II Pre-Board Examination, 2025–26

Sub : Artificial Intelligence (417)

Time : 2.00 Hrs.]   **Class – X**   [M. M. : 70

General Instructions –

a) Please read the instructions carefully.

b) This Question Paper consists of 21 questions in two sections: Section A & Section B.

c) Section A has **Objective** type questions whereas Section B contains **Subjective** type questions.

d) 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.

e) All questions of a particular section must be attempted in the correct order.

f) **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.

g) **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/par

SECTION - A : OBJECTIVE TYPE QUESTIONS

Q1   Answer any 4 out of the given 6 questions on Employability Skills   (1 x 4 = 4 marks)

    i.   Which component of communication refers to the environment where communication takes place?

      a) Sender   b) Context

      c) Channel   d) Feedback   1

ii. What is the process of consciously observing and understanding your own feelings and motivations called?

a) Self-esteem b) Self-confidence

c) Self-awareness d) Time management 1

iii. Which term describes the capacity of an individual to bounce back from difficulty and adapt to changing circumstances?

a) Initiative b) Reliability

c) Resilience d) Accountability 1

iv. Which keyboard shortcut is commonly used to copy a selected file or text in Windows OS?

a) Ctrl + X b) Ctrl + V

c) Ctrl + C d) Ctrl + Z 1

v. What is the main characteristic of the 'Survive' stage in the entrepreneurial process?

a) Expanding to new markets

b) Establishing a regular customer base

c) Earning just enough to cover costs

d) Handing over the business to the next generation 1

vi. Using energy-efficient light bulbs contributes to which 'Green Skill' principle?

a) Waste Reduction b) Sustainable Energy Use

c) Sustainable Water Use d) Climate Change Adaptation 1

Q. 2 Answer any 5 out of the given 6 questions (1 x 5 = 5 marks)

i. Which type of ethical framework for AI focuses on the outcomes of actions, suggesting that the most ethical decision is the one that produces the greatest good for the greatest number of people?

a) Deontology-based b) Consequence-based

c) Virtue-based d) Rights-based 1

ii. Assertion: Ethics provide guidance in distinguishing right from wrong.

Reasoning: Ethics consist of a set of values and morals that aid individuals in making moral judgments and decisions.

a) Both Assertion and Reasoning are true, and Reasoning is the correct explanation of the Assertion.

b) Assertion is true, but Reasoning is false.

c) Both Assertion and Reasoning are true, but Reasoning is not the correct explanation of the Assertion.

d) Assertion is false, but Reasoning is true. 1

iii. Which sub-field of AI mimics the human brain structure?

a) Artificial Neural Networks   b) Convolutional Networks

c) Decision Trees   d) Rule-based Systems   1

iv. Which evaluation parameter takes into consideration all the correct predictions?

a) Precision   b) Recall

c) Accuracy   d) F1 score   1

v. Which of these is a key function of Computer Vision?

a) Text-to-speech conversion   b) Image recognition

c) Data compression   d) Speech processing   1

vi. Machine translation feature converts ____.

(a) One language to another

(b) Human language to machine language

(c) Any human language to Programming

(d) Machine language to human language   1

Q. 3   Answer any 5 out of the given 6 questions   (1 x 5 = 5 marks)

i. A smart security camera is trained to identify and track intruders by drawing a bounding box around them in the video feed. This application is an example of:

a) Image Classification   b) Image Segmentation

c) Object Detection   d) Feature Extraction   1

ii. Which of the following is not an application of machine learning and deep learning?

a) Digit recognition b) Face detection

c) Spam email classification d) Rule-based chat 1

iii. Which metric is used to evaluate a classification model's performance by calculating the ratio of correctly predicted positive observations to the total actual positive observations?

a) Accuracy b) Precision

c) Recall d) F1 Score 1

iv. Assertion (A): Regression models are used when output is a category like spam or not spam.

Reason (R): Regression works with continuous numerical values, not categories.

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 1

v. What is the term for breaking down an image into smaller, constituent parts, often represented by numerical values (pixels)?

a) Resolution b) Digitization

c) Aspect Ratio d) Color Depth 1

vi. Which of the following is used for finding the frequency of words in some given text sample?

a) Stemming b) Lemmatisation

c) Bag of words d) None of the above 1

Q. 4 Answer any 5 out of the given 6 questions (1 x 5 = 5 marks)

i. The process of gathering, cleaning, and labelling data is primarily associated with which stage of the AI Project Cycle?

a) Problem Scoping b) Data Acquisition

c) Data Exploration d) Modelling 1

ii.   Which term describes the process where a computer is trained to learn from its environment through a system of rewards and penalties?

    a)   Supervised Learning   b)   Unsupervised Learning

    c)   Reinforcement Learning   d)   Semi-supervised Learning   1

iii.   In Natural Language Processing, which process is used to remove common, frequently occurring words like 'the', 'is', 'and', which have little meaning for text analysis?

    a)   Tokenization   b)   Stop Word Removal

    c)   Stemming   d)   Normalization   1

iv.   Which AI ethical risk is involved when an AI system makes a decision that negatively impacts certain groups of people because the training data was not representative?

    a)   Surveillance   b)   Algorithmic Bias

    c)   Data Privacy   d)   Transparency   1

v.   What is object detection in the context of CV?

    a)   Changing image colors   b)   Compressing images

    c)   Finding objects within an image   d)   Saving an image   1

vi.   Read the sentence: "The bear grizzly is a majestic animal." The system incorrectly identifies 'grizzly' as a verb. Which stage of NLP is responsible for assigning a grammatical category (like Noun, Verb, Adjective) to each word in a sentence?

    a)   Tokenization   b)   Part-of-Speech (POS) Tagging

    c)   Chunking   d)   Named Entity Recognition (NER)   1

Q. 5   Answer any 5 out of the given 6 questions   (1 x 5 = 5 marks)

i.   Which of the following comes under Problem Scoping?

    a)   System Mapping   b)   4Ws Canvas

    c)   Data Features   d)   Web scraping   1

ii.   A teacher's marks prediction system predicts the marks of a student as 75, but the actual mark obtained by the student is 80. What is the absolute error in the prediction?

    a)   5   b)   10

    c)   15   d)   20   1

iii.   In an RGB image, what does a pixel with all values 0 represent?

    a)   Maximum brightness   b)   Complete darkness

    c)   Full saturation   d)   Grayscale tone   1

iv.   _____ is the outcome of the model wrongly predicting the positive class as negative class.   1

v.   For _____ the whole corpus is divided into sentences. Each sentence is taken as a different data so now the whole corpus gets reduced to sentences.

    (a)   Text Regulation   (b)   Sentence Segmentation

    (c)   Tokenization   (d)   Stemming   1

vi.   What are the stemmed and lemmatized forms of the word 'studies'?

    a)   Stemmed: study, Lemmatized: studies

    b)   Stemmed: study, Lemmatized: study

    c)   Stemmed: studies, Lemmatized: studies

    d)   Stemmed: studi, Lemmatized: study   1

SECTION - B : SUBJECTIVE TYPE QUESTIONS

Answer any 3 out of the given 5 questions on Employability Skills   (2 x 3 = 6 marks)

Answer each question in 20 – 30 words.

Q. 6   What are the two main types of communication barriers? Give one example of each.   2

Q. 7   Explain the term goal setting and why it is important for self-management.   2

Q. 8   What is 'phishing'? Explain how a user can avoid becoming a victim of a phishing attack.   2

Q. 9   Describe two characteristics of a successful entrepreneur.   2

Q. 10   Mention any two ways to reduce waste and contribute to sustainable development.   2

Answer any 4 out of the given 6 questions in 20 – 30 words each   (2 x 4 = 8 marks)

Q. 11   Define Model Evaluation in the context of the AI Project Cycle.   2

Q. 12   Give one example each of an ethical consideration related to Data Privacy and Surveillance in AI   2

Q. 13   Differentiate between the training data set and the testing data set.   2

Artificial Intelligence/X/Set-II/DR-I

Q. 14 What is Color Depth in a digital image? How does it relate to the quality of an image? 2

Q. 15 What is the purpose of Tokenization in Natural Language Processing? 2

Q. 16 Identify the type of learning model and explain.

    a) This model is used to predict house prices, where the output is a continuous numerical value.

    b) This model is used to group similar customer records without any prior knowledge of the groups. 2

Answer any 3 out of the given 5 questions in 50– 80 words each   **(4 x 3 = 12 marks)**

Q. 17 Read the case study below and answer the questions that follow:

A popular social media platform uses an AI content filter to automatically remove hate speech. The AI model was predominantly trained on text data from one country, where certain slang words are considered offensive. When the platform expanded to other countries, the AI system incorrectly flagged and removed posts that used those same slang words, which are completely harmless in the new cultural context.

    a) Identify two reasons why the AI model failed in the new country.

    b) Mention and explain two bioethics principles that were violated in this scenario. 4

Q. 18 Explain the concept of Feature Extraction in AI modelling. Why is it a crucial step before training a model? 4

Q. 19 Identify the name of the application of Computer Vision or NLP being used in the following scenarios:

    a) An app that translates text from a photo of a restaurant menu from French to English in real time.

    b) A self-driving car identifying all the traffic signs (e.g., 'Stop Sign', 'Yield') on the road.

    c) A system that reviews thousands of product reviews and classifies them as 'positive', 'negative', or 'neutral'.

d) A system that creates a detailed outline (mask) of a tumor in a medical scan to help doctors focus on the affected area.   4

Q. 20 An AI system is designed to predict if a financial transaction is Fraudulent (Positive Class) or Legitimate (Negative Class). In a test of 500 transactions: 4

* The model correctly identified 40 fraudulent transactions.

* The model correctly identified 440 legitimate transactions.

* The model predicted 10 transactions as fraudulent, but they were legitimate.

* The model predicted 10 transactions as legitimate, but they were fraudulent.

a) Draw the confusion matrix based on the above information.   (2)

b) Calculate the Precision of the model for the Fraudulent class. Show your working.   (1)

c) Write the number of False Negatives error made by the model.   (1)

Q. 21 Consider the following documents and the pre-processing steps: 4

* Document 1: "The cat sat on the mat"

* Document 2: "A dog and a cat fought"

* Document 3: "The mat and the dog are friends"

The pre-processing involves converting to lowercase, tokenizing, and removing the stop words {'the', 'a', 'on', 'and', 'are'}.

a) Create the dictionary (vocabulary) of unique words from all three processed documents.   (1)

b) Construct the document vector for Document 2 using the dictionary.   (1)

c) Briefly explain the difference between Stemming and Lemmatization in NLP   (1)

d) Why is stop word removal an important step in NLP preprocessing?   (1)

II Pre-Board Examination, 2025-26

Sub. : English (Communicative)

Time : 3:00 Hrs.]   Class – X   [M. M. : 80

General Instructions :

Read the following instructions very carefully and strictly follow them :

(i) The question paper is divided into four sections- A, B, C and D.

Section A-	Reading Skills	**22 marks**
Section B-	Writing Skills	**22 marks**
Section C-	Grammar	**10 marks**
Section D-	Literature Text book	**26 marks**

(ii) There are 10 questions in the question paper. All questions are compulsory.

(iii) Answers should be brief and to the point.

(iv) You may attempt any section at a time.

(v) All questions of that particular section must be attempted in the correct order.

SECTION A - (Reading Skills)   22

1. Read the following passage carefully :   12

(1) Education for Sustainable Development (ESD) is now high on the international agenda and ESD is seen as a way to encourage greater sustainable consumption and production, to counter the effects of climate change, address threats to biodiversity and provide more effective disaster risk reduction. Education for Sustainable Development is seen by UN as a lifelong process from early childhood to higher and adult education and goes beyond formal education. As values, lifestyles and attitudes are established from an early age, the role of

education is of particular importance for children! ESD has often been associated with curriculum projects linked with recycling; energy and water conservation; pollution reduction and sustainable consumption – all developed to contribute towards achieving a more sustainable future.

(2) Research from developmental psychology, longitudinal studies, social-cultural analysis, and neuroscience have all shown that it is in the early years that children have the greatest capacity to learn, and it is in these years that many of our fundamental attitudes and values are first put into place. Children are already investigating issues related to recycling, energy conservation, waste disposal and changes in their local environment. ESD in Early Childhood Care and Education (ECCE) is of great significance. The development of ESD and ECCE requires more than just curriculum development. It provides the possibility of a transformational reconstruction.

(3) UNICEF reports show that children under the age of eight represent the highest percentage of affected population in today's global emergencies. A UNESCO survey has shown that the ministries of education, environment and sustainable development in 97 UN member states identify poverty as the highest priority area to be addressed in achieving sustainable development. In fact, reductions in poverty and inequality are widely recognised as the priority in efforts to create a more sustainable world. At a global level, millions of children start school carrying the handicap that comes with the experience of malnutrition, ill-health and poverty. Yet, equitable access to high-quality pre-school programmes remains a problem in both rich and poor countries. Sustainable development projects that enable rapid progress in maternal health, child nutrition and survival already exist, even in some of the world's poorest countries. Linking health and education agenda has been recognised as extremely important.

Answer the following questions based on the above passage:

(i) Complete the following with a suitable explanation with reference to paragraph 1. ESD is now high on the international agenda because ____.   1

(ii) Based on the given passage, how does UN view ESD as a lifelong process? What are the critical areas of emphasis? (Paragraph 1)   2

(iii) List two curriculum projects that ESD (Education for Sustainable Development) has been linked with. (Paragraph 1).   2

(iv) Complete the following sentence suitably: (Paragraph 2)   2

Many of our fundamental attitudes and values are put into plan in the early years as_____.

(v) Substitute the underlined word with the correct word from paragraph 2:   1

ESD in Early Childhood Care and Education provides the possibility of transformational reconstruction.

(A) positive change   (B) power to reform

(C) negative impact   (D) creative

(vi) What do UNICEF reports reveal about the vulnerability of children under the age of eight during global emergencies? (Paragraph 3)   1

(A) UNICEF reports highlight the resilience of children under the age of eight during global emergencies.

(B) UNICEF reports indicate that children under the age of eight are rarely affected by global emergencies.

(C) UNICEF reports show that children under the age of eight represent the highest percentage of affected population in global emergencies.

    (D) UNICEF reports suggest that children under the age of eight are primarily responsible for responding to global emergencies.

(vii) What remains a problem in both rich and poor countries? What has been recognised as crucial? (Paragraph 3)   1

(viii) What is the writer's tone in the passage? Justify your claim.   2

2. Read the following passage carefully :   10

    (i) Creativity is our most precious resource and the most inexhaustible one. As anyone who has ever spent any time with children knows, every single human being is born creative; every human being is innately endowed with the ability to combine data and perceptions, materials and ideas and devise new ways of thinking and doing. What fosters creativity? More than anything else: the presence of other creative people, contrary to that creativity is the province of great individual geniuses. In fact creativity is a social process. Our biggest creative breakthrough comes when people learn from, compete with, and collaborate with other people.

    (ii) Cities are centre of creativity. With their diverse populations, dense social networks and public spaces, people can meet spontaneously and spark or catalyse new ideas. With their infrastructure for finance, organisation and trade, they allow the idea to swiftly reach its destination.

    (iii) A study tracking the decline of unconventional thinking ability as children age, states that while 98 percent of 3 to 5 years old exhibited creative thinking, this dwindled to 10 percent among 13 to 15 years old and a mere 2 percent among 25 years old. Thus, adulthood witnesses the erosion of innate creativity. There is a variance in creative vitality across cities. Although all cities harbour creative individuals by default, some are saturated with leaders, institutions, and people that inhibit creativity.

(iv) Creativity (or the lack of it) follows the same general contours of the great socio-economic divide – our rising inequality – that plagues us. According to estimates, roughly one-third people are able to do work which engages our creative faculties to some extent, whether as artists, musicians, writers, techies, innovators, entrepreneurs, doctors, lawyers, journalists or educators. That leaves a group termed "the other 66 percent", in which their creativity is subjugated, ignored or wasted.

(v) Creativity itself is not in danger. It is flourishing all around us – in science and technology, arts and culture, in our rapidly revitalising cities. But we still have a long way to go if we want to build a truly creative society that supports and rewards creativity of each one of us.

Answer the following questions, based on the passage above :

(i) The central idea of this passage is that :   1

    (A) social interaction is necessary to nurture creativity.

    (B) creativity and ideas are gradually declining in all societies.

    (C) the creativity divide is widening in societies in line with socio-economic trends.

    (D) more people should work in jobs that engage their creative faculties.

(ii) Select the option that is true for the assertion and reason given below: 1

Assertion: Creativity is the province of great individual genius is not true.

Reason: Creativity is a social process.

    (A) Both the Assertion and Reason are true, and the reason is the correct explanation of the assertion.

    (B) Both the Assertion and Reason are true but the reason is not the correct explanation of the assertion.

    (C) The Assertion is true, but the Reason is false.

    (D) The Assertion is false, but the Reason is true.

(iii) Identify the word in paragraph 1 which means something that cannot be used-up or depleted. 1

(iv) What important trends does a study tracking the decline in creative thinking ability in children reveal? Answer in about **40** words. 2

(v) Read the given prompt and select the correct option in the brackets to fill in the blank. 1

Our biggest creative breakthrough comes when people learn from, compete with, and collaborate with other people. Creativity is thus a _____ (economic, industrial, social) process.

(vi) According to the passage, where does creativity thrive apart from arts and culture? 1

(vii) Complete the following with a suitable reason : 1

About thirty-three percent citizens engage their creative faculties in tasks that use _____ .

(viii) In the context of the last paragraph, explain how the passage views the future of creativity in society. 2

SECTION A - (Writing Skills) 22

3. Write an application, in not more than 50 words, to the Principal, requesting approval to start a 'Young Innovators Club' in school to promote creativity and scientific approach among students. You are Ananya/Amaya, Class X – A, Vice President, Science Club, Blossoms Public School, Ghaziabad. 3

4. Write a factual description, in not more than 100 words, of a potted plant that you and your sibling recently chose, to gift your mother under the programme 'Ek Ped Maa Ke Naam'. 4

5. (A) The Government of India has consistently worked to ensure an alleviation in the status of the girl child. Write a letter to the editor of a national daily, expressing

your appreciation towards the government initiatives and provisions made for girl child education and the importance of the same. Use ideas from the MCB unit on **'Education'** and your own ideas. You are Ashok/ Ameeta of A-237, New Shastri Park, Lucknow.

