

SAMPLE QUESTION PAPER
ENGLISH COMMUNICATIVE (Code No. 101)
CLASS-X-(2024-25)

TIME- 3 Hrs.

Max. Marks-80

General Instructions:

Read the following instructions very carefully and strictly follow them:

- I. This question paper has 12 questions. All questions are compulsory.*
- II. This question paper contains three sections:
Section A: Reading Skills,
Section B: Writing Skills
Section C: Grammar
Section D: Literature Textbook*
- III. Attempt all questions based on specific instructions for each part. Write the correct question number and part thereof in your answer sheet.*
- IV. Separate instructions are given with each question/part, wherever necessary.*
- V. Adhere to the prescribed word limit while answering the questions.*

SECTION A: READING

(22 marks)

1. Read the following passage

12

- (1) In a world dominated by digital technology, the way we capture, store, and share memories has evolved significantly. Traditional photo albums and digital photo galleries are two primary methods for preserving personal and family memories, each with its own unique characteristics. Though both share the common goal of keeping memories alive, they offer different experiences, advantages, and disadvantages.
- (2) Photo albums represent a tangible and tactile way to capture memories. A physical album filled with printed photographs provides a sense of reminiscence and can be passed down through generations, becoming a family heirloom. The process of selecting photos, printing them, and placing them in an album can be a personal and intimate experience, allowing one to reflect on the moments captured.
- (3) One of the primary advantages of photo albums is their permanence. Unlike digital files, which can be lost or corrupted, physical photographs in a well-maintained album can last for decades, if not centuries. Albums also provide a sensory experience; flipping through the pages, feeling the texture of the paper, and smelling the aging prints can evoke strong emotional responses.
- (4) Additionally, photo albums require little to no technology to enjoy. This makes them accessible to a wider range of people, including those who may not be tech-savvy. Albums can be taken to family gatherings or passed around during holidays, creating a shared experience among family and friends.
- (5) However, photo albums come with certain disadvantages. They take up physical space and are vulnerable to damage from environmental factors like water, fire, or sunlight. Albums are also limited in capacity; once they are filled, creating additional albums can become

cumbersome. Furthermore, the process of creating a photo album can be time-consuming and costly. Printing photographs, purchasing albums, and maintaining them can add up. Digital photo galleries have transformed the way we capture and share memories. With the rise of smartphones and digital cameras, taking and storing photos has become more convenient than ever.

- (6) The main advantage of digital photo galleries is their convenience and capacity. With a single device, you can store thousands of photos and access them from anywhere. Digital galleries also offer powerful organization tools, allowing users to sort and categorise their photos with metadata, tags, and dates. Sharing digital photos is effortless; you can send them via email, social media, or cloud-based platforms, enabling friends and family to enjoy memories instantly. Digital galleries also allow for easy editing and enhancement of photos, helping to correct imperfections and improve quality.
- (7) Despite their convenience, digital photo galleries have their drawbacks. The reliance on technology means that photos can be lost due to hardware failure, software corruption, or accidental deletion. Additionally, the ephemeral nature of digital files makes them less tangible and more prone to being overlooked or forgotten among the vast array of digital content. Security and privacy are also concerns with digital galleries. Sharing photos online opens up the risk of unauthorized access or data breaches, leading to potential misuse of personal images.
- (8) Ultimately, the choice between traditional photo albums and digital photo galleries depends on personal preferences and priorities. Photo albums offer a tactile, enduring connection to memories, while digital galleries provide convenience, flexibility, and ease of sharing. A combination of both methods can offer the best of both worlds, ensuring that cherished memories are preserved and enjoyed for years to come.

Created for academic usage/ 560 words

Answer the following questions, based on the passage above.

- I What do traditional photo albums and digital photo galleries share in common? 1
A. Both use digital technology to store photos.
B. Both are methods of preserving personal and family memories.
C. Both are tangible and can be passed down through generations.
D. Both rely on external power sources to function.
- II What aspect of traditional photo albums makes them a cherished item for families? 1
A. The convenience of digital technology.
B. The ability to store thousands of photos.
C. The sense of nostalgia they provide.
D. The option to access them from anywhere.
- III Complete the following suitably. 1
The personal experience associated with photo albums is important because _____.
- IV Rectify the given false statement. 1
The main benefit that photo albums have over digital files is the sensory experience.

- V List any ONE way the photo albums can contribute to an enjoyable family time. 1
- VI Why has it become cumbersome to create additional photo albums, according to paragraph 5? 1
- VII Why does the writer say that digital cameras, have made taking and storing photos ' more convenient than ever?' 2
- VIII How can we say that digital photographs may not always represent reality? 2
- IX Explain why we can say that the writer did not choose sides? 2
- 2. Read the following report. 10**

Student Council Unveils School's First Student-Made Drone Programme
-by Tanveer Siddiqui, Secretary, Student Council

Bengaluru, Nov. 10 – The Student Council at ABC School has initiated a ground-breaking project involving the construction and operation of drones made by students. The programme was introduced at the school's monthly public presentation on November 7, attracting significant interest from students, faculty, and parents alike.

Mr. J. Rao, the school's vice-principal, and the head of the Student Council, Priya Desai, kicked off the event by explaining the motivation behind the project. They noted that the programme aims to provide students with hands-on experience in technology and engineering while promoting teamwork and creativity. The Student Council collaborated with local engineers and technology experts to ensure safety and compliance with regulations.

During the event, the council members demonstrated a live drone flight, showcasing the capabilities of the drones built by the students. They performed a variety of manoeuvres, including aerial photography and obstacle course navigation.

The Student Council has planned several future activities to keep the momentum going. These include a drone-building workshop, a photography contest using the drones, and an inter-school drone race in the spring. The programme is designed to engage students in innovative ways and foster a deeper interest in technology and engineering.

Created for academic usage/ 195 words

Answer the following questions, based on the report above.

- I Complete with a suitable reason. 1
The most likely reason why the student council secretary was chosen to draft the report was because_____.
- II Fill in the blank with an appropriate word/ phrase. 1
The term 'ground-breaking' project suggests that the project is _____ and reflects a level of creativity.
- III What was the primary goal of the Student Council's drone programme at National Public School? 1
A. To encourage teamwork and creativity among students
B. To demonstrate the latest drone technology to the public
C. To generate interest in aerial photography
D. To promote engineering skills and provide hands-on experience

- IV Who did the Student Council turn to, to ensure safety and regulatory compliance? 1
1. Faculty and parents
 2. Vice-Principal
 3. Local Engineers
 4. Head of Student Council
 5. Technology experts
- Select the correct option
- A. Only 1
 B. Only 5
 C. 2 and 4
 D. 3 and 5
- V What was the most likely purpose of showcasing the capabilities of the drones during the event? 1
- VI What in the passage suggests that the live drone demonstration aimed to engage and excite the audience? 1
- VII What skills are the students expected to develop through the photography contest using drones? 2
- VIII Explain how the Student Council's drone programme at National Public School align with the school's goals of promoting holistic education. 2

SECTION B: WRITING SKILLS

(22 marks)

3. You are Preeti Saraswat from Uttarakhand. Write an e mail, in about 50 words, to your principal, requesting early commencement of winter uniform usage for all. Include a valid reason. 3
- You may copy the given template to write your email.

from:	
to:	
Cc:	principal.vjschool@gmail.com
date:	February 20, 2024, 05:10 PM
subject:	

4. Write a factual description, in not more than 100 words, of a puzzle that you purchased for yourself recently. 4
- 5 A Write a letter to the Mayor of your city, addressing the issue of carelessness in transportation habits and advocating for initiatives to promote car-lessness in the community. Deliberate on the environmental, health, and social benefits of reducing reliance on cars and propose specific measures to encourage alternative modes of transportation. Also, emphasise the importance of community engagement and collaboration in achieving a more sustainable and liveable city. 7
- Use ideas from Unit 3: Science, along with your own to write this letter in not more than 120 words.

OR

5 B Write a letter to the Director of the Geological Survey advocating for concerted efforts to preserve and protect geological heritage sites. Discuss the importance of these sites and highlight the threats they face. Propose specific measures to conserve these valuable natural assets and request her for proactive action to safeguard them for future generations. **7**

Use ideas from Unit 4: Environment, along with your own to write this letter in not more than 120 words.

6 A Tourism in India has been on the rise. Write an article in about 150 words, as Gaurav Taneja, X-B, discussing the surge in tourism in India since 2021, highlighting the key factors contributing to its growth. Propose additional recommendations to further boost tourism and predict the trajectory of the industry for the upcoming decade. **8**

Use the given cues, along with your own ideas and those you may have gathered from Unit 5: Travel and Tourism, to create this article.

- Factors contributing to the tourism boom.
- Additional recommendations to sustain and enhance tourism
- Prediction for the future of Indian tourism: Plus, and Minus

OR

6 B Write an article, in about 150 words, as Gaurav Taneja, X-B, advocating for the implementation of inclusive education practices in schools, focusing on the benefits for students with diverse learning needs. Share advantages and discuss the importance of fostering an inclusive school environment. Additionally, propose any one recommendation for policymakers and educators to promote inclusivity in the education system. **8**

Use the given cues, along with your own ideas and those you may have gathered from Unit 2: Education, to create this article.

- Benefits of inclusive education for students with diverse learning needs
- Importance of fostering an inclusive school environment.

SECTION C: GRAMMAR (10 marks)

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

3x1=3

A Fill the blanks (I) -(III) with the appropriate option from those in the brackets.

In order to maintain a balanced lifestyle, we **(I)** ____ (**can/ should/ must**) prioritise self-care practices, such as regular exercise and healthy eating habits, to promote overall well-being.

Individuals should also **(II)** ____ (**have engaged/engage/ being engaged**) in mindfulness activities, such as meditation or yoga, to improve mental health. Additionally, seeking support from friends, family, or mental health professionals **(III)** ____ (**every / some / any**) time one feels overwhelmed can contribute to a balanced and fulfilling lifestyle.

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. The first one has been done as an example. **4x1=4**

No.	Text	Word before	Omission	Word after
e.g.	The science is clear: to avoid worst	<i>avoid</i>	<i>the</i>	<i>worst</i>
I	impacts of climate change, emissions to be			
II	reduced by almost half by 2030 and net-zero			
III	by 2050. Achieve this, we need to end our reliance on fossil fuels and invest in alternative sources of energy			
IV	that clean, accessible, affordable, sustainable, and reliable.			

C Do as directed. 3

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

Person X: We, as a nation are integrated into one unit. You know this, right?

Person Y: Er... I do but I'd appreciate knowing a little more please.

Person X: (i) A NATION INTO / NATIONAL INTEGRATION, / UNIFYING DIVERSE COMMUNITIES / A COHESIVE WHOLE, /REFERS TO /IS ESSENTIAL FOR / WITHIN / FOSTERING SOCIAL HARMONY /THE PROCESS OF/ AND STABILITY /WHICH/

- b) Report the dialogues to complete the paragraph that follows. 2

Student 1: I've decided to become a mathematician.

Student 2: Really? Why?

Student 1: Because I already excel at dividing my attention between homework and video games!

Student 1 told student 2 that they wanted to become a mathematician. Student 2 was taken by surprise and (I) _____. Student 1 exclaimed (II) _____ their attention between homework and video games.

SECTION D- LITERATURE TEXTBOOK

(26 marks)

8. Read the given excerpts and answer the questions briefly, for **any two** excerpts, of **2x4=8** the three, given.

A. "How amused everyone would be if they knew what really happened," said Louisa Mebbin a few days after the ball.

"What do you mean?" asked Mrs. Packletide quickly.

"How you shot the goat and frightened the tiger to death," said Miss Mebbin, with her disagreeably pleasant laugh.

(Mrs. Packletide's Tiger)

- I What impact did Louisa Mebbin wish to create on Mrs. Packletide, with her statement, "How amused everyone would be if they knew what really happened"? 1

- I Why did Mrs. Packletide ask Louisa Mebbin what she meant by her comment? 1
- III What feelings did the speed of Mrs. Packletide's response reflect? (any two) 1
- IV What does the writer mean by 'disagreeably pleasant laugh?' 1
- B.** O judgment! thou art fled to brutish beasts,
And men have lost their reason. Bear with me;
My heart is in the coffin there with Caesar,
And I must pause till it come back to me.
First Citizen: Methinks there is much reason in his sayings.
Second Citizen: If thou consider rightly of the matter,
Caesar has had great wrong. *(Julius Caesar)*
- I What does the phrase 'O judgment! thou art fled to brutish beasts' tell us about the speaker's thoughts? 1
- II Select the line that indicates the speaker's deep grief and emotional connection with Caesar. 1
- III What do the responses of the First and Second Citizens reflect about the impact of the speaker's words? 1
- IV What about the extract signifies shifting sentiments among the citizens? 1
- C.** Patol Babu suddenly thought of a crucial question.
'I hope the part calls for some dialogue?'
'Certainly. It's a speaking part. You have acted before, haven't you?'
'Well, as a matter of fact, yes.'
'Fine. I wouldn't have come to you for just a walk-on part. For that we pick people from the street.
Of course there's dialogue and you'll be given your lines as soon as you show up tomorrow.'
(Patol Babu)
- I Why was the question about dialogue "crucial" for Patol Babu? 1
- II How does Patol Babu's previous acting experience play a role in the casting decision? 1
- III What does the casting director's statement, 'I wouldn't have come to you for just a walk-on part,' reveal about his opinion of Patol Babu's acting skills? 1
- IV What type of conversation do Patol Babu and the casting director have? 1
- 9.** Answer **any five** of the following six questions in about 40 words each. **5x2=10**

- | | | |
|-----------|---|--------------|
| I | How do Jacopo and Nicola show their dedication and love for their family member in <i>Two Gentlemen of Verona</i> ? | 2 |
| II | Interpret imagery and symbolism in <i>The Rime of the Ancient Mariner</i> , as elements that contribute to the poem's overarching themes of retribution and redemption. | 2 |
| III | How does Lawrence explore the internal conflict in <i>Snake</i> ? | 2 |
| IV | Analyse Brutus's reasoning for joining the conspiracy against Julius Caesar in the excerpt of Shakespeare's play <i>Julius Caesar</i> . | 2 |
| V | Discuss how Shakespeare's sonnet <i>Not Marble, nor the Gilded Monuments</i> conveys the theme of immortality through poetry. | 2 |
| VI | Evaluate how <i>The Letter</i> by Dhumaketu portrays the impact of separation on human emotions. | 2 |
| 10 | Answer any one of the following two questions in about 150 words. | 1x8=8 |
| I. | In the poems <i>The Frog and the Nightingale</i> and <i>Ozymandias</i> , discuss how the characters' attitudes towards power and influence contribute to their respective outcomes. | |

OR

- II.** The story *Virtually True* has elements of virtual reality and advanced technology that contrast with the traditional ghostly occurrences in *Shady Plot*. How do these contrasting themes and narrative styles contribute to the overall tone and meaning of each story?

SAMPLE QUESTION PAPER
ENGLISH LANGUAGE AND LITERATURE (Code No. 184)
CLASS-X- (2024-25)

Time allowed: 3 Hrs.

