 60 each <b>less:20% trade discount</b> 20 Heaters @120 each <b>less: 25% trade discount</b>
5	Purchased from Charat Ram Electric Co.,Delhi:in cash 25 Table fans @ 600 each 20 Ceiling fans @ 800 each
10	Chaudhary & Sons,Delhi purchased from us: 80 dozen Bulbs @ 90 per dozen
12	Purchased from Ram Lal & Sons ,Delhi ;one typewriter for 6000 on credit, for office use
16	Sri Ram & Sons sold to us, Chennai: 10 Electric Irons @ 180 each <b>less :10% trade discount</b>
20	Chandra light House ,Mumbai returned: 5 Tubelights sold on March 1
22	Sold goods to Jai Bhagwan & Co. Mumbai for cash 10,000

You are required to prepare Purchase, Purchase Return, Sales and Sales Return Book.

**CGST and SGST is levied @6% each and IGST is levied @12%.**

Q.22 Ashu keeps incomplete records. He started business on 01 April, 2018 with Capital of Rs.40,000. His Capital balance as on 31st March,2019 was Rs.1,50,000. During the year he had spent Rs.10,000 to buy Mobile phone for his daughter and also withdrew Rs.2,500 per month for his household expenses. He also introduced additional capital by selling his personal investments of Rs.50,000 at 20% profits and total proceeds were brought into the business. Calculate the profit or loss of his business for the year ended 31st March, 2019.

Q23 Record the following transactions in double column cash book of Mr. Rakesh Verma and balance it.

Sept. 01: Balance of cash ₹ 22,000 and Bank overdraft ₹ 2,500.

Sept. 06: Received cheque on October 28<sup>th</sup>, for ₹ 4,000 from Gaurav sent into the bank.

Sept. 10: Bank has collected and deposited: Interest of ₹ 6,000; Dividend of ₹ 8,000.

Sept. 16: Bank has paid several payments on its due date: Insurance premium of ₹ 3,000 and School fees of the child of Rakesh Verma ₹5,000.

Sept. 24: Cash deposited into the bank ₹ 12,000.

Sept. 29: Sold goods (costing ₹ 25,000) at 20% profit for cash.

Q24. Trial balance of a company did not agree and the accountant put the difference to suspense account. Prepare suspense account. He discovered the following errors:

- a) Credit sales to Mohan Rs. 7,000 where posted to Karan account.
- b) A credit balance of Rs. 755 of rent received account was shown as Rs. 570.
- c) The total of returns outward book amounting to Rs. 200 was not posted to the ledger.
- d) Rohit's a/c was credited with Rs.840 twice instead of once.
- e) Rent paid for residential accommodation of Mohan (the proprietor) ₹ 1,400 was debited to Rent account as Rs. 1,000

Q25. From the following particulars of Mr. Vinod, prepare bank reconciliation statement as on March 31, 2005.

1. Bank balance as per cash book ₹ 50,000.
2. Cheques issued but not presented for payment ₹ 6,000.
3. The bank had directly collected dividend of ₹ 8,000 and credited to bank account but was not entered in the cash book.
4. Bank charges of ₹ 400 were not entered in the cash book.
5. A cheque for ₹ 8,000 was deposited but not collected by the bank.

Q26. B & Company purchased Machinery on 1st April, 2019, for Rs 54,000 and spent Rs 6,000 on its installation. On 1st December, 2020, it purchased another machine for Rs 30,000. On 30th June 2021, the first machine purchased on 1st April, 2019, is sold for Rs 36,000 and on the same date it purchased new machinery for Rs80,000. Depreciation was provided on machinery @ 10% p.a. on Original Cost Method annually on 31st March. Prepare machinery account for three years.

### OR

On April 1, 2015 following balances appeared in the books of M/s Kamisha traders : furniture account Rs 50,000, provision for depreciation on furniture Rs 22,000. On October 1, 2015 a part of furniture purchased for Rs 20,000 on 01 April, 2011 was sold for Rs 5000. On the same date a new furniture costing Rs 25,000 was purchased. The depreciation was provided @10% p.a on original cost of the asset and no depreciation was charged on the asset in the year of sale. Prepare furniture account and provision for depreciation account for the year ending March 31, 2016.

### PART B

Q27. Net Sales ₹ 5,00,000; Cost of goods sold ₹ 3,00,000 and Operating Expenses ₹1,20,000. Operating profit of the firm will be ₹ \_\_\_\_.

(a) Rs 3,20,000

(b) Rs 80,000



(c) Rs 3,80,000

(d) none of these

Q28. If opening capital is Rs 50000 as of April 1, 2021 and additional capital introduced

Rs 10000 on January 2022. interest charge on capital 10% p.a. the amount of interest on capital shown in the profit and loss account as on March 31, 2022 will be .....

(a) Rs 5250

(b) Rs 6000

(c) Rs 4000

(d) Rs 3000

Q29. Net profit of a firm before charging manager's commission is Rs 21000. if the

manager is entitled to 5% commission after charging such commission how much manager will get as commission ?

(a) Rs 1000

(b) Rs 1050

(c) Rs 990

(d) none of these

Q30. Calculate sales if rate of gross profit is 20% on cost of goods sold and cost of goods

sold is Rs 1,20,000

(a) Rs 1,44,000

(b) Rs 24,000

(c) Rs 1,50,000

(d) none of these

**OR**

Calculate gross profit if rate of gross profit is 20% on sales and cost of goods sold is Rs 2,40,000

(a) Rs 60,000

(b) Rs 48,000

(c) Rs 1,08,000

(d) none of these

Q31. Prepare balance sheet from the following information

Net loss Rs 4,338 , capital Rs 80,000, cash in hand Rs 20,100 , debtor Rs 19,012,

closing stock Rs 20,000, furniture Rs 6,300, building Rs 42,750 , outstanding salaries

Rs 1,000, Bills payable Rs 3000. Sundry creditors 28,500.

Q32. State with reasons whether the following are capital , revenue expenditure, deferred revenue expenditure

(1) A new machine is purchased for Rs 60,000, Rs 800 were spent on its carriage and Rs 1500 were paid as wages for its installation.

(2) Rs 1500 were spent on the repair of new machinery

(3) Removal of stock from the old site to new site cost Rs 4,20,000. The new site is more favourably located

**OR**

Briefly explain capital , revenue expenditure and deferred revenue expenditure.

Q33. An extract from a Trial Balance on March 31st, 2019 is given below:

Particulars

Amount (₹)

Sundry Debtors	32,000
Bad Debts	2,000
Provision for Bad Debts	3,500

**Additional Information:**

Write-off further Bad Debts ₹ 1,000 and create a provision for Doubtful Debts @ 5% on debtors. Pass necessary Journal entries for the above adjustments.

Q34. The following is the Trial Balance of Zoya Steels Ltd. as on 31<sup>st</sup> March 2018. (6)

Name of Accounts	Debit (Rs)	Credit (Rs)
Cash in Hand	1,080	
Cash at Bank	5,260	
Purchases and Sales	81,350	1,97,560
Return Inwards and Outwards	1,360	1,000
Wages	20,960	
Fuel and Power	9,460	
Carriage on Sales	31,400	
Carriage on purchases	4,080	
Opening Inventory	11,520	
Building	60,000	
Freehold Land	20,000	
Machinery	13,000	
Salaries	31,000	
Patents	31,000	
General Expenses	6,000	
Insurance	1,200	
Capital		1,42,000
Drawings	10,490	
Sundry Debtors and Creditors	29,000	31,600
<b>Total</b>	<b>3,56,160</b>	<b>3,56,160</b>

You are required to prepare Trading and Profit & Loss Account as on that date after considering the following adjustments-

1. Inventory at the end was ₹13,600.
2. Insurance includes a premium of ₹ 170 for the next year.
3. Wages include a sum of ₹ 4,000 spent on the erection of cycle shed for employees.
- 4 A provision for bad and doubtful debts is to be created on debtors @5 % on sundry debtor.
- 5 Manager is to be given a commission of 10% on Net Profits before charging such Commission.