(OR)

5. (B) Books and newspapers play a vital role in shaping the minds of young people. Write a letter in about 120 words, to the editor of any daily news, emphasizing the need for effective contribution of books and newspapers in keeping together the unity of our diverse culture. Do focus on creating mutual respect for all religions, castes, languages and culture. You can take ideas from the unit **'National Integration'**. You are Sahil Jain/Deepika Rai of S-42, Rohini, Delhi.

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6. (A) Solar Energy has now become a necessity. Keeping in mind how the rise in economic activity and mushrooming population has led to a tremendous demand of electricity in all sectors. Write an article in about 150 words on the topic 'Solar Energy- An apt solution to the Energy Crisis'. Merge your ideas with the content from the Unit Science. 8

   * Solar energy - clean & green
   * Environment friendly, renewable source of energy
   * Reduces electricity Bill
   * No Carbon emission
   * Low maintenance cost

(OR)

6. (B) Imagine you are Dia Kapoor of class X. Write an article for your school magazine on the topic 'Tackling plastic Pollution - A Shared Responsibility', highlighting the harmful impact of plastic waste on the environment and health. Explain why plastic is difficult to manage and suggest practical steps to reduce its use and

promote alternatives. You may use your own ideas along with the provided cues and your reading of MCB Unit: **Environment** to write the article and not more than 150 words.

> Plastic waste- impact on wild life and human health – problems in disposal and recycling – need for co-friendly alternatives – encouraging responsible habits in daily life

SECTION C (Grammar)   10

7. **Complete the tasks (A) - (C), as directed.**

   (A) Fill in the blanks (i) – (iii) with the appropriate options from those given in the brackets.   1×3=3

   As soon as I saw the elephant, I knew certainly that I ought not (i) _____ (shoots / shoot / shot) him. But at the moment I (ii) _____ (glances / glanced / is glancing) round at the crowd that had followed me and (iii) _(were/was/been) eager to follow fun and meat.

   (B) In the following paragraph, one word has been omitted in each line. In your answer sheets, remember to write the missing word along with the word that comes before and after it, as shown below.   1×4=4

		Word before	omission	word after
Headache be due to several reasons	(a)	before	----------	-------------
		------------		
vary from physical and emotional to	(b)	-----------	------------	------------
mental reasons. Medicines natural	(c)	-----------	------------	------------
treatments provide instant relief.	(d)	-------------	-----------	------------

(C) Do as dire   3

    (i)   Rearrange the following jumbled words/phrases in the given dialogue to create a meaningful sentence.   1

        Mrs. Livingstone: You must put the money in a bank. You may need it one day.

        Miss Robinson: No, I won't do that.

        Mrs. Livingstone: Why?

        Miss Robinson: LIFE/ I'VE NEVER/ ALL/ HAD/ A HOLIDAY/ MY/ I'M/ GOING/ NOW/ FRANCE/OF/ THE SOUTH/ TO

    (ii)   Report the dialogues to complete the paragraph that follows.   1+1

        M. Hamel: Have you done your homework today, Frantz?

        Frantz: No sir, I had to go out with my parents.

        M. Hamel: I cannot forgive you. You have to call your parents tomorrow.

        Mr. M. Hamel asked Frantz (a)................................. Frantz replied negatively saying that he had to go out with his parents. Then Mr. M. Hamel angrily said that he couldn't forgive him and asked him (b)

        ....

SECTION D : LITERATURE TEXTBOOK   26

8.   Read the following excerpts and answer the questions briefly, for any two excerpts, of the given three (a), (b) and (c).   4+4=8

    (a)   When wasteful war shall statues overturn, And broils root the work of masonry,

        Nor Mars his sword nor war's quick fire shall burn

        The living record of your memory.

                    (NOT MARBLE, NOR THE GILDED MONUMENTS)

    (i)   What attributes of war are referred to here?

(ii) What will be the living record of the poet's friend?

(iii) Identify any one literary device used in the above stanza?

(iv) How will the living record of the poet's friend and his memory be more powerful than wasteful wars?

(b) '....that now, forgetting his sport, he would become lost in the admiration of the green cornfield. He reflected deeply, and came to the conclusion that the whole universe was built up through love and that the grief of separation was inescapable.'   (The Letter)

(i) Why has Ali forgotten his sport?

(ii) What do the above lines tell you about Ali's attitude towards nature?

(iii) What does his deep reflection of life make him realise?

(iv) What does the writer mean by 'grief of separation'?

(c) MRS. SLATER : You want a whole poem. That'll cost you a good lot.

MRS. JORDAN : Well, we'll think about it after tea, and then we'll look through his bits of things and make a list of them. There's all the furniture in his room.

HENRY : There's no jewellery or valuables of that sort.

MRS. JORDAN : Except his gold watch. He promised that to our Jimmy.

MRS. SLATER : Promised to your Jimmy! I never heard of that.

MRS. JORDAN : Oh, but he did, Amelia, when he was living with us. He was very fond of Jimmy.

(THE DEAR DEPARTED)

(i) What does the dialogue between Mrs. Slater and Mrs. Jordan reveal about their relationship and priorities?

(ii) What does Mrs. Jordan imply about the promise made regarding the gold watch?

(iii) How does the discussion about dividing belongings impact the atmosphere of the scene?

(iv) What does Mrs. Slater's reaction to the mention of Jimmy suggest about her character?

9. Answer any <u>five</u> of the following questions in 30 – 40 words each :   5×2=10

(i) How do Nicola and Jacopo's physical attributes stand in contrast with their inner mettle?   (TWO GENTLEMAN OF VERONA)

(ii) Humour plays a major role in the chapter, 'MRS PACKLETIDE'S TIGER' .Prove this statement with the instances of humour.

(MRS PACKLETIDE'S TIGER)

(iii) The crowd in Julius Caesar does not understand the speech of Brutus. Comment.   (JULIUS CAESAR)

(iv) What does the partially destroyed statue of Ozymandias symbolize?

(OZYMANDIAS)

(v) Bring out the irony in the statement: I did not specialize in ghost stories, but more or less, they seemed to specialize in me.'   (A SHADY PLOT)

(vi) Mr. Pakrashi was the force behind Patol Babu's brilliant performance as an absent-minded pededtrian. Substantiate with reference to Patol Babu, Film Star.   (PATOL BABU, FILM STAR)

10. Answer any one of the following two questions in about 150 words : 8

(A) Discuss how the siblings in 'Two Gentlemen of Verona' and Ali in 'The Letter' demonstrate patience and endurance in the face of adversity. Examine how these portrayals serve to highlight the power of silent determination and love in different circumstances. Support your answer with relevant evidences from the texts.

(OR)

(B) Even though both, the frog from Vikram Seth's poem, The Frog and the Nightingale and Abel's children from the play, The Dear Departed, display greed, there are differences. Elaborate, in about 150 words, how the greed of the frog and that of Abel's children differ in motivation, actions, relationship, and consequences.

II Pre-Board Examination, 2025–26

Sub : Social Science

Time : 3.00 Hrs.]   **Class – X**   [M. M. : 80

सामान्य निर्देश:

General Instructions:

1. प्रश्नपत्र में 38 प्रश्न हैं। सभी प्रश्न अनिवार्य हैं।

   There are 38 questions in the Question paper. All questions are compulsory.

2. प्रश्नपत्र में चार खंड हैं - A- इतिहास, B- भूगोल, C- राजनीति विज्ञान और D- अर्थशास्त्र।

   The question paper has Four Sections - A-History, B-Geography, C-Political Science, and D-Economics.

3. प्रत्येक खंड 20 अंकों का है और इसमें MCQ, VSA, SA, LA और CBQ हैं।

   Each Section is of 20 Marks and has MCQs, VSA, SA, LAs and CBQ.

4. अति लघु उत्तरीय प्रश्न (VSA), प्रत्येक 2 अंक का है। प्रत्येक प्रश्न का उत्तर 40 शब्दों से अधिक नहीं होना चाहिए।

   Very Short Answer Type Questions (VSA), carry 2 marks each. Answers to each question should not exceed 40 words.

5. लघु उत्तरीय प्रश्न (SA), प्रत्येक 3 अंक का है। प्रत्येक प्रश्न का उत्तर 60 शब्दों से अधिक नहीं होना चाहिए।

   Short Answer Type Questions (SA), carry 3 marks each. Answers to each question should not exceed 60 words.

6. दीर्घ उत्तरीय प्रश्न (LA), प्रत्येक 5 अंक का है। प्रत्येक प्रश्न का उत्तर 120 शब्दों से अधिक नहीं होना चाहिए।

   Long answer type questions (LA), carry 5 marks each. Answers to each question should not exceed 120 words.

7. केस आधारित प्रश्न (CBQ) हैं जिनमें तीन उप-प्रश्न हैं और प्रत्येक 4 अंकों का है। प्रत्येक प्रश्न का उत्तर 100 शब्दों से अधिक नहीं होना चाहिए।

There are case based questions (CBQ) with three sub questions and are of 4 marks each. Answers to each question should not exceed 100 words.

8. मानचित्र-आधारित प्रश्न 5 अंकों के हैं और दो भागों में विभाजित हैं - प्रश्न 9. खंड अ - इतिहास (2 अंक) और प्रश्न 19. खंड ब - भूगोल (3 अंक)।

The map-based questions carry 5 marks with two parts- Q9. In Section A - History (2 marks) and Q19. In Section B - Geography (3 marks).

9. प्रश्नपत्र में कोई समग्र विकल्प नहीं है। हालाँकि, कुछ प्रश्नों में आंतरिक विकल्प दिए गए हैं। ऐसे प्रश्नों में से केवल एक विकल्प का ही उत्तर देना होगा।

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 must be attempted.

SECTION-A : HISTORY   (20 marks)

1. निम्नलिखित का सही मिलान करें: Match the following: 1

(a)	इंग्लैंड और स्कॉटलैंड का संघ Union of England and Scotland	(i)	1701
(b)	फ्रांसीसी क्रांति की शुरुआत Beginning of French Revolution	(ii)	1815
(c)	वियना कांग्रेस Congress of Vienna	(iii)	1848
(d)	फ्रैंकफर्ट संसद Frankfurt Parliament	(iv)	1789

विकल्प Options:

a.   (a) - (i), (b) - (iii), (c) - (ii), (d) - (iv)   b.   (a)- (iv), (b) - (iii), (c) - (ii), (d) - (i)

c.   (a) - (i) (b) - (iv), (c) - (iii), (d) - (ii)   d.   (a)- (i), (b) - (iv), (c) - (ii), (d) - (iii)

2. चित्र का अध्ययन कीजिए और निम्नलिखित प्रश्न का उत्तर दीजिए:

Study the picture and answer the question that follows:

उपरोक्त प्रिंट किस प्रसिद्ध योगदानकर्ता द्वारा बनाया गया था?

The above print was made by which famous contributor?

a) अखलाख-ए-नासिरी द्वारा एक उकियो प्रिंट। An ukiyo print by Akhlag-i-Nasiri.

b) कितागावा उटामारो द्वारा एक उकियो प्रिंट। An ukiyo print by Kitagawa Utamaro.

c) जोहान गुटेनबर्ग द्वारा एक उकियो प्रिंट। An ukiyo print by Johann Gutenberg.

d) ई.टी.पौल द्वारा एक उकियो प्रिंट। An ukiyo print by E.T. Paull.

नोट: निम्नलिखित प्रश्न, प्रश्न संख्या 2 के स्थान पर केवल दृष्टिबाधित अभ्यर्थियों के लिए है।

Note: The following question is for Visually Impaired Candidates only in lieu of Q. No. 2.

------------------------ ने 1358 से रोम में निषिद्ध पुस्तकों की एक सूची बनाना शुरू किया।

----------------------began maintaining an Index of Prohibited Books in Rome from 1358.

a) रोमन चर्च   Roman Church   b) रूढ़िवादी चर्च   Orthodox Church

c) रूसी चर्च   Russian Church   d) प्रोटेस्टेंट   Protestants   1

3. धनी किसान समुदाय ने सविनय अवज्ञा आंदोलन में सक्रिय रूप से भाग क्यों लिया?

Why did the rich peasant community actively participate in the Civil Disobedience Movement?

a) सरकार द्वारा राजस्व मांग कम करने से इनकार

The Government's refusal to reduce the revenue demand

b) नस्लीय भेदभाव

Racial discrimination

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[**4**]

c) द्वितीय गोलमेज सम्मेलन में वार्ता की विफलता

Failure of talks in the 2nd Round Table Conference

d) खादी का कपड़ा मिल के कपड़े से अधिक महंगा था

Khadi cloth was more expensive than mill cloth   1

4. किस रोग के कीटाणुओं ने 16वीं शताब्दी के उत्तरार्ध में यूरोप की अमेरिका पर विजय का मार्ग प्रशस्त किया?

The germs of which disease paved the way for Europe's conquest of America in the later half of the 16th century.

a) हैजा Cholera   b) चेचक Smallpox

c) पीलिया Jaundice   d) मलेरिया Malaria   1

विकल्प Options:

a. II, III, I, IV   b. I, II, IV, III

c. IV, III, II, I   d. I, III, II, IV

5. यूरोपीय हस्तक्षेप से पहले भारतीय उपमहाद्वीप व्यापार नेटवर्क के लिए महत्वपूर्ण क्यों था? व्याख्या कीजिए।

Why was the Indian subcontinent significant to trade networks before European intervention? Explain.

अथवा / OR

"19वीं शताब्दी तक, यूरोप में गरीबी और भुखमरी आम बात थी।" इस कथन का विश्लेषण कीजिए।

"Until the 19th century, poverty and hunger were common in Europe". Analyze the statement.   2

6. जेम्स ऑगस्टस हिक्की ने यह दावा क्यों किया कि बंगाल गजट 'एक ऐसा व्यावसायिक पत्र था जो सभी के लिए खुला था, लेकिन किसी से प्रभावित नहीं था'? व्याख्या कीजिए।

Why did James Augustus Hickey claim that the Bengal Gazette was 'a commercial paper open to all but influence by none'? Explain it.

अथवा / OR

श्रवण संस्कृति और पठन संस्कृति के अंतर्संबंध को जन्म देने वाली किन्हीं तीन परिस्थितियों पर प्रकाश डालिए।

Highlight any three circumstances that led to the intermingling of the hearing culture and the reading culture.   3

7. उन्नीसवीं सदी के अंत में यूरोप में राष्ट्रवाद की भावनाओं को आकार देने में संस्कृति की भूमिका का वर्णन कीजिए।

Describe the role of culture in shaping the feelings of nationalism in Europe at the end of the nineteenth century.

अथवा / OR

उदार राष्ट्रवाद का क्या अर्थ था? उन्नीसवीं सदी के अंत में उदार-राष्ट्रवादियों के किन्हीं चार विचारों की व्याख्या कीजिए।

What did Liberal Nationalism stand for? Explain any four ideas of liberal-nationalists during the end of the nineteenth century.   5

8. निम्नलिखित अनुच्छेद को ध्यानपूर्वक पढ़कर नीचे दिए गए प्रश्नों के उत्तर दें:

Read the following text carefully and answer the questions that follow: 4

यह आंदोलन शहरों में मध्यम वर्ग की भागीदारी से शुरू हुआ। हज़ारों छात्रों ने सरकारी स्कूल और कॉलेज छोड़ दिए, प्रधानाध्यापकों और शिक्षकों ने इस्तीफ़ा दे दिया, और वकीलों ने अपनी वकालत छोड़ दी। मद्रास को छोड़कर अधिकांश प्रांतों में परिषद के चुनावों का बहिष्कार किया गया, जहाँ गैर-ब्राह्मणों की पार्टी, जस्टिस पार्टी, का मानना था कि प्रांतीय परिषद में प्रवेश करना कुछ शक्ति प्राप्त करने का एक तरीका है - ऐसा कुछ जिस तक आमतौर पर केवल ब्राह्मणों की ही पहुँच थी। आर्थिक मोर्चे पर असहयोग के प्रभाव और भी नाटकीय थे। विदेशी वस्तुओं का बहिष्कार किया गया, शराब की दुकानों पर धरना दिया गया और विदेशी कपड़ों को विशाल होलिकाओं में जलाया गया। 1921 और 1922 के बीच विदेशी कपड़े का आयात आधा हो गया, और इसका मूल्य 102 करोड़ रुपये से घटकर 57 करोड़ रुपये रह गया। कई जगहों पर, व्यापारियों और कारोबारियों ने विदेशी वस्तुओं का व्यापार करने या विदेशी व्यापार को वित्तपोषित करने से इनकार कर दिया। जैसे-जैसे बहिष्कार आंदोलन फैला, और लोगों ने आयातित कपड़े त्यागकर केवल भारतीय कपड़े पहनना शुरू किया, भारतीय कपड़ा मिलों और हथकरघों का उत्पादन बढ़ता गया।

The movement started with middle-class participation in the cities. Thousands of students left government- controlled schools and colleges, headmasters and teachers resigned, and lawyers

gave up their legal practices. The council elections were boycotted in most provinces except Madras, where the Justice Party, the party of the non-Brahmans, felt that entering the council was one way of gaining some power - something that usually only Brahmans had access to. The effects of non-cooperation on the economic front were more dramatic. Foreign goods were boycotted, liquor shops picketed, and foreign cloth burnt in huge bonfires. The import of foreign cloth halved between 1921 and 1922, its value dropping from rupees 102 crore to rupees 57 crore. In many places, merchants and traders refused to trade in foreign goods or finance foreign trade. As the boycott movement spread, and people began discarding imported clothes and wearing only Indian ones, the production of Indian textile mills and handlooms went up.

i. शराब की दुकानों पर धरना देने का अर्थ स्पष्ट कीजिए।

Explain the meaning of picketing liquor shops. (1)

ii. असहयोग-खिलाफत आंदोलन कब शुरू हुआ?