Maximum Marks: 80

General Instructions:

Read the instructions very carefully and strictly follow them:

1. *This question paper comprises 11 questions. All questions are compulsory.*
2. *The question paper contains THREE sections –*
 Section – A: Reading Skills
 Section – B: Grammar and Creative Writing Skills
 Section – C: Literature Textbook
3. *Attempt questions based on specific instructions for each Part.*

SECTION A
READING SKILLS

(20 marks)

1. Read the following text.

10

- (1) Water is one of the most essential resources on Earth, yet it is often taken for granted. Despite its abundance, the reality is that only a small fraction of the world's water is fresh and available for human use. With increasing populations, climate change, and industrial demands, the pressure on our water resources is growing. This makes water conservation not just a collective responsibility but a crucial individual duty. Each person's effort towards conserving water can significantly impact the preservation of this vital resource for future generations
- (2) One of the primary reasons individual water conservation efforts are so important is the cumulative effect of small actions which may seem trivial on their own. However, when multiplied by millions of people, these actions can lead to substantial water savings. For example, a single dripping tap can waste over 15 litres of water a day. Imagine the water saved if every household in a city repaired just one leaky faucet. This highlights the power of collective individual actions in reducing water waste.
- (3) Moreover, personal efforts towards water conservation often lead to greater awareness and education. When individuals take steps to conserve water, they become more conscious of their water usage and the importance of this resource. This awareness can then spread within communities, inspiring others to adopt similar practices. For instance, a family that installs water-saving devices in their home may encourage neighbours and friends to do the same, creating a ripple effect. This grassroots approach to conservation can be particularly effective in areas where larger-scale initiatives may be slow to implement or lacking in support.
- (4) In addition to daily habits, individuals can also make a difference through more significant lifestyle choices. For instance, opting for drought-resistant plants in gardens and supporting water-efficient agriculture can all contribute to water conservation. Agriculture, especially livestock farming, is one of the largest consumers of water globally. By supporting sustainable farming practices, individuals can indirectly reduce the water footprint of their food.

- (5) Critics might argue that individual efforts are negligible compared to the large-scale water consumption by industries and agriculture. However, this perspective overlooks the potential for individual actions to drive systemic change. When people collectively make water-conscious choices, they send a powerful message to businesses and policymakers about the importance of conservation.
- (6) Each person's commitment to saving water, no matter how small, contributes to a larger culture of sustainability. By making conscious choices and spreading awareness, individuals can help ensure that future generations have access to the clean, fresh water they need to thrive. Water conservation is not just the responsibility of governments and industries; it is a shared duty that begins with each of us.

Created for Academic Usage / 441 words

Answer the following questions, based on the passage above.

- I In paragraph 1, what does the phrase 'each person's effort towards conserving water can significantly impact the preservation of this vital resource' emphasise? 1
- II Complete the following with the correct option from the two given. 1
- Water is often taken for granted, despite its essential nature because_____.
- a) it is abundant and always easily accessible, making people less aware of its usage
- b) its importance is not always recognised, leading people to overlook its value (paragraph 1)
- III Support the writer's idea that small individual actions towards water conservation are not trivial. 2
- (paragraph 2)
- IV Select the option that best reflects the concept of a 'ripple effect' in the context of student life at school. 1
- a) A student's act of volunteering at a local charity leads to the school administration organising a large-scale fundraising event.
- b) A student who consistently follows good study practices inspires classmates to improve their own study routines, creating a culture of academic excellence in the class. (paragraph 3)
- V State whether the following statement is True or False. 1
- (paragraph 3)
- VI The writer mentions 'sustainable farming practices' in paragraph 4. Which of the following is a sustainable farming practice? 1
- A. Using chemical fertilizers and pesticides extensively to increase crop yields.
- B. Clearing large areas of natural vegetation to expand farmland for organic farming.
- C. Implementing crop rotation and using organic compost to maintain soil health.
- D. Relying solely on monoculture farming to maximise production efficiency.
- VII List any two points that a powerful message sent to businesses and policy makers about the importance of water conservation might include. (paragraph 5) 2

VIII Fill in the blank with the correct option from those given. (paragraph 6) 1
In the phrase 'culture of sustainability,' the word 'culture' refers to_____.

- A. A set of beliefs and practices shared by a group
- B. The artistic and traditional practices specific to a community's heritage.
- C. The lifestyle habits and choices that are popular among the urbane
- D. The techniques and methods used in development efforts

2. Read the following text. 10

- (1) A thorough study conducted across several villages of north-west India unveiled fascinating insights into the mural* landscape. It revealed that a significant majority, comprising around 80%, of these vibrant artworks are meticulously crafted by the villagers themselves. Approximately 15% of the murals stem from collaborative endeavours between villagers and local or visiting artists.
- (2) Surprisingly, a small fraction, about 5%, of the murals are the result of sponsored initiatives, often commissioned by governmental or non-governmental organisations. These murals convey social messages ranging from education and environmental conservation to public health awareness.
- (3) Among the locally crafted murals, nearly 55% depict scenes from mythology and folklore, celebrating the rich cultural heritage of the region. About 26 % of these murals showcase daily life in the villages, capturing moments of joy, struggle, and victory. The remaining 19% feature abstract or contemporary themes, reflecting evolving artistic expressions in rural settings.
- (4) Further analysis reveals that among the locally crafted murals, nearly 63% are found on the walls of community centres, temples, and other public spaces. Around 27 % adorn the exterior walls of residential houses. The remaining 10% are scattered across schools, health centres, and other institutional buildings, serving as educational tools and sources of inspiration for the younger generation.
- (5) To delve deeper, comparisons across various parameters such as demographic patterns, subject matter, techniques, community engagement, and impact are crucial. Analysing these facets not only provides a comprehensive understanding of mural creation in northwest Indian villages but also unveils avenues for cultural preservation, community development, and creative expression.

* a large painting or artwork that is typically created directly on a wall or ceiling

Created for academic usage/252 words

Answer the following questions, based on the passage above

- I What does the use of the phrase 'fascinating insights' by the writer, in paragraph 1, tell us about their feelings? 1
 - A. The writer is expressing surprise.
 - B. The writer is conveying boredom and frustration.
 - C. The writer is indicating interest and enthusiasm.
 - D. The writer is showing disappointment.

- II Select the option that is true for the assertion and reason given below. 1
Assertion: The murals in northwest Indian villages are meticulously crafted.
Reason: The murals are the result of collaborative endeavours.
- 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 that indicates that the writer anticipated a higher percentage of sponsored initiative murals? 1
- IV How do the murals in northwest Indian villages contribute to community engagement and awareness? 1
- V Read the given prompt and select the correct option in the brackets to fill in the blank. 1
 In Hari's village, a mural depicting sustainable farming practices is showcased on the Panchayat office wall.
 The percentage of mural type that this would be counted in is. (26% / 19% / 55%)
- VI What does the highest percentage of different mural themes suggest about the artistic preferences and cultural priorities in northwest Indian villages? 1
- VII Complete the sentence suitably. 1
 The significant presence of murals on the exterior walls of residential houses highlight.
- VIII Complete the following with a suitable reason. 1
 The most likely reason the writer believes that a mural can serve as an 'educational tool' is because it can _____.
- IX In the context of the last paragraph, describe the significance of comparing various parameters such as demographic patterns, subject matter, techniques, community engagement, and impact in understanding the mural landscape in northwest Indian villages. 2

SECTION B: WRITING SKILLS & GRAMMAR

(20 marks)

GRAMMAR

10

3. Complete **any ten** of twelve of the following tasks, as directed.

- I Fill in the blank with the correct option to complete the opening line of a formal letter: 1
 Dear Mr. Patel,
 We are pleased to inform you that your proposal for the upcoming project by the board of directors_____.
- A. had endorsed
 B. will have been endorsed
 C. has been endorsed
 D. have endorsed

II	Read the given sentence from a marketing report. Identify the error and supply the correction in the given format. The company continues to strives tirelessly to meet customer demands.	1
	ERROR	CORRECTION

III Rhea asked the following question to her colleague, Deepak. 1
 Have you finalised the magazine content to be submitted tomorrow?
 Report Rhea’s question correctly

IV Fill in the blank by choosing the correct option, to complete an official announcement. 1

Attention all prefects,
 Please be informed that the deadline for submitting your registrations for participation in the Art Exhibition has been extended; (that/ these/ this) should be communicated to all students of classes IX-X.

V Read Sana’s reply to her team leader, regarding the preparation of an important presentation. 1
 I’m sorry I forgot ma’am. I’ll have the presentation ready for you very soon today.
 Report Sana’s reply by completing the following sentence correctly.
 Sana apologised for having forgotten and said .

VI Identify and correct the error in the given line taken from an online news report: 1
 Nearly most shop was closed for the public holiday.

Option No.	Error	Correction
A	most	every
B	shop	shops
C	was	were
D	the	that

VII Complete the given school announcement by selecting the correct option to fill in the blank. 1
 Good news, everyone!
 Our school's robotics team has successfully _____ a place in the semi-finals.

- A. securing
- B. secured
- C. will secure
- D. had secured

VIII Detect the error and supply the correction for the given observation by a child. 1
 That needn’t be Dad’s jacket. It’s too small.

ERROR	CORRECTION

- IX Report the dialogue between a teacher and a student, by completing sentence. 1
Teacher: Did everyone understand the new assignment?
Students: Yes, we all got it, thank you!

The teacher asked if everyone had understood the new assignment, to which the students _____, expressing their gratitude.

- X Select the correct option to complete the given sentence from a handbook for managers. The manager _____ consider the proposal before making a decision. 1
- A. will
B. should
C. might
D. can

- XI Complete the given sentence about the reaction of some friends, by selecting the correct option: 1
The group of friends _____ excited at the prospect of their upcoming adventure.
- A. are
B. has
C. is
D. were

- XII Read the conversation about social media, between a teacher and a student 1
Teacher: How do you think social media influences our perceptions of reality?
Jagrit: I believe it distorts our perception of reality by only showing the highlight reels of people's lives.
Report the student's response by completing the following.
The student remarked _____ by only showing the highlight reels of people's lives.

WRITING

NOTE: All details presented in the questions in writing section are imaginary and created for assessment purpose.

- 4A** You are Nirmal Pillai, a concerned citizen from Aluva, Kochi. Compose a letter in about 120 words, to the Project Head of the E-Waste Management Cell at Electronics Vatika, New Delhi, highlighting the adverse effects of e-waste* pollution. Suggest measures for addressing its management through community engagement and government initiatives.
* Discarded electronic devices such as smartphones, computers, and televisions, which are no longer in use or have reached the end of their lifecycle.

OR

- 4B** You are Chhavi Pathak of Ranchi, Bihar. Write a letter in about 120 words addressing the Secretary of the City Municipal Authority. Detail the problem of overgrown trees and shrubs in the neighbourhood and request the delegation of personnel for regular pruning.

5A Read the product details on a label for a school bag:

ECO-FRIENDLY SCHOOL BAG

1. Made from recycled materials
 2. Ergonomic* design with padded shoulder straps and breathable mesh back panel
 3. Spacious main compartment with multiple pockets and organisers
 4. Reflective strips for visibility and safety
 5. Water-resistant fabric
 6. Available in various vibrant colours and patterns
-

Now, analyse why this school bag would be a beneficial purchase. Write the analytical paragraph in 120 words, considering factors such as its eco-friendliness, comfort features, functionality, safety aspects, and design options.

* Design that is intended to maximise comfort, efficiency, and safety for the user

OR

5B Read the given details of a playground intended for your resident area.

5

-
- A central climbing structure inspired by traditional Indian architecture, such as a miniature fort, with multiple levels and slides.
 - Swings adorned with colorful Indian patterns, along with monkey bars and a zip line.
 - A water play feature inspired by Indian fountains or rivers
 - Shaded seating areas with benches and swings, resembling traditional *chaupals* or gazebos.
 - Trees, shrubs, and flower beds
 - Ample open space
-

Analyse the details and write an analytical paragraph in about 120 words about the suitability of this playground.

Focus on factors such as safety, inclusivity, fun features, suitability for different age groups, and overall experience.

SECTION D: LITERATURE TEXTBOOK

(40 marks)

6 Read the given extracts and answer **any one** of the two questions given below

5

A With a loud scream he fell outwards and given downwards into space. Then a monstrous terror seized him and his heart stood still. He could hear nothing. But it only lasted a minute. The next moment he felt his wings spread outwards. The wind rushed against his breast feathers, then under his stomach, and against his wings. He could feel the tips of his wings cutting through the air. He was not falling headlong now. He was soaring gradually downwards and outwards. (His First Flight)

1

- I What effect does the experience, as described in the lines below, have on the baby seagull? 1
 With a loud scream he fell outwards and downwards into space. Then a monstrous terror seized him and his heart stood still.
 Chose the most suitable option.
 A. exhilarates
 B. overwhelms
 C. energises
 D. confuses
- II How does the author's use of descriptive language enhance the narrative technique in the paragraph? 2
- III Fill in the blank with the correct word from the bracket. 1
 The use of the word 'rushed' adds to a sense of _____(speed / relief), in the extract
- IV How does the seagull's feelings towards the end of the extract contrast with the initial feeling of terror? 1
- B** And suddenly Bholi noticed that the teacher was standing by her side, smiling at her. "What's your name, little one?"
 "Bh-Bho-Bho-." She could stammer no further than that.
 Then she began to cry and tears flowed from her eyes in a helpless flood. She kept her head down as she sat in her corner, not daring to look up at the girls who, she knew, were still laughing at her. When the school bell rang, all the girls scurried out of the classroom, but Bholi dared not leave her corner. Her head still lowered, she kept on sobbing.
 "Bholi."
 The teacher's voice was so soft and soothing! In all her life she had never been called like that. It touched her heart. (Bholi)
- I What is the tone the teacher is UNLIKELY to have used in the line, "What's your name, little one?." 1
 A. reassuring
 B. comforting
 C. settling
 D. calming
- II How does the author's use of Bholi 's perspective help build the narrative in the extract? 2
- III Fill in the blank with the correct word from the bracket. 1
 The word 'flood' in the line '...tears flowed from her eyes in a helpless flood.' Indicates that Bholi was crying _____(uncontrollably / unintentionally).
- IV How does the teacher's comforting demeanour contrast with the behaviour of the other girls in the classroom? 1

7 Read the given extracts and answer the questions for **any one** of the two, given. **5**

A He stalks in his vivid stripes
The few steps of his cage,
On pads of velvet quiet,
In his quiet rage. (Tiger in the Zoo)

I What is the most likely reason the poet chooses to say 'vivid' stripes instead of just stating the colours of the stripes?

II Fill the blank with ONE word.

The tiger's stalking suggests a movement that is _____ within the confines of its cage.

III How does the poet reinforce the contrast between the tiger's confined environment and its internal emotions?

IV Select the option that applies the same rhyme scheme as the lines of the given extract. **5**

A. This bird so small and sweet,
Sings aloud in the morn,
Perched on a branch green,
Chirp, chirp, tweet, tweet.

B. Perched on a branch green,
This bird so sweet and lean,
Sings aloud in a voice sweet,
Chirp, chirp, tweet, tweet.

C. This bird sings without a care,
sweet Perched on a branch green,
A song with the world to share,
With its feelings so keen.

D. This bird so small and
Sings aloud in the morn
Perched on a green branch
Singing its own melody

B Belinda paled, and she cried Help! Help!
But Mustard fled with a terrified yelp,
Ink trickled down to the bottom of the household,
And little mouse Blink strategically mouseholed.

(*The Tale of Custard the Dragon*)

I Examine the portrayal of Blink in the given lines. **2**

II Complete the following suitably. **1**

The word 'paled' implies that Belinda_____.