**OR**

Prepare Trading and Profit and loss Account for the year ended 31<sup>st</sup> March 2017 from the following

Trial balance:

Dr. Balances	Amount	Cr. Balances	Amount
Opening Stock	32,000	Sales less Returns	2,20,000
Purchases less Returns	76,000	Sundry Creditors	30,000
P. Kumar	3,000	Capital	67,800
Wages	15,400	Mortgage	15,600
Carriage inwards	2,600	Rent Outstanding	1,000
Carriage outwards	1,500		
Salaries	40,000		
Advertisement	9,000		
Trade expenses	4,800		
Rent	12,000		
Establishment charges	5,400		
Legal expenses	2,100		
Mortgage interest	600		
Sundry debtors	40,000		
Cash	2,500		
Machinery	87,500		

Adjustments:

- a) Closing stock was Rs. 46,000.
- b) Provision for doubtful debts to be created on Sundry debtors @ 5% and provision for discount at 2%.
- c) Salary of Rs. 3000 paid to P. Kumar an employee, stand debited to his personal account needs to be corrected.
- d) A stationery bill of Rs. 200 remains unpaid and unrecorded.
- e) Write off one –third of advertisement expenses.
- f) Sundry creditors include Rs. 10,000 loan taken from Mr. Sudhir on Sep. 1, 2016 bearing interest @ 12% p.a.





**BAL BHARATI PUBLIC SCHOOL, DWARKA**  
**ANNUAL EXAM SAMPLE PAPER (2024-25)**  
**CLASS XI**  
**SUBJECT: COMPUTER SC**

**TIME: 3 HOURS**

**MM: 70**

**General Instructions:**

- This question paper contains 37 questions.
- All questions are compulsory. However, internal choices have been provided in some questions. Attempt only one of the choices in such questions
- The paper is divided into 5 Sections- A, B, C, D and E.
- Section A consists of 21 questions (1 to 21). Each question carries 1 Mark.
- Section B consists of 7 questions (22 to 28). Each question carries 2 Marks.
- Section C consists of 3 questions (29 to 31). Each question carries 3 Marks.
- Section D consists of 4 questions (32 to 35). Each question carries 4 Marks.
- Section E consists of 2 questions (36 to 37). Each question carries 5 Marks.
- All programming questions are to be answered using Python Language only.
- In case of MCQ, text of the correct answer should also be written

<b>SECTION A</b>		<b>18 Marks</b>
<b>1</b>	Which of the following is the common measurement of unit of computer memory? a) IQ b) Byte c) Terabyte d) Gigabyte	<b>1</b>
<b>2</b>	_____ performs all the four arithmetic (+ - * /) and some logical (> < = !=) operations.	<b>1</b>
<b>3</b>	Match the base of the following number systems  Octal            10 Binary         16 Hexadecimal   2 Decimal        8	<b>1</b>
<b>4</b>	Find the output of the following 5*1**3 20//3 20/3 a) 125    6.6        6 b) 25    6            6.6 c) 5    6            6.6 d) 5    6.6         6	<b>1</b>
<b>5</b>	Which of the following is invalid identifier(s)? You Can select more than one. a) My_sal b) break c) sal.123 d) _ds	<b>1</b>

6	Unauthorised monitoring of other people’s communications is called _____ a) Phishing b) Eavesdropping c) Adware d) Spyware	1
7	The hexadecimal digits are 1 to 0 and A to ____ a) E    b) F    c) G    d) D	1
8	What will be the output of the following code? <pre>t1=(15,11,17,16,12) t1.pop(2) print(t1)</pre> a) (15,11,16,12) b) (15,17,16,12) c) (15,11,17,16,12) d) Error	1
9	<pre>str1="mission2025" str2="2025" print(str1.isdigit(), str2.isdigit())</pre>	1
10	Methods used for interpretation of computer media for digital evidence, are collectively known as _____ a) Digital Investigation b) Digital clearing c) E-forensics d) Digital forensics	1
11	<b>Find the output of the following code</b> <pre>lst1 = [10, 15, 20, 25, 30] lst1.insert(1, 2) lst1.insert(2, 4) print (lst1[-5])</pre> a) 15 b) 1 c) 2 d) 4	1
12	Which of the following function can not be used in a tuple? a) append()    (b) index()    c) sum()    d) max()	1
13	<b>Find the output</b> <pre>d1={1:1, 1:2, 3:3}</pre> a) {1: 2, 3: 3} b) Error, duplicate keys are not allowed c) {1:1, 1:2, 3:3} d) {1: 1, 3: 3}	1
14	<b>Find the output</b> <pre>print("I", "am", "in", "class", "XI", sep="-", end="@")</pre> a) I-am-in-class-XI-@ b) I-am-in-class-XI@ c) I@am@in@class@XI- d) I-am-in-class-XI	1

15	<p>What will the following expression be evaluated to in python?</p> <pre>print(15.0/4+(8+3.0))</pre> <p>(a) 14.75                      b) 14.0                      c) 15                      d) 15.5</p>	1
16	<p>The rights of the owner of information to decide how much information is to be shared/exchanged/distributed, are collectively known as _____</p> <p>a) Intelligent Property Right b) Intellectual Property Right c) Interactive Property Right d) Instance Property Right</p>	1
17	<p><b>Which of the following is not a cyber crime?</b></p> <p>a) Data theft                      b) Forgery c) Damage to data and systems d) Installing antivirus for protection</p>	1
18	<p>What is the value of x when this loop has been terminated?</p> <pre>x=45 while x&gt;0:     sum=sum+x     x=x-10 print(x)</pre> <p>(a) 25                      (b) 45                      (c) 5                      (d) -5</p>	1
19	<p><b>Write the import statement for the following</b></p> <p>a) To find the square root. b) To find the mean, median.</p>	
	<p><b>Q.20 and 21 are ASSERTION and REASONING based questions.</b> <b>Mark the correct choice as:</b></p> <p>a. Both A and R are True and R is the correct explanation for A b. Both A and R are True and R is not the correct explanation for A c. A is True but R is False d. A is False but R is True</p>	
20	<p><b>Assertion A:-</b> A variable in python represents named location that refers to a value and whose values can be used and processed during program run. <b>Reasoning R:-</b> In python, a variable is created when you write the print().</p>	
21	<p><b>Assertion A:-</b> The keys of a dictionary must be immutable types such as numbers or strings. <b>Reasoning:-</b> A tuple can also be a key provided it contains immutable elements.</p>	
	<b>SECTION B ( 7 x 2=14 Marks)</b>	
22	<p>Write the difference between application software and system software. Give an example of each. OR Write the difference between RAM and ROM.</p>	1+1
23	<p>State the following laws</p> <p>a) Absorption Law                      b) Distributive Law</p>	2