When did the Non-Cooperation-Khilafat Movement begin? (1)

iii. शहरों में आंदोलन धीरे-धीरे धीमा क्यों पड़ गया?

Why did the movement in the cities gradually slow down? (2)

9. दिए गए भारत के रेखा मानचित्र पर दो स्थान A और B अंकित हैं। उन्हें पहचानिए और मानचित्र पर अंकित रेखाओं पर उनके सही नाम लिखिए।

Two places A and B have been marked on the given outline map of India. Identify them and write their correct names on the lines marked on the map. 2

a. वह स्थान जहाँ दिसंबर 1920 में भारतीय राष्ट्रीय कांग्रेस का अधिवेशन हुआ था।

The place where Indian National Congress session was held in December 1920.

b. जलियाँवाला बाग घटना से संबंधित स्थान।

The place associated with Jallianwala Bagh Incident.

नोट: निम्नलिखित प्रश्न, प्रश्न संख्या 9 के स्थान पर केवल दृष्टिबाधित अभ्यर्थियों के लिए है।

Note: The following question is for Visually Impaired Candidates only in lieu of Q. No. 9.

a.   उस स्थान का नाम लिखिए जहाँ दिसंबर 1920 में भारतीय राष्ट्रीय कांग्रेस का अधिवेशन हुआ था।

Name the place where Indian National Congress session was held in December 1920.

b.   जलियाँवाला बाग घटना से जुड़े स्थान का नाम बताइए।

Name the place associated with Jallianwala Bagh Incident.

SECTION-B : GEOGRAPHY   (20 marks)

10.   मेघालय में निम्नलिखित में से कौन सी सिंचाई प्रणाली पाई जाती है?

Which one of the following is the irrigation system in Meghalaya?   1

a.   मिट्टी से पानी निकालना।

To remove water from soil.

b.   केवल बरसात के मौसम में भूमि की सिंचाई करना।

To irrigate land only during rainy

c.   बांस की ड्रिप सिंचाई प्रणाली का उपयोग करना।

To use bamboo drip irrigation system

d.   सिंचाई के लिए बड़ी मात्रा में पानी का उपयोग करना।

To use large volumes of water for irrigation.

11.   दो दोस्त राम और लखन विभिन्न प्रकार की मिट्टियों के बारे में एक जीवंत बातचीत में लगे हुए थे। लखन को चुनौती देने के लिए उत्सुक राम ने शुष्क मिट्टी की पहचान करने में मदद करने के लिए सुराग देना शुरू कर दिया। राम द्वारा दिए गए निम्नलिखित सुरागों में से कौन सा शुष्क मिट्टी की पहचान करने में सबसे उपयोगी होगा?

Two friends Ram and Lakhan engaged in a lively conversation about different types of soils. Ram, eager to challenge Lakhan, started giving clues to help identify arid soil. Which of the following clues provided by Ram would be most useful in identifying the arid soil?   1

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सुराग / Clues:

1. ये आमतौर पर बनावट में रेतीली और प्रकृति में खारी होती हैं।

    They are generally sandy in texture and saline in nature.

ii. ये मिट्रियाँ ज्यादातर गहरी से बहुत गहरी और अम्लीय (pH<6.0) होती हैं।

    These soils are mostly deep to very deep and acidic (pH<6.0).

iii. कुछ क्षेत्रों में, नमक की मात्रा बहुत अधिक होती है, और साधारण नमक पानी को वाष्पित करके प्राप्त किया जाता है।

    In some areas, the salt content is very high, and common salt is obtained by evaporating the water.

Iv यह सबसे व्यापक रूप से फैली हुई और महत्वपूर्ण मिट्टी है।

    This is the most widely spread and important soil.

a. सुराग i और iii Clue i and iii
b. सुराग ii Clue ii
c. सुराग iv Clue iv
d. सुराग iii और iv Clue iii and iv

12. भारत के बॉक्साइट भंडार मुख्यतः अमरकंटक पठार, मैकाल पहाड़ियों और बिलासपुर-कटनी के पठारी क्षेत्र में पाए जाते हैं। नीचे दी गई तालिका से इस क्षेत्र में शामिल राज्य के हिस्से की पहचान कीजिए।

India's bauxite deposits are mainly found in the Amarkantak plateau, Maikal hills, and the plateau region of Bilaspur-Katni. Identify the share of the state covered in the region mentioned here from the table below.

1

2016-17 में बॉक्साइट उत्पादन प्रतिशत में	Production of Bauxite in 2016-17 In Percentage
छत्तीसगढ़ Chhattisgarh	08
गुजरात Gujarat	24
कर्नाटक Karnataka	10
ओडिशा Odisha	49
झारखंड Jharkhand	09

a. 10
b. 49
c. 08
d. 24

13. भारतीय वन्य-जीव संरक्षण अधिनियम, के निम्नलिखित में से कौन से प्रावधान, पारिस्थितिक विविधता को बनाए रखने और आवासों की सुरक्षा के लिए लागू हैं?

Which of the following provisions of the Indian Wildlife Protection Act are applicable for maintaining ecological diversity and protecting habitats?   1

   i.   विविध वनस्पतियों और जीवों को हमारे दैनिक जीवन में शामिल करना।

        Integrating diverse flora and fauna into our daily life.

   ii. शिकार पर प्रतिबंध लगाना और जानवरों को उनके आवासों में कानूनी सुरक्षा प्रदान करना।

        Banning hunting and giving legal protection to the animals in their habitats.

   iii. राष्ट्रीय उद्यानों और वन्यजीव अभयारण्यों की स्थापना की सिफारिश करना।

        Recommending establishing national parks and wildlife sanctuaries.

   iv. कई समुद्री जानवरों को कानूनी सुरक्षा प्रदान करना।

        Providing legal protection to many marine animals.

   a)   कथन i, ii, और iii सही हैं।   Statement i, ii, & iii are correct.

   b)   कथन ii, iii और iv सही हैं।   Statement ii, iii & iv are correct.

   c)   कथन i और ii सही हैं।   Statement i and ii are correct.

   d)   कथन ii सही है।   Statement ii is correct.

14. रिंझा का परिवार एक जगह छोड़कर एक जगह से दूसरी जगह क्यों जाता है?

Why does Rinjha's family leave a place and move from place to place?   1

   a)   वे आदिवासी हैं।They are tribal.

   b)   मिट्टी की उर्वरता कम हो जाती है।Soil loses fertility.

   c)   उन्हें घूमना पसंद है।They like to move.

   d)   उनके पास घर नहीं है।They don't have a house.

15. भारत में अधिकांश एकीकृत इस्पात संयंत्र कहाँ स्थित हैं?

    Most of the integrated steel plants in India are located in :   1

    a)   मालवा पठार Malwa Plateau

    b)   बुंदेलखंड पठार Bundelhkand Plateau

    c)   मेघालय पठार Meghalaya Plateau

    d)   छोटानागपुर पठार Chhotanagpur Plateau

16. जल जीवन मिशन (जेजेएम) के किन्हीं दो उद्देश्यों की व्याख्या कीजिए।

    Explain any two aims of Jal Jeevan Mission (JJM).   2

17. ऊर्जा विनिर्माण क्षेत्र को देश के विकास की रीढ़ क्यों माना जाता है?

    Why is the manufacturing sector considered the backbone of a country's development?

    अथवा / OR

    "कृषि और उद्योग एक दूसरे के पूरक हैं"। इस कथन का औचित्य सिद्ध कीज

    "Agriculture and Industries complement each other ". Justify the statement.   5

18 निम्नलिखित अनुछेद को ध्यानपूर्वक पढ़कर नीचे दिए गए प्रश्नों के उत्तर दीजिए:

    Read the following text carefully and answer the questions that follow: 4

    भारत के सतत विकास और ऊर्जा सुरक्षा की खोज में गैर-पारंपरिक या नवीकरणीय ऊर्जा स्रोतों ने एक महत्वपूर्ण भूमिका निभाई है। इन स्रोतों, जिनमें सौर, पवन, जल विद्युत, बायोमास और भूतापीय ऊर्जा शामिल हैं, ने हाल के वर्षों में उल्लेखनीय वृद्धि और इसको प्रयोग करते हुए देखा है। विशेष रूप से सौर ऊर्जा में तीव्र वृद्धि हुई है, और भारत दुनिया के सबसे बड़े सौर ऊर्जा उत्पादकों में से एक के रूप में उभरा है। पवन ऊर्जा भी इसमें महत्वपूर्ण योगदान देती है, तमिलनाडु, महाराष्ट्र और गुजरात जैसे राज्यों में पवन ऊर्जा फार्मों की भरमार है। जल विद्युत, बायोमास और भूतापीय स्रोत भी भारत के नवीकरणीय ऊर्जा पोर्टफोलियो में महत्वपूर्ण भूमिका निभाते हैं। गैर-पारंपरिक स्रोत भारत को अपने कार्बन उत्सर्जन को कम करने, जलवायु परिवर्तन से निपटने और ऊर्जा आत्मनिर्भरता बढ़ाने में मदद कर रहे हैं। ये स्रोत ग्रामीण विद्युतीकरण को बढ़ावा दे रहे हैं, रोज़गार सृजन कर रहे हैं और आर्थिक विकास को गति प्रदान करते हुए एक स्वच्छ और हरित भविष्य को बढ़ावा दे रहे हैं।

Non-conventional or renewable energy sources have assumed a paramount role in India's quest for sustainable development and energy security. These sources, which include solar, wind, hydropower, biomass, and geothermal energy, have witnessed remarkable growth and adoption in recent years. Solar energy, in particular, has experienced a meteoric rise, with India emerging as one of the world's largest solar power producers. Wind energy is another significant contributor, with wind farms dotting the landscape in states like Tamil Nadu, Maharashtra, and Gujarat. Hydropower, biomass, and geothermal sources also play vital roles in India's renewable energy portfolio. Non-conventional sources are helping India reduce its carbon footprint, combat climate change, and enhance energy self-sufficiency. They are bolstering rural electrification, creating jobs, and catalyzing economic growth while promoting a cleaner and greener future.

i. भारत में मौजूद परमाणु रिएक्टरों के ईंधनों के स्थानों का विवरण दीजिए।

Give details of locations of fuels of nuclear reactor present in India? (1)

ii. गोबर के प्रभावी उपयोग के रूप में बायोगैस। टिप्पणी कीजिए।

Biogas as a effective use of cow dung. Comment. (1)

iii. भूतापीय ऊर्जा कैसे काम करती है?

How geothermal energy works? (2)

19. भारत के उसी रेखा मानचित्र पर निम्नलिखित को उपयुक्त प्रतीकों से चिह्नित कीजिए और उनका नाम लिखिए:

On the same outline map of India locate and label the following with suitable symbols:

I. निम्नलिखित में से कोई एक:

Any one of the following:

i. Bhilai steel Plant

भिलाई इस्पात संयंत्र

OR

ii. Software technology Parks: Thiruvananthapuram

सॉफ्टवेयर प्रौद्योगिकी पार्क: तिरुवनंतपुरम

II. निम्नलिखित में से किन्हीं दो को मानचित्र पर अंकित कीजिए:

Locate any two of the following:

iii. मुंबई में एक अंतरराष्ट्रीय हवाई अड्डा.

An international airport in Mumbai.

iv. केरल में एक प्रमुख समुद्री बंदरगाह।

A major sea port in Kerala.

v. ओडिशा में एक प्रमुख समुद्री बंदरगाह

A major sea port in Oddisha

नोट: निम्नलिखित प्रश्न, प्रश्न संख्या 19 के स्थान पर केवल दृष्टिबाधित अभ्यर्थियों के लिए है।

Note: The following question is for Visually Impaired Candidates only in lieu of Q. No. 19.

निम्नलिखित में से किन्हीं तीन के उत्तर दीजिए:

Answer any three of the following:

1. उस राज्य का नाम बताइए जहां भिलाई इस्पात संयंत्र स्थित है।

Name the state where the Bhilai steel plant is located.

ii. केरल के एक प्रमुख बंदरगाह का नाम बताइए।

Specify the name of a major sea port in Kerala.

iii. तिरुवनंतपुरम सॉफ्टवेयर पार्क भारत के किस राज्य में स्थित है?

In which state of India Thiruvananthapuram software park is located?

iv. ओडिशा के प्रमुख समुद्री बंदरगाह का नाम बताइए?

Name the major sea port in Oddisha   (1+2=3)

SECTION-C : POLITICAL SCIENCE   **(20 marks)**

20. सत्ता की साझेदारी पर निम्नलिखित कथनों पर विचार कीजिए और सही विकल्प चुनिए:

Consider the following statements on power sharing and choose the correct option: 1

I. बहुसंख्यकवाद लोकतंत्र की वास्तविक भावना है।

Majoritarianism is the real spirit of the democracy.

II.   यह विभिन्न समूहों में संतुलन और सामंजस्य स्थापित करता है।

It creates balance and harmony in different groups.

III.   यह सामाजिक समूहों के बीच संघर्ष की संभावना को कम करता है।

It reduces the possibility of conflict among social groups.

IV.   सत्ता की साझेदारी लोकतंत्र का सार है।

Power sharing is the essence of democracy.

विकल्प / Options:

a)   I, II and III   b)   II, III and IV

c)   I, III and IV   d)   I, II and IV

21.   निम्नलिखित में से कौन सा विकल्प दिए गए कार्टून को सबसे अच्छी तरह दर्शाता है?

Which of the following options best signifies the given cartoon?   1

a)   एक नेता, एक पार्टी

One Leader, One Party

b)   गठबंधन सरकार चलाने के खतरे

Perils of Running a Coalition Government

c)   गठबंधन सरकार अधिक शक्तियों की माँग करती है

The Coalition Government Pleads for More Powers

d)   गठबंधन सरकार चलाने के लाभ

Merits of Running a Coalition Government

नोट: निम्नलिखित प्रश्न, प्रश्न संख्या 21 के स्थान पर केवल दृष्टिबाधित अभ्यर्थियों के लिए है।

Note: The following question is for Visually Impaired Candidates only in lieu of Q. No. 21.

निम्नलिखित में से सही सुमेलित युग्म का चयन कीजिए:

Choose the correctly matched pair from the following:

a) समवर्ती सूची: शिक्षा   Concurrent List: Education

b) समवर्ती सूची: रक्षा   Concurrent List: Defence

c) समवर्ती सूची: पुलिस   Concurrent List: Police

d) समवर्ती सूची: व्यापार   Concurrent List: Trade

22. निम्नलिखित में से कौन सा कथन किसी भी लोकतांत्रिक देश के मूल्यांकन का मानदंड माना जाएगा?

Which of the following statements will be considered as the criteria for judging any democratic country?

कथन i: लोकतंत्र से अपेक्षाएँ।

Statement i: Expectations from democracy.

कथन ii: लोकतंत्र से शिकायतें।

Statement ii: Complaints from democracy.

कथन iii: लोकतंत्र के प्रति असंतोष की सार्वजनिक अभिव्यक्ति।

Statement iii: A public expression of dissatisfaction with democracy.

कथन iv: लोकतंत्र में सभी व्यक्तियों की समान मान्यता।

Statement iv: Equal recognition of all individuals in a democracy.   1

a)   कथन iii सही है। Statement iii is right.

b)   कथन i, ii और iii सही हैं। Statement i, ii and iii are right.

c)   केवल कथन iv सही है। Only statement iv is right.

d)   कथन i और ii सही हैं। Statement i and ii are right.

23. नीचे दिए गए प्रश्न में दो कथन, अभिकरण (A) और कारण (R) के रूप में चिह्नित हैं। इस कथन को पढ़ें और सही विकल्प चुने:

In the question given below, there are two statements marked as: Assertion (A) and Reason (R). Read the statements and choose the correct option:

Social Science/X/Set-I/DR-I

अभिकथन (A): भारत में महिलाओं को कई तरह से भेदभाव और असुविधा का सामना करना पड़ता है।

Assertion (A): Women face discrimination and disadvantage in India in many ways.

कारण (R):   भारत एक पितृसत्तात्मक समाज है।

Reason (R):   India is a patriarchal society.   1

a)   दावा A और कारण R दोनों सही हैं, और कारण, R दावे A के लिए सही स्पष्टीकरण है

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

b)   दावा A और कारण R दोनों सही हैं और कारण, R दावे A के लिए सही स्पष्टीकरण नहीं है

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

c)   दावा A सही है लेकिन कारण R गलत है

        A is true but R is false.

d)   दावा A गलत है और कारण R सही है

        A is false but R is true.

24.   आधुनिक लोकतंत्रों में, सत्ता के बँटवारे की व्यवस्था कई रूप ले सकती है। इस कथन की व्याख्या कीजिए।

       In modern democracies, power sharing arrangements can take many forms. Explain the

       statement.   2

25.   लोकतांत्रिक सरकारें पारदर्शिता कैसे सुनिश्चित करती हैं? व्याख्या कीजिए।

       How do democratic governments ensure transparency? Explain.   2

26.   "लोकतांत्रिक सरकारें व्यवहार में जवाबदेह मानी जाती हैं।" इस कथन का तर्कों से समर्थन कीजिए।

       "Democratic governments in practice are known as accountable." Support the statement with

       arguments.   3

27.   1992 के संविधान संशोधन के बाद भारत में विकेंद्रीकरण की दिशा में किए गए प्रावधानों की व्याख्या

       कीजिए।

       Explain the provisions that have been made towards decentralization in India after the

       Constitutional Amendment in 1992.