III What kind of picture is painted by the poet through the line, 'Ink trickled down to the bottom of the household'? **1**

IV What kind of atmosphere is created through these lines? **1**

Select the correct option

1. Urgency 2. Apprehension 3. Uncertainty 4. mystery 5. Aggression

A. 1 and 4

B. Only 2

C. 1, 2 and 3

D. 4 and 5

- 8** Answer **any four** of the following five questions, in about 40-50 words. **4x3=12**
- I How does the ignorance about Mijbil as a creature in the urban environment of London reveal insights about people's perceptions and knowledge regarding animals? (Mijbil the Otter) 3
 - II How does the imagery of the trees' movement from the house to the forest, in 'Trees', reflect broader themes of liberation and growth in human experiences? 3
 - III What does the postmaster's reaction to Lencho's letter reveal about his character? (A Letter to God) 3
 - IV Assess the narrative's effectiveness in portraying the tension between the comfort of familiarity and the allure of the unfamiliar in 'Madam Rides the Bus'. 3
 - V Summarise the role of the use of parentheses in the poem 'Amanda!'. 3
- 9** Answer **any two** of the following three questions, in about 40-50 words. **2x3=6**
- I How does Matilda's desire for material wealth drive the plot of 'The Necklace'? 3
 - II Justify the opinion that Ebright's early successes were essential for his later achievements in science. (The Making of a Scientist) 3
 - III How does 'The Book that Saved the Earth' include elements of satirical science fiction? 3
- 10** Answer **any one** of the following two questions, in about 100-120 words **6**
- I Both poems 'Dust of Snow' and 'Fire and Ice' use contrasting elements of nature to convey their respective messages about life and human emotions but they do it differently. Examine these differences.
 - II Both the texts, 'For Anne Gregory' and 'The Sermon at Benares,' grapple with the idea that external attributes are fleeting and subject to decay. Examine the similarities.
- 11** Answer **any one** of the following two questions, in about 100-120 words. **6**
- I Evaluate how Griffin's character is shaped by a combination of personal ambition, the unintended consequences of his scientific pursuits, and the reactions of the society he faces.
 - II Evaluate how James Herriot's characterisation contributes significantly to the overarching theme of responsible pet ownership and animal welfare.

प्रतिदर्श प्रश्नपत्र (2024-25)

कक्षा-दसवीं हिन्दी-अ (कोड 002)

निर्धारित समय : 3 घंटे

अधिकतम अंक : 80

सामान्य निर्देश :

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

- इस प्रश्नपत्र में कुल 15 प्रश्न हैं | सभी प्रश्न अनिवार्य हैं |
- इस प्रश्नपत्र में कुल चार खंड हैं- क, ख, ग, घ |
- खंड-क में कुल 2 प्रश्न हैं, जिनमें उपप्रश्नों की संख्या 10 है |
- खंड-ख में कुल 4 प्रश्न हैं, जिनमें उपप्रश्नों की संख्या 20 है | दिए गए निर्देशों का पालन करते हुए 16 उपप्रश्नों के उत्तर देना अनिवार्य है |
- खंड-ग में कुल 5 प्रश्न हैं, जिनमें उपप्रश्नों की संख्या 20 है |
- खंड-घ में कुल 4 प्रश्न हैं, सभी प्रश्नों के साथ उनके विकल्प भी दिए गए हैं |
- प्रश्नों के उत्तर दिए गए निर्देशों का पालन करते हुए लिखिए |

प्रश्न संख्या	खंड - क (अपठित बोध)	अंक (14)
1.	निम्नलिखित गद्यांश को ध्यानपूर्वक पढ़कर उस पर आधारित पूछे गए प्रश्नों के उत्तर लिखिए :	7
	<p>आज विश्व के कई देशों में अदरक वाली भारतीय चाय का चस्का लोगों को ऐसा लग गया है कि वहाँ हर कोई भारतीय चाय का शौकीन हो गया है इसके अलावा भारत में कुल्हड़ वाली चाय भी काफी लोकप्रिय है मिट्टी के कुल्हड़ में परोसी गई चाय का अपना विशेष महत्त्व है क्योंकि इसकी सौंधी खुशबू और लाजवाब स्वाद को इसके बिना अनुभव नहीं कर सकते हैं भारत की सिफारिश पर संयुक्त राष्ट्र महासभा ने 21 मई को अंतर्राष्ट्रीय चाय दिवस घोषित किया है भारत ने मिलान में हुई अंतर्राष्ट्रीय खाद्य और कृषि संगठन की बैठक में यह प्रस्ताव पेश किया था संयुक्त राष्ट्र महासभा ने अपनी अधिसूचना में कहा कि हम विश्व की ग्रामीण अर्थव्यवस्था में चाय के योगदान को लेकर दुनिया को जागरूक करना चाहते हैं, ताकि वर्ष 2030 के सतत विकास से जुड़े लक्ष्यों को पूरा किया जा सके संयुक्त राष्ट्र को विश्वास है कि 21 मई को अंतर्राष्ट्रीय चाय दिवस घोषित करने से इसके उत्पादन और खपत बढ़ाने में मदद मिलेगी अंतर्राष्ट्रीय चाय दिवस का उद्देश्य दुनिया भर में चाय के लंबे इतिहास और गहरे सांस्कृतिक और आर्थिक महत्त्व के बारे में जागरूकता बढ़ाना है। इस दिन का लक्ष्य चाय के स्थायी उत्पादन और खपत के पक्ष में गतिविधियों को लागू करने के लिए सामूहिक कार्यों को बढ़ावा देना और भूख और गरीबी से लड़ने में इसके महत्त्व के बारे</p>	

	<p>में जागरूकता बढ़ाना है। साथ ही संयुक्त राष्ट्र महासभा ने चाय के औषधीय गुणों के साथ सांस्कृतिक महत्त्व को भी मान्यता दी है।</p> <p>विश्व में चाय के प्रमुख उत्पादकों में एशिया, अफ्रीका, दक्षिणी अमेरिका शामिल हैं। जबकि विश्व के चार बड़े उत्पादक देशों में क्रमशः चीन, भारत, कीनिया और श्रीलंका शामिल हैं। विश्व के कुल चाय उत्पादन में इन देशों की हिस्सेदारी 75 प्रतिशत है। भारत विश्व में चाय उत्पादन का एक बड़ा केंद्र है। भारत में चाय का उत्पादन करने वाले राज्यों में असम, पश्चिमी बंगाल, केरल, कर्नाटक और तमिलनाडु शामिल हैं। असम भारत का सर्वाधिक चाय उत्पादन करने वाला राज्य है। भारत में लगभग 13 हज़ार चाय बागान हैं, जो 60 लाख से अधिक श्रमिकों की आजीविका का प्रमुख साधन भी हैं। चाय एक श्रम आधारित उद्योग है इसलिए भारत जैसे देश में इसके विकास की अपार संभावनाएँ हैं। चाय की चुनाई के लिए अधिक मात्रा में श्रमिकों की आवश्यकता पड़ती है, क्योंकि चाय की पत्तियाँ एक-एक कर तोड़ी जाती हैं, जिनसे कोमल पत्तियाँ नष्ट ना हों। अपनी कोमल अंगुलियों के कारण ही चाय के उद्यानों में स्त्री मज़दूर द्वारा पत्तियाँ तोड़ी जाती हैं। चाय की पत्ती तोड़ने के काम के लिए श्रमिकों को पूरे दिन खड़े रहना पड़ता है - चाहे वह चलचिलाती धूप में हो या बारिश में। वे आम तौर पर उस हिस्से तक पहुँचने के लिए चार से पांच किलोमीटर पैदल चलते हैं जहाँ वे चाय की पत्तियाँ चुनते हैं।</p>	
(क)	<p>कथन (A) और कारण (R) को पढ़कर उपयुक्त विकल्प चुनिए :</p> <p>कथन (A) : संयुक्त राष्ट्र महासभा ने 21 मई को 'अंतर्राष्ट्रीय चाय दिवस' घोषित किया है।</p> <p>कारण (R) : विश्व की ग्रामीण अर्थव्यवस्था को मजबूत बनाने में चाय की अहमियत को समझाना।</p> <p>i. कथन (A) गलत है, किंतु कारण (R) सही है।</p> <p>ii. कथन (A) और कारण (R) दोनों ही गलत हैं।</p> <p>iii. कथन (A) सही है और कारण (R) कथन (A) की सही व्याख्या है।</p> <p>iv. कथन (A) सही है किंतु कारण (R) कथन (A) की सही व्याख्या नहीं है।</p>	1
(ख)	<p>भारत में कुल्हड़ वाली चाय काफी लोकप्रिय है क्योंकि -</p> <p>कथन के लिए उचित विकल्प का चयन कीजिए -</p> <p>I. सौंधी खुशबू होती है।</p> <p>II. लाजवाब स्वाद होता है।</p> <p>III. बहुत मँहगी होती है।</p> <p>IV. आसानी से उपलब्ध है।</p> <p>विकल्प -</p> <p>i. कथन I और II सही हैं।</p> <p>ii. कथन I, III और IV सही हैं।</p> <p>iii. केवल कथन III सही है।</p> <p>iv. कथन I, II और IV सही हैं।</p>	1

(ग)	<p>नीचे दिए हुए कॉलम 1 को कॉलम 2 से सुमेलित कर सही विकल्प का चयन कीजिए –</p> <table border="1"> <thead> <tr> <th>कॉलम 1</th> <th>कॉलम 2</th> </tr> </thead> <tbody> <tr> <td>I विश्व में चाय का सबसे बड़ा उत्पादक देश</td> <td>1 - भारत</td> </tr> <tr> <td>II भारत में चाय का सबसे बड़ा उत्पादक राज्य</td> <td>2 - चीन</td> </tr> <tr> <td>III विश्व में चाय का दूसरा बड़ा उत्पादक देश</td> <td>3 - असम</td> </tr> </tbody> </table> <p>i. I (1) II (2) III (3) ii. I (2) II (3) III (1) iii. I (3) II (1) III (2) iv. I (1) II (3) III (2)</p>	कॉलम 1	कॉलम 2	I विश्व में चाय का सबसे बड़ा उत्पादक देश	1 - भारत	II भारत में चाय का सबसे बड़ा उत्पादक राज्य	2 - चीन	III विश्व में चाय का दूसरा बड़ा उत्पादक देश	3 - असम	1
कॉलम 1	कॉलम 2									
I विश्व में चाय का सबसे बड़ा उत्पादक देश	1 - भारत									
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III विश्व में चाय का दूसरा बड़ा उत्पादक देश	3 - असम									
(घ)	चाय के उत्पादन और खपत बढ़ाने में 'अंतर्राष्ट्रीय चाय दिवस' की क्या भूमिका है ?	2								
(ङ)	चाय एक श्रम आधारित उद्योग है - कैसे ?	2								
2.	निम्नलिखित काव्यांश को ध्यानपूर्वक पढ़कर उस पर आधारित पूछे गए प्रश्नों के उत्तर लिखिए :	7								
	<p>अर्जुन ! देखो, किस तरह कर्ण सारी सेना पर टूट रहा , किस तरह पांडवों का पौरुष होकर अशंक वह लूट रहा , देखो जिस तरफ़, उधर उसके ही बाण दिखायी पड़ते हैं , बस, जिधर सुनो, केवल उसके हुंकार सुनायी पड़ते हैं ।</p> <p>कैसी करालता ! क्या लाघव ! कितना पौरुष ! कैसा प्रहार ! किस गौरव से यह वीर द्विरद कर रहा समर-वन में विहार ! व्यूहों पर व्यूह फटे जाते, संग्राम उजड़ता जाता है, ऐसी तो नहीं कमल वन में भी कुंजर धूम मचाता है ।</p> <p>इस पुरुष-सिंह का समर देख मेरे तो हुए निहाल नयन , कुछ बुरा न मानो, कहता हूँ, मैं आज एक चिर-गूढ़ वचन । कर्ण के साथ तेरा बल भी मैं खूब जानता आया हूँ , मन-ही-मन तुझसे बड़ा वीर, पर इसे मानता आया हूँ ।</p> <p>“औ” देख चरम वीरता आज तो यही सोचता हूँ मन में , है भी कोई, जो जीत सके, इस अतुल धनुर्धर को रण में ?</p> <p style="text-align: center;">- रामधारी सिंह दिनकर (रश्मिरथी सप्तम सर्ग भाग-3)</p>									
(क)	इस काव्यांश में कौन किसकी प्रशंसा कर रहा है ?	1								

	i. कृष्ण अर्जुन की । ii. कृष्ण कर्ण की । iii. कर्ण कृष्ण की । iv. अर्जुन कर्ण की ।	
(ख)	कवि ने कर्ण के युद्ध-कौशल की प्रशंसा में क्या कहा है ? उचित विकल्प का चयन कीजिए – I. पांडव सेना के पुरुषार्थ को चुनौती दे रहा था । II. पांडव सेना ने उसे चारों ओर से घेर लिया था । III. समर क्षेत्र में केवल उसके बाण दिखाई दे रहे थे । IV. समर क्षेत्र में केवल उसकी हुंकार सुनाई दे रही थी । विकल्प – i. कथन I और II सही हैं । ii. कथन I, II और IV सही हैं । iii. केवल कथन III सही है । iv. कथन I, III और IV सही हैं ।	1
(ग)	कथन (A) और कारण (R) को पढ़कर उपयुक्त विकल्प चुनिए : कथन (A) : कर्ण की गर्जना से पाण्डव सेना में भगदड़ मच गई । कारण (R) : कर्ण ने पाण्डवों की सेना पर भीषण आक्रमण कर दिया था । i. कथन (A) गलत है, किंतु कारण (R) सही है । ii. कथन (A) और कारण (R) दोनों ही गलत हैं । 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)	श्रीकृष्ण ने अर्जुन को कौनसा गूढ़ वचन बताया ?	2
(ङ)	कर्ण के युद्ध-कौशल को देखकर कृष्ण उसके बारे में क्या सोच रहे थे ?	2
	खंड - ख (व्यावहारिक व्याकरण)	16
3.	निर्देशानुसार 'रचना के आधार पर वाक्य भेद' पर आधारित पाँच प्रश्नों में से किन्हीं चार प्रश्नों के उत्तर लिखिए :	4×1=4
(क)	हालदार साहब चौराहे पर रुकते थे और मूर्ति को देखते थे । (सरल वाक्य में बदलिए)	1
(ख)	जब जाड़ा आता तब बालगोबिन भगत एक काली कमली ऊपर से ओढ़े रहते । (संयुक्त वाक्य में बदलिए)	1
(ग)	रीड नरकट से बनाई जाती है जो डुमराँव में मुख्यतः सोन नदी के किनारों पर पाई जाती है । (आश्रित उपवाक्य छाँटकर उसका भेद भी लिखिए)	1
(घ)	खीरे के स्वाद के आनंद में नवाब साहब की पलकें मुँद गई । (मिश्र वाक्य में बदलिए)	1

(ङ)	काशी आज भी संगीत के स्वर पर जगती है और उसी की थापों पर सोती है । (रचना की दृष्टि से वाक्य का भेद लिखिए)	1
4.	निर्देशानुसार 'वाच्य' पर आधारित पाँच प्रश्नों में से किन्हीं चार प्रश्नों के उत्तर लिखिए :	4×1=4
(क)	वह गिने-चुने फ्रेमों को नेताजी की मूर्ति पर फिट कर देता है । (कर्म वाच्य में बदलिये)	1
(ख)	नवाब साहब द्वारा जेब से चाकू निकाला गया और खीरे छिलने शुरू कर दिए गए । (कर्तृवाच्य में बदलिये)	1
(ग)	बिना सहारे दादाजी अब चल नहीं पाते हैं । (भाववाच्य में बदलिये)	1
(घ)	स्वयं प्रकाश जी ने 'नेताजी का चश्मा' कहानी की रचना की । (वाच्य पहचानकर भेद बताइए)	1
(ङ)	कर्म की प्रधानता वाले वाक्य में कौन-सा वाच्य होता है ?	1
5.	निर्देशानुसार 'पद परिचय' पर आधारित पाँच प्रश्नों में से किन्हीं चार प्रश्नों के रेखांकित पदों का पद-परिचय लिखिए :	4×1=4
(क)	पानवाला <u>नया</u> पान खा रहा था ।	1
(ख)	वक्त काटने के लिए खीरे <u>खरीदे</u> होंगे ।	1
(ग)	विद्यालय <u>के</u> साथ ही एक डाकघर है ।	1
(घ)	<u>वाह !</u> भई खूब ! क्या आइडिया है ।	1
(ङ)	<u>वे</u> बहुत कोमल और संवेदनशील व्यक्ति थे ।	1
6.	निर्देशानुसार 'अलंकार' पर आधारित पाँच प्रश्नों में से किन्हीं चार प्रश्नों की रेखांकित काव्य पंक्तियों में अलंकार पहचान कर लिखिए :	4×1=4
(क)	<u>सहस्रबाहु</u> सम सो रिपु मोरा ।	1
(ख)	<u>छुअत टूट</u> रघुपतिहु न दोसू ।	1
(ग)	<u>बूढ़े</u> पीपल ने आगे बढ़कर जुहार की ।	1
(घ)	<u>तुम्ह</u> तौ कालु हाँक जनु लावा । बार बार मोहि लागि बोलावा ।	1
(ङ)	बढ़त देखि जल सम वचन बोले <u>रघुकुलभानु</u> ।	1
खंड - ग (पाठ्य पुस्तक एवं पूरक पाठ्य पुस्तक)		30
7.	निम्नलिखित पठित गद्यांश पर आधारित बहुविकल्पीय प्रश्नों के सर्वाधिक उपयुक्त उत्तर वाले विकल्प चुनकर लिखिए : काशी में संगीत आयोजन की एक प्राचीन एवं अद्भुत परंपरा है । यह आयोजन पिछले कई बरसों से संकटमोचन मंदिर में होता आया है । यह मंदिर शहर के दक्षिण में लंका पर स्थित है व हनुमान जयंती के अवसर पर यहाँ पाँच दिनों तक शास्त्रीय एवं उपशास्त्रीय गायन-वादन	5×1=5