24	Match the following <table border="1"> <thead> <tr> <th>COLUMN A</th> <th>COLUMN B</th> </tr> </thead> <tbody> <tr> <td>1. IT ACT 2000</td> <td>A. Established grievance redressal mechanisms</td> </tr> <tr> <td>2. IT ACT 2008</td> <td>B. User education about the privacy policies</td> </tr> <tr> <td>3. IT ACT 2021</td> <td>C. Defined cybercrimes for the first time</td> </tr> <tr> <td></td> <td>D. Introduction of data protection rules</td> </tr> </tbody> </table>	COLUMN A	COLUMN B	1. IT ACT 2000	A. Established grievance redressal mechanisms	2. IT ACT 2008	B. User education about the privacy policies	3. IT ACT 2021	C. Defined cybercrimes for the first time		D. Introduction of data protection rules	2
COLUMN A	COLUMN B											
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	D. Introduction of data protection rules											
25	Name any two best practices that you will ensure for the confidentiality of information. OR What do you understand by plagiarism? Why it is a punishable offence?	2										
26	<b>Find the output of the following code</b> <pre> D={1: "one", 2: "two", 3: "Three",10:"Ten"} L=[ ] for K,V in D.items( ):     if V[0]== "T":         L.append(K) print (L) </pre>	2										
27	<b>Convert the following</b> a) $108_{10}$ to _____ $_{16}$ b) $ABC_{16}$ to _____ $_8$ c) $517_8$ to _____ $_{10}$ d) $11011_2$ to _____ $_8$ e) $45_{10}$ to _____ $_2$	2										
28	Find the possible output from the following. Also find the maximum and minimum value that rnum variable will generate.  <pre> import random str1="computer\$C" rnum=random.randint(1,10) for i in range(0,rnum,3):     print(str1[i], end="\$") </pre> a) c\$    b) c\$P\$e\$    c) c\$m\$t\$    d) c\$P\$e\$C\$	2										
<b>SECTION C ( 3 x 3 = 9 Marks)</b>												
29	1) What is the difference between proprietary software and open-source software? 2) Explain any two gender issues while teaching and using computer. 3) Define the term Plagiarism.  OR  <b>Define the following cyber crime.</b> <b>a) Cyber Trolling    b) Ransomware    c) Cyber Bullying</b>	3										
30	a) Write a program to input a variable size from the user and input tuple of size elements from the user. Find the sum of all values, maximum value and smallest value from the tuple.  b) Input a number n and count how many times that number is appearing in the tuple.	[2]  [1]										
31	Write a program to display the words starting with “H” or “h” in a string entered by the user. Example: str1=“THE ALPS HEALS WITHOUT hurting” the output will be displayed as: “HEALS” “hurting”	3										



<b>SECTION D ( 4 x 4 = 16 Marks)</b>		
<b>32</b>	<p>a) Rashmi has joined a new school. She does not know many people in her new school. But all of a sudden, someone started posting negative and demeaning comments on her social media handles, school forum etc. She is also getting repeated emails from unknown people.</p> <p>1) Which problem is faced by Rashmi? 2) What action should be taken to stop them?</p> <p>b) Raghav wanted to gift his brother a football or a wrist watch. So he searched for many sports items and wrist watches online. But after that every time he goes online, his web browser shows him advertisements about sports items and wrist watches.</p> <p>(1) Why is this happening? (2) How could have Raghav avoided them?</p>	<b>1x4=4</b>
<b>33</b>	<p><b>a) Find the output</b>  <b>LS = [ "HIMALAYA", "NILGIRI", "ALASKA", "ALPS"]</b>  <b>D = {}</b>  <b>for S in LS :</b>              <b>if len(S)%4 == 0:</b>                  <b>D[S] = len(S)</b>  <b>for K in D:</b>              <b>print(K, D[K], sep = "#")</b></p> <p><b>b) Write the difference between the following functions? Also write the suitable python code for the same.</b>              (i) split() and partition()                      (ii) append() and extend()</p>	<b>[2]</b>          <b>[1+1]</b>
<b>34</b>	<p>a) Write the python statement for each of the following tasks using built in functions/methods only.</p> <p>(i) To display the number of occurrences of the substring "is" in stri message. For example, if the string message contains "This is his book", then will be 3. (ii) To count the occurrence of number 20 in the list [10,20,20,50,20]</p> <p>b) Find the output  <b>l=[2,6,9,10]</b>  <b>print(l)</b>  <b>for i in range(len(l)):</b>              <b>if l[i]%2==0:</b>                  <b>l[i]=l[i]*2</b>              <b>if l[i]%3==0:</b>                  <b>l[i]=l[i]*3</b>              <b>else:</b>                  <b>l[i]=l[i]*5</b>  <b>print(l)</b></p>	<b>[1+1]</b>          <b>[2]</b>
<b>35</b>	<p>Given the dictionary Yearly_Avg_sale in which year is the key and average_sale made by the salesman is the value.          Yearly_Avg_sale={1995 : 10000, 2000 : 11000 , 2010 : 20000, 2020 : 4000}</p> <p><b>Write the python statements to do the following tasks:</b></p> <p>i) Make a list of years and extract those years in which sale made is greater than 10000 e.g. the output list will be List=[2000, 2010]          ii) To replace the sale made in year 2020 as 30000 in the original dictionary          iii) To remove the last added value from the dictionary</p>	<b>[1x4=4]</b>

	iv) Find the sum of the average_sale(All the values of dictionary). The output value should be $(10000+11000+20000+40000)= 81000$	
<b>SECTION E (2 X 5 = 10 Marks)</b>		
<b>36</b>	a) Write a program to input a number and find the factorial of that number.	<b>2</b>
	b) Write Python code to create a list of numbers that are multiple of 3 or 5 between n1 and n2 where n1 and n2 are numbers entered by the user. For example, if user has entered n1=4 and n2=12 then the list will be [5,6,9,10,12] Note: Assumption n1 is less than n2 always.	<b>3</b>
<b>37</b>	a) Write a program that will take a string w and ch as character and return the string where every ch of the string W is replace with # sign e.g. if the string is TELEVISION and ch is E then the output string will be T##L#VISION	<b>2</b>
	b) Write a program to input 3 digit number from the user and swap the first digit and last digit. E.g. if number is 789 then output should be 987	<b>3</b>

**BAL BHARATI PUBLIC SCHOOL, DWARKA**  
**CLASS – XI**  
**ANNUAL EXAM – SAMPLE PAPER (2024-25)**  
**SUBJECT: MATHEMATICS**



**MM: 80**

**TIME: 3 hrs**

**General Instructions:**

1. All questions are compulsory.
2. The question paper consists of five sections- A, B, C, D and E.
3. Section A comprises of 18 MCQs and two Assertion-Reasoning based questions of 01 mark each.
4. Section B comprises of 5 Very Short Answer Type questions of 2 marks each.
5. Section C comprises of 6 short answer type questions of 3 marks each.
6. Section D comprises of 4 Long Answer Type questions of 5 marks each.
7. Section E has 3 case-based questions (4 marks each) with sub parts.
8. There is no overall choice. However internal choice has been provided. You have to attempt only one of the alternatives in all such questions.