अथवा / OR

भारत में संघवाद क्यों सफल हुआ है? भारत द्वारा अपनाई गई कौन-सी नीतियाँ इस सफलता को सुनिश्चित करती

हैं? व्याख्या कीजिए।

Why has federalism succeeded in India? Which were the policies adopted by India that ensured

this success? Explain.   5

28. निम्नलिखित अनुछेद को ध्यानपूर्वक पढ़कर नीचे दिए गए प्रश्नों के उत्तर दीजिए:

Read the following source and answer the questions that follow: 4

सांप्रदायिक राजनीति इस विचार पर आधारित है कि धर्म सामाजिक समुदाय का प्रमुख आधार है। सांप्रदायिकता में निम्नलिखित विचारधाराएँ शामिल हैं। किसी विशेष धर्म के अनुयायी एक ही समुदाय के होने चाहिए। उनके मूलभूत हित समान हैं। उनके बीच कोई भी अंतर सामुदायिक जीवन के लिए अप्रासंगिक या तुच्छ है। इससे यह भी निष्कर्ष निकलता है कि विभिन्न धर्मों को मानने वाले लोग एक ही सामाजिक समुदाय के नहीं हो सकते। यदि विभिन्न धर्मों के अनुयायियों में कुछ समानताएँ हैं, तो वे सतही और महत्वहीन हैं। उनके हित अलग-अलग होंगे और उनमें संघर्ष होगा। अपने चरम रूप में, सांप्रदायिकता इस विश्वास को जन्म देती है कि विभिन्न धर्मों के लोग एक राष्ट्र के भीतर समान नागरिक के रूप में नहीं रह सकते। या तो उनमें से एक को बाकी पर प्रभुत्व स्थापित करना होगा, या उन्हें अलग-अलग राष्ट्र बनाने होंगे।

Communal politics is based on the idea that religion is the principal basis of social community. Communalism involves thinking along the following lines. The followers of a particular religion must belong to one community. Their fundamental interests are the same. Any difference that they may have is irrelevant or trivial for community life. It also follows that people who follow different religions cannot belong to the same social community. If the followers of different religions have some commonalities, these are superficial and immaterial. Their interests are bound to be different and involve a conflict. In its extreme form, communalism leads to the belief that people belonging to different religions cannot live as equal citizens within one nation. Either one of them has to dominate the rest, or they have to form different nations.

i. सांप्रदायिक राजनीति के पीछे मूल विचार क्या है? (1)

What is the basic idea behind communal politics?

ii. क्या विभिन्न धर्मों के लोग एक ही पारिवारिक कानून के अंतर्गत आ सकते हैं? (1)

Can people who belong to different religions belong to same family laws?

iii. सांप्रदायिकता का चरम रूप क्या परिणाम देता है? (2)

What does the extreme form of communalism lead to?

SECTION-D : ECONOMICS **(20 marks)**

29. इंटरनेट हमें तत्काल इलेक्ट्रॉनिक मेल (ई-मेल) भेजने और बातचीत (वॉइस-मेल) करने की सुविधा देता है।

The internet allows us to send instant electronic mail (e-mail) and talk (voice-mail) at_____. 1

a) नगण्य लागत Negligible costs   b) सीमित पहुँच Restricted access

c) उच्च लागत High costs   d) सीमित गति Limited speed

30. एक भीड़-भाड़ वाले बाज़ार में, सारा नाम की एक जूता निर्माता अपने परिवार के लिए गेहूँ खरीदना चाहती थी। मुद्रा की सुविधा का लाभ उठाकर, उसने बिना किसी परेशानी के अपने जूते बेच दिए और पैसे का आदान-प्रदान मनचाहे गेहूँ से कर लिया, जिससे उसे प्रत्यक्ष वस्तु विनिमय प्रणाली की जटिलताओं से बचना पड़ा। मुद्रा के इस्तेमाल ने ज़रूरतों के दोहरे संयोग की ज़रूरत को खत्म कर दिया और लेन-देन को सुव्यवस्थित बना दिया।

In a bustling marketplace, Sarah, a shoe manufacturer, sought to acquire wheat for her family. With the convenience of money, she effortlessly sold her shoes and exchanged the money for the desired wheat, avoiding the complexities of a direct barter system. The use of money eliminated the need for a double coincidence of wants, streamlining transactions.

लेन-देन में मुद्रा के इस्तेमाल को क्यों प्राथमिकता दी जाती है?

Why is the use of money preferred in transactions?   1

विकल्प Options:

a. मुद्रा विभिन्न वस्तुओं के क्रय-विक्रय की प्रक्रिया को सरल बनाता है।

Money simplifies the process of buying and selling different commodities.

b. मुद्रा संसाधनों का अनुचित वितरण सुनिश्चित करता है।

Money ensures a unjust distribution of resources.

c. मुद्रा धन संचय करने में मदद करता है।

Money helps in storing wealth.

d. मुद्रा बातचीत और सौदेबाजी की ज़रूरत को खत्म कर देता है।

Money eliminates the need for negotiation and bargaining.

31. रिक्त स्थान भरें:

Fill in the blank:

उत्तरदायित्व Responsibility	सेवाएँ Services
सरकार द्वारा प्रदत्त Government-provided	शिक्षा, प्रशासन, परिवहन Education, Administration, Transport
व्यक्तिगत Personal	?

     1

a. मछली पकड़ना, शिक्षण, खेल Fishing, Teaching, Gaming

B.   चार, सूचना, प्रौद्योगिकी Communication, Information, Technology

C.   रिवहन, व्यापार, भंडारण Transport, Trade, Storage

D.   हर खाना, पर्यटन, खरीदारी Eating out, Tourism, Shopping

32.   केवल आय ही देश के विकास का उचित सूचक नहीं है। उपरोक्त कथन के संदर्भ में निम्नलिखित में से कौन सा कथन सही नहीं है?

Only income is not the proper indicator of the development of the country. Which of the following is not correct in the context of the above statement?   1

a.   धन हमें केवल भौतिक वस्तुओं और सेवाओं को खरीदने में मदद करता है।

Money helps us buy only material goods and services.

b.   धन व्यक्तियों के लिए प्रदूषण-मुक्त वातावरण सुनिश्चित नहीं कर सकता।

Money cannot ensure a pollution-free environment for individuals.

c.   कुछ लोग दूसरों की तुलना में अधिक धन कमाते हैं।

Some people earn more money than others do.

d.   धन व्यक्तियों के लिए सम्मान और गरिमा सुनिश्चित नहीं करता।

Money does not ensure respect and dignity for individuals.

33.   सोहन कुपोषित है क्योंकि उसका वज़न 45 किलोग्राम और ऊँचाई 1.78 मीटर है। निम्नलिखित विकल्पों में से उसका बॉडी मास इंडेक्स (BMI) पता करें:

Sohan is undernourished as his weight is 45 kgs and his height is 1.78 meters. Find out his Body Mass Index (BMI) from the following options:

a)   12.6   b)   13.5

c)   14.7   d)   15.2   1

34.   एक महत्वाकांक्षी उद्यमी, राजेश ने स्थानीय स्तर पर बने वस्त्रों को बेचने के लिए एक थोक स्टोर खोला। उन्होंने एक कुशल लॉजिस्टिक्स समन्वयक, प्रिया की सेवाओं का लाभ उठाया, जिन्होंने माल के परिवहन और भंडारण का कुशलतापूर्वक प्रबंध किया। इसके अतिरिक्त, राजेश ने एक जानकार बैंकर, अंकित से भी सहायता ली, जिन्होंने उनके व्यवसाय के विस्तार के लिए वित्तीय सहायता प्रदान की। दोनों ने मिलकर वस्तुओं के उत्पादन और व्यापार को बढ़ावा देने में तृतीयक क्षेत्र की गतिविधियों की महत्वपूर्ण भूमिका का उदाहरण प्रस्तुत किया।

Rajesh, an ambitious entrepreneur, opened a wholesale store to sell locally-made textiles. He relied on the services of Priya, a skilled logistics coordinator, who efficiently organized the transportation and storage of the goods. Additionally, Rajesh sought assistance from Ankit, a knowledgeable banker, who provided financial support to expand his business. Together, they exemplified the vital role of tertiary sector activities in supporting the production and trade of goods.

अर्थव्यवस्था के किस क्षेत्र में परिवहन, भंडारण, संचार, बैंकिंग और व्यापार जैसी गतिविधियाँ शामिल हैं?

Which sector of the economy includes activities such as transportation, storage, communication, banking, and trade? 1

a. प्राथमिक क्षेत्र Primary sector b. चतुर्थक क्षेत्र Quaternary sector

c. द्वितीयक क्षेत्र Secondary sector d. तृतीयक क्षेत्र Tertiary sector

35. मानव विकास रिपोर्ट कौन सा संगठन प्रकाशित करता है और देशों की तुलना करने के लिए वह किन मानदंडों का उपयोग करता है? परीक्षण कीजिए।

Which organization publishers the Human Development Report and what criteria does it use to compare countries? Examine. 3

36. "तृतीयक क्षेत्र अन्य क्षेत्रों से भिन्न है।" उपयुक्त तर्कों के साथ कथन की पुष्टि कीजिए।

"The tertiary sector is different from other sectors".Justify the statement with suitable arguments. 3

37. वैश्वीकरण के विकास में योगदान देने वाले तीन महत्वपूर्ण कारकों पर प्रकाश डालिए।

Highlight the significant three factors that have contributed to the growth of globalization. 3

38. असंगठित क्षेत्र के श्रमिकों को निम्नलिखित मुद्दों पर सुरक्षा की आवश्यकता है: वेतन, सुरक्षा और स्वास्थ्य। को उदाहरणों सहित समझाएँ।

The workers in the unorganized sector need protection on the following issues: wages, safety and health. Explain with examples.

अथवा / OR

सकल मूल्य वर्धन शब्द से आपका क्या तात्पर्य है? जीवीए की गणना करते समय हमें क्या सावधानी बरतनी चाहिए?

What do you mean by the term Gross Value Added? What precaution should we take in calculating GVA? 5

II Pre-Board Examination, 2025–26

Sub : Science

Time : 3.00 Hrs.]   **Class – X**   **[M. M. : 80**

General Instructions:

(i)   This question paper consists of 39 questions in 3 sections. Section A is Biology, Section B is Chemistry and Section C is Physics.

(ii)   All questions are compulsory. However, an internal choice is provided in some questions. A student is expected to attempt only one of these questions.

SECTION - A

1.   A few drops of iodine solution were added to rice water. The solution turned blue-black. What does this indicate?

(a)   Rice water contains fat.   (b)   Rice water contains complex proteins.

(c)   Rice water contains starch.   (d)   Rice water contains simple sugars.   1

2.   A person's kidneys are damaged. Which life process is most immediately affected, and what procedure might be necessary to sustain their life?

(a)   Respiration; Ventilation   (b)   Digestion; Gastric bypass

(c)   Excretion; Dialysis   (d)   Circulation; Transfusion   1

3.   Observe the given figures A and B. When chhui-mui /Touch-me not (sensitive) plant is touched, its leaves fold. This is due to :

Figure A   Figure B

A.   Hormonal effective   B.   Thermal effect

C.   Electromagnetic effect   D.   Change in amount of water in cells   1

4. Reproduction is not necessary for an individual organism's survival, unlike nutrition or respiration. What is the most significant reason that reproduction is essential for living organisms?

    (a) To keep the individual organism alive.

    (b) To fulfill their energy requirements.

    (c) To maintain growth.

    (d) To ensure the continuity of the species generation after generation.   1

5. Which of the following character can be acquired during an individual's lifetime but cannot be inherited by their offspring?

    (a) Size of body (e.g., gaining muscle mass through exercise)

    (b) Colour of skin (natural complexion)

    (c) Texture of hair (curly or straight)

    (d) Colour of eyes   1

6. A farmer uses a new pesticide, DDT, to protect his crop field. This chemical is non-biodegradable and accumulates in organisms through the food chain. The food chain in the crop field is:

    Plants → Frogs → Snakes → Hawks

    In this scenario, which organism would have the highest concentration of DDT, and what is this phenomenon called?

    A) Plants; called bio-degradation   B) Hawks; called biological magnification

    C) Snakes; called ecological balance   D) Frogs; called decomposition   1

7. During a shopping trip, you notice different waste disposal options for various items. You want to practice environmentally friendly habits. Which of the following is the most eco-friendly practice?

    A) Disposing of used plastic bottles by burying them in the soil to decompose quickly.

    B) Carrying a reusable cloth bag for purchases and sorting kitchen waste into biodegradable and non-biodegradable bins.

C) Throwing all waste (food peels, paper, plastic bags) into a single large bin for easy collection.

D) Using disposable plastic plates at a party to avoid washing dishes.

The following two questions consist of two statements – Assertion (A) and Reason (R).

Answer these questions by 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, and R is not the correct explanation of A.

C. A is true but R is false.

D. A is false but R is true.

8. Assertion (A): Variations arise more in sexually reproducing organisms.

Reason (R) : Asexual reproduction involves formation of gametes and recombination of genes.   1

9. Assertion (A): Plastic is a major cause of land pollution.

Reason (R): Plastics are non-biodegradable and remain in the environment for long periods.   1

10. There is a person who is suffering from pneumonia. He/she has fluid filled in his/her Lungs.

a. What will be the impact of above on exchange of gases in the lungs?

b. What will be its impact on the working of the body?

OR

What type of respiration takes place in human muscles during vigorous exercise and Why ? 2

11. How do the Guard cells regulate opening and closing of stomatal pores?

12. A gas 'X' which is a deadly poison is found at the higher levels of the atmosphere and performs an essential function. Name the gas and write the function performed by this gas in the atmosphere. Which chemical is linked to the decrease in the level of this gas? Name an appliance in which this harmful chemical is used ?   2

13. Label the parts A,B,C and D. Show the direction of flow of electrical signals in the given figure.   3
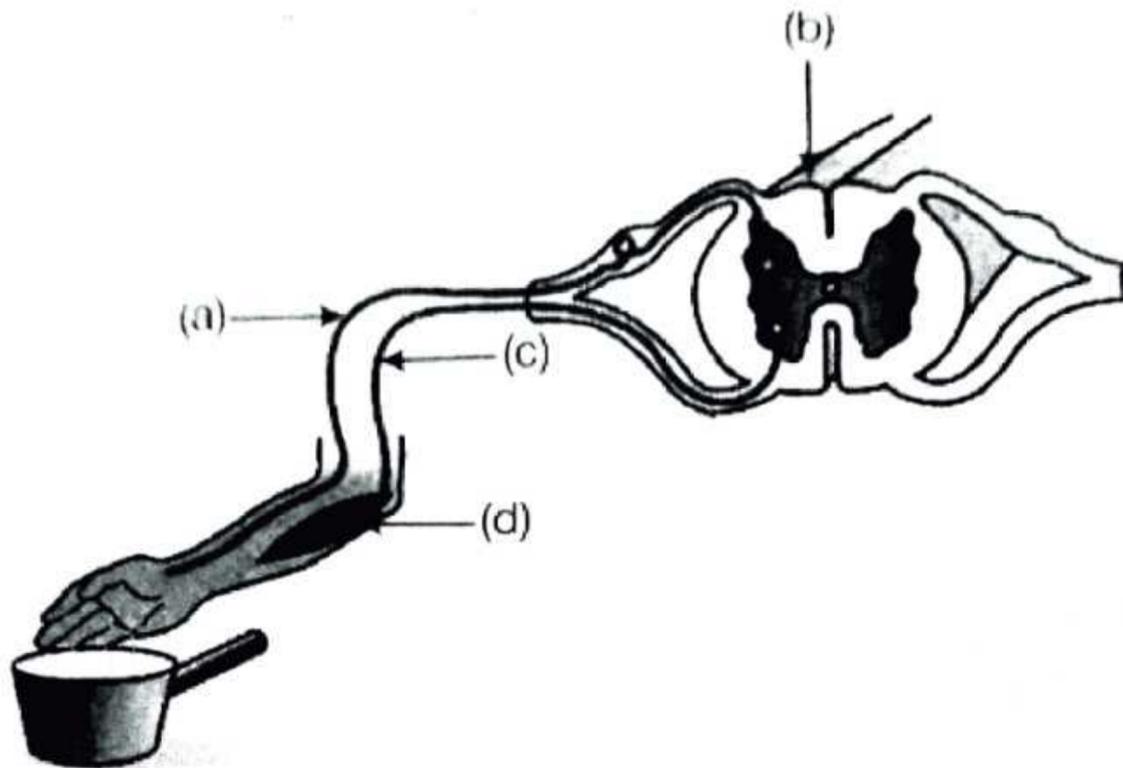
14. A. Do genetic combination of mothers play a significant role in determining sex of a new born child.

B. How is the sex of the child determined in human beings ? Draw a diagrammatic sketch showing the sex determination in human beings.   3

15. Besides heart, the human circulatory system consists of a network of closed Branching blood vessels and the blood that circulates continuously in all parts of the Human body. The human heart is a muscular organ which is as big as our fist. It has Four chambers two upper chambers called atria and two lower chambers called Ventricles. The right side of the human heart is separated from the left side by a Dividing wall, which is known as septum.

a. Name the smallest blood vessel and state its role in the circulation of blood.

b. Write the importance of platelets in the human blood.

(c)   (i)   Write in tabular form, two differences between an artery and a vein.