	की उत्कृष्ट सभा होती है । इसमें बिस्मिल्ला खाँ अवश्य रहते हैं । अपने मजहब के प्रति अत्यधिक समर्पित उस्ताद बिस्मिल्ला खाँ की श्रद्धा काशी विश्वनाथ जी के प्रति भी अपार है । वे जब भी काशी से बाहर रहते हैं तब विश्वनाथ व बालाजी मंदिर की दिशा की ओर मुँह करके बैठते हैं, थोड़ी देर ही सही, मगर उसी ओर शहनाई का प्याला घुमा दिया जाता है और भीतर की आस्था रीड के माध्यम से बजती है ।	
(क)	काशी के संकटमोचन मंदिर में आयोजित संगीत आयोजन की विशेषता है – कथन के लिए उचित विकल्प का चयन कीजिए – I. यह आयोजन हनुमान जयंती के अवसर पर होता है । II. यह आयोजन पाँच दिनों तक चलता है । III. यह प्राचीन संस्कृति है । IV. शास्त्रीय एवं उपशास्त्रीय गायन-वादन होता है । विकल्प – i. कथन I और II सही हैं । ii. कथन I, III और IV सही हैं । iii. केवल कथन III सही है । iv. कथन I, II और IV सही हैं ।	1
(ख)	कथन (A) और कारण (R) को पढ़कर उपयुक्त विकल्प चुनिए : कथन (A) : बिस्मिल्ला खाँ मिली-जुली संस्कृति के प्रतीक थे । कारण (R) : अपने मजहब के प्रति अत्यधिक समर्पित उस्ताद बिस्मिल्ला खाँ की श्रद्धा काशी विश्वनाथ जी के प्रति भी अपार थी । i. कथन (A) गलत है, किंतु कारण (R) सही है । ii. कथन (A) और कारण (R) दोनों ही गलत हैं । 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
(ग)	काशी से बाहर के कार्यक्रमों में बिस्मिल्ला खाँ किनके प्रति अपनी आस्था प्रकट करते थे ? i. काशी विश्वनाथ के प्रति ii. काशी विश्वनाथ और बालाजी के प्रति । iii. अपने माता-पिता के प्रति । iv. अपने गुरु के प्रति ।	1
(घ)	काशी की अद्भुत और प्राचीन परंपरा कौन-सी है ? i. संगीत आयोजन की ii. पर्वों के आयोजन की । iii. गंगा-मेले के आयोजन की । iv. पशु-मेले के आयोजन की ।	1
(ङ)	इस गद्यांश का मूल भाव क्या है ? उचित विकल्प का चयन कीजिए – I. काशी की सांस्कृतिक परंपरा को दर्शाना ।	1

	II. बिस्मिल्ला खाँ के सांप्रदायिक सद्भाव को दर्शाना । III. बिस्मिल्ला खाँ की संगीत के प्रति आसक्ति को दर्शाना । IV. बिस्मिल्ला खाँ के काशी के प्रति प्रेम को दर्शाना । विकल्प – i. कथन I और II सही हैं । ii. कथन I, III और IV सही हैं । iii. केवल कथन III सही है । iv. कथन I, II और IV सही हैं ।	
8.	निर्धारित गद्य पाठों के आधार पर निम्नलिखित चार प्रश्नों में से किन्हीं तीन प्रश्नों के उत्तर लगभग 25-30 शब्दों में लिखिए :	3×2=6
(क)	कैप्टन के प्रति पानवाले ने क्या व्यंग्यात्मक टिप्पणी की थी ? इस व्यंग्यात्मक टिप्पणी पर आप अपनी प्रतिक्रिया लिखिए ।	2
(ख)	बालगोबिन भगत ने महिलाओं की सामाजिक स्थिति सुधारने के लिए क्या किया ?	2
(ग)	लेखिका मन्नू भंडारी को साधारण से असाधारण बनाने में उनकी प्राध्यापिका 'शीला अग्रवाल' की भूमिका पर प्रकाश डालिए ।	2
(घ)	'आज का भौतिक विज्ञान का विद्यार्थी न्यूटन के समान सुसंस्कृत नहीं है ।' 'संस्कृति' पाठ के आधार पर स्पष्ट करें कि लेखक ने ऐसा क्यों कहा ?	2
9.	निम्नलिखित पठित काव्यांश पर आधारित बहुविकल्पीय प्रश्नों के सर्वाधिक उपयुक्त उत्तर वाले विकल्प चुनकर लिखिए :	5×1=5
	ऊधौ, तुम हौ अति बड़भागी । अपरस रहत सनेह तगा तैं, नाहिन मन अनुरागी । पुरइनि पात रहत जल भीतर, ता रस देह न दागी । ज्यौं जल माहँ तेल की गागरि, बूँद न ताकौं लागी । प्रीति-नदी में पाऊँ न बोरयौ, दृष्टि न रूप परागी । 'सूरदास' अबला हम भोरी, गुर चाँटी ज्यौं पागी ।।	
(क)	उपर्युक्त पद में वक्ता और श्रोता क्रमशः हैं : i. उद्धव - गोपियाँ ii. गोपियाँ- उद्धव iii. सूरदास - उद्धव iv. गोपियाँ - सूरदास	1

(ख)	<p>‘पुरइनि पात रहत जल भीतर, ता रस देह न दागी’ – पंक्ति में किस स्थिति की ओर संकेत है ? सही विकल्प का चयन कीजिए –</p> <ol style="list-style-type: none"> I. उद्धव के दुर्भाग्यशाली होने की ओर । II. उद्धव के सौभाग्यशाली होने की ओर । III. कृष्ण के प्रेम से प्रभावित होने की ओर । IV. कृष्ण के प्रेम से अप्रभावित होने की ओर । <p>विकल्प</p> <ol style="list-style-type: none"> i. कथन I सही है । ii. कथन I और II सही हैं । iii. कथन II और III सही हैं । iv. कथन I और IV सही हैं । 	1
(ग)	<p>कथन (A) और कारण (R) को ध्यानपूर्वक पढ़कर सही विकल्प चुनकर लिखिए :</p> <p>कथन (A) : गोपियों ने व्यंग्य कसते हुए उद्धव को भाग्यशाली कहा है ।</p> <p>कारण (R) : कृष्ण के सानिध्य में रहते हुए भी उद्धव के मन में कृष्ण के प्रति अनुराग उत्पन्न नहीं हुआ ।</p> <ol style="list-style-type: none"> i. कथन (A) गलत है, किंतु कारण (R) सही है । ii. कथन (A) और कारण (R) दोनों ही गलत हैं । 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)	<p>‘गुर चाँटी ज्यों पागी’ पंक्ति में कौन किसका प्रतीक है ?</p> <ol style="list-style-type: none"> i. गुर (गुड़) उद्धव का, चाँटी (चींटी) सूरदास का । ii. गुर (गुड़) उद्धव का, चाँटी (चींटी) श्रीकृष्ण का । iii. गुर (गुड़) श्रीकृष्ण का, चाँटी (चींटी) उद्धव का । iv. गुर (गुड़) श्रीकृष्ण का, चाँटी (चींटी) गोपियों का । 	1
(ङ)	<p>उद्धव के व्यवहार की तुलना गोपियों ने किससे की है ? सही विकल्प का चयन कीजिए –</p> <ol style="list-style-type: none"> I. जल में पड़े रहने वाले कमल के पत्ते से । II. जल में पड़ी रहने वाली तेल की गागर से । III. गुड़ से चिपकी रहने वाली चींटी से । IV. कृष्ण की प्रीति-नदी में पाँव डुबाने से । <p>विकल्प :</p> <ol style="list-style-type: none"> i. कथन I सही है । ii. कथन I और II सही हैं । iii. कथन II और III सही हैं । iv. कथन I और IV सही हैं । 	1

10.	निर्धारित कविताओं के आधार पर निम्नलिखित चार प्रश्नों में से किन्हीं तीन प्रश्नों के उत्तर लगभग 25-30 शब्दों में लिखिए :	3×2=6
(क)	'शक्ति और साहस' के साथ विनम्रता हो तो अच्छा प्रभाव पड़ता है' - इस कथन पर अपने विचार 'राम-लक्ष्मण-परशुराम संवाद' पाठ के आलोक में लिखिए ।	2
(ख)	'आत्मकथ्य' कविता के आधार पर उन तथ्यों का उल्लेख कीजिए जिनका उल्लेख कवि अपनी आत्मकथा में नहीं करना चाहता है ?	2
(ग)	'चिर प्रवासी मैं इतर, मैं अन्य !' कवि ने स्वयं को 'चिर प्रवासी, 'इतर' और 'अन्य' क्यों कहा है ? 'यह दंतुरित मुस्कान' कविता के आधार पर लिखिए ।	2
(घ)	वर्तमान में संगतकार जैसे व्यक्तियों की प्रासंगिकता स्पष्ट कीजिए ।	2
11.	पूरक पाठ्य पुस्तक के निर्धारित पाठों पर आधारित निम्नलिखित तीन प्रश्नों में से किन्हीं दो प्रश्नों के उत्तर लगभग 50-60 शब्दों में लिखिए :	2×4=8
(क)	'माता का अंचल' नामक पाठ में लेखक ने तत्कालीन समाज के पारिवारिक परिवेश का जो चित्रण किया है, उसे अपने शब्दों में लिखिए ।	4
(ख)	ऊँचाई की ओर बढ़ते जाने पर लेखिका को परिदृश्य में क्या अंतर नज़र आए ? 'साना-साना हाथ जोड़ि' यात्रा वृत्तांत के आधार पर लिखिए ।	4
(ग)	हिरोशिमा के बम विस्फोट में हुई क्षति को देखकर लेखक को कौन-सी घटना याद आई ? 'मैं क्यों लिखता हूँ' पाठ के आधार पर लिखिए ।	4
	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) जल बचाओ, पृथ्वी बचाओ • जल के बिना जीवन असम्भव • जल संरक्षण का महत्त्व • जल संरक्षण के उपाय (ख) जंक फूड और युवा पीढ़ी • जंक फूड क्या है ? • जंक फूड का बढ़ता चलन • स्वास्थ्य पर दुष्प्रभाव (ग) समाचार पत्र के नियमित पठन का महत्त्व • ज्ञान का भंडार • पढ़ने की आदत का विकास • जागरूकता	1×6=6

13.	<p>(क) आप अनुपमा / अनुपम हैं। आपके क्षेत्र को मुख्य सड़क से जोड़ने वाली सड़क पर लाइटें खराब हो गई हैं, जिससे दुर्घटना की आशंका बढ़ गई है। इस ओर ध्यान आकर्षित कराते हुए सार्वजनिक लोक निर्माण विभाग को लगभग 100 शब्दों में पत्र लिखिए।</p> <p style="text-align: center;">अथवा</p> <p>(ख) आप अनुपमा / अनुपम हैं। आपने विद्यालय की भाषण प्रतियोगिता में प्रथम स्थान प्राप्त किया है। अपने दादाजी को विद्यालय की भाषण प्रतियोगिता की संपूर्ण जानकारी देते हुए लगभग 100 शब्दों में पत्र लिखिए।</p>	1×5=5
14.	<p>(क) आप मेधावी / माधव हैं। आपने पत्रकारिता में अपना अध्ययन पूरा कर लिया है। किसी प्रसिद्ध दैनिक समाचार पत्र में पत्रकार का पद रिक्त है। आप उक्त पद की योग्यता (पत्रकारिता में स्नातक) को धारण करते हैं। उक्त रिक्त पद हेतु समाचार पत्र के प्रमुख को आवेदन भेजने के लिए लगभग 80 शब्दों में अपना एक स्ववृत्त तैयार कीजिए।</p> <p style="text-align: center;">अथवा</p> <p>(ख) आप मेधावी / माधव हैं। ए.टी.एम. कार्ड न मिलने की सूचना देते हुए संबंधित बैंक शाखा प्रबंधक को लगभग 80 शब्दों में एक ई-मेल लिखिए।</p>	1×5=5
15.	<p>(क) प्रदूषण से बचने के लिए पर्यावरण विभाग की ओर से जनहित में जारी एक आकर्षक विज्ञापन लगभग 40 शब्दों में तैयार कीजिए।</p> <p style="text-align: center;">अथवा</p> <p>(ख) आपके कक्षा अध्यापक को 'राष्ट्रीय शिक्षक पुरस्कार' से सम्मानित किया गया है। उन्हें बधाई देते हुए लगभग 40 शब्दों में संदेश लिखिए।</p>	1×4=4

निर्धारित समय: 3 घंटे

अधिकतम अंक : 80

सामान्य निर्देश-

- इस प्रश्नपत्र में चार खंड हैं - क, ख, ग और घ
- खंड क में अपठित गद्यांश से प्रश्न पूछे गए हैं, जिनके उत्तर दिए गए निर्देशों का पालन करते हुए दीजिए।
- खंड ख में व्यावहारिक व्याकरण से प्रश्न पूछे गए हैं, आंतरिक विकल्प भी दिए गए हैं।
- खंड ग पाठ्यपुस्तक पर आधारित है, निर्देशानुसार उत्तर दीजिए।
- खंड घ रचनात्मक लेखन पर आधारित है आंतरिक विकल्प भी दिए गए हैं।
- प्रश्न पत्र में कुल 16 प्रश्न हैं, सभी प्रश्न अनिवार्य हैं।
- यथासंभव सभी खंडों के प्रश्नों के उत्तर क्रमशः लिखिए।

प्रश्न सं.	खंड-क (अपठित बोध)	अंक
1.	निम्नलिखित गद्यांश को ध्यानपूर्वक पढ़ कर पूछे गए प्रश्नों के उत्तर लिखिए- दुनिया में इस समय दिन दूनी, रात चौगुनी गति से प्रगति हो रही है। कुछ समय पहले तक असंभव सी लगने वाली चीजें आज प्रौद्योगिकी की मदद से सरलता से परिणाम तक पहुँच रही हैं। एक समय संगणक के विकास ने प्रौद्योगिकी के क्षेत्र में क्रांतिकारी बदलाव किया था। अब कृत्रिम बुद्धिकता ने चिकित्सा से लेकर हथियारों के निर्माण तक हर क्षेत्र में कंप्यूटर और रोबोट के प्रयोग को नया आयाम दिया है। पारंपरिक कंप्यूटर की दुनिया में इस प्रगति के समानांतर एक और अनुसंधान चल रहा है, जिसका नाम है 'क्वांटम कंप्यूटिंग' यानि अति-सूक्ष्मता का विज्ञान। भारत ने भी अब इस क्षेत्र में गति लाने का ऐलान कर दिया है। भौतिक-शास्त्र के क्वांटम सिद्धांत पर काम करने वाली इस कंप्यूटिंग में असीमित संभावनाएं देखी जा रही हैं। शोध के लिहाज से यह विषय किसी के लिए भी रुचि का विषय हो सकता है। विशेषज्ञों के अनुसार एक पूर्ण विकसित क्वांटम कंप्यूटर की क्षमता सुपर कंप्यूटर से भी ज्यादा आँकी जा रही है। इस क्वांटम कंप्यूटिंग या मेकैनिक्स	7