**SECTION-A**  
**(Multiple Choice Questions)**  
**Each question carries 1 mark**

1. The elements of set A, satisfy the property  $\frac{n}{2n+1}$ ,  $n \in \mathbb{N}$ ,  $n < 5$  for their elements. The element which does not belong to the set is
 

(a) $\frac{3}{7}$	(b) $\frac{4}{9}$
(c) $\frac{1}{3}$	(d) $\frac{5}{11}$
  
2. For sets A and B,  $n(A \cup B) = 40$ ,  $n(A - B) = 12$ ,  $n(\overline{A} \cap B) = 20$ , then  $n(A \cap B)$  is
 

(a) 18	(b) 28	(c) 20	(d) 8
--------	--------	--------	-------
  
3. If  $(x + 1, 1) = (3, y - 2)$  then the value of  $x^2 + y^2$  is
 

(a) 5	(b) 13	(c) 9	(d) 4
-------	--------	-------	-------
  
4. Range of the function  $f(x) = \frac{x+4}{|x+4|}$  is
 

(a) {4}	(b) {-4}	(c) {-1, 1}	(d) any real number
---------	----------	-------------	---------------------
  
5. The length of an arc of circle of radius 5 cm subtending a central angle measuring  $15^\circ$ .
 

(a) $\frac{\pi}{12}$ cm	(b) $\frac{5\pi}{12}$ cm	(c) $\frac{3\pi}{12}$ cm	(d) None of these
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6. If  $x$  lies in the third quadrant and  $\cos x = -\frac{12}{13}$  then the value of  $\tan x$  is
- a.  $\frac{2}{13}$       b.  $\frac{5}{12}$       c.  $\frac{3}{4}$       d)  $-1$
7. The standard form of the complex number  $(5 - 3i)^3$  is
- (a)  $10 + 198i$   
 (b)  $10 - 198i$   
 (c)  $-10 - 198i$   
 (d) None of these.
8. The solution set of the linear inequality  $\frac{1}{x-2} < 0$  is
- (a)  $(-\infty, 2)$   
 (b)  $(-\infty, -2)$   
 (c)  $(-\infty, 5)$   
 (d) None of these.
9. A gentleman has 6 friends to invite. In how many ways can he send invitation cards to them, if he has three servants to carry the cards?
- (a) 18  
 (b) 216  
 (c) 729  
 (d) 1
10. From a class of 32 students, 4 are to be chosen for a competition. In how many ways can this be done?
- (a) 30560  
 (b) 35960  
 (c) 39560  
 (d) 35690
11. In the expansion of the binomial  $(1 + x)^{20}$ , total number the terms are
- (a) 20  
 (b) 0  
 (c) 21  
 (d) 19
12. The sum of 20 terms of the A.P.: 1,4,7..... is
- (a) 650  
 (b) 590.  
 (c) 200  
 (d) 59
13. The ratio in which the line joining (2,4,5) and (3,5,-9) is divided by the  $yz - plane$  is
- (a) 2: 3  
 (b) 3: 2  
 (c) -2: 3  
 (d) 4: -3
14. The mean deviation of the data 2, 9, 9, 3, 6, 9, 4 from the mean is
- (a) 2.23  
 (b) 2.57  
 (c) 3.23  
 (d) 3.57
15. The point  $(-5,3,2)$  lies in the
- (a) 2<sup>nd</sup> octant.  
 (b) 7<sup>th</sup> octant.  
 (c) X- Axis.

(d) 5<sup>th</sup> octant

16. If three coins are tossed together, then the probability of getting exactly 3 heads is

- (a)  $\frac{3}{8}$                       b)  $\frac{1}{8}$                       c)  $\frac{7}{8}$                       d)  $\frac{1}{2}$

17. Three digit numbers are formed using the digits 0, 2, 4, 6, 8. A number is chosen at random out of these numbers. What is the probability that this number has the same digits?

- (a)  $\frac{1}{16}$                       (b)  $\frac{16}{25}$                       (c)  $\frac{1}{645}$                       (d)  $\frac{1}{25}$

18. The minimum value of  $3 \cos x + 4 \sin x + 8$  is

- (a) 5                      (b) 9                      (c) 7                      (d) 3

### ASSERTION-REASON BASED QUESTIONS

In the following questions, a statement of assertion (A) is followed by a statement of Reason (R). Choose the correct answer out of the following choices.

- a) Both A and R are true and R is the correct explanation of A.
- b) Both A and R are true but R is not the correct explanation of A.
- c) A is true but R is false.
- d) A is false but R is true.

19. **Assertion [A]:** The domain of the function  $f: A \rightarrow B$  is the set A.

**Reason[R]:** The modulus function is defined for all real values. So the domain is the set of real numbers

20. **Assertion [A]:** The function which satisfies the condition  $(-x) = f(x)$ , is known as even function.

**Reason[R]:**  $f(x) = \sin x$  is an even function.

### SECTION B

**This section comprises of very short answer type-questions (VSA) of 2 marks each.**

21. A and B are two sets such that :  $n(A - B) = 14 + x$ ,  $n(B - A) = 3x$  and  $n(A \cap B) = x$ , if  $n(A) = n(B)$  then find the value of  $x$ .

**OR**

Which of the given pairs of sets are disjoint?

- (i).  $A = \{1, 2, 3, 4\}$  and  $B = \{x: x \text{ is a natural number and } 4 \leq x \leq 6\}$
- (iii).  $A = \{x: x \text{ is an even integer}\}$  and  $B = \{x: x \text{ is an odd integer}\}$

22. In how many ways can 5 girls and 3 boys be seated in a row so that no two boys are together ?

23. If  $a + ib = \frac{(x+i)^2}{2x^2+1}$ , prove that  $a^2 + b^2 = \frac{(x^2+1)^2}{(2x^2+1)^2}$ .

**OR**

Solve the following for  $x$  and  $y$  :  $(x - iy) (2 + 3i) = \frac{x+2i}{1-i}$

24. Insert five numbers between 8 and 26 so that the resulting series is an A.P.

25. Find the mean deviation about the mean.

$x_i$	10	30	50	70	90
$f_i$	4	24	28	16	8

### SECTION C

This section comprises of short answer type-questions (SATQ) of 3 marks each.

26. Draw the graphical solution of the following system of inequation :

$$-2 - \frac{x}{4} \leq \frac{1+x}{3}, 3-x < 4(x-3)$$

OR

Draw the graphical solution of the following system of inequation  $\frac{x-5}{x+2} < 0$

27. Show that  $2^{4n} - 15n - 1$  is divisible by 225.

28. Find angle between the lines  $\sqrt{3}x + y = 1$  and  $x + \sqrt{3}y = 1$

OR

Find equation of the line parallel to the line  $3x - 4y + 2 = 0$  and passing through the point  $(-2, 3)$ .

29. An arch is in the form of a parabola with its axis vertical. The arch is 10m high and 5m wide at the base. How wide is it 2m from the vertex of the parabola?

30. Find the mean, variance and standard deviation of the following data.

Class Interval	0-10	10-20	20-30	30-40	40-50
Frequencies	5	8	15	16	6

31. Find  $\frac{dy}{dx}$  in the followings.

a)  $y = \frac{x^n - a^n}{x - a}$ .

b)  $y = (5x^3 + 3x - 1)(x - 1)$ .

### SECTION D

(This section comprises of long answer-type questions (LATQ) of 5 marks each)

32. Solve the followings:

a) Find the domain of the function  $f(x) = \frac{x^2 + 2x + 1}{x^2 - 8x + 12}$ .

b) Find the range of the function.  $f: R \rightarrow R$  such that  $f(x) = \frac{x^2}{1+x^2}$ .

33. Evaluate:  $\cos^2 \frac{\pi}{8} + \cos^2 \frac{3\pi}{8} + \cos^2 \frac{5\pi}{8} + \cos^2 \frac{7\pi}{8}$ .

OR

Prove that:  $\cos^2 A + \cos^2 (A + 120^\circ) + \cos^2 (A - 120^\circ) = 3/2$

34. The sums of n terms of two arithmetic progressions are in the ratio  $(5n + 4) : (9n + 6)$ . Find the ratio of their 18th terms.