OR

(ii)   Why is blood circulation in the human heart called double circulation? Explain.   4

16. Given below is a diagram . Study it carefully and answer the following questions.
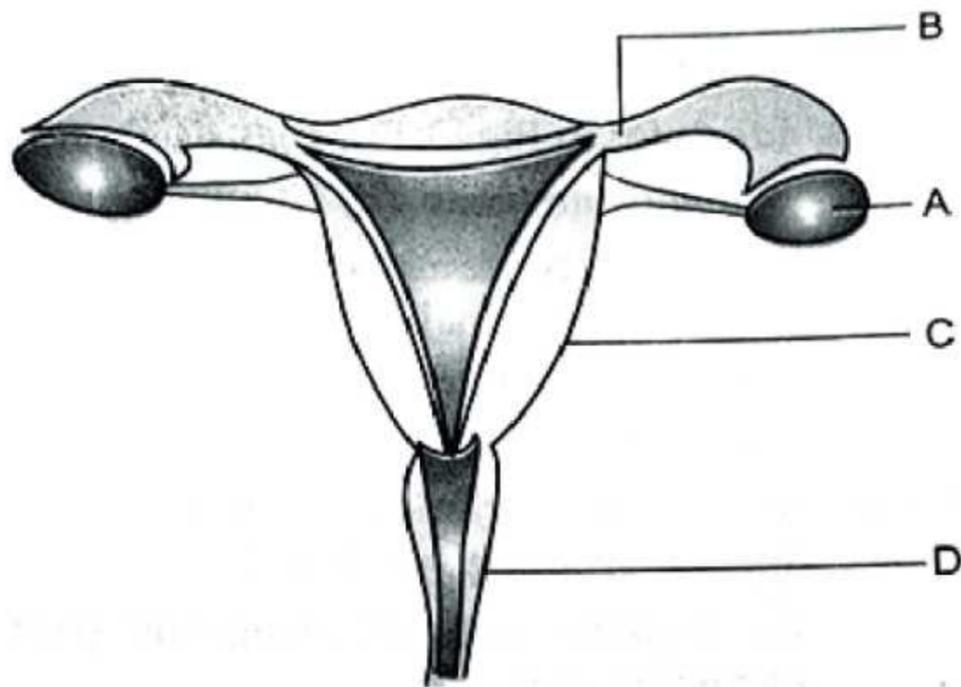
1. Label the parts A,B,C and D

2. Which part forms the egg (ova) ?

3. In which part does fertilization occur ?

4. In which part does implantation occur ?

5. Name the part through which penis is inserted to deliver sperms during sexual intercourse .

OR

a) Write the names of the parts labelled as A B,C,D in the given diagram given below   5
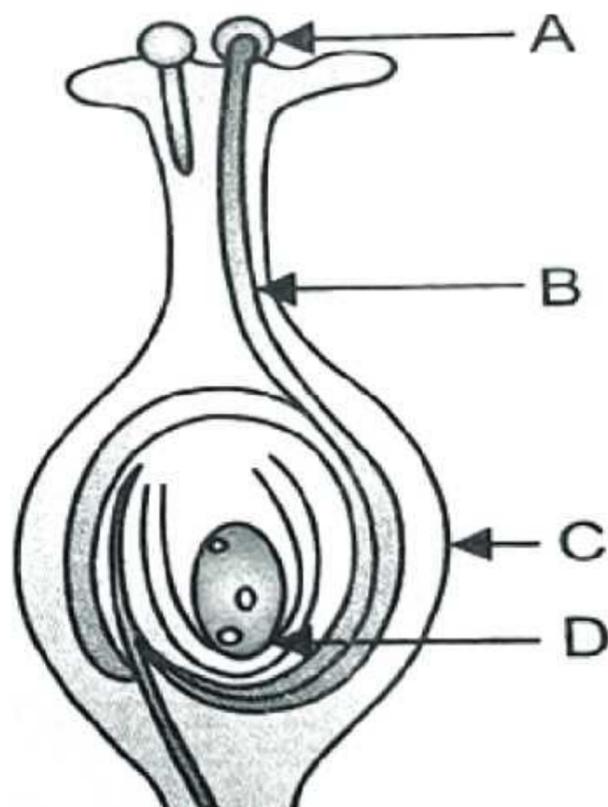
b) Draw a Longitudinal section of a flower and label the following parts

(i) Part that develop into fruit

(ii) Part that produces pollen grain

(iii) Part that transfers male gamete

(iv) Part that is sticky to trap

SECTION - B

17. A student mixes an aqueous solution of lead nitrate with an aqueous solution of potassium iodide. A yellow precipitate is formed. What type of reaction is this, and what is the yellow precipitate?

A. Combination reaction; Potassium nitrate

B. Decomposition reaction; Lead iodide

C. Displacement reaction; Potassium iodide

D. Double displacement reaction; Lead iodide   1

18. Rancidity in food items containing fats and oils is a common problem. Which of the following methods would be most effective in preventing rancidity?

A. Storing food at room temperature

B. Storing food away from light

C. Adding antioxidants

D. Storing food in airtight containers without any modifications   1

19. To protect against tooth decay, dentists recommend brushing teeth regularly with toothpaste. What is the nature of the toothpaste commonly used, and how does it help?

A. Acidic; it neutralizes the basic substances in the mouth.

B. Basic; it neutralizes the acids produced by bacteria in the mouth.

C. Corrosive; it removes the enamel layer along with the food particles.

D. Neutral; it cleans the teeth without affecting the pH.   1

20. A substance 'A' does not dissociate completely into its ions in aqueous solutions. It is bitter in taste and soapy to the touch. Identify substance A.

   A. Weak base   B. Strong base

   C. Strong acid   D. Weak acid   1

21. An oxide of an element 'X' reacts with both acids and bases to form salt and water. The element 'X' is likely to be:

   A. Aluminium   B. Sulphur

   C. Carbon   D. Sodium   1

22. Highly reactive metals like sodium and potassium are stored in kerosene oil. The reason for this practice is:

   A. Kerosene is a good solvent for these metals.

   B. Kerosene prevents them from melting at room temperature.

   C. To prevent their reaction with oxygen and moisture in the air.

   D. Kerosene makes them less reactive.   1

23. Butanone is an organic compound with a specific functional group. Which of the following options correctly identifies the functional group present in butanone?

   A. Carboxylic acid   B. Aldehyde

   C. Alcoholic   D. Ketonic   1

The following question consist of two statements – Assertion (A) and Reason (R).

Answer these questions by 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, and R is not the correct explanation of A.

   C. A is true but R is false.

   D. A is false but R is true.

24. Assertion (A): Soaps do not work well in hard water.

   Reason (R) : Soaps form scum due to reaction with calcium and magnesium ions in hard

   water.   1

Science/X/Set-I/DR-I

25. Give reasons:

(a) Platinum gold and silver are used to make jewellery .

(b) Carbonates and sulphide ores are usually converted into oxides during the process of extraction.   2

26. What type of chemical reactions take place when :

(i) Magnesium wire is burnt in here

(ii) Electric current is passed through water

(iii) Limestone is heated

(iv) Digestion of food occurs in the body

(v) Ammonia and hydrogen chloride gases are mixed

(vi) Sulphuric acid is added into barium chloride solution

OR

i. $A + BC \longrightarrow AC + B$

ii. $AB + CD \longrightarrow AC + BD$

Identify the type of reactions mentioned above in (i) and (ii). Give one example for each type in the form of a balance chemical equation.   3

27. A student named Rinki was performing an experiment in chemistry lab. The following Diagram shows the reaction of zinc granules with dilute sulphuric acid and testing hydrogen gas by burning.
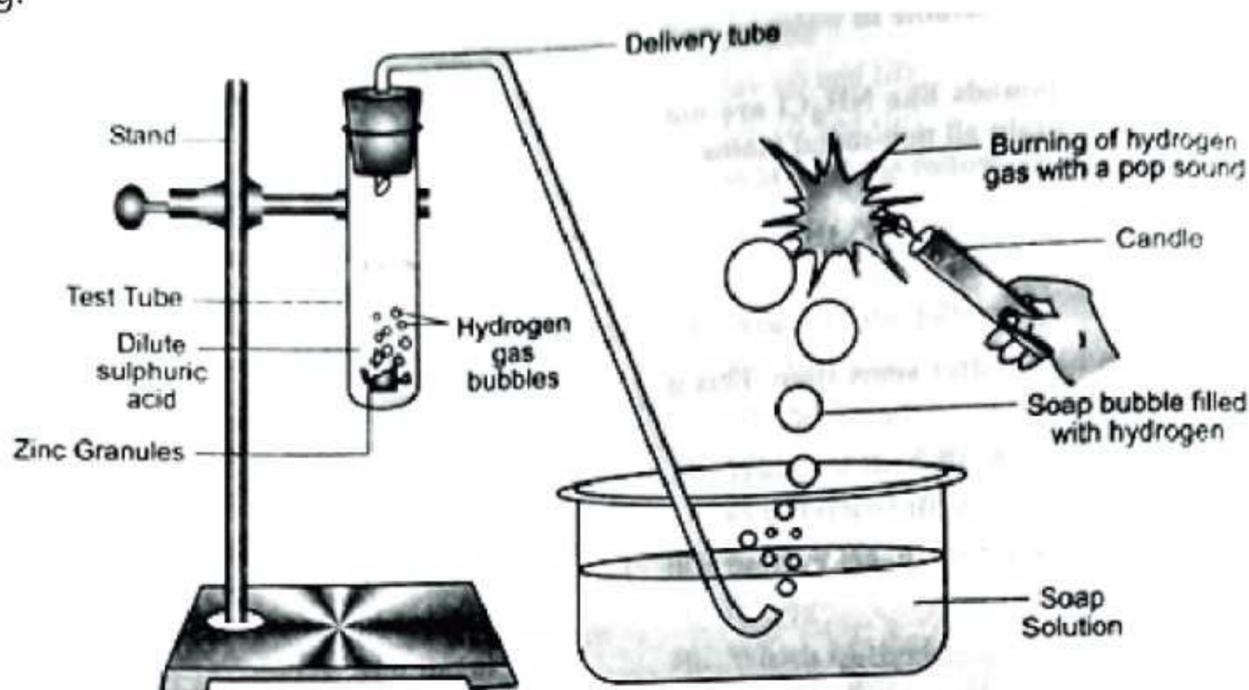
What would happen if the following changes are made?

a. In place of zinc granules, same amount of gold is taken.

b. In place of zinc granules, copper pieces are taken

c. Instead of dilute sulphuric acid, nitric acid is taken. 3

28. A student performed and experiment to study the reactivity of 3 metals X,Yand Z. He played small pieces of these metals in the solution of their respective sulphates and recorded his observations in the table below :

Experiment	Observation
Metal X in $CuSO_4$ solution	Reddish-brown layer formed on X
Metal Y in $ZnSO_4$ solution	No reaction observed
Metal Z in $FeSO_4$ solution	Grey metal deposited, green coloured faded

Answer the following questions

a. Identify metals X Y and Z using the reactivity series

b. Write balanced chemical equations for the reactions that took place

c. Explain why no reaction was observed when why was placed in zinc sulphate solution

OR

d. Classify the types of reactions occurring in the above cases. 4

29. A carbon compound 'A' is widely used as a preservative in pickles and has a molecular formula $C_2H_4O_2$. This compound reacts with ethanol to form a sweet smelling compound 'B'.

(i) Identify the compound 'A' and write its structure.

(ii) Write the chemical equation for the reaction of 'A' with ethanol to form compound 'B'. State the role of presence of an acid in the reaction.

(iii) How can we get compound 'A' back from 'B'?

(iv) How can 'A' be obtained from ethanol?

(v) Name the gas produced when compound 'A' reacts with washing soda.

OR

(i) Name a commercially important carbon compound having functional group ----OH and write its molecular formula.

(ii) Write chemical equation to show its reaction with

    (a) Sodium metal

    (b) Excess conc. Sulphuric acid

    (c) Ethanoic acid in the presence of an acid catalyst

    (d) Acidified potassium dichromate

Also write the name of the product formed in each case.   5

SECTION -C

30. A person is unable to clearly see objects placed beyond 1.2 meters. He visits an ophthalmologist who prescribes a corrective lens.

Based on this condition, what type of defect is he suffering from, and what kind of lens should be prescribed?

A) Myopia; Concave lens of negative power.

B) Hypermetropia; Concave lens of negative power.

C) Presbyopia; Convex lens of positive power.

D) Myopia; Convex lens of positive power.   1

31. An astronaut looks at the sky while standing on the surface of the Moon. What will be the apparent colour of the sky to the astronaut, and why?

A) Blue, because the sun's light is scattered by the lunar dust.

B) Red, due to the absence of the atmosphere and Rayleigh scattering.

C) Blue, due to the reflection of the Earth's blue oceans.

D) Black or dark, because there is no atmosphere to scatter sunlight.   1

The following question consist of two statements – Assertion (A) and Reason (R).

Answer these questions by 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, and R is not the correct explanation of A.

C. A is true but R is false.

D. A is false but R is true.

32. Assertion (A): A concave mirror always forms a real and inverted image.

Reason (R): Real images are formed when reflected rays actually meet. 1

33. A convex lens has focal length of 30 cm . Calculate at what distance should the object be placed from the lens so that it forms and image of 60cm on the other side of the lens? Find the magnification produced by the lens in this case. 2

34. A wire of 3 ohm resistance and 10 cm length is stretched to 30 cm length. Assuming that it has uniform cross section , what will be it's new resistance?

OR

Why does resistance increase (i) in a series combination of resistors (ii) Decrease in a parallel combination of resistors ? 2

35. A ray Diagram of the human eye is given below
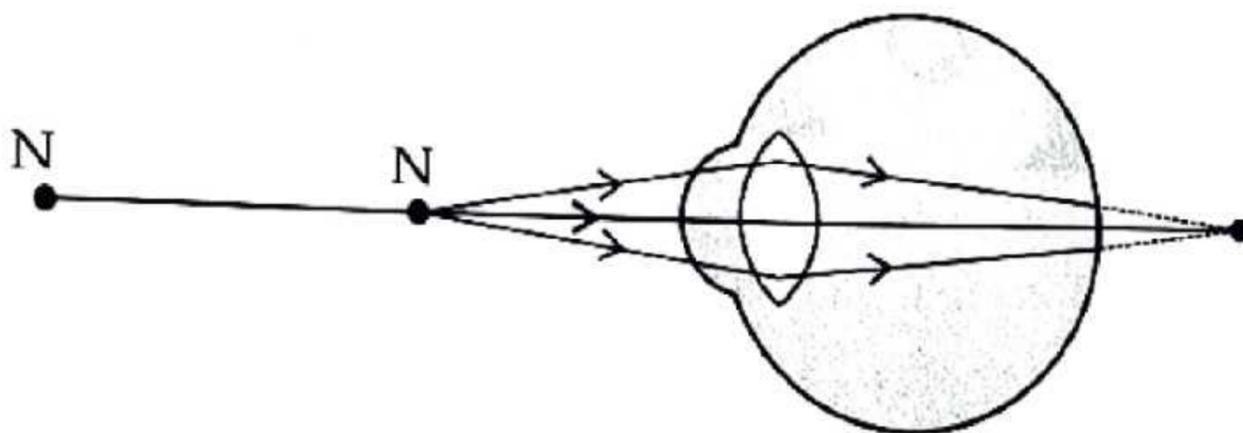
(i) Which defect of vision is represented in this case?

(ii) What could be the two causes of this defect?

(iii) With the help of a diagram show how this defect can be corrected using a suitable lens. 3

36. (i) On what factors does the resistance of a conductor of a wire depend on?

    (ii) Why are metals good conductors of electricity whereas rubber is a bad conductor of electricity? Give reason.

    (iii) Why are alloys commonly used in electrical heating devices? Give reason. 3

37. A current carrying conductor is placed in a magnetic field. Now answer the following.

    (i) List the factors on which the magnitude of force experienced by conductor depends.

    (ii) State the rule which helps, in finding the direction of motion of conductor.

    (iii) If initially this force was acting from right to left, how will the direction of force change if the:

    (a) direction of magnetic field is reversed?

    (b) direction of current is reversed? 3

38. When light ray goes from one transparent medium to another transparent medium, it suffers a change in direction, into second medium. The extent of the change in direction suffered by the phenomenon of change in the path of light rays when going from one medium to another medium is known as refraction. Ray is a given pair of media can be expressed in terms of refractive index. The refractive index is related to an important physical quantity in the relative speed of light in different media.
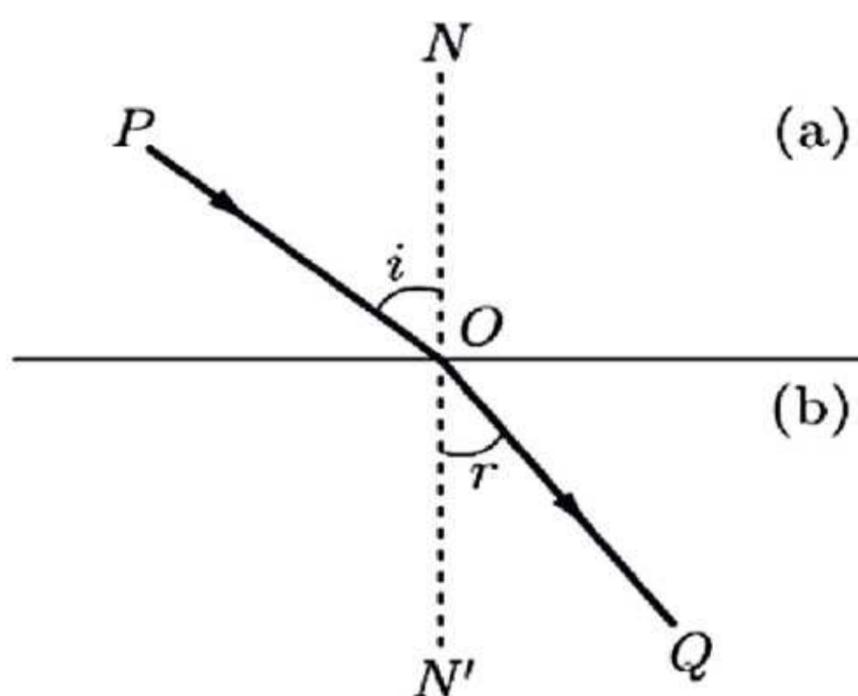
(i) When light goes from one medium to another, which of the three parameters: frequency, wavelength, velocity change?

(ii) A ray of light enters into the glass from air. Does it bend towards normal?

(iii) Define Snell's law.