	की खास बात यह है कि इसकी शुरुआत के बाद भारतीय और पश्चिमी वैज्ञानिक यह मान रहे हैं कि भारतीय भाववादी सिद्धांत को जाने बिना कण में चेतना का आकलन नहीं किया जा सकता। क्वांटम भौतिकी और कृत्रिम बौद्धिकता एक तरह से चेतना के भाववादी सिद्धांत को ही अस्तित्व में लाने के उपाय हैं।	
(क)	उपर्युक्त गद्यांश किस विषयवस्तु आधारित है ? i. कृत्रिम बौद्धिकता पर ii. दुनिया के विकास पर iii. संगणक के प्रयोग पर iv. मानव अस्तित्व पर	1
(ख)	दिन दूनी, रात चौगुनी गति से प्रगति हो रही है- पंक्ति से आशय है ? i. बहुत ही तेजी से विकास ii. रात दिन काम करना iii. चारों तरफ विकास होना iv. बहुत अधिक विकास होना	1
(ग)	निम्नलिखित कथन और निष्कर्ष को ध्यान से पढ़कर दिए गए विकल्प से सही उत्तर चुनकर लिखिए - कथन - क्वांटम कंप्यूटर की क्षमता सुपर कंप्यूटर से भी अधिक है। निष्कर्ष - इससे विकास की गति को अधिक बल मिलेगा। i. कथन सही है लेकिन निष्कर्ष गलत है। ii. कथन और निष्कर्ष दोनों सही हैं। iii. कथन गलत है और निष्कर्ष सही है। iv. कथन और निष्कर्ष दोनों गलत हैं।	1
(घ)	जीवन को सरल बनाने में प्रोट्योगिकी की भूमिका को स्पष्ट कीजिए	2
(ङ)	अति-सूक्ष्मता का विज्ञान क्या है?	2
2.	सूरज हमारी ऊर्जा की सारी कमियों को पूरा कर सकता है। यह एक विशाल रिएक्टर जैसा है। वैज्ञानिकों का प्रयास है कि कृत्रिम सूरज को धरती पर बनाया जाए। इसके लिए ये फ्यूजन तकनीक पर काम कर रहे हैं। सूर्य की चमक इन्सानों के लिए हजारों साल से आश्चर्य की वजह रही है। लेकिन करीब सौ साल पहले नई खोज द्वारा पता चला कि सूर्य की बेशुमार ऊर्जा का कारण न्यूक्लियर फ्यूजन है। फिर वैज्ञानिकों ने सोचा कि अगर धरती पर उसी तरह का फ्यूजन कराया जाए जो सूर्य में हो रहा है तो बहुत कुछ बदल जाएगा और लोगों को	7

	<p>बेशुमार ऊर्जा मिल जाएगी। आज दुनिया के सबसे बड़े न्यूक्लियर फ्यूजन रिएक्टर में ईंधन परीक्षण को शुरू कर दिया गया है। वैज्ञानिकों की एक टीम फ्रांस में फ्यूजन रिएक्टर को ताकत देने के लिए हयड्रोजन के एक अत्यंत दुर्लभ रूप की क्षमता का परीक्षण कर रहे हैं। अगर उनका यह परीक्षण सफल होता है तो इससे दुनिया को क्लीन एनर्जी का एक बहुत बड़ा जरिया मिल जाएगा। इससे न केवल जीवाश्म इंधनों पर निर्भरता घटेगी, बल्कि पर्यावरण को भी लाभ होगा। न्यूक्लियर फ्यूजन लंबे समय तक वातावरण में मौजूद रहने वाले रेडियोधर्मी अपशिष्ट उत्पन्न नहीं करता। यह अक्षय ऊर्जा से भी अधिक विश्वसनीय ऊर्जा स्रोत है। नाभिकीय संलयन द्वारा उत्पन्न ऊर्जा मानवजाति की लंबे समय से चली आ रही खोजों में सबसे महत्वपूर्ण है, क्योंकि यह तुलनात्मक रूप से काफी स्वच्छ है। अर्थात यह कम कार्बन का उत्सर्जन करती है, साथ ही यह तकनीकी दक्षता के साथ सौ फीसदी स्वच्छ भी है।</p>	
(क)	<p>उपर्युक्त गद्यांश की विषय-वस्तु है ?</p> <ol style="list-style-type: none"> सौर ऊर्जा स्वच्छ ऊर्जा नाभिकीय ऊर्जा रेडियोधर्मी ऊर्जा 	1
(ख)	<p>निम्नलिखित कथन (A) तथा कारण (R) को ध्यानपूर्वक पढ़िए। दिए गए विकल्पों में से कोई एक सही विकल्प चुनकर लिखिए :</p> <p>कथन (A) - न्यूक्लियर फ्यूजन सौर ऊर्जा से भी विश्वसनीय ऊर्जा स्रोत है। कारण (R) - इससे दुनिया को स्वच्छ ऊर्जा प्राप्त होगी।</p> <ol style="list-style-type: none"> कथन (A) सही है, कारण (R) गलत है कथन (A) तथा कारण (R) दोनों गलत हैं। कथन (A) सही है, और कारण (R) उसकी सही व्याख्या है। कथन (A) गलत है किन्तु कारण (R) सही है। 	1
(ग)	<p>वैज्ञानिकों द्वारा कृत्रिम सूरज को धरती पर बनाने के पीछे कारण है -</p> <ol style="list-style-type: none"> ऊर्जा की कमी दूर करने के लिए पर्यावरण के लाभ के लिए प्राकृतिक ऊर्जा संग्रह के लिए फ्यूजन तकनीक को सिद्ध करने के लिए 	1
(घ)	सूर्य को असीमित ऊर्जा का स्रोत क्यों माना जाता है ?	2
(ङ)	नाभिकीय ऊर्जा जीवाश्म ईंधनों से किस प्रकार भिन्न है ?	2

खंड-ख
(व्यावहारिक व्याकरण)

	खंड-ख (व्यावहारिक व्याकरण)	
3.	पदबंध' पर आधारित पाँच प्रश्नों में से किन्हीं चार प्रश्नों के उत्तर लिखिए -	4×1=4
(क)	वज़ीर अली की जांबाजी और साहसिक कारनामों से सभी परिचित थे- वाक्य में से विशेषण पदबंध चुनकर लिखिए।	1
(ख)	किसी वाक्य में संज्ञा पदबंध की पहचान कैसे की जा जाती है, उदाहरण देकर स्पष्ट कीजिए।	1
(ग)	<u>सबकी सहायता करने वाले आप</u> आज उदास क्यों हैं - वाक्य में रेखांकित पदबंध का भेद लिखिए।	1
(घ)	मैं खेलते-कूदते कक्षा पास कर लेता हूँ - वाक्य में पदबंध का भेद बताते हुए कारण भी स्पष्ट कीजिए।	1
(ङ)	क्रिया पदबंध का एक उदाहरण देकर वाक्य में प्रयोग कीजिए।	1
4.	'रचना के आधार पर वाक्य रूपांतरण' पर आधारित पाँच प्रश्नों में से किन्हीं चार प्रश्नों के उत्तर लिखिए -	4×1=4
(क)	'दादा को तार देने के सिवा तुम्हें और कुछ न सूझेगा' - वाक्य का भेद लिखिए।	1
(ख)	भीड़ की अधिकता के कारण पुलिस जूलुस को रोक नहीं सकी - संयुक्त वाक्य में रूपांतरित कीजिए।	1
(ग)	उदाहरण द्वारा सरल एवं मिश्र वाक्य में अंतर स्पष्ट कीजिए।	1
(घ)	संयुक्त वाक्य में समुच्चयबोधक अव्यय की भूमिका स्पष्ट कीजिए।	1
(ङ)	गायन इतना प्रभावी था कि वह अपनी सुध-बुध खोने लगा - वाक्य का भेद बताते हुए कारण स्पष्ट कीजिए।	1
5.	'समास' पर आधारित पाँच प्रश्नों में से किन्हीं चार प्रश्नों के उत्तर लिखिए -	4×1=4
(क)	सामासिक पद अन्य व्याकरणिक पदों से किस प्रकार भिन्न होता है?	1
(ख)	तत्पुरुष समास में पूर्व पद और उत्तर पद की भूमिका स्पष्ट कीजिए।	1
(ग)	'यथाशक्ति' अव्ययीभाव समास है कैसे?	1
(घ)	'त्रिलोकीनाथ' सामासिक पद का विग्रह करते हुए भेद लिखिए।	1
(ङ)	द्विगु समास की विशेषता बताते हुए एक उदाहरण दीजिए।	1
6.	'मुहावरे' पर आधारित पाँच प्रश्नों में से किन्हीं चार प्रश्नों के उत्तर लिखिए -	4×1=4

(क)	भारतीय प्रशासनिक सेवा में चयनित होने के लिए..... करनी पड़ती है। (उपयुक्त मुहावरे द्वारा रिक्त स्थान की पूर्ति कीजिए।)	1
(ख)	समुद्र किनारे शाम को ततारा रोज वामीरो की..... था। (उपयुक्त मुहावरे द्वारा रिक्त स्थान की पूर्ति कीजिए।)	1
(ग)	शैलेंद्र का मुरझाया हुआ चेहरा देखकर राज कपूर ने मुस्कराते हुए कहा, "निकालो एक रुपया, पारिश्रमिक पूरा एडवांस।" पंक्ति से मुहावरा चुनकर वाक्य में प्रयोग कीजिए।	1
(घ)	'काम तमाम कर देना और धूल में मिला देना मुहावरे में अंतर स्पष्ट कीजिए।	1
(ङ)	'निराशा के बादल फटना' मुहावरे का वाक्य बनाइए।	1
खंड ग (पाठ्यपुस्तक)		
7.	निम्नलिखित गद्यांश को पढ़ कर पूछे गए प्रश्नों के उत्तर सर्वाधिक उचित विकल्प से चुनकर लिखिए-	5×1=5
	मदालसा भी पकड़ी गई थी। उससे मालूम हुआ कि उसको थाने में भी मारा गया था। सब मिलाकर 105 स्त्रियाँ पकड़ी गई थीं। बाद में रात को नौ बजे सबको छोड़ दिया गया। कलकता में आज तक इतनी स्त्रियाँ एक साथ गिरफ्तार नहीं की गई थी। करीब आठ बजे खादी भंडार आए तो कांग्रेस ऑफिस से फोन आया कि यहाँ बहुत आदमी चोट खाकर आए हैं और कई की हालत संगीन है उनके लिए गाडी चाहिए। जानकी देवी के साथ वहाँ गए, बहुत लोगों को चोट लगी हुई थी। डॉ दास गुप्ता उनकी देख-रेख तथा फोटो उतरवा रहे थे। उस समय तक 67 आदमी वहाँ आ चुके थे। बाद में तो 103 तक आ पहुंचे।	
(क)	मदालसा को थाने में भी मारा गया था- इस कथन से अंग्रेजी शासन की किस मानसिकता का पता चलता है? i. स्त्रियों पर हिंसा ii. दमनकारी नीति iii. बदले की भावना iv. अंग्रेजों की क्रूरता	1
(ख)	'सब मिलाकर 105 स्त्रियाँ पकड़ी गई थी' कथन से निष्कर्ष निकलता है कि---	1

	<ul style="list-style-type: none"> i. आंदोलन में पुरुषों की संख्या कम थी। ii. पुलिस स्त्रियों को अधिक गिरफ्तार कर रही थी। iii. मोनुमेट पर स्त्रियाँ आगे की पंक्ति में थी। iv. आंदोलन में स्त्रियों ने बढ़-चढ़ कर हिस्सा लिया था। 	
(ग)	<p>इस गद्यांश का सूत्रधार आप किसे मानते हैं ?</p> <ul style="list-style-type: none"> i. पूर्णोदास ii. मदालसा iii. सीताराम iv. जानकी देवी 	1
(घ)	<p>यहाँ बहुत आदमी चोट खाकर आए हैं और कई की हालत संगीन है - पंक्ति में 'संगीन' का अर्थ है-</p> <ul style="list-style-type: none"> i. गंभीर ii. घायल iii. मूच्छित iv. नाजुक 	1
(ङ)	<p>निम्नलिखित कथन (A) तथा कारण (R) को ध्यान से पढ़िए तथा सर्वाधिक उचित विकल्प को चुन कर लिखिए :</p> <p>कथन (A) - डॉ दास गुप्ता उनकी देख-रेख तथा फोटो उतरवा रहे थे।</p> <p>कारण (R) वे आंदोलन के बारे में साक्ष्य एकत्रित कर रहे थे।</p> <ul style="list-style-type: none"> i. कथन (A) तथा कारण (R) दोनों गलत है ii. कथन (A) तथा कारण (R) दोनों सही है iii. कथन (A) गलत है तथा कारण (R) सही है iv. कथन (A) सही है लेकिन कारण (R) उसकी गलत व्याख्या करता है 	1
8.	गद्य खंड पर आधारित निम्नलिखित प्रश्नों में से किन्हीं तीन प्रश्नों के उत्तर लगभग 25-30 शब्दों में लिखिए -	3X2=6
(क)	'मेरे देखते तुम बेराह न चलने पाओगे' - पंक्ति से बड़े भाई के कर्तव्य और अधिकार का पता कैसे चलता है?	2
(ख)	'जीवन में पहली बार मैं इस तरह विचलित हुआ हूँ' - ततारा ने ऐसा क्यों कहा होगा ?	2
(ग)	शैलेंद्र ने राज कपूर की भावनाओं को शब्द दिए हैं, कैसे ?	2
(घ)	सआदत अली खाँ में देशप्रेम का अभाव था, स्पष्ट कीजिए।	2
9.	निम्नलिखित काव्यांश को पढ़कर प्रश्नों के सर्वाधिक उपयुक्त विकल्पों का चयन कीजिए-	5×1=5
	चलो अभीष्ट मार्ग में सहर्ष खेलते हुए	

	विपत्ति, विघ्न जो पड़े उन्हें ढकेलते हुए घटे न हेल-मेल हों बढ़े न भिन्नता कभी अतर्क एक पंथ के सतर्क पंथ हों सभी तभी समर्थ भाव है कि तारता हुआ तरे वही मनुष्य है कि जो मनुष्य के लिए मरे	
(क)	जीवन में निर्धारित लक्ष्य कैसे प्राप्त किया जा सकता है? i. संपर्क बढ़ाने से ii. साधन जुटाने से iii. सतत प्रयत्नशील रहने से iv. लक्ष्य का ध्यान करने से	1
(ख)	कवि को किस बात का डर है ? i. दूरियाँ बढ़ने की ii. प्रेम कम होने की iii. सहयोग में कमी iv. एकता की भावना का	1
(ग)	निम्नलिखित कथन (A) तथा कारण (R) को ध्यानपूर्वक पढ़िए। उसके बाद दिए गए विकल्प में से कोई एक सही विकल्प चुनकर लिखिए। अभिकथन (A) - कवि मनुष्य के लिए मनुष्यता का होना अनिवार्य मानता है। कारण (R) - मनुष्यता के लिए संतोष का होना आवश्यक नहीं है। i. कथन (A) गलत है, किंतु कारण (R) सही है। ii. कथन (A) और कारण (R) दोनों ही गलत हैं। 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)	कवि समर्थ भाव किसे मानता है? i. स्वार्थ भावना को सबल बनाना ii. कार्य में सफलता प्राप्त करना iii. कार्य के प्रति लगनशील रहना iv. स्वयं के साथ दूसरे को भी आगे बढ़ाना	1
(ङ)	क एक पंथ के सतर्क पंथ हों सभी' - पंक्ति का भाव है - i. तर्कहीनता ii. भावुकता iii. नकारात्मकता iv. सकारात्मकता	1