35. Evaluate the following limit : i.  $\frac{x^2 - \sqrt{x}}{\sqrt{x} - 1}$  ii.  $\frac{\operatorname{cosec} x - \cot x \cot x}{x}$

OR

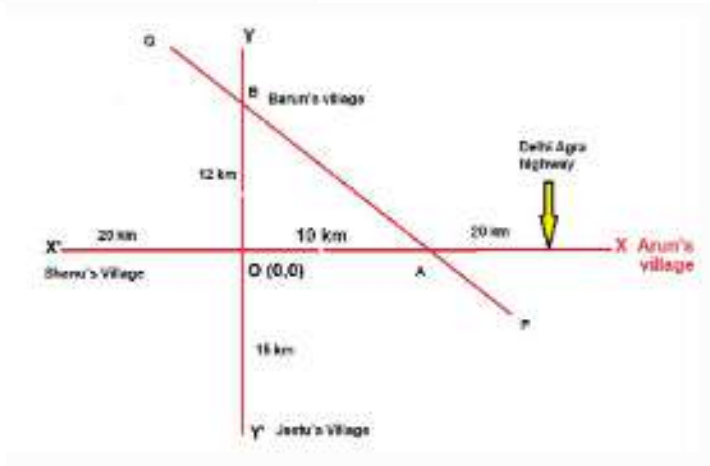
Find the derivative of  $f(x) = \sin x \cos x$  using first principle of differentiation.

### SECTION E

(This section comprises of 3 case-study/passage-based questions of 4 marks each)

36. Villages of Shanu and Arun's are 50km apart and are situated on Delhi Agra highway as shown

in the following picture. Another highway YY' crosses Agra Delhi highway at O (0, 0). A small local road PQ crosses both the highways at points A and B such that OA=10 km and OB =12 km. Also, the villages of Barun and Jeetu are on the smaller high way YY'. Barun's village B is 12km from O and that of Jeetu is 15 km from O.



- (a) What are the coordinates of A??
- (10,0)
  - (10,12)
  - (0,10)
  - (0,15)
- (b) What is the equation of line AB?
- $5x + 6y = 60$
  - $6x + 5y = 60$
  - $x = 10$
  - $y = 12$
- (c) What is the distance of AB from O(0, 0)?
- 60 km
  - $60/\sqrt{61}$  km
  - $\sqrt{61}$  km
  - 60 km
- (d) What is the slope of line AB?
- 6/5
  - 5/6
  - 6/5
  - None of these.

37. Two friends Ajay and Rahul are playing cards. Ajay asks Rahul to choose any four cards from a pack of 52.

Answer the following questions based upon above information.

- In how many ways Rahul can select all 4 cards from heart cards
  - 2680
  - 2086
  - 715
  - 517
- In how many way he can select all 4 cards from different suits?
  - 28561
  - 26581
  - 25861
  - None of these.
- In how many ways can he select all face cards?
  - 505
  - 485
  - 495
  - None of these.
- In how many ways can he select 2 red and 2 black cards?
  - 106525
  - 105525
  - 105265
  - None of these.

38. A railway train is travelling on a circular curve of 1500 metres radius at the rate of 66 km/h

(i) The angle by which it turned in 10 seconds is

(a)  $\frac{10}{90}$  radian      (b)  $\frac{44}{90}$  radian

(c)  $\frac{2\pi}{3}$  radian      (d)  $\frac{7\pi}{180}$  radian

(ii) The degree measure of the angle turned by railway train in 10 seconds

(a)  $7^\circ$                       (b)  $120^\circ$

(c)  $28^\circ$                       (d)  $\frac{7^\circ}{11}$

(iii) How much degree will train turn in 20 seconds?

(a)  $240^\circ$                       (b)  $14^\circ$

(c)  $56^\circ$                       (d)  $\frac{14^\circ}{11}$

(iv) If train changes its speed to 60 km/h then what angle will train turn in 10 seconds.

(a)  $\frac{2\pi}{5}$  radian      (b)  $\frac{7\pi}{198}$  radian

(c)  $\frac{2}{5}$  radian      (d)  $\frac{7\pi}{180}$  radian

(v) If train is moving with the speed of 66 km/h. How much time will train take to turn an angle of  $60^\circ$ ?

(a) 1 min 26 sec      (b) 2 min

(c) 1 h                      (d) 1 min



**BAL BHARATI PUBLIC SCHOOL, DWARKA**  
**ANNUAL EXAM (Sample paper )**  
**CLASS – XI**  
**SUBJECT: BIOLOGY**



**TIME: 3 HOURS**

**MM: 70**

**DATE: 17-2-23**

**General Instructions:**

- i. All questions are compulsory.
- ii. The question paper has five sections and 33 questions. All questions are compulsory.
- iii. Section–A has 16 questions of 1 mark each; Section–B has 5 questions of 2 marks each; Section– C has 7 questions of 3 marks each; Section– D has 2 case-based questions of 4 marks each; and Section–E has 3 questions of 5 marks each.
- iv. There is no overall choice. However, internal choices have been provided in some questions. A student has to attempt only one of the alternatives in such questions.
- v. Wherever necessary, neat and properly labeled diagrams should be drawn.

**SECTION A**

1. VIRION is
  - a) virus without a protein coat
  - b) prion
  - c) virus
  - d) viriod
2. All the hormone are proteins, peptides and amino acid derivatives except:
  - a) hormone of ovary
  - b) pancreas hormone
  - c) parathyroid hormone
  - d) thyroid hormone
3. In DNA nucleotides are held together by:
  - a) glycosidic bond
  - b) phosphodiester bond
  - c) peptide bond
  - d) ester bond
4. Living component of phloem incudes:
  - a) sieve tube cell
  - b) parenchyma
  - c) fibres
  - d) both a and b
5. CO is harmful because:
  - a) It releases recent O<sub>2</sub>
  - b) permanent binds to Hb
  - c) It reacts with O<sub>2</sub>
  - d) It breaks Hb
6. Energy required for ATP synthesis in PS-II comes from:
  - a) Electron gradient
  - b) Oxidation of glucose
  - c) Reduction of glucose
  - d) Proton gradient
7. Which one of the following characteristics is common both in humans and adult frogs?
  - a) Internal fertilization
  - b) Nucleated RBCs
  - c) Four- chambered heart
  - d) Ureotelic mode of excretion
8. Frogs help human as they:
  - a) Maintain ecological balance
  - b) Eat insect and protect the crop

- c) In some countries the muscular legs of frog are used as food by man  
d) All of these
9. Apical dominance means:  
a) Stimulation of growth of apical bud by removal of axillary buds  
b) Suppression of growth of apical bud by axillary buds  
c) Suppression of growth of axillary buds by the presence of apical bud  
d) Inhibition of growth of axillary buds by removal of apical bud
10. Bryophytes are also called “Amphibians of the plant kingdom” because:  
a) Plants can live in soil but are dependent on water for sexual reproduction  
b) All of these  
c) They play an important role in plant succession on bare rocks/soil  
d) They usually occur in damp, humid and shaded localities
11. Primary role of cortical nephrons is:  
a) Reabsorption of water  
b) None of these  
c) Reabsorption of water and Reabsorption of salt  
d) Reabsorption of salt
12. In a child of 15 years age, plasma calcium level is diagnosed below optimum level. Which organ is malfunctioning?  
a) Posterior lobe of pituitary  
b) Parathyroid  
c) Thyroid gland  
d) Liver

Question 13-16 are assertion and reasoning based questions. Choose the correct answer according to the options given below

- a) Both A and R are true and R is the correct explanation of A.  
b) Both A and R are true but R is not the correct explanation of A.  
c) A is true but R is false.  
d) A is false but R is true.