OR

Light enters from air to glass having refractive index 1.50. What is the speed of light in the glass? The speed of light in vacuum is 3×10^8 ms-1   4

39. In the circuit given below A, B, C and D are four lamps connected with a battery of 60 V.
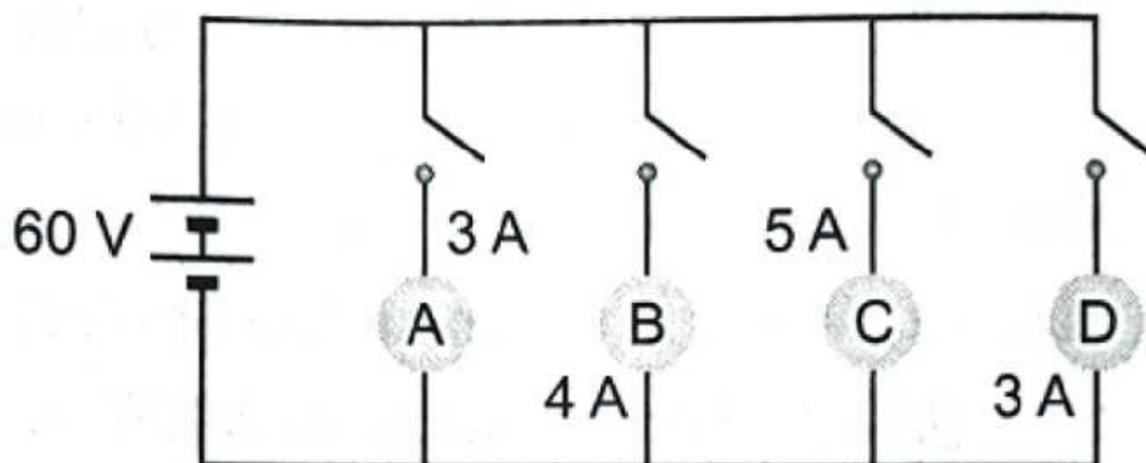
Analyse the circuit to answer the following questions :   (1+2+1+1)

(i) What kind of combination are the lamps arranged (in series or parallel)?

(ii) Explain with reference to your above answer, what are the advantages (any two) of this combination of lamps?

(iii) Explain with proper calculations which lamp glows the brightest.

(iv) Find the total resistance of the circuit.

OR

i. Consider a conductor of resistance 'R', Length ' L' , thickness 'd' and resistivity 'rho'. Now this conductor is cut into four equal parts. What will be the new resistivity of each of these parts? Why?

ii. Find the resistance if all of these parts are connected in : (a) Parallel (b) Series

iii. Out of these combinations of resistors mentioned above in the previous part, for a given voltage which combination will consume more power and why?   5

Science/X/Set-I/DR-I

द्वितीय प्री-बोर्ड परीक्षा, 2025–26
विषय – हिन्दी (पाठ्यक्रम-अ)

समय : 3.00 घण्टे | कक्षा : दसवीं | पूर्णांकः : 80

सामान्य निर्देश :-

निम्नलिखित निर्देशों को सावधानी पूर्वक पढ़िए और उनका सख्ती से अनुपालन कीजिए :

- इस प्रश्न पत्र में कुल चार खंड हैं- क,ख,ग,घ |

- इस प्रश्न पत्र में कुल 15 प्रश्न हैं | सभी प्रश्न अनिवार्य है |

- प्रश्न पत्र में आंतरिक विकल्प दिए गए हैं |

- प्रश्नों के उत्तर दिए गए निर्देशों का पालन करते हुए लिखिए |

खंड- क   (अपठित बोध)   अंक 14

1   निम्नलिखित गद्यांश को ध्यानपूर्वक पढ़कर उस पर आधारित पूछे गए प्रश्नों के उत्तर लिखिए :

भारत में जल संरक्षण एक अत्यधिक महत्वपूर्ण मुद्दा बनता जा रहा है | जल संसाधनों की सीमित उपलब्धता और बढ़ती जनसंख्या के कारण पानी की मांग तेजी से बढ़ रही है | खासकर कृषि क्षेत्र में पानी की आवश्यकता अत्यधिक होती है, क्योंकि सिंचाई के लिए अधिक मात्रा में पानी की जरूरत होती है | भारतीय किसान मुख्य रूप से सिंचाई के लिए नदियों, झीलों और भूजल का उपयोग करते हैं | लेकिन जल संसाधनों का सही उपयोग न होने के कारण कई क्षेत्रों में जल संकट उत्पन्न हो गया है | इसका सबसे बड़ा प्रभाव सूखा प्रभावित क्षेत्रों और शहरी इलाकों में देखने को मिलता है, जहाँ पानी की कमी गंभीर समस्या बन गई है | इन परिस्थितियों में जल संरक्षण अत्यंत आवश्यक हो गया है , ताकि आने वाली पीढ़ियों के लिए जल की उपलब्धता सुनिश्चित की जा सके |

सरकार ने जल संरक्षण को बढ़ावा देने के लिए 'जल जीवन मिशन' ओर 'जल शक्ति अभियान' जैसी योजनाएं शुरू की है | इन योजनाओं का उद्देश्य जल संचयन, जल पुनर्भरण, और जल स्रोतों के संरक्षण को प्रोत्साहित करना है | साथ ही, सूखा प्रभावित क्षेत्रों में सूक्ष्म सिंचाई पद्धति को अपनाने पर भी ज़ोर दिया जा रहा है, जिससे पानी की बर्बादी को रोका जा सके | सरकार द्वारा जागरूकता अभियानों के माध्यम से लोगों को जल संरक्षण के महत्त्व के बारे में जानकारी दी जा रही है | इन अभियानों के अंतर्गत पानी बचाने के लिए वर्षा जल संचयन, पानी का पुन: उपयोग और जल के सही प्रबंधन जैसी तकनीकों का प्रयोग करने पर ज़ोर दिया जाता है | जल संरक्षण न केवल

पर्यावरण के लिए बल्कि देश की अर्थव्यवस्था और भविष्य की पीढ़ियों के लिए भी महत्वपूर्ण है | 7

(क)   कथन (A) और कारण (R) को पढ़कर उपयुक्त विकल्प चुनिए:

कथन (A) : भारत में जल संरक्षण की आवश्यकता बढ़ती जा रही है |

कारण (R) : जल संसाधनों का सही उपयोग न होने के कारण कई क्षेत्रों में जल संकट उत्पन्न हुआ है |

(i)   कथन (A) गलत है किंतु कारण (R) सही है |

(ii)   कथन (A) और कारण (R) दोनों ही गलत है |

(iii) कथन (A) सही है और कारण (R) कथन (A) की सही व्याख्या है |

(iv)   कथन (A) सही है किंतु कारण (R) कथन (A) की सही व्याख्या नहीं है | 1

(ख)   भारत में जल संरक्षण क्यों आवश्यक है-

कथन के लिए उचित विकल्प का चयन कीजिए:

(I)   जल संसाधन सीमित हैं |

(II)   पानी की बढ़ती मांग हैं |

(III) कृषि क्षेत्र में पानी की अधिक आवश्यकता होती है |

(IV)   जल संकट से बचने के लिए |

विकल्प :

(i)   कथन I और II सही हैं |

(ii)   कथन I, II और IV सही हैं |

(iii) केवल कथन III सही हैं |

(iv)   कथन I, II, III और IV सही हैं | 1

(ग)   नीचे दिए हुए कॉलम 1 को कॉलम 2 से सुमेलित कर सही विकल्प का चयन कीजिए:

कॉलम 1		कॉलम 2	
1	भारत का प्रमुख जल संरक्षण अभियान	1	जल जीवन मिशन
2	सूखा प्रभावित क्षेत्रों के लिए सिंचाई पद्धति	2	सूक्ष्म सिंचाई
3	जल संचयन की तकनीक	3	वर्षा जल संचयन

(i)   I(1)   II(2)   III(3)

(ii)   I(2)   II(1)   III (3)

(iii) I(3)   II (1)   III(2)

(iv)   I(2)   II(3)   III(1)   1

(घ)   भारत में जल संरक्षण बढ़ाने के लिए सरकार द्वारा कौन सी योजनाएं शुरू की गई है ?   2

(च)   जल संरक्षण से कैसे भविष्य की पीढ़ियों के लिए जल की उपलब्धता सुनिश्चित की जा सकती है ?   2

2.   निम्नलिखित काव्यांश को ध्यानपूर्वक पढ़कर उस पर आधारित पूछे गए प्रश्नों के उत्तर लिखिए-   7

अंधकार कितना भी घना हो

प्रकाश की किरणें उसे दूर कर देंगी |

जीवन में दुखों के बादल छाएं,

तो भी आशा की रौशनी न बुझे |

हर रात के बाद सुबह आती है,

और हर तूफान के बाद सन्नाटा होता है |

यह संसार निरंतर बदलता रहता है,

जहाँ परिवर्तन ही जीवन का सत्य है |

जो धैर्य रखते हैं और कठिनाइयों से लड़ते हैं,

वही अंतत: विजय प्राप्त करते हैं |

आशा वह दीपक है,

जो अंधकार में भी जलता रहता है |

यह हमें सीखाता है

कि हमें कभी हार नहीं माननी चाहिए |

हर चुनौती हमें मजबूत करने के लिए आती है,

और हर संघर्ष हमें सफलता की ओर ले जाता है |

आओ, हम इस आशा के दीप को कभी बुझने न दे

[4]

(क) इस काव्यांश में किस बात पर विशेष ज़ोर दिया गया है ?

    (i) अंधकार   (ii) परिवर्तन

    (iii) आशा   (iv) संघर्ष   1

(ख) इस काव्यांश में आशा के किन गुणों का वर्णन किया गया है ? उचित विकल्प का चयन कीजिए:

    (I) आशा की किरण अंधकार को दूर करती है |

    (II) आशा जीवन में कठिनाइयों को समाप्त करती है |

    (III) आशा हमें कभी हार मानने नहीं देती |

    (IV) आशा हमें धैर्य रखने की प्रेरणा देती है |

विकल्प :

    (i) कथन I और II सही हैं |

    (ii) कथन I, III और IV सही हैं |

    (iii) कथन II और IV सही हैं |

    (iv) कथक I, II और III सही हैं | 1

(ग) कथन (A) और कारण (R) को पढ़कर उपयुक्त विकल्प चुनिए:

कथन (A) : परिवर्तन जीवन का सत्य है |

कारण (R) : क्योंकि संसार में हर स्थिति और परिस्थिति बदलती रहती है |

    (i) कथन (A) गलत है, किंतु कारण (R) सही है |

    (ii) कथन (A) और कारण (R) दोनों ही गलत है |

    (iii) कथन (A) सही है और कारण (R) कथन (A) की सही व्याख्या है |

    (iv) कथन (A) सही है, किंतु कारण (R) कथन (A) की सही व्याख्या नहीं है | 1

(घ) इस काव्यांश में कवि ने आशा का क्या महत्व बताया है ?   1

(च) इस काव्यांश में जीवन के परिवर्तनशील होने का क्या सन्देश दिया गया है ?   1

खंड-ख (व्यावहारिक व्याकरण)   16

3   निर्देशानुसार रचना के आधार पर वाक्य भेद पर आधारित पांच प्रश्नों में से किन्ही चार प्रश्नों के उत्तर लिखिए-

                                                                  4x1=4

(क) जो व्यक्ति साहसी है, उनके लिए कोई कार्य असंभव नहीं है ।　(सरल वाक्य में बदलिए)

(ख) पत्थर की मूर्ति पर चश्मा असली था।　(संयुक्त वाक्य में बदलिए)

(ग) मूर्ति की आंखो पर सरकंडे से बना छोटा-सा चश्मा रखा हुआ था, जैसे बच्चे बना लेते हैं ।

(आश्रित उपवाक्य छांटकर उसका भेद भी लिखिए)

(घ) सवार का संतुलन बिगड़ा और वह गिर गया।　(मिश्र वाक्य में बदलिए)

(ङ) अरब देशों में जिन यंत्रों को फूंककर बजाया जाता है, उन्हें नय कहा जाता है।

(रचना की दृष्टि से वाक्य का भेद लिखिए)

4 निर्देशानुसार वाच्य पर आधारित पांच प्रश्नों में से किन्हीं चार प्रश्नों के उत्तर लिखिए :　4x1=4

(क) बाल गोबिन भगत कबीर को साहब मानते थे।　(कर्मवाच्य में बदलिए)

(ख) जिस आदमी ने पहले-पहल आग का आविष्कार किया होगा, वह कितना बड़ा आविष्कर्ता होगा।

(कर्तृवाच्य में बदलिए)

(ग) मन्नु घर की चारदीवारी के भीतर नहीं बैठ सकती थी।　(भाववाच्य में बदलिए)

(घ) कैप्टन द्वारा चश्मा बदल दिया जाता है।　(वाच्य पहचान कर भेद बताइए)

(च) किस वाच्य में क्रिया सदा अन्य पुरुष एकवचन में होती हैं ?

5 निर्देशानुसार "पद-परिचय" पर आधारित पांच प्रश्नों में से किन्हीं चार प्रश्नों के रेखांकित पदों का पद-परिचय लिखिए-　4x1=4

(क) तीसरी बार फिर से नया चश्मा था।

(ख) वाह भाई! यह आइडिया भी ठीक है।

(ग) लाखों सजदे, इसी एक सच्चे सुर की इबादत में खुदा के आगे झुकते हैं।

(घ) उनके हिसाब से वहाँ रहना अपनी क्षमता और प्रतिभा को भट्टी में झोंकना था।

(च) सेकंड क्लास के एक छोटे डिब्बे को खाली समझकर, जल्द दौड़कर उसमें चढ़ गए।

6 निर्देशानुसार अलंकार पर आधारित पांच प्रश्नों में से किन्हीं चार प्रश्नों की काव्य पंक्तियों में अलंकार पहचान कर लिखिए-　4x1=4

(क) उर विहग सा उड़ रहा है, नील गगन के बीच।

(ख) उदित उदय गिरी मंच पर,रघुवर बाल पतंग |

विगसे संत-सरोज सब, हरषे लोचन भृंग ||

(ग) उस काल मारे क्रोध के तन काँपने उनका लगा |

मानो हवा के वेग से सोता हुआ सागर जगा ||

(घ) तुम्हारी यह दन्तुरित मुस्कान

मृतक में भी डाल देगी जान

(च) बूढ़े पीपल ने आगे बढ़कर जुहार की

बरस बाद सुधि लीन्ही ||

खण्ड- ग (पाठ्य पुस्तक एवं पूरक पाठ्य पुस्तक)   30

7 निम्नलिखित पठित गद्यांश पर आधारित बहुविकल्पीय प्रश्नों के सर्वाधिक उपयुक्त उत्तर वाले विकल्प चुनकर लिखिए-

पिता के ठीक विपरीत थी हमारी बेपढ़ी-लिखी माँ | धरती से कुछ ज्यादा ही धैर्य और सहनशक्ति थी शायद उनमें | पिताजी की हर ज्यादती को अपना प्राप्य और बच्चों की हर उचित-अनुचित फरमाइश और जिद को अपना फर्ज समझकर बड़े सहज भाव से स्वीकार करती थीं वे | उन्होंने जिंदगी भर अपने लिए कुछ माँगा नहीं, चाहा नहीं... केवल दिया ही दिया | हम भाई-बहनों का सारा लगाव (शायद सहानुभूति से उपजा) माँ के साथ था लेकिन निहायत मजबूरी में लिपटा उनका यह त्याग कभी मेरा आदर्श नहीं बन सका... न उनका त्याग, न उनकी सहिष्णुता | खैर जो भी हो, अब ये पैतृक-पुराण यहीं समाप्त कर अपने पर लौटती हूँ | 5x1=5

(क) माँ के किस गुण ने सबसे अधिक प्रभावित किया ?

कथन के लिए उचित विकल्प का चयन कीजिए-

(i) उनका धैर्य और सहनशक्ति |

(ii) उनका त्याग और सहिष्णुता |

(iii) उनका पढ़ा-लिखा न होना |

(iv) उनका बच्चों की हर इच्छा को मानना |

विकल्प :

(i) कथन I और II सही हैं |

(ii) कथन ॥ और ॥। सही हैं |

(iii) कथन । और ।V सही हैं |

(iv) केवल कथन । सही हैं |

(ख) कथन (A) और कारण (R) को पढ़कर उपयुक्त विकल्प चुनिए:

कथन (A) : लेखिका की माँ नें बच्चों की हर उचित-अनुचित फरमाइश स्वीकार की |

कारण (R) : माँ ने इसे अपना फर्ज समझा और सहजता से स्वीकार किया |

(i) कथन (A) गलत है, किंतु कारण (R) सही है |

(ii) कथन (A) और कारण (R) दोनों ही गलत है |

(iii) कथन (A) सही है और कारण (R) कथन (A) की सही व्याख्या है |

(iv) कथन (A) सही है किंतु कारण (R) कथन (A) की सही व्याख्या नहीं है |

(ग) माँ की किस बात को लेखिका कभी आदर्श नहीं मान पाई ?

(i) बच्चों की अनुचित फरमाइश | (ii) माँ का त्याग और सहिष्णुता |

(iii) पिताजी की ज्यादती | (iv) माँ की शिक्षा |

(घ) माँ का बच्चों के प्रति क्या भाव था ?

(i) सहानुभूति और प्रेम | (ii) त्याग और सहिष्णुता |

(iii) अनुशासन और कठोरता | (iv) जिद और क्रोध |

(च) इस गद्यांश का मूल भाव क्या है? उचित विकल्प का चयन कीजिए-

(I) माँ का त्याग और सहिष्णुता | (II) बच्चों का लगाव और सहानुभूति |

(III) माँ का आदर्श न बन पाना | (IV) पिताजी की ज्यादती |

विकल्प :

(i) कथन । और ॥ सही हैं |

(ii) कथन । और ॥। सही हैं |

(iii) कथन ॥ और ।V सही हैं |

(iv) कथन । और ।V सही हैं |

8 निर्धारित गद्य पाठों के आधार पर निम्नलिखित चार प्रश्नों में से किन्हीं तीन प्रश्नों के उत्तर लगभग 25 से 30 शब्दों में लिखिए-   3x2=6

(क) 'लखनवी अंदाज' पाठ के आधार पर बताइए कि लेखक ने खीरा खाने से मना क्यों किया ?

(ख) बिस्मिल्ला खां को शहनाई की मंगलध्वनि का नायक क्यों कहाँ गया ?

(ग) 'मनुष्य की जो योग्यता उसे आत्मविश्वास के साधनों का आविष्कार कराती है हम उसे संस्कृति कहें या असंस्कृति ?' इस कथन पर अपने विचार स्पष्ट करें |

(घ) कार्तिक महीना और बालगोबिन भगत दोनों एक-दूसरे से किस प्रकार संबंधित है ?