10.	काव्य खंड पर आधारित निम्नलिखित प्रश्नों में से किन्हीं तीन प्रश्नों के उत्तर लगभग 25-30 शब्दों में लिखिए -	3x2=6
(क)	प्रत्येक व्यक्ति की विशेषता उसके भीतर निहित होती है। कबीर की साखी से उदाहरण देकर स्पष्ट कीजिए।	2
(ख)	जीवन में सुख-दुख धूप और बादल की तरह होते हैं।	2
(ग)	‘पर्वत प्रदेश में पावस’ कविता से कोई एक उदाहरण देकर सिद्ध कीजिए।	2
(घ)	तोप जैसे लोगों का परिणाम भी तोप जैसा ही होता है, विचार व्यक्त कीजिए।	2
(ङ)	मनुष्य को अपने साहस और पुरुषार्थ पर भाग्य से अधिक भरोसा रखना चाहिए। ‘आत्मत्राण’ कविता के आधार पर सिद्ध कीजिए।	2
11.	पूरक पुस्तक ‘संचयन’ पर आधारित निम्नलिखित प्रश्नों में से किन्हीं दो प्रश्नों के उत्तर लगभग 40-50 शब्दों में लिखिए -	2x3=6
(क)	भारत एक बहुधार्मिक समाज वाला देश है। सामाजिक सद्भाव के लिए ‘टोपी शुक्ला’ पाठ आपको कैसे मदद करता है?	3
(ख)	स्मृतियाँ सदैव सुखद होती हैं। ‘सपनों के-से दिन’ पाठ में लेखक ने अपनी स्मृतियों को साझा किया है। आप भी इस प्रकार की कोई स्मृति साझा कर बताइए कि वह आपको क्यों अच्छी लगती है?	3
(ग)	आज शहरी एवं ग्रामीण जीवन में अकेलापन एक आम समस्या हो गई है। इससे कैसे मुक्त हुआ जा सकता है। ‘हरिहर काका’ पाठ के संदर्भ में युक्तियुक्त उत्तर दीजिए।	3
	खंड घ (रचनात्मक लेखन)	
12.	निम्नलिखित में से किसी एक विषय पर दिए गए संकेत-बिन्दुओं के आधार पर लगभग 120 शब्दों में एक अनुच्छेद लिखिए -	1x5=5
	<p>(i) चुनाव में मतदान का महत्व</p> <ul style="list-style-type: none"> ● चुनाव क्या है ● चुनाव की आवश्यकता ● मतदान का महत्व <p>(ii) स्वच्छता में आम आदमी की भूमिका</p> <ul style="list-style-type: none"> ● स्वच्छता क्यों आवश्यक ● स्वच्छता का स्वास्थ्य पर प्रभाव ● हमारी भूमिका <p>(iii) यांत्रिक सुविधाओं का पर्यावरण पर प्रभाव</p> <ul style="list-style-type: none"> ● यांत्रिक सुविधा से अभिप्राय ● यंत्रों की अधीनता 	

	<ul style="list-style-type: none"> पर्यावरण पर प्रभाव 	
13.	<p>निम्नलिखित में से किसी एक विषय पर लगभग 100 शब्दों में पत्र लिखिए</p> <p>-</p> <p>आप श्याम/दीपशिखा हैं। विद्यालय में भाषा प्रयोगशाला खुलवाने के लिए प्रधानाचार्य को पत्र लिखिए जिससे विद्यार्थी भाषा की ध्वनियों को समझकर श्रवण एवं वाचन कौशल का विकास कर सकें।</p> <p>अथवा</p> <p>आप बी-43, आकाश विहार, दिल्ली निवासी राजन/रम्या हैं। हर साल होने वाली 'परीक्षा पर चर्चा' पर अपने विचार व्यक्त करते हुए किसी प्रतिष्ठित समाचार-पत्र के संपादक को पत्र लिखिए।</p>	1x5=5
14.	<p>निम्नलिखित में से किसी एक विषय पर लगभग 60 शब्दों में सूचना लिखिए-</p> <p>आप राहुल/रोशनी हैं। आप अपने स्कूल के विद्यार्थी परिषद के सचिव हैं। आपके स्कूल में अंतर्विद्यालयी 'वाद विवाद प्रतियोगिता का आयोजन किया जा रहा है। इस विषय में सभी विद्यार्थियों को जानकारी देने हेतु एक सूचना तैयार कीजिए।</p> <p>अथवा</p> <p>आप वैशाली निवासी अमर/अवनि हैं। आप अपने क्षेत्र के 'निवासी कल्याण संघ' के सचिव हैं। अपने क्षेत्र में लगने वाले रक्तदान शिविर की जानकारी देते हुए एक सूचना लिखिए।</p>	1x4=4
15.	<p>निम्नलिखित में से किसी एक विषय पर लगभग 40 शब्दों में विज्ञापन लिखिए-</p> <p>आपने खेल सामग्री की एक नई दुकान खोली है। अपनी दुकान के बारे में जानकारी देते हुए एक आकर्षक विज्ञापन तैयार कीजिए।</p> <p>अथवा</p> <p>'भ्रष्टाचार मुक्त भारत' के विषय में लोगों को जागरूक करते हुए सरकार की ओर से एक विज्ञापन तैयार कीजिए।</p>	1x3=3
16.	<p>एक शाम जब मैं घर में बैठी थी तभी अचानक किसी ने ज़ोर से दरवाजा खटखटाया। मैं चौंक गया/गई.....' पंक्ति से लगभग 100 शब्दों में लघुकथा लिखिए।</p> <p>अथवा</p>	1x5=5

आप शक्ति/संयम हैं। आप लालटेन गंज में रहते हैं। आपके क्षेत्र में पिछले एक महीने से बिजली की गंभीर समस्या चल रही है। इसकी जानकारी देते हुए बिजली विभाग के वरिष्ठ अधिकारी को लगभग 80 शब्दों में ई-मेल लिखिए।

SAMPLE QUESTION PAPER
Class X Session 2024-25
MATHEMATICS STANDARD (Code No.041)

TIME: 3 hours

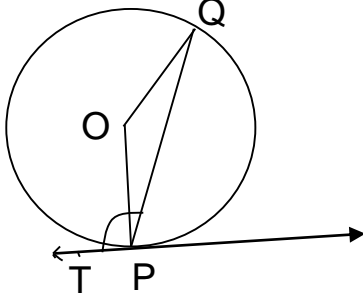
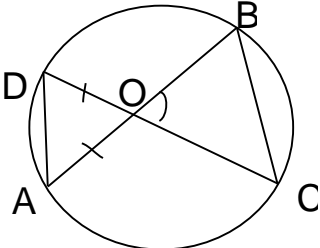
MAX.MARKS: 80

General Instructions:

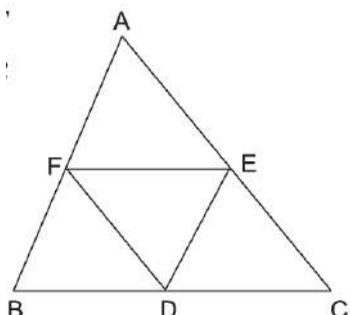
Read the following instructions carefully and follow them:

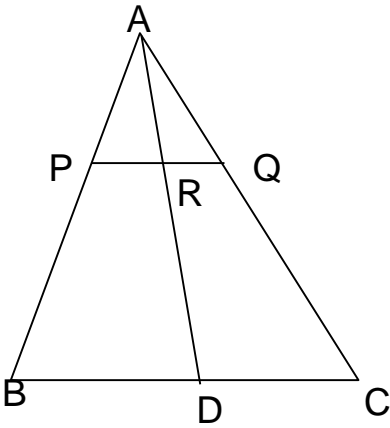
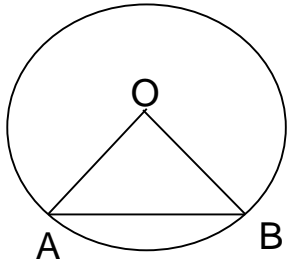
1. This question paper contains 38 questions.
2. This Question Paper is divided into 5 Sections A, B, C, D and E.
3. In Section A, Questions no. 1-18 are multiple choice questions (MCQs) and questions no. 19 and 20 are Assertion- Reason based questions of 1 mark each.
4. In Section B, Questions no. 21-25 are very short answer (VSA) type questions, carrying 02 marks each.
5. In Section C, Questions no. 26-31 are short answer (SA) type questions, carrying 03 marks each.
6. In Section D, Questions no. 32-35 are long answer (LA) type questions, carrying 05 marks each.
7. In Section E, Questions no. 36-38 are case study based questions carrying 4 marks each with sub parts of the values of 1, 1 and 2 marks each respectively.
8. All Questions are compulsory. However, an internal choice in 2 Question of Section B, 2 Questions of Section C and 2 Questions of Section D has been provided. An internal choice has been provided in all the 2 marks questions of Section E.
9. Draw neat and clean figures wherever required.
10. Take $\pi = 22/7$ wherever required if not stated.
11. Use of calculators is not allowed.

Section A		
Section A consists of 20 questions of 1 mark each.		
1.	The graph of a quadratic polynomial $p(x)$ passes through the points $(-6,0)$, $(0, -30)$, $(4,-20)$ and $(6,0)$. The zeroes of the polynomial are A) - 6,0 B) 4, 6 C) - 30,-20 D) - 6,6	1
2.	The value of k for which the system of equations $3x-ky= 7$ and $6x+ 10y =3$ is inconsistent, is A) -10 B) -5 C) 5 D) 7	1
3.	Which of the following statements is not true? A) A number of secants can be drawn at any point on the circle. B) Only one tangent can be drawn at any point on a circle. C) A chord is a line segment joining two points on the circle D) From a point inside a circle only two tangents can be drawn.	1
4.	If n th term of an A.P. is $7n-4$ then the common difference of the A.P. is A) 7 B) $7n$ C) - 4 D) 4	1

5.	<p>The radius of the base of a right circular cone and the radius of a sphere are each 5 cm in length. If the volume of the cone is equal to the volume of the sphere then the height of the cone is</p> <p>A) 5 cm B) 20 cm C) 10 cm D) 4 cm</p>	1												
6.	<p>If $\tan\theta = \frac{5}{2}$ then $\frac{4 \sin\theta + \cos\theta}{4 \sin\theta - \cos\theta}$ is equal to</p> <p>A) $\frac{11}{9}$ B) $\frac{3}{2}$ C) $\frac{9}{11}$ D) 4</p>	1												
7.	<p>In the given figure, a tangent has been drawn at a point P on the circle centred at O.</p>  <p>If $\angle TPQ = 110^\circ$ then $\angle POQ$ is equal to</p> <p>A) 110° B) 70° C) 140° D) 55°</p>	1												
8.	<p>A quadratic polynomial having zeroes - $\sqrt{\frac{5}{2}}$ and $\sqrt{\frac{5}{2}}$ is</p> <p>A) $x^2 - 5\sqrt{2}x + 1$ B) $8x^2 - 20$ C) $15x^2 - 6$ D) $x^2 - 2\sqrt{5}x - 1$</p>	1												
9.	<p>Consider the frequency distribution of 45 observations.</p> <table border="1"> <tbody> <tr> <td>Class</td> <td>0-10</td> <td>10-20</td> <td>20-30</td> <td>30-40</td> <td>40-50</td> </tr> <tr> <td>Frequency</td> <td>5</td> <td>9</td> <td>15</td> <td>10</td> <td>6</td> </tr> </tbody> </table> <p>The upper limit of median class is</p> <p>A) 20 B) 10 C) 30 D) 40</p>	Class	0-10	10-20	20-30	30-40	40-50	Frequency	5	9	15	10	6	1
Class	0-10	10-20	20-30	30-40	40-50									
Frequency	5	9	15	10	6									
10.	<p>O is the point of intersection of two chords AB and CD of a circle.</p>  <p>If $\angle BOC = 80^\circ$ and $OA = OD$ then $\triangle ODA$ and $\triangle OBC$ are</p> <p>A) equilateral and similar B) isosceles and similar C) isosceles but not similar D) not similar</p>	1												

11.	The roots of the quadratic equation $x^2+x-1 = 0$ are A) Irrational and distinct B) not real C) rational and distinct D) real and equal	1
12.	If $\theta = 30^\circ$ then the value of $3\tan\theta$ is A) 1 B) $\frac{1}{\sqrt{3}}$ C) $\frac{3}{\sqrt{3}}$ D) not defined	1
13.	The volume of a solid hemisphere is $\frac{396}{7} \text{ cm}^3$. The total surface area of the solid hemisphere (in sq.cm) is A) $\frac{396}{7}$ B) $\frac{594}{7}$ C) $\frac{549}{7}$ D) $\frac{604}{7}$	1
14.	In a bag containing 24 balls, 4 are blue, 11 are green and the rest are white. One ball is drawn at random. The probability that drawn ball is white in colour is A) $\frac{1}{6}$ B) $\frac{3}{8}$ C) $\frac{11}{24}$ D) $\frac{5}{8}$	1
15.	The point on the x- axis nearest to the point (-4,-5) is A) (0, 0) B) (-4, 0) C) (-5, 0) D) $(\sqrt{41}, 0)$	1
16.	Which of the following gives the middle most observation of the data? A) Median B) Mean C) Range D) Mode	1
17.	A point on the x-axis divides the line segment joining the points A(2, -3) and B(5, 6) in the ratio 1:2. The point is A) (4, 0) B) $(\frac{7}{2}, \frac{3}{2})$ C) (3, 0) D) (0,3)	1
18.	A card is drawn from a well shuffled deck of playing cards. The probability of getting red face card is A) $\frac{3}{13}$ B) $\frac{1}{2}$ C) $\frac{3}{52}$ D) $\frac{3}{26}$	1
	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 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.	
19.	Assertion (A): HCF of any two consecutive even natural numbers is always 2. Reason (R): Even natural numbers are divisible by 2.	1
20.	Assertion (A): If the radius of sector of a circle is reduced to its half and angle is doubled then the perimeter of the sector remains the same.	1

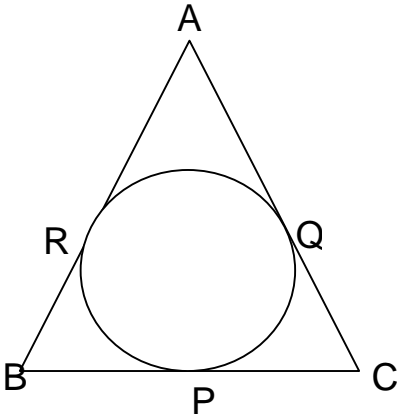
	Reason (R): The length of the arc subtending angle θ at the centre of a circle of radius r $= \frac{\pi r \theta}{180}$.	
	Section B	
	Section B consists of 5 questions of 2 marks each.	
21.	(A) Find the H.C.F and L.C.M of 480 and 720 using the Prime factorisation method. OR (A) The H.C.F of 85 and 238 is expressible in the form $85m - 238$. Find the value of m .	2
22.	(A) Two dice are rolled together bearing numbers 4, 6, 7, 9, 11, 12. Find the probability that the product of numbers obtained is an odd number OR (B) How many positive three digit integers have the hundredths digit 8 and unit's digit 5? Find the probability of selecting one such number out of all three digit numbers.	2
23.	Evaluate: $\frac{2\sin^2 60^\circ - \tan^2 30^\circ}{\sec^2 45^\circ}$	2
24.	Find the point(s) on the x-axis which is at a distance of $\sqrt{41}$ units from the point (8, -5).	2
25.	Show that the points A(-5,6), B(3, 0) and C(9, 8) are the vertices of an isosceles triangle.	2
	Section C	
	Section C consists of 6 questions of 3 marks each.	
26.	(A) In $\triangle ABC$, D, E and F are midpoints of BC,CA and AB respectively. Prove that $\triangle FBD \sim \triangle DEF$ and $\triangle DEF \sim \triangle ABC$  OR (B) In $\triangle ABC$, P and Q are points on AB and AC respectively such that PQ is parallel to BC.	3

	<p>Prove that the median AD drawn from A on BC bisects PQ.</p> 	
27.	The sum of two numbers is 18 and the sum of their reciprocals is $\frac{9}{40}$. Find the numbers.	3
28.	If α and β are zeroes of a polynomial $6x^2 - 5x + 1$ then form a quadratic polynomial whose zeroes are α^2 and β^2 .	3
29.	If $\cos\theta + \sin\theta = 1$, then prove that $\cos\theta - \sin\theta = \pm 1$	3
30.	<p>(A) The minute hand of a wall clock is 18 cm long. Find the area of the face of the clock described by the minute hand in 35 minutes.</p> <p style="text-align: center;">OR</p> <p>(B) AB is a chord of a circle centred at O such that $\angle AOB = 60^\circ$. If $OA = 14$ cm then find the area of the minor segment. (take $\sqrt{3} = 1.73$)</p> 	3
31.	Prove that $\sqrt{3}$ is an irrational number.	3
	Section D	
	Section D consists of 4 questions of 5 marks each	
32.	<p>(A) Solve the following system of linear equations graphically: $x + 2y = 3$, $2x - 3y + 8 = 0$</p> <p style="text-align: center;">OR</p> <p>(B) Places A and B are 180 km apart on a highway. One car starts from A and another from B at the same time. If the car travels in the same direction at</p>	5

different speeds, they meet in 9 hours. If they travel towards each other with the same speeds as before, they meet in an hour. What are the speeds of the two cars?