13. **Assertion (A):** Earthworm is bisexual  
**Reason (R):** It shows sexual reproduction.
14. **Assertion (A):** Organisms are made up of cells.  
**Reason (R):** Cells are structural unit of living organisms. A cell keeps its chemical composition steady within its boundary.
15. **Assertion (A):** Hydrolysis of starch into glucose is an organic chemical reaction.  
**Reason (R):** Bonds are broken and new bonds are formed during transformation of starch into glucose.
16. **Assertion (A):** If there is no air in trachea, it will not collapse.  
**Reason (R):** Trachea is having the cartilagenous ring.

### SECTION B

17. Name the components of stomata. What is the difference in the distribution of stomata in monocot and dicot leaf?
18. Name the animal tissue/ cell responsible for i) transport of absorbed fats in body ii) secretion of antibodies iii) movement and locomotion in humans.
19. Name the two hormones released by ovaries in human females. Which one is called as ‘Pregnancy hormone’?
20. Differentiate between hydrolases and ligases.
21. Suppose there were plants that had a high concentration of Chlorophyll b but lacked chlorophyll a, would it carry out photosynthesis? Explain.

**OR**

A type of anatomy of leaves possessed by C<sub>4</sub>-plants is different from those of C<sub>3</sub>-plants. Explain.

### SECTION C

22. Differentiate between:
- Open circulatory system and closed circulatory system
  - Oviparous and viviparous organisms
  - Direct development and Indirect development.
23. Mention one similarity between
- Aves and mammals
  - Annelida and arthropoda
  - A turtle and pila.
24. Succinic dehydrogenase is an enzyme that causes the substrate, succinate, to breakdown into fumarate. Malonate is a substance that resembles succinate and inhibits the activity of succinic dehydrogenase.
- State the type of inhibition of succinic dehydrogenase by malonate.
  - Explain how this type of inhibition affects the activity of the enzyme.
25. Name the 'stress hormone in plants'. Why is it called so?  
Identify the hormone responsible for fruit ripening.
26. Name the metal present in hemoglobin. What happens to old and worn out erythrocytes in the body of humans?

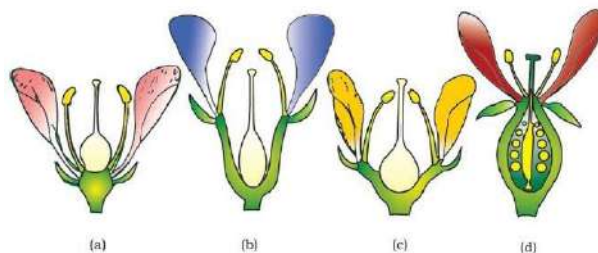
### **OR**

Identify the blood group ( from ABO blood grouping') which is called as the 'Universal Donor' and why?

27. I) Mention the causes of osteoporosis.  
ii) Mention the preventive measures of osteoporosis.  
iii) What would happen if the Actin binding site on myosin head is blocked.
28. Distinguish between
- Sensory neuron and motor neuron
  - Blood capillary and lymphatic capillary
  - ADH and aldosterone

### SECTION D

29. A. Which of the following represents epigynous flower.  
b) Which of the following represents hypogynous flower.  
c) Mention difference between epigynous and hypogynous flower.



30. Symmetry – Animals can be categorised on the basis of their symmetry. Sponges are mostly asymmetrical, i.e., any plane that passes through the centre does not divide them into equal halves. When any plane passing through the central axis of the body divides the organism into two identical halves, it is called radial symmetry. Coelenterates, ctenophores and echinoderms have this kind of body plan. Animals like annelids, arthropods, etc., where the body can be divided into identical left and right halves in only one plane, exhibit bilateral symmetry.

A. When two or more organs work together to perform a specific function, this pattern is called is termed as \_\_\_\_\_.

- a) Cellular Level of Organisation
- b) Tissue Level of Organisation
- c) Organ Level of Organisation
- d) Organ System Level of Organisation

B) Differentiate between radial and bilateral symmetry.

C) Group non chordates into two categories depending on their symmetry

### SECTION E

31. With the help of suitable diagrams describe the different stages of mitosis.

OR

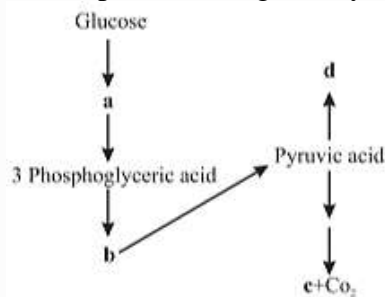
a) A cell in G<sub>1</sub> phase of interphase has DNA content (2N) and chromosome number (2C). What would be the number of chromosome and DNA content

- i) After S phase
- ii) After meiosis 1
- iii) In metaphase 1

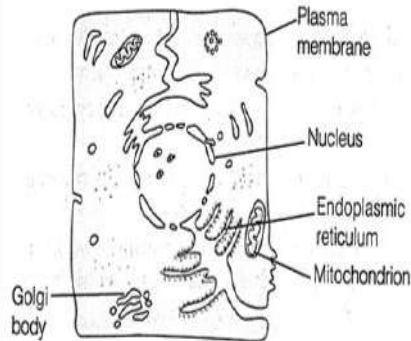
b) What is chiasmata? At which stage of meiosis it is formed?

32.i) In the following flow chart, replace the symbols a, b, c and d with appropriate terms.

ii) Briefly explain the process and give any two application of it.



33.a) The diagram shows some of the structures present in an animal cell.



Which of these structures is responsible for

- i. Manufacture of proteins, lipids and steroids
- ii. Release of energy
- iii. Manufacture of hormones and digestive enzymes.
- iv. Packaging and dispatch of synthesized proteins.
- v. Formation of barrier between cell and external environment.

b) Name the four types of chromosomes on the basis of position of centromere.



BAL BHARATI PUBLIC SCHOOL, DWARKA

SAMPLE QUESTION PAPER 2024-25

CLASS- XI

SUBJECT - PHYSICS

Time: 3 Hrs

MM: 70

General Instructions:

1. There are 33 questions in total. All questions are compulsory.
2. This question paper has five sections. All the sections are compulsory.
3. Section A contains sixteen questions (12 MCQs and 4 of Assertion Reasoning) of one mark each. Section B contains five questions of two marks each. Section C contains seven questions of three marks each. Section D contains two case study based questions of 4 marks each and Section E contains three questions of five marks each.
4. There is no overall choice. However, an internal choice has been provided in one question of Section B, C and E. You have to attempt only one of the given choices in such questions.
5. Use of calculators is not allowed.