9 निम्नलिखित पठित काव्यांश पर आधारित बहुविकल्पीय प्रश्नों के सर्वाधिक उपयुक्त उत्तर वाले विकल्प चुनकर लिखिए-

तुम्हारी यह दन्तुरित मुस्कान

मृतक में भी डाल देगी जान

धूलि-धूसर तुम्हारे ये गात.....

छोड़कर तालाब मेरी झोपड़ी में खिल रहे जलजात

परस पाकर तुम्हारा ही प्राण,

पिघलकर जल बन गया होगा कठिन पाषाण

छू गया तुमसे कि झरने लग पड़े शैफालिका के फूल

बाँस था कि बबूल ?

तुम-मुझे पाए नहीं पहचान ?

देखते ही रहोगे अनिमेष | 5x1=5

(क) तुम्हारी यह दन्तुरित मुस्कान' से कवि किसकी ओर संकेत कर रहा है ?

(i) जीवन की नई ऊर्जा की ओर

(ii) किसी प्रिय व्यक्ति के सौंदर्य की ओर

(iii) प्रकृति की सौम्यता की ओर

(iv) मानवीय संघर्ष की ओर

(ख) 'परस पाकर तुम्हारा ही प्राण' पंक्ति में किस स्थिति की ओर संकेत है ?

    (I)   जीवन के पुनर्जन्म की ओर

    (II)   प्रेम की शक्ति की ओर

    (III)   कठोरता के समाप्त होने की ओर

    (IV)   जीवन के अंत की ओर

विकल्प :

    (i)   कथन I सही है |

    (ii)   कथन I और II सही है |

    (iii)   कथन II और III सही है |

    (iv)   कथन I और III सही है |

(ग) कथन (A) और कारण (R) को ध्यानपूर्वक पढ़कर सही विकल्प चुनिए :

कथन (A) : कवि की झोपड़ी में जलजात खिले हैं |

कारण (R) : कवि के पास तालाब का शीतल जल है, जिससे जलजात खिले हैं |

    (i)   कथन (A) गलत है, किंतु कारण (R) सही है |

    (ii)   कथन (A) और कारण (R) दोनों ही गलत है |

    (iii)   कथन (A) सही है और कारण (R) कथन (A) की सही व्याख्या है |

    (iv)   कथन (A) सही है किंतु कारण (R) कथन (A) की सही व्याख्या नहीं है |

(घ) 'पिघलकर जल बन गया होगा कठिन पाषाण' पंक्ति में किस परिवर्तन की ओर संकेत है ?

    (i)   पत्थर के पानी में बदलने की ओर

    (ii)   कठोरता के कोमलता में बदलने की ओर

    (iii)   प्रेम के भाव के जन्म की ओर

    (iv)   जीवन के अतं की ओर

(च) 'देखते ही रहोगे अनिमेष' पंक्ति में कवि किस स्थिति की ओर संकेत कर रहा है ?

    (I)   असमंजस और आश्चर्य   (II)   प्रेम और उत्सुकता

    (III)   भय और चिंतन   (IV)   आश्चर्य और ध्यान

विकल्प :

(i)   कथन I सही है |

(ii)   कथन I और II सही है |

(iii)   कथन II और III सही है |

(iv)   कथन I और IV सही है |

10   निर्धारित कविताओं के आधार पर निम्नलिखित चार प्रश्नों में से किन्हीं तीन प्रश्नों के उत्तर लगभग 25 से 30 शब्दों में लिखिए-   3x2=6

(क)   क्रोधित परशुराम को शांत करने के लिए राम ने क्या कहा? उन वचनों से उनका कौन-सा गुण झलकता है ?

(ख)   'जागत-सोवत दिवस-निसि कान्ह-कान्ह जकरी'- इस पंक्ति द्वारा गोपियों की किस मन:स्थिति का वर्णन किया गया है ?

(ग)   "अरे खिल-खिला कर हंसतें होने वाली उन बातों की" पंक्ति का भाव स्पष्ट करके लिखिए कि इन शब्दों में कवि-मन के किन भावों की झलक मिलती है ?

(घ)   संगतकार जैसे व्यक्ति संगीत के अलावा और किन-किन क्षेत्रों में किस-किस रूप में दिखाई देते हैं?

11   पूरक पाठ्यपुस्तक के निर्धारित पाठों पर आधारित निम्नलिखित तीन प्रश्नों में से किन्हीं दो प्रश्नों के उत्तर लगभग 50 से 60 शब्दों में लिखिए-   2x4=8

(क)   'साना साना हाथ जोडि ' पाठ की लेखिका का मन फौजी छावनी में लिखें वी गिव अवर टूडे फॉर योर टुमारो वाक्य को पढकर उदास क्यों हो गया ? स्पष्ट कीजिए |

(ख)   'माता का अंचल' पाठ में बच्चों की जो दुनिया रची गई है वह आपके बचपन की दुनिया से किस तरह भिन्न है ?

(ग)   हिरोशिमा पर लिखी कविता लेखक के अंत व बाह्य दबावों का परिणाम है, आप कैसे कह सकते हैं ?

खंड-घ (रचनात्मक लेखन)   20

12.   निम्नलिखित तीन विषयों में से किसी एक विषय पर संकेत बिन्दुओं के आधार पर लगभग 120 शब्दों में एक अनुच्छेद लिखिए-

(क) मीडिया व युवा पीढ़ी

संकेत बिंदु:

* भूमिका

* युवा पीढ़ी पर सकारात्मक प्रभाव

* युवा पीढ़ी पर नकारात्मक प्रभाव

* उपसंहार   1x6=6

(ख) स्मार्ट क्लास की उपयोगिता

संकेत बिंदु:

* छात्रों की अधिक सक्रियता

* विषयवस्तु का अधिगम

* कम समय में अधिक जानकारी प्राप्त करना

* छात्रों पर प्रभाव

(ग) लड़का-लड़की एक समान

संकेत बिंदु:

* शिक्षा का समान अधिकार

* करियर के अवसर

* समानता का व्यवहार

* स्वतंत्रता और सुरक्षा

13 (क) आप सरपंच भारती / भरत हैं | अपने क्षेत्र में पेड़-पौधों की अनियंत्रित कटाई को रोकने के लिए जिलाधिकारी को लगभग 100 शब्दों में एक पत्र लिखिए |

अथवा

(ख) आप भारती / भरत हैं| आपके मित्र का तैराकी के लिए अगले ओलंपिक खेलों के लिए चयन हो गया है| उसे प्रोत्साहन देते हुए लगभग 100 शब्दों में एक पत्र लिखिए | 1x5=5

14 (क) आपका मयूरी / मयूर हैं | टेस्ला मोटर्स कंपनी में मार्केटिंग एग्जीक्यूटिव की आवश्यकता है| टाइम्स ऑफ इंडिया में इस पद हेतु विज्ञापन प्रकाशित किया गया है |आप नौकरी की तलाश में है |अतः आप इस पद पर नियुक्ति पाने हेतु लगभग 80 शब्दो में एक स्ववृत तैयार कीजिए|

अथवा

(ख)   आप सुमन/ सौरभ हैं | ध्वनि प्रदूषण की समस्या से अवगत कराते हुए नगर योजना अधिकारी को लगभग
        80 शब्दों में एक ई-मेल लिखिए | 1x5=5

15   (क)   स्कूल के हल्के व मजबूत बस्तों की कंपनी के लिए एक आकर्षक विज्ञापन लगभग 40 शब्दों में तैयार
            कीजिए |

अथवा

(ख)   शिक्षक-दिवस पर अपने अध्यापक को लगभग 40 शब्दों में शुभकामना संदेश लिखिए | 1x4=4

II Pre-Board Examination, 2025–26

Sub. : Mathematics (Basic)

Time : 3.00 Hrs.]   **Class – X**   **[M. M. : 80**

General Instructions:

1. This Question Paper has 5 Sections A, B, C, D and E.

2. Section A has 18 MCQs and 2 Assertion and reasoning Questions carrying 1 mark each.

3. Section B has 5 questions carrying 02 marks each.

4. Section C has 6 questions carrying 03 marks each.

5. Section D has 4 questions carrying 05 marks each.

6. Section E has 3 case based integrated units of assessment (04 marks each) with sub-parts of the values of 1, 1 and 2 marks each respectively.

7. All Questions are compulsory. However, an internal choice in 2 Questions of 5 marks, 2 Questions of 3 marks and 2 Questions of 2 marks has been provided. An internal choice has been provided in the 2 marks questions of Section E

8. Draw neat figures wherever required. Take $\pi = 22/7$ wherever required if not stated.

Q.NO		MARKS
	SECTION – A	
1	If $a = 2^7.3^{10}$ and $b = 2^3.3^7$, then $HCF\ (a, b)$ is : (a)$2^7.3^{10}$ (b) $2^{10}.3^{17}$ c) $2^3.3^7$ (d) $2^7.3^7$	1
2	Which of the following is the polynomial with zeros $3\ and -2$? (a)$x^2 - x - 6$ (b) $x^2 + x - 6$ (c) $2x^2 - x - 12$ (d) $x^2 + x + 6$	1

3	A system of linear equations is given by $2x = 5y + 6$ and $15y = 6x - 18$ represents two lines which are :
	      (a) Intersecting (b) parallel (c) coincident
	          (d)either intersecting or parallel
		1

4	The discriminant of the quadratic equation $3\sqrt{3}x^2 + 10x + \sqrt{3} = 0$ is (a)100 (b) 64 (c) 36 (d) 8	1
5	The value(s) of k for which the quadratic equation $2x^2 + kx + 2 = 0$ has equal roots, is (a)4 (b) – 4 (c) 0 (d) 4 and – 4	1
6	In an A.P., if $a = 8\ and\ a_{10} = -19$, then value of d is : (a)– 3 (b) $-\frac{11}{9}$ (c) $-\frac{27}{10}$ (d) 3	1

7	In the given figure, $DE \parallel BC$. If $\frac{AD}{DB} = \frac{3}{2}$ and $AE = 2.7cm$ then EC is equal to : (a) 2.0 cm (b) 1.8 cm (c) 5.4 cm (d) 2.7 cm	1
8	A line which intersect a circle in two distinct points, is called a (a)Tangent (b) chord (c) secant (d) diameter	1
9	Which of the following is not the criterion for similarity of two triangles? (a)SAS (b) RHS (c) AAA (d) SSS	1
10	The coordinates of the mid-point of a line segment joining the points $A\,(3, -1)$ and $B\,(7, 5)$ are $(5a, 2b)$. The value of $(a + b)$ is : (a)7 (b) 3 (c) 5 (d) 2	1
11	In a right angled triangle ABC, $\angle A = 90°$ and $AB = AC$. The value of $\sin C$ is : (a) $\frac{1}{2}$ (b) $\frac{1}{\sqrt{2}}$ (c) $\frac{\sqrt{3}}{2}$ (d) 1	1
12	The area swept by 7 cm long minute hand of a clock in 10 minutes is: (a) $\frac{77}{3}\ cm^2$ (b) $\frac{77}{6}\ cm^2$ (c) $\frac{77}{2}\ cm^2$ (d) $77\ cm^2$	1
13	If the volume of a sphere of radius R is equal to 16 times the volume of a hemisphere of radius r, then $R : r$ is : (a)1 : 2 (b) 1 : 4 (c) 4 : 1 (d) 2 : 1	1
14	The value of x for which class mark of the class interval 30 – x is 36, is : (a)38 (b) 40 (c) 42 (d) 44	1
15	Two dice are rolled together. The probability of getting a doublet is : (a) $\frac{1}{36}$ (b) $\frac{1}{6}$ (c) $\frac{1}{18}$ (d) $\frac{5}{36}$	1
16	The mean and median of a statistical data are 21 and 23 respectively. The mode of the data is : (a)27 (b) 22 (c) 23 (d) 21	1
17	A card is drawn from a well shuffled deck of 52 cards. The probability that the drawn card is a red queen, is : (a) $\frac{1}{52}$ (b) $\frac{1}{13}$ (c) $\frac{2}{13}$ (d) $\frac{1}{26}$	1
18	$\frac{1-tan^2 30°}{1+tan^2 30°}$ is equal to (a) $\sin 60°$ (b) $\cos 60°$ (c) $\tan 60°$ (d) 1	1
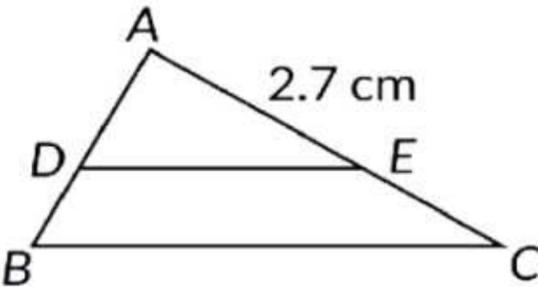
19	Assertion: The distance of the point $(-3, 5)$ from the x-axis is 3 units. Reason (R) : Abscissa of a point gives the distance of the point from y – axis. (a) Both Assertion and Reason are true and Reason is the correct explanation of Assertion. (b) Both Assertion and Reason are true but Reason is not the correct explanation of Assertion. (c) Assertion is true but Reason is false. (d) Assertion is false but Reason is true.	1
20	Assertion : The surface area of the largest sphere that can be inscribed in a hollow cube of side a cm is πa^2 cm^2. Reason: The surface area of a sphere of radius r is $\frac{4}{3}\pi r^3$. (a) Both Assertion and Reason are true and Reason is the correct explanation of Assertion. (b) Both Assertion and Reason are true but Reason is not the correct explanation of Assertion. (c) Assertion is true but Reason is false. (d) Assertion is false but Reason is true.	1
	Section – B	
21	On a morning walk, three persons steps off together and their steps measure **40 cm, 42 cm and 45 cm** respectively. What is the minimum distance each should walk so that each can cover same distance in complete steps?	2
22	In figure, if $PQ \parallel BC$ and $PR \parallel CD$, prove that $\frac{QB}{AQ} = \frac{DR}{AR}$. OR In the given figure, $DE \parallel AC$ and $DF \parallel AE$. Prove that $\frac{BF}{FE} = \frac{BE}{EC}$.	2
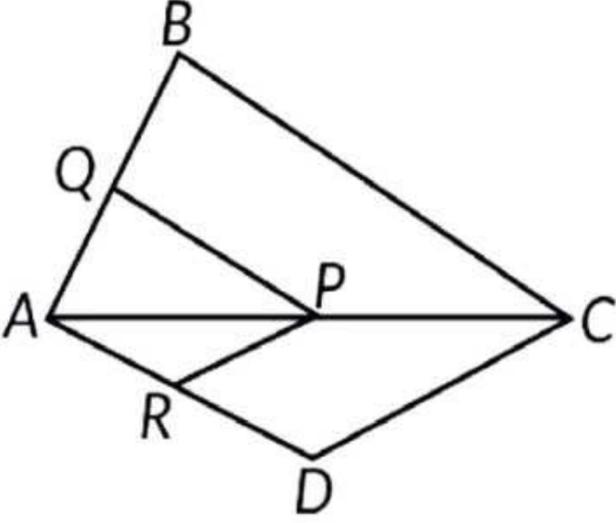
23	If $\tan A = \sqrt{3}$, then find the value of $\cos^2 A - \sin^2 A$. **OR** If $x. \sin 60° + \cos 30° - \tan 45° = \dfrac{\sqrt{3}}{2}$, find the value of x.	2
24	In Fig. XAY is a tangent to the circle centred at O. If $\angle ABO = 40°$, then find $\angle BAY$ and $\angle AOB$. 	2
25	The numbers on a die are replaced by the first six even numbers. The die rolled once. Find the probability that the number appearing on the die is : (a) Greater than 4. (b) Divisible by 3.	2
	Section – C	
26	Prove that $\sqrt{3}$ is an irrational number.	3
27	Find the zeros of the polynomial $5x^2 + 3x - 2$ and verify the relationship between the zeros and the coefficients of the polynomial.	3
28	A train travels a distance of 480 km at a uniform speed. If the speed had been 8 km/h less, then it would have taken 3 hours more to cover the same distance. Find the reduced speed of the train. Also find the original speed. **OR** The altitude of a right angled triangle is 7 cm less than its base. If the hypotenuse is 17 cm long, then represent the above information in the form of a quadratic equation. Also find the length of the sides of the triangle.	3

29	Prove that $$\frac{\cot A - \cos A}{\cot A + \cos A} = (\sec A - \tan A)^2$$	3
30	Two tangents TP and TQ are drawn to a circle with centre O from an external point T. Prove that $\angle PTQ = 2\angle OPQ$	3
31	In the given figure, three sectors of a circle of radius 7 cm, making angles of $60°$, $80°$ and $40°$ at the centre are shaded. Find the area of the shaded region. OR A chord of a circle of radius 14 cm subtends an angle of $90°$ at the centre. Find the area of the corresponding minor and major segments of the circle.	3
	Section – D	
32	16 years ago, at the time of marriage, Ram was 5 years elder to his wife. The present ages of the wife and Ram are in the ratio 8 : 9. Find their ages at the time of their marriage. OR The sum of the digits of a two digit number is 9. Also, nine times this number is twice the number obtained by reversing the order of the digits. Find the number.	5
33	State and prove Basic Proportionality Theorem. Also, in the given figure, find x in terms of a, b, and c.	5
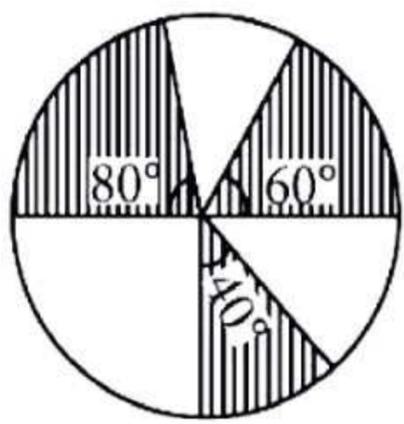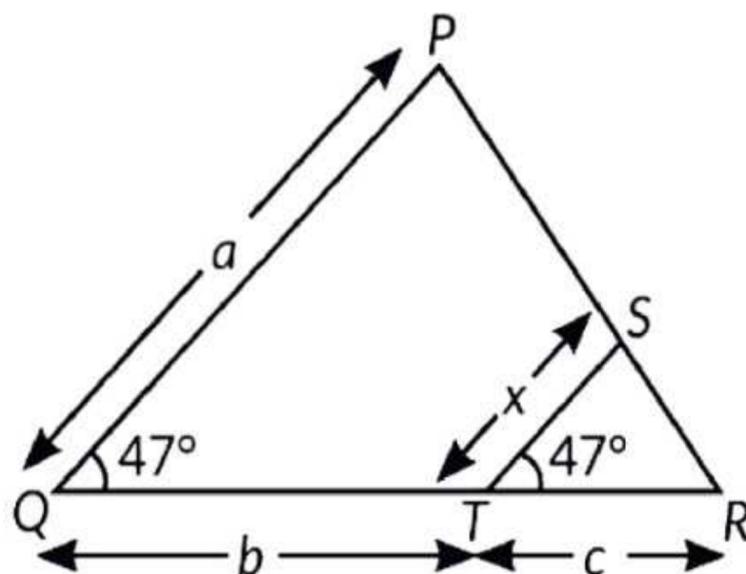
34	Two poles of equal heights are standing opposite each other on either sides of a road, which is 100 m wide. From a point somewhere between them on the road, the angles of elevation of the top of the poles are $60°$ and $30°$ respectively. Find the height of the poles and the distances of the point from the poles. **OR** The angles of depression of the top and bottom of a 8 m tall building from the top of a tower are $30°$ and $45°$ respectively. Find the height of the tower and the distance between the tower and the building.	5
35	Find the mode of the following data:	5

Class	1 – 3	3 – 5	5 – 7	7 – 9	9 – 11
Frequency	7	8	2	2	1

Also, if mean of the data is 4.2, then find the median using empirical relationship.