33. Prove that the lengths of tangents drawn from an external point to a circle are equal.

Using above result, find the length BC of ΔABC . Given that, a circle is inscribed in ΔABC touching the sides AB, BC and CA at R, P and Q respectively and AB= 10 cm, AQ= 7cm ,CQ= 5cm.



34. A boy whose eye level is 1.35 m from the ground, spots a balloon moving with the wind in a horizontal line at some height from the ground. The angle of elevation of the balloon from the eyes of the boy at an instant is 60° . After 12 seconds, the angle of elevation reduces to 30° . If the speed of the wind is 3m/s then find the height of the balloon from the ground. (Use $\sqrt{3}= 1.73$)

35. Find the mean and median of the following data:

Class	85-90	90-95	95-100	100-105	105-110	110-115
frequency	15	22	20	18	20	25

OR

The monthly expenditure on milk in 200 families of a Housing Society is given below

Monthly Expenditure (in Rs.)	1000-1500	1500-2000	2000-2500	2500-3000	3000-3500	3500-4000	4000-4500	4500-5000
Number of families	24	40	33	x	30	22	16	7

Find the value of x and also find the mean expenditure

Section E

Section E consists of 3 case study based questions of 4 marks each.

36. Ms. Sheela visited a store near her house and found that the glass jars are arranged one above the other in a specific pattern.

On the top layer there are 3 jars. In the next layer there are 6 jars. In the 3rd layer from the top there are 9 jars and so on till the 8th layer.

On the basis of the above situation answer the following questions.

(i) Write an A.P whose terms represent the number of jars in different layers starting from top . Also, find the common difference.

1

(ii) Is it possible to arrange 34 jars in a layer if this pattern is continued? Justify your answer.

1

(iii) (A) If there are 'n' number of rows in a layer then find the expression for finding the total number of jars in terms of n. Hence find S_8 .

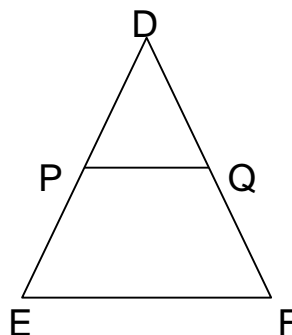
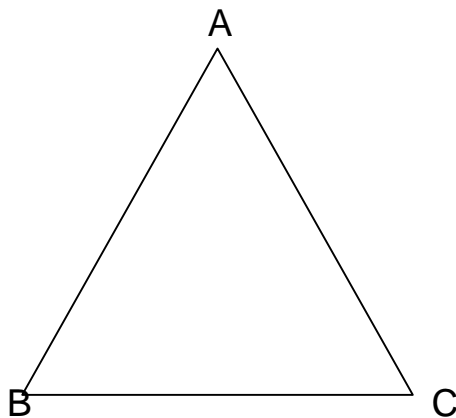
2

OR

(iii) (B) The shopkeeper added 3 jars in each layer. How many jars are there in the 5th layer from the top?

2

37.



Triangle is a very popular shape used in interior designing. The picture given above shows a cabinet designed by a famous interior designer.

Here the largest triangle is represented by $\triangle ABC$ and smallest one with shelf is represented by $\triangle DEF$. PQ is parallel to EF.

(i) Show that $\triangle DPQ \sim \triangle DEF$.

1

	<p>(ii) If DP= 50 cm and PE = 70 cm then find $\frac{PQ}{EF}$.</p> <p>(iii) (A) If $2AB = 5DE$ and $\triangle ABC \sim \triangle DEF$ then show that $\frac{\text{perimeter of } \triangle ABC}{\text{perimeter of } \triangle DEF}$ is constant.</p> <p style="text-align: center;">OR</p> <p>(iii) (B) If AM and DN are medians of triangles ABC and DEF respectively then prove that $\triangle ABM \sim \triangle DEN$.</p>	<p>1</p> <p>2</p> <p>2</p>
38.	<p>Metallic silos are used by farmers for storing grains. Farmer Girdhar has decided to build a new metallic silo to store his harvested grains. It is in the shape of a cylinder mounted by a cone.</p> <p>Dimensions of the conical part of a silo is as follows: Radius of base = 1.5 m Height = 2 m</p> <p>Dimensions of the cylindrical part of a silo is as follows: Radius = 1.5 m Height = 7 m</p> <p>On the basis of the above information answer the following questions.</p> <p>(i) Calculate the slant height of the conical part of one silo.</p> <p>(ii) Find the curved surface area of the conical part of one silo.</p> <p>(iii)(A) Find the cost of metal sheet used to make the curved cylindrical part of 1 silo at the rate of ₹2000 per m^2.</p> <p style="text-align: center;">OR</p> <p>(iii) (B) Find the total capacity of one silo to store grains.</p>	<p>1</p> <p>1</p> <p>2</p> <p>2</p>

SCIENCE SQP (2024-25)
CLASS X
(Science 086)

Max. Marks: 80

Time Allowed: 3 hours

General Instructions:

1. All questions would be compulsory. However, an internal choice of approximately 33% would be provided. 50% marks are to be allotted to competency-based questions.
2. Section A would have 16 simple/complex MCQs and 04 Assertion-Reasoning type questions carrying 1 mark each.
3. Section B would have 6 Short Answer (SA) type questions carrying 02 marks each.
4. Section C would have 7 Short Answer (SA) type questions carrying 03 marks each.
5. Section D would have 3 Long Answer (LA) type questions carrying 05 marks each.
6. Section E would have 3 source based/case based/passage based/integrated units of assessment (04 marks each) with sub-parts of the values of 1/2/3 marks.

Section-A

Question 1 to 16 are multiple choice questions. Only one of the choices is correct. Select and write the correct choice as well as the answer to these questions.

1	<p>Identify 'p', 'q' and 'r' in the following balanced reaction</p> <p style="text-align: center;">Heat</p> $p \text{Pb} (\text{NO}_3)_{2(s)} \xrightarrow{\hspace{1cm}} q \text{PbO}_{(s)} + r \text{NO}_{2(g)} + \text{O}_{2(g)}$ <p>A. 2,2,4 B. 2,4,2 C. 2,4,4 D. 4,2,2</p>	1										
2	<p>Match column I with column II and select the correct option using the given codes.</p> <table border="1" style="width: 100%;"><thead><tr><th style="text-align: center;">Column I</th><th style="text-align: center;">Column II</th></tr></thead><tbody><tr><td>a. A metal that forms amphoteric oxides</td><td>(i) Ga</td></tr><tr><td>b. A metal which melts when kept on our palm</td><td>(ii) Au</td></tr><tr><td>c. A metal that reacts with nitric acid</td><td>(iii) Al</td></tr><tr><td>d. A metal which cannot displace hydrogen from acids</td><td>(iv) Mn</td></tr></tbody></table> <p>A. a – (ii), b – (i), c – (iii), d – (iv) B. a – (iii), b – (i), c – (iv), d – (ii) C. a – (iv), b – (ii), c – (iii), d – (i) D. a – (iii), b – (ii), c – (i), d – (iv)</p>	Column I	Column II	a. A metal that forms amphoteric oxides	(i) Ga	b. A metal which melts when kept on our palm	(ii) Au	c. A metal that reacts with nitric acid	(iii) Al	d. A metal which cannot displace hydrogen from acids	(iv) Mn	1
Column I	Column II											
a. A metal that forms amphoteric oxides	(i) Ga											
b. A metal which melts when kept on our palm	(ii) Au											
c. A metal that reacts with nitric acid	(iii) Al											
d. A metal which cannot displace hydrogen from acids	(iv) Mn											

3	<div> </div> <p>The solution in the given figure is likely to be</p> <ul style="list-style-type: none"> A. HNO_3 B. $\text{C}_2\text{H}_5\text{OH}$ C. H_2SO_4 D. CO_2 in water <p style="text-align: center;">-----</p> <p><u>For Visual Impaired Students</u></p> <p>Which among the following is considered as the strongest electrolyte?</p> <ul style="list-style-type: none"> A. Dilute acid B. Dilute sugar solution C. Glucose solution D. Ethanol in water 	1
4	<p>An aqueous solution 'A' turns the phenolphthalein solution pink. On addition of an aqueous solution 'B' to 'A', the pink colour disappears. Which of the following statement is true for the solutions 'A' and 'B'.</p> <ul style="list-style-type: none"> A. A is strongly basic and B is a weak base. B. A is strongly acidic and B is a weak acid. C. A has a pH greater than 7 and B has a pH less than 7. D. A has a pH less than 7 and B has a pH greater than 7. 	1
5	<p>When 50g of lead powder is added to 300 ml of blue copper sulphate solution, after a few hours, the solution becomes colourless. This is an example of</p> <ul style="list-style-type: none"> A. Combination reaction B. Decomposition reaction C. Displacement reaction D. Double displacement reaction 	1
6	<p>The electronic configuration of three elements X, Y and Z are X- 2, 8, 7; Y- 2, 8, 2; and Z - 2, 8</p> <ul style="list-style-type: none"> A. Y and Z are metals B. Y and X are non-metals C. X is a non-metal and Y is a metal D. Y is a non-metal and Z is a metal 	1
7	<p>Which of the following is an endothermic reaction?</p> <ul style="list-style-type: none"> A. Burning of candle. B. Cooking of food. C. Decomposition of Vegetable matter. D. Reaction of Sodium with air 	1

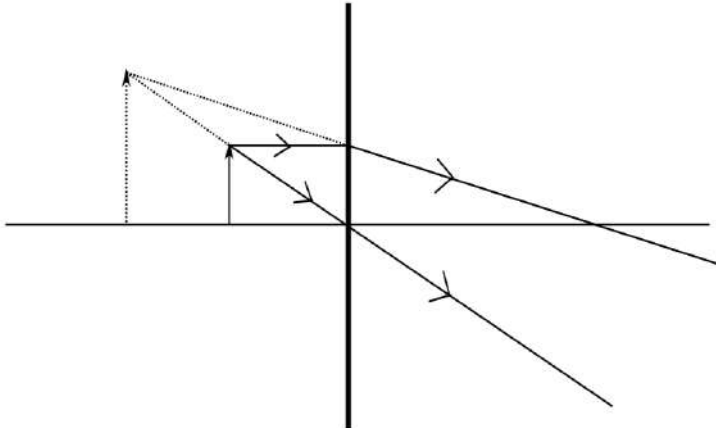
8	<p>During cellular oxidation of Glucose, ATP is produced along with formation of other products in this reaction. Which of the following events is associated with production of maximum ATP molecules per molecule of Glucose during this process? Synthesis of</p> <p>A. ethanol in yeast B. lactic acid in muscle cells C. carbon dioxide in yeast cells D. carbon dioxide in human cells</p>	1
9	<p>During which of the following stages of the circulation of blood in a normal human being, the oxygenated blood is pumped to all parts of the body?</p> <p>A. contraction of the left atrium B. contraction of left ventricle C. relaxation of the right atrium D. relaxation of the right ventricle</p>	1
10	<p>Which of the following adaptations in herbivores helps in digestions of cellulose?</p> <p>A. Longer large intestine B. Smaller large intestine C. Smaller small intestine D. Longer small intestine</p>	1
11	<p>There was a cerebellar dysfunction in a patient. Which of the following activities will get disturbed in this patient as a result of this?</p> <p>A. Salivation B. Hunger control C. Posture and balance D. Regulation of blood pressure</p>	1
12	<p>In snails individuals can begin life as male and depending on environmental conditions they can become female as they grow. This is because</p> <p>A. male snails have dominant genetic makeup. B. female snails have dominant genetic makeup. C. expression of sex chromosomes can change in a snail's life time. D. sex is not genetically determined in snails.</p>	1
13	<p>In the following cases, a ray is incident on a concave mirror. In which case is the angle of incidence equal to zero?</p> <p>A. A ray parallel to the principal axis. B. A ray passing through the centre of curvature and incident obliquely. C. A ray passing through the principal focus and incident obliquely. D. A ray incident obliquely to the principal axis, at the pole of the mirror.</p>	1

14	<div> </div> <p>Choose the correct option for the colour of rays for A and B.</p> <table border="1"> <thead> <tr> <th></th> <th>Colour of Ray A</th> <th>Colour of Ray B</th> </tr> </thead> <tbody> <tr> <td>A.</td> <td>Blue</td> <td>Red</td> </tr> <tr> <td>B.</td> <td>Green</td> <td>Yellow</td> </tr> <tr> <td>C.</td> <td>Red</td> <td>Violet</td> </tr> <tr> <td>D.</td> <td>Violet</td> <td>Indigo</td> </tr> </tbody> </table>		Colour of Ray A	Colour of Ray B	A.	Blue	Red	B.	Green	Yellow	C.	Red	Violet	D.	Violet	Indigo	1
	Colour of Ray A	Colour of Ray B															
A.	Blue	Red															
B.	Green	Yellow															
C.	Red	Violet															
D.	Violet	Indigo															
15	<p>Identify the incorrect statement</p> <p>'The energy available to the producers is maximum' because:</p> <ul style="list-style-type: none"> <li>A. It is the first trophic level which absorbs 1% of light energy directly from the source. <li>B. It utilizes the most of the chemical energy for its own respiration, growth, reproduction, movement etc. <li>C. It utilizes 10% of light energy and transfers the rest to the next trophic level. <li>D. It transfers only 10% of light energy to the next trophic level. 	1															
16	<p>Which of the following is not a role of decomposers in the ecosystem?</p> <ul style="list-style-type: none"> <li>A. Natural replenishment of soil. <li>B. Enrichment of oxygen in atmosphere. <li>C. Waste decomposition. <li>D. Break-down of dead remains. 	1															
<p>Question No. 17 to 20 consist of two statements – Assertion (A) and Reason (R). Answer these questions by selecting the appropriate option given below:</p> <ul style="list-style-type: none"> <li>A. Both A and R are true, and R is the correct explanation of A. <li>B. Both A and R are true, and R is not the correct explanation of A. <li>C. A is true but R is false. <li>D. A is false but R is true 																	
17	<p>Assertion (A): On adding dil. HCl to a test tube containing a substance 'X', a colourless gas is produced which gives a pop sound when a burning match stick is brought near it.</p> <p>Reason (R): In this reaction metal 'X' is displaced by Hydrogen.</p>	1															
18	<p>Assertion (A): The number of chromosomes in a cell and in a germ cell is not the same in any species.</p> <p>Reason (R): When 2 germ cells combine they restore the normal number of chromosomes in a species.</p>	1															