SECTION - A

- Q1. An aircraft executes a horizontal loop at a speed of 720 km/h with its wings banked at  $45^\circ$ . What is the radius of the loop?
- a. 15 km                      b. 23.56 m                      c. 12.7 m                      d. 4 km
- Q2. A batsman hits back a ball straight in the direction of the bowler without changing its initial speed of 12m/s. If the mass of the ball is 0.15kg, the impulse imparted to the ball will be: (assume linear motion of the ball).
- a) - 45 Ns                      b) -3.6 Ns                      c) 3.78 Ns                      d) 60 Ns
- Q3. The dimensional formula,  $M L^2 T^{-1}$  is an example for
- a) Gravitational constant                      c) Boltzmann constant  
b) Planck's constant                      d) Ideal Gas constant
- Q4. A body of mass 3 kg is under a constant force which causes a displacement  $s$  (in meters) given by the relation  $s = 1/3 t^2$ , where  $t$  is in seconds. Work done by the force in 2 seconds is:
- a) 19/5 J                      b) 5/19 J                      c) 3/8 J                      d) 8/3 J
- Q5. If  $g$  is the acceleration due to gravity at the earth's surface, then what will be the increase in potential energy if object of mass  $m$  is raised by its radius  $R$ ?
- a)  $\frac{1}{2} mgR$                       b)  $2 mgR$                       c)  $mgR$                       d)  $\frac{1}{4} mgR$
- Q6. As 6.00 kg of a liquid substance at its freezing point completely freezes, it gives off enough heat to melt 3.00 kg of ice at  $0^\circ\text{C}$ . The heat of fusion of the substance will be (Take latent heat of fusion of ice  $=3.34 \times 10^2$  kJ/kg)
- a. 2.05 kJ/kg                      b. 4.9 kJ/kg                      c. 167 kJ/kg                      d. 668 kJ/kg

- Q7. If 1 g of steam is mixed with 1g of ice, the resultant temperature is:  
 a.  $270^{\circ}\text{C}$                       b.  $230^{\circ}\text{C}$                       c.  $100^{\circ}\text{C}$                       d.  $50^{\circ}\text{C}$
- Q8. If the amount heat given to a system is 35 J and the amount of work done on the system is -15 J, then the change in internal energy of the system is:  
 a. - 50 J                      b. 20J                      c. 30J                      d. 50J
- Q9. On a cold morning, a metal surface will feel colder to touch than a wooden surface, because  
 a) Metal has high specific heat  
 b) Metal has high thermal conductivity  
 c) Metal has low specific heat  
 d) Metal has low thermal conductivity
- Q10. A spring (with spring constant= $k$ ) is cut into 4 equal parts and two parts are connected parallel. What is the effective spring constant?  
 a)  $4k$                       b) $16k$                       c)  $8k$                       d)  $6K$
- Q11. For any SHM, amplitude is 6 cm. If the instantaneous potential energy is half the total energy, then the distance of the particle from the mean position is:  
 a) 3 m                      b) 4.2 m                      c) 5.8 m                      d) 6 m
- Q12. What will be the wave velocity, if the radar gives 54 waves/min and wavelength of the given wave is 10m?  
 a)  $4\text{m/s}$                       b)  $9\text{m/s}$                       c)  $6\text{ m/s}$                       d)  $5\text{ m/s}$

**For Questions 16 to 18, two statements are given- one labelled Assertion and the other labelled Reason. Select the correct answers to these questions from the options given below:**

- a. Both Assertion and Reason are true and reason is a correct explanation for assertion.  
 b. Both Assertion and Reason are true but reason is not the correct explanation for assertion.  
 c. Assertion is true, but Reason is false.  
 d. Assertion is false and Reason is true.

Q13. **Assertion:** When a body moves along a circular path, no work is done by the centripetal force.

**Reason:** The centripetal force is used in moving the body along the circular path and hence no work is done.

Q14. **Assertion:** It is difficult to put a cycle into motion than to maintain its motion.

**Reason:** Limiting friction is greater than kinetic friction.

Q15. **Assertion:** Horizontal range is same for angle of projection  $\theta$  and  $(90 - \theta)$ .

**Reason :** Horizontal range is independent of angle of projection.

Q16. **Assertion:** For a given time interval, average velocity is single valued while average speed can have many values.

**Reason:** Velocity is a vector quantity and speed is a scalar quantity.

### SECTION B

Q17. Show that elastic spring force is a conservative force.

**OR**

Q17. Show that two bodies of identical masses exchange their velocities when they undergo elastic head on collision in one dimension.

Q18. Check the dimensional consistency of the equation,  $h = \frac{2s \cos \theta}{\rho g}$  where  $h$ =height,  $s$ =surface tension,  $\rho$ =density,  $r$ =radius and  $g$ = acceleration due to gravity.

Q19. The resultant of two vectors  $A \vec{}$  and  $B \vec{}$  is  $C \vec{}$ . On reversing the direction of  $B \vec{}$  the resultant vector becomes  $D$ . Show that  $C^2 + D^2 = 2(A^2 + B^2)$ .

Q20. What is meant by centre of mass of a system? Obtain an expression for the centre of mass of a two particle system.

Q21. Three mass points each of mass  $m$  are placed at the vertices of an equilateral triangle of side  $l$ . What is the gravitational field and gravitational potential due to the three masses at the centroid of the triangle?

### SECTION C

Q22. A tennis ball is dropped on to the floor from a height of 4m. It rebounds to a height of 3m. If the ball was in contact with the floor for 0.01 second, what was its average acceleration during contact?

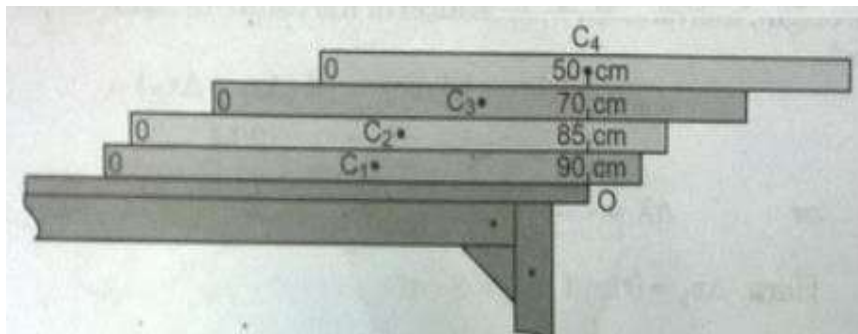
Q23. A target is fixed on the top of a tower 13 m high. A person standing at a distance of 50 m from the pole is capable of projecting a stone with a velocity  $10 \sqrt{g}$  m/s. If he wants to strike the target in shortest possible time, at what angle should he project the stone?

Q24. Derive an expression for the acceleration of a body sliding down a rough inclined plane having angle of inclination  $\theta$ .

Q25. A simple harmonic wave is expressed by equation  $y(x,t) = 0.25 \times 10^{-3} \sin(500t - 0.025x)$ , where  $y$  is in cm,  $x$  in cm and  $t$  in seconds. What is the (i) amplitude (ii) time period (iii) angular frequency (iv) wavelength (v) propagation constant (vi) direction of wave propagation.

Q26. Show that the average K.E of a gas molecule is directly proportional to the temperature of the gas. Hence give the kinetic interpretation of temperature.

- Q27. Four uniform identical meter rods (of length 1m each) are stacked on a table with 10cm, 15cm, 30cm and 50cm over the edge as shown in the figure. What is the distance of the center of mass from the edge o. Would the meter sticks remain on the table or topple down?



- Q28. What is Reynold's number? Show that the Reynold's number represents the ratio of the inertial force per unit area to the viscous force per unit area.

OR

- Q28. What is meant by critical velocity of a liquid? Derive an expression for it on the basis of dimensional considerations.