	Section – E	
36	Rohan's father displays shoes in his shop for sale on the occasion of Diwali. He puts 3 pairs of shoes in 1st row, 5 pairs in the 2nd row, 7 pairs in the 3rd row and so on.	4

Based on the above information, answer the following questions:

(i) How many pairs of shoes are displayed in the 6th row?

(ii) What is the difference of pairs of shoes in the 2nd row and the 6th row?

(iii) Find the total number of pairs of shoes displayed in the first 15 rows?

OR

If the pair of shoes displayed in 4th row are on sale at price of Rs 500 for each pair, then find the total amount earned by him if all shoes in 4th row are sold out.

37	Now a days, drones are used in the fields for agriculture for various tasks like monitoring, spraying of pesticides etc. A drone is flying over a rectangular field with vertices $A(-100, 0)$, $B(100, 0)$, $C(100, 150)$ and $D(-100, 150)$. The drone captures an image at a location (x, y).	4

Based on the above information, answer the following questions:

(I) Find the dimensions of the rectangular field.

(II) Find the distance between points A and C.

(II) If the drone captures image of the point P (x, y), find the relation between x and y such that PA = PC.

OR

If the drone captures the image of an object at a point Q whose x

	coordinate is 0 and it is equidistant from points A and D, find the coordinates of Q.	
38	A toy rocket is in the form of a right circular cylinder closed at lower end and surmounted by the cone with same radius as that of the cylinder. The height and diameter of the cylindrical part is 12cm and 6 cm respectively. Given slant height of the conical part is 5 cm. Based on the above information, answer the following questions: (I)Find the height of the conical part. (II)Find the curved surface area of the cylindrical part. (III)Determine the total surface area of the toy. OR Determine the volume of the toy.	4

II Pre-Board Examination, 2025–26

Sub. : Mathematics (Standard)

Time : 3.00 Hrs.]   **Class – X**   **[M. M. : 80**

General Instructions:

1. This Question Paper has 5 Sections A, B, C, D and E.

2. Section A has 18 MCQs and 2 Assertion and reasoning Questions carrying 1 mark each.

3. Section B has 5 questions carrying 02 marks each.

4. Section C has 6 questions carrying 03 marks each.

5. Section D has 4 questions carrying 05 marks each.

6. Section E has 3 case based integrated units of assessment (04 marks each) with sub- parts of the values of 1, 1 and 2 marks each respectively.

7. All Questions are compulsory. However, an internal choice in 2 Questions of 5 marks, 2 Questions of 3 marks and 2 Questions of 2 marks has been provided. An internal choice has been provided in the 2 marks questions of Section E

8. Draw neat figures wherever required. Take $\pi = 22/7$ wherever required if not stated.

SECTION A

Q. No.	Section A consists of 20 questions of 1 mark each.	Marks
1	If the zeroes of the quadratic polynomial $x^2 + (a + 1)x + b$ are 2 and -3, then (a) $a = -7, b = -1$ (b) $a = 5, b = -1$ (c) $a = 2, b = -6$ (d) $a = 0, b = -6$	1
2	If $(x-2)^2 + 1 = 2x - 3$ is a quadratic equation, then find the value of discriminant (a) 4 (b) -3 (c) -6 (d) - 4	1
3	For what value k, do the equations $2x - y + 3 = 0$ and $6x - ky + 9 = 0$ represent coincident lines? (a) 2 (b) – 2 (c) 3 (d) -3	1
4	If the sum and product of the roots of the equation $3x^2 - 8x + 2k = 0$ are equal, then the value of k is (a) 4 (b) 3 (c) 6 (d) 8	1

5	If 2x, x + 10, 3x + 2 are in A.P., then x is equal to	
	(a) 0 (b) 2 (c) 4 (d) 6	1
6	The coordinates of a point P, where PQ is the diameter of a circle whose centre is (2, – 3) and Q is (1, 4) is:	1
	(a) (3, -10) (b) (2, -10) (c) (-3, 10) (d) (-2, 10).	
7	If the distance between the points A(2, -2) and B(-1, x) is equal to 5, then the value of x is:	1
	(a) 2 (b) -2 (c) 1 (d) -1	
8	The value of $(\sin 30° + \cos 30°) - (\sin 60° + \cos 60°)$ is	1
	(a) -1 (b) 0 (c) 1 (d) 2	
9	If $3 \sec \theta - 5 = 0$, then $\cot \theta$ is	1
	(a) 4/5 (b) 5/3 (c) 3/4 (d) 3/5	
10	In the given figure, point P is 26 cm away from the centre O of a circle and the length PT of the tangent drawn from P to the circle is 24 cm. Then the radius of the circle is (a) 25 cm (b) 26 cm (c) 24cm (d)10cm	1
11	If in two triangles ABC and PQR, AB/QR = BC/PR = CA/PQ, then (a) ΔPQR ∼ ΔCAB (b) ΔPQR ∼ ΔABC (c) ΔCBA ∼ ΔPQR (d) ΔBCA ∼ ΔPQR	1
12	If ΔABC ∼ ΔEDF and ΔABC is not similar to ΔDEF then which of the following is not true (a) BC.EF = AC.FD (b) AB.ED = AC.DE (c) BC.DE = AB.EF (d) BC.DE = AB.FD	1
13	The ratio of the total surface area to the curved surface area of a cylinder with base radius 80 cm and height 20 cm is	1
	(a) 1 : 2 (b) 2 : 1 (c) 3 : 1 (d) 5 : 1	
14	Volume and total surface area of a solid hemisphere are numerically equal. What is the diameter of hemisphere?	1
	(a) 9 units (b) 6 units (c) 4.5 units (d) 18 units	
15	If mean of a, a+3, a+6, a+9 and a+12 is 10, then a is equal to;	1
	(a) 1 (b) 2 (c) 3 (d) 4	

Mathematics (Standard)/X/Set-III/DR-I

16	Consider the following frequency distribution of the heights of 60 students of a class:	1

Height (in cm)	150 – 155	155 – 160	160 – 165	165 – 170	170 – 175	175 – 180
Number of students	15	13	10	8	9	5

The sum of the lower limit of the modal class and upper limit of the median class is

(a) 310   (b) 315   (c) 320   (d) 330

17	Cards are marked with numbers 1 to 50 are placed in the box and mixed thoroughly. One card is drawn at random from the box. What is the probability of getting a prime number?	1

(a) 1   (b)4/10   (c) 1/2   (d) 3/10

18	A school has five houses A, B, C, D and E. One class has 23 students, 4 from house A, 8 from house B, 5 from house C, 2 from house D and the rest from house E. A single student is selected at random to be the class monitor. The probability that the selected student is not from houses A, B and C is:	1

(a) 4/23   (b) 6/23   (c) 8/23   (d) 17/23

DIRECTION: In the question number (19) and (20), a statement of assertion (A) is followed by a statement of Reason (R).

Choose the correct option

19	*Statement A (Assertion):* The HCF of two numbers is 15 and their product is 2250. Then their LCM is 150.

Statement R(Reason) : If a, b are two positive integers, then HCF x LCM=a x b.

(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.

20	Statement A (Assertion): If the perimeter of a circle is equal to that of a square, then the of their areas is 14:11	1
	Statement R (Reason): If the perimeter of a circle is equal to that of a square, then their areas are equal	
	(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.	
	SECTION B	
21	Given that $\sqrt{3}$ is irrational, prove that $2 + 5\sqrt{3}$ is irrational.	2
22	One card is drawn from a well-shuffled deck of 52 cards. Calculate the probability that the card will be (i) an ace, (ii) not be an ace	2
23	If Sin(A+B) =1 and Cos (A-B)=$\sqrt{3}$/2 find A and B. OR If tan A =$\sqrt{3}$ and tan B = $\frac{1}{\sqrt{3}}$, 0< A, B< 90° ,then find the value of Cot (A+B).	2
24	In the figure, if PQR || RS, prove that Δ POQ ~ Δ SOR. OR Sides AB and BC and median AD of ΔABC are respectively proportional to sides PQ and QR and median PM of Δ PQR, show that ΔABC ~ ΔPQR.	2
25	A quadrilateral ABCD is drawn to circumscribe a circle as shown in the figure. Prove that AB + CD = AD + BC 	2
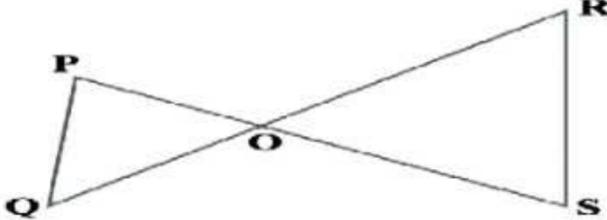
Mathematics (Standard)/X/Set-III/DR-I

	SECTION C	
26	Prove that $\sqrt{5}$ is an irrational number.	3
27	If one of the zero of the polynomial $3x^2 + 8x + 2k + 1$ is seven times the other, find the value of 'k'.	3
28	Find the values of k for each of the following quadratic equations, so that they have two equal roots. (i) $2x^2 + kx + 3 = 0$ (ii) $kx(x-2) + 6 = 0$ OR Find the roots of the equation $x^2 - 3x - m(m+3) = 0$, where m is a constant.	3
29	Prove that $\dfrac{tan\theta}{1-cot\theta} + \dfrac{cot\,\theta}{1-tan\,\theta} = 1 + sec\,\theta.cosec\,\theta$	3
30	XY and X'Y' are two parallel tangents to a circle with centre O and another tangent AB with the point of contact C intersecting XY at A and X'Y' at B. Prove that $\angle$ AOB = 90°. 	3
31	The length of the minute hand of a clock is 14 cm. Find the area swept by the minute hand in 5 minutes. (OR) An umbrella has 8 ribs which are equally spaced (see Fig.). Assuming umbrella to be a flat circle of radius 45 cm, find the area between the two consecutive ribs of the umbrella. 	3

	SECTION D	
32	A fraction becomes 9/11 if 2 is added to both the numerator and the denominator. If 3 is added to both the numerator and the denominator, it becomes 5/6. Find the fraction **(OR)** A train covered a certain distance at a uniform speed. If the train would have been 10km/h faster, it would have taken 2 hours less than the scheduled time. And, if the train were slower by 10km/h, it would have taken 3 hours more than the scheduled time. Find the distance covered by the train.	5

33	Two poles of equal heights are standing opposite each other on either side of the road, which is 80 m wide. From a point between them on the road, the angles of elevation of the top of the poles are 60° and 30°, respectively. Find the height of the poles and the distances of the point from the poles. OR The tops of two tower of height x and y standing on level ground, subtends angle of 30° and 60° respectively at the centre of the line joining their feet, then find x:y.	5
34	(i)State and prove BPT. (ii) In the figure, DE || AC and DF || AE. Prove that BF/FE = BE/EC. 	5
35	The mean of the following frequency table is 53. But the frequencies f_1 and f_2 in the classes 20−40 and 60−80 are missing. Find the missing frequencies	5

Age (in years)	0-20	20-40	40-60	60-80	80-100	Total
No. of people	15	f1	21	f2	17	100

Mathematics (Standard)/X/Set-III/DR-I

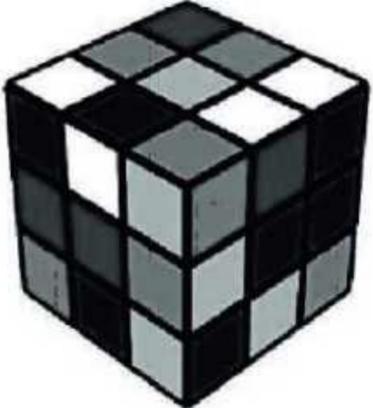|	SECTION – E : CASE STUDY BASED QUESTIONS.	
36	In a class the teacher asks every student to write an example of AP. Two boys Aryan and Roshan writes their progressions as -5,-2, 1,4 …… and 187, 184, 181,….. respectively. Now the teacher asks the various students of the class the following questions on this progression. Help students to find the answers of the following.	
	(i) Find the sum of common difference of the two progressions.	1
	(ii) Find the 34ᵗʰ term of the progression written by Roshan.	1
	(iii) Find the sum of first 10 terms of the progression written by Aryan.	2
	(OR) Which term of the two progressions will have the same value?	
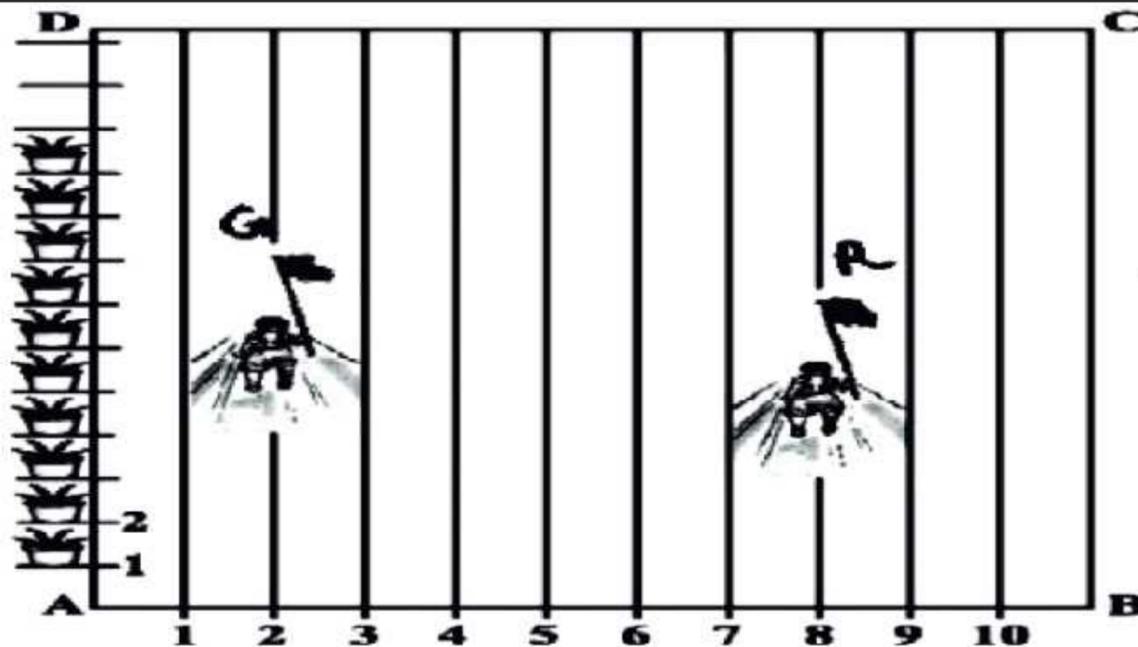
37	 In order to conduct Sports Day activities in your School, lines have been drawn with chalk powder at a distance of 1 m each, in a rectangular shaped ground ABCD, 100 flowerpots have been placed at a distance of 1 m from each other along AD, as shown in given figure below. Niharika runs 1/4 th the distance AD on the 2nd line and posts a green flag. Preet runs 1/5 th distance AD on the eighth line and posts a red flag.	
	1. Find the position of green flag a) (2,25) (b) (2,0.25) (c) (25,2) (d) (0, -25)	1
	2. Find the position of red flag a) (8,0) (b) (20,8) (c) (8,20) (d) (8,0.2)	1
	3. What is the distance between both the flags? a) √41 (b) √11 (c) √61 (d) √51	2

OR

If Rashmi has to post a blue flag exactly halfway between the line segment joining the two flags, where should she post her flag?

(a) (5, 22.5)　　(b) (10,22)　　(c) (2,8.5)　　(d) (2.5,20)

38	On a Sunday, your Parents took you to a fair. You could see lot of toys displayed, and you wanted them to buy a RUBIK's cube and strawberry ice-cream for you. Observe the figures and answer the questions-:	
	(i) Find the length of the diagonal if each edge measures 6cm ?	1
	(ii)Find the volume of the solid figure if the length of the edge is 7cm?	1
	(iii)What is the surface area of hemisphere (ice cream) if the base radius is 7cm?	2
	(OR)	
	If the slant height of the conical part is 5 cm, and its radius is 4 cm, find its height.	