### SECTION D

#### Case Study Based Questions

- Q29. Read the following paragraph and answer the questions that follow: (4)

When a body moves back and forth repeatedly about its mean position, its motion is said to be oscillatory. Every oscillatory motion is necessarily periodic because it is repeated at regular intervals of time. The swinging motion of the pendulum of wall clock is an example of oscillatory motion. When the pendulum is released it begins to move back and forth with a velocity, thus acquiring kinetic energy. A simple harmonic motion is an example of periodic motion.

- i) Maximum displacement from equilibrium position is:
 

a. Amplitude	c. Wavelength
b. Frequency	d. Period
- ii) Which of the following variables has zero value at the extreme position?
 

a) Acceleration	c) Speed
b) Displacement	d) Angular frequency
- iii) The oscillations in which the frequency of the driving force is equal to the natural frequency of the oscillator itself so that the amplitude of oscillations becomes large, is known as
 

a) Free oscillations	c) Simple Harmonic oscillations
b) Undamped oscillations	d) Resonant oscillations
- iv) A body execute simple harmony motion with an amplitude A. At what displacement from the mean position the potential energy of a body is one fourth of its total energy.



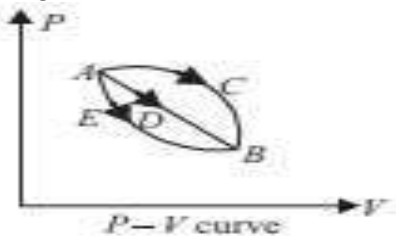
- a) A / 4
- b) 3 A / 4

- c) A / 2
- d) Some other fraction of A.

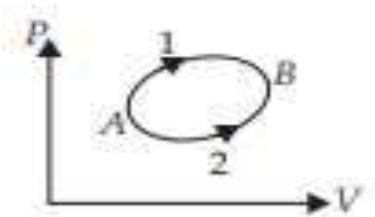
**Q30. Case Study 2 - Read the following passage and answer the following questions: (4)**

The first law of thermodynamics is the general law of conservation of energy applied to any system in which energy transfer from or to the surroundings (through heat and work) is taken into account. It states that the energy supplied to the system goes in partly to increase the internal energy of the system and the rest in work on the environment. Mathematically,  $\Delta Q = \Delta U + \Delta W$  where  $\Delta Q$  is the heat supplied to the system,  $\Delta W$  is the work done by the system and  $\Delta U$  is the change in internal energy of the system.  $\Delta Q$  and  $\Delta W$  depend on the path taken to go from initial to final states, but the combination  $\Delta Q - \Delta W$  is path independent.

- i) What is the fundamental concept in thermodynamics that involves two bodies in contact reaching a state with no net heat transfer between them?
  - a) Thermal equilibrium
  - b) Conservation of energy
  - c) Entropy
  - d) Internal energy
- ii) A certain mass of gas is carried from A to B, along three paths via ACB, ADB and AEB. Which one of the following is correct?



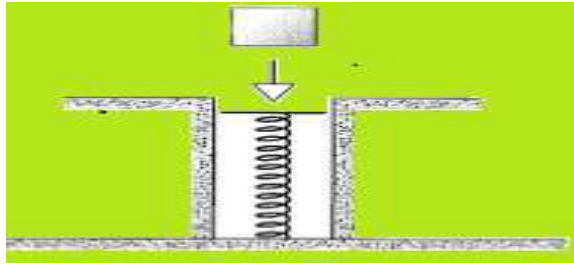
- a) Work done via path ACB is minimum.
  - b) Work done via path ADB is maximum.
  - c) Work done via path ACB is maximum.
  - d) Work done via path AEB is maximum
- iii) An electric heater supplies heat to a system at a rate of 120 W. If system performs work at a rate of  $80 \text{ J s}^{-1}$ , the rate of increase in internal energy is
    - a)  $30 \text{ J s}^{-1}$
    - b)  $40 \text{ J s}^{-1}$
    - c)  $50 \text{ J s}^{-1}$
    - d)  $60 \text{ J s}^{-1}$
  - iv) A system goes from A to B by two different paths in the P-V diagram as shown in fig. Heat given to the system in path 1 is 1100 J, the work done by the system along path 1 is more than path 2 by 150 J. The heat exchanged by the system in path 2 will be



- a) 800 J
- b) 750 J
- c) 1050 J
- d) 950 J

## SECTION E

- Q31. a) Show that the total mechanical energy of a freely falling body remains constant throughout its fall.
- b) A 200 g block is dropped onto a vertical spring with force constant  $k = 2.52\text{N/cm}$  as shown in the below figure. The block sticks to the spring, and the spring compress 11.8 cm before coming momentarily to rest. While the spring is being compressed, how much work is done i) by the force of gravity and ii) by the spring?

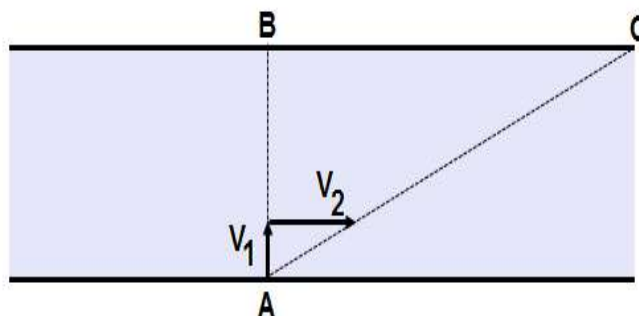


OR

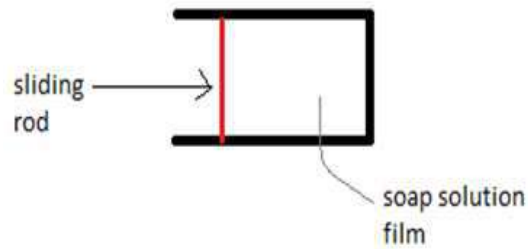
- Q31. a) State work energy theorem and prove it for a variable force.
- b) While catching a cricket ball of mass 200 g moving with a velocity of 20 m/s, the player draws his hands backwards through 20 cm. Find the work done in catching the ball and the average force exerted by the ball on the hand.
- Q32. a) At what point in its trajectory does a projectile have its minimum and maximum speed?
- b) A fighter plane flying horizontally at an altitude of 1.5 km with speed 720 km/h passes directly overhead an anti-aircraft gun. At what angle from the vertical should the gun be fired for the shell with muzzle speed  $400\text{ m s}^{-1}$  to hit the plane? At what minimum altitude should the pilot fly the plane to avoid being hit? (Take  $g = 10\text{ m s}^{-2}$ ).

OR

- Q32. a) State and illustrate parallelogram law of vector addition.
- b) The diagram to the right represents a swimmer. The swimmer is capable to swim in a still water with a velocity  $V_1 = 1\text{ m/s}$ . He aims his body directly across a 100 m wide river whose current has a velocity  $V_2 = 2\text{ m/s}$ . How far downstream will he land?



- Q33. a) Derive an expression for the excess pressure inside a liquid drop.  
 a) solution and then placed horizontally. The weight of the sliding rod is 100gm. Surface tension ( $S$ ) = 0.05 & length of sliding wire = 20cm. If the sliding rod starts from rest at  $t=0$ , find its velocity at  $t=5s$ . Assume that there are no resistive forces.



OR

- Q33. a) State and prove Bernoulli's principle for the flow of non-viscous fluids.  
 b) Fluid C has a relative density of 10, while fluid D has a relative density of 15. If the height of liquid C is 7cm, what will be the difference in heights of liquid D in the two tubes? In the diagram point 1 is in liquid D just after the end of liquid C.