19	<p>Assertion (A): A convex mirror always forms an image behind it and the image formed is virtual.</p> <p>Reason (R): According to the sign convention, the focal length of a convex mirror is positive.</p>	1
20	<p>Assertion (A): If the lions are removed from a food chain it will not affect the food chain, however if the plants are removed from a food chain it will disturb the ecosystem.</p> <p>Reason (R): Plants are producers who can make food using sunlight, while lions are consumers.</p>	1

Section-B

Question No. 21 to 26 are very short answer questions

21	<p>Identify the type of each of the following reactions stating the reason for your answers.</p> <p>A. $\text{Fe}_2\text{O}_3 + 2\text{Al} \rightarrow \text{Al}_2\text{O}_3 + 2\text{Fe} + \text{heat}$</p> <p>B. $\text{Pb}(\text{NO}_3)_2 + 2\text{KI} \rightarrow \text{PbI}_2(\downarrow) + 2\text{KNO}_3$</p>	2												
22	<p>Differentiate between alveoli and nephron on the basis of the following points:</p> <table border="1" style="margin-left: auto; margin-right: auto;"> <thead> <tr> <th>S. No.</th> <th>Feature</th> <th>Alveoli</th> <th>Nephron</th> </tr> </thead> <tbody> <tr> <td>1</td> <td>Structure and location</td> <td></td> <td></td> </tr> <tr> <td>2</td> <td>Function</td> <td></td> <td></td> </tr> </tbody> </table>	S. No.	Feature	Alveoli	Nephron	1	Structure and location			2	Function			2
S. No.	Feature	Alveoli	Nephron											
1	Structure and location													
2	Function													
23	<p><u>Attempt either option A or B.</u></p> <p>A. List the steps for the synthesis of glucose by the plants. What special feature is found in desert plants related to this process?</p> <p style="text-align: center;">OR</p> <p>B. Explain the role of the following enzymes in the process of digestion of food in humans:</p> <p>(i) Salivary amylase</p> <p>(ii) Pepsin</p> <p>(iii) Trypsin</p> <p>(iv) Lipase</p>	2												
24	<div style="text-align: center;">  </div> <p>The above figure shows the formation of an image by a lens shown by a thick line.</p>	2												

Analyse the figure and answer the following questions.

- A. What is the type of lens used?
 - B. What is the nature of the image?
 - C. If the image is formed at a distance of 30 cm from the lens and the image is twice the size of the object, then where is the object placed?
-

For visually impaired students

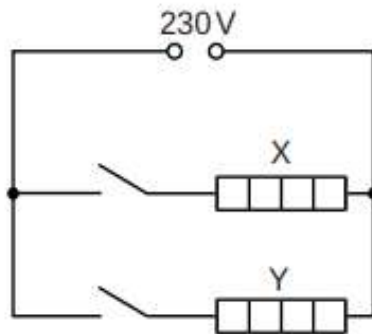
- A. What type of lens always forms a virtual erect and diminished image?
- B. List two uses of such a lens.

25

Attempt either option A or B.

2

A.



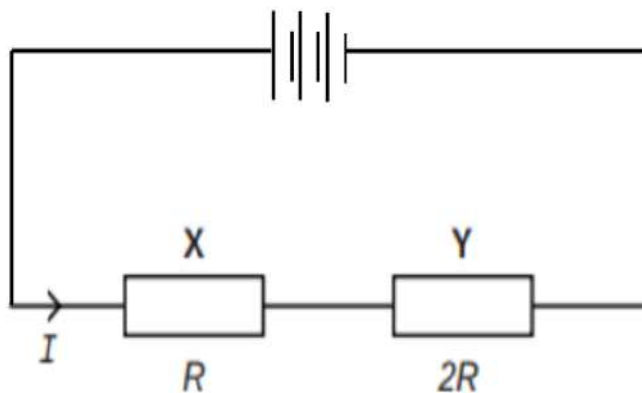
The electric circuit (above figure) in a clothes dryer contains two heaters X and Y in parallel. The above figure shows the circuit connected to a 230 V power supply. When both switches are closed, the current in X is 3.5 A.

Analyse the circuit given above and answer the following questions.

- (i) Calculate the power developed in heater X.
- (ii) If the resistance of X is double that of Y calculate the current in heater Y.

OR

B.



The above figure shows two resistors X and Y connected in series to a battery. The power dissipated for this combination is P_1 . When these resistors

are connected in parallel to the same battery then the power dissipated is given by P_2 . Find out the ratio $\frac{P_1}{P_2}$.

For visually impaired students

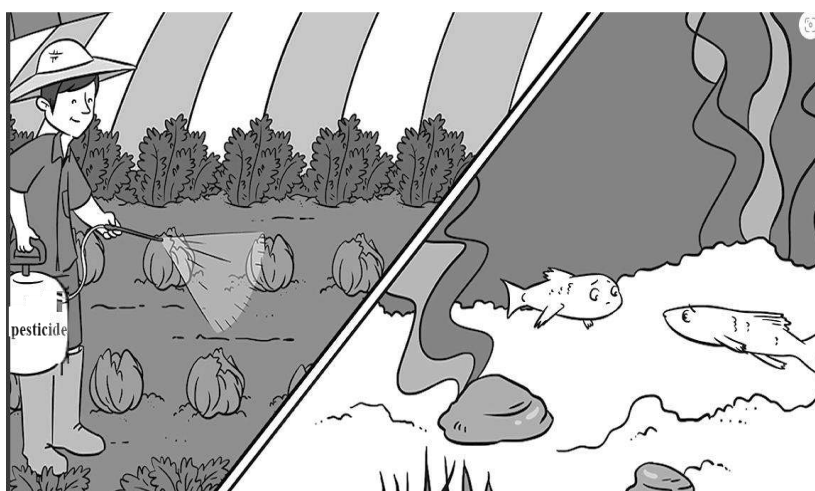
A. We have four resistors A, B, C and D of resistance 3Ω , 6Ω , 9Ω and 12Ω respectively. Find out the lowest resistance which can be obtained by combining these four resistors.

OR

B. You are given 2 fuse wires A and B with current ratings 2A and 5A respectively. Justify with reason which of the two would you use with a 1000W, 220V room heater?

26 The cartoon below addresses a growing concern:

2



[main.jpg \(1148x574\) \(frontiersin.org\)](#)

What impact will the process shown in the image have on Humans if they occupy the last trophic level? Explain.

For visually impaired students

Create a food chain with more than 2 trophic levels that exists in the cabbage farm. If Humans occupy the last trophic level, then how would spraying pesticide affect the humans? Explain.

Section-C

Question No. 27 to 33 are short answer questions

27 A. Anirudh took two metal oxides; aluminium oxide and magnesium oxide as shown in the pictures given below. But he forgot to label them. How will you guide/ help Anirudh to identify the oxides and label them?

3



B. In an activity Aishu was given two substances; Copper Sulphide (Cu_2S) and Copper Oxide (Cu_2O) to obtain copper from these compounds. She was able to extract Copper successfully. Illustrate with the help of chemical equations how Aishu might have completed the activity.

For visually impaired students

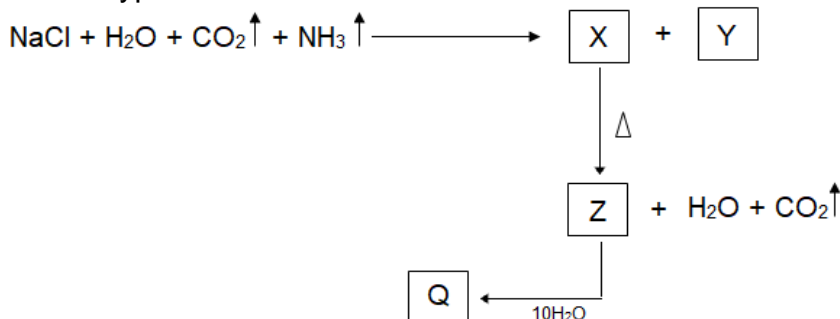
Give reasons for the following

- Certain metals are used for making cooking utensils.
- Hydrogen gas does not evolve when certain metals except Mg & Mn react with nitric acid.

28 Attempt either option A or B.

A.

- In the given series of reactions, name the compounds X and Z.
- Which type of reaction is X to Z?



- You are given 3 unknown solutions A, B, and C with pH values of 6, 8 and 9.5 respectively. In which solution will the maximum number of hydronium ions be present? Arrange the given samples in the increasing order of H^+ ion concentration.

OR

B. Comment on the following statements:

- Bee sting is treated with baking soda paste whereas wasp sting is treated with dilute vinegar.
- Farmers treat soil with quicklime when tilling.
- Ancient sculptures and marble structures are conserved by treating them with certain chemicals."

3

29 Water is used by the leaves of the plants for photosynthesis but rather than watering the leaves, we water the plant through the soil. How does this water reach the leaves of the plant?

3

30	<p>A. In a family of four individuals, the father possessed long ears and the mother possessed short ears. If the parents had pure dominant and recessive traits respectively, then calculate the ratio of genetic makeup of F₂ generation. Show a suitable cross. (2)</p> <p>B. If father had short ears and the mother had long ears, explain what effect it will have on the ratio of genetic makeup in F₂ generation. (1)</p>	3
31	<p>A. What is the fundamental difference between hypermetropia and myopia in terms of the optical experience of a person?</p> <p>B. The diagram below shows a special case of an eye defect.</p> <p>(i) What is the defect that is shown in the figure?</p> <p>(ii) State one cause for such a defect?</p> <p>(iii) Explain with reason if a concave lens can be used to correct the defect.</p> <div> </div> <p style="text-align: center;">-----</p> <p><i>For visually impaired students</i></p> <p>A. What is the fundamental difference between hypermetropia and myopia in terms of the optical experience of a person?</p> <p>B. What are the causes of myopia in the human eye?</p>	3
32	<p>A. State the relationship between the resistance R of a wire to its length l and cross sectional area A. Use the mathematical symbols to arrive at the final formula.</p> <p>B. Using the formula define the resistivity of a material.</p>	3
33	<div> </div> <p>Mona was doing an experiment with a magnetic compass and a straight current-carrying wire. She observed that as she moved the compass away from the current-carrying wire, the deflection of the compass needle reduced.</p> <p>A. Explain why the deflection of the compass needle reduced as Mona moved away the compass needle from the current carrying wire.</p> <p>B. Mention one thing that could have changed in the circuit of the wire that could increase the deflection of the needle.</p> <p>C. Explain with reason what will be the direction of the magnetic field associated with the wire for the case described by the above figure.</p>	3

Section-D

Question No. 34 to 36 are long answer questions.

34

Attempt either option A or B.

5

A.

- (i) "Keerthi thinks that Substitution reaction occurs in saturated Hydrocarbons, on the contrary Krishi thinks, it occurs in unsaturated Hydrocarbons." Justify with valid reasoning whose thinking is correct.
- (ii) "Methane and Propane and their Isomers are used as fuels" Comment. Draw the electron dot structure of the immediate lower homologue of Propane. Give any two characteristics of homologues of a given homologous series.
- (iii) A mixture of oxygen and ethyne is burnt for welding. Can you predict why a mixture of ethyne and air is not used?

OR

B.

- (i) 'A' & 'B' are sodium salts of long-chain carboxylic acid and long chain Sulphonic acid respectively. Which one of A or B will you prefer as a cleansing agent while using underground water (hand pump water)? Give the reason for your answer.
- (ii) Elaborate on the process of cleansing action. Illustrate micelle with the help of labelled diagram.
- (iii) Write the chemical equation of the preparation of soap from an ester $\text{CH}_3\text{COOCH}_3$. What is the name of this process?

35

Attempt either option A or B.

5

- A. The image below shows a banana plant which is growing with the help of suckers. These suckers are small plant stem outgrowths which can be separated from the main plant and planted separately and they will grow into a new plant subsequently.

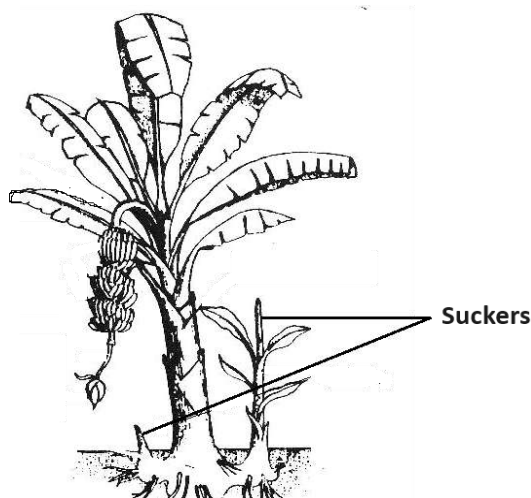


Fig.-1-Parts-of-Banana-plant-FAO-2021.png (623x609) (wp.com)

- (i) Give the name and type of reproduction that is shown in the image above. (1)

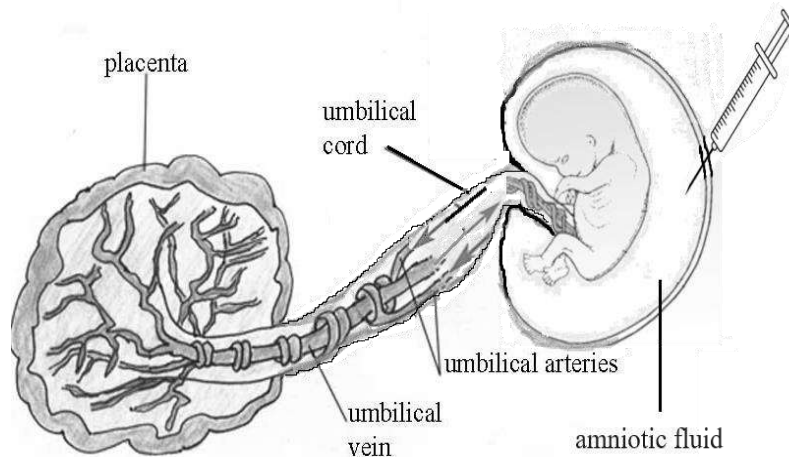
- (ii) List two advantages the farmer will have on using the type of reproduction mentioned above. (2)
- (iii) The above plant produces male flowers. Explain how this plant will be involved in the process of pollination. (1)
- (iv) Why is the offspring of this banana plant not absolutely identical to its parent plant? (1)

For visually impaired students

- A. A banana plant is growing with the help of suckers. These suckers are small plant stem outgrowths which can be separated from the main plant and planted separately and they will grow into a new plant subsequently.
- (i) Give the name and type of reproduction. (1)
 - (ii) List two advantages the farmer will have on using the type of reproduction mentioned above. (2)
 - (iii) The above plant produces only male flower. Explain how this plant will be involved in the process of pollination. (1)
 - (iv) Why is the offspring of this banana plant not absolutely identical to its parent plant? (1)

OR

- B. The image below shows a developing fetus in the mother's womb. The developing fetus is connected to the placenta by means of umbilical cord. The Umbilical vein and artery run inside the umbilical cord.



- (i) Name two substance that moves through the blood vessels. (1)
- (ii) If the placenta has less villi how will it affect the baby's growth? (1)
- (iii) Name the region where the embryo develops inside the female body. Explain how this region is adapted for nourishing the baby. (1)
- (iv) Some of the fetal cells fall off into the amniotic fluid and can be collected by careful procedure. The cells were screened and found to contain XY chromosome. (2)
 - a) What is the sex of the foetus?
 - b) How is this prenatal sex determination misused?

For visually impaired students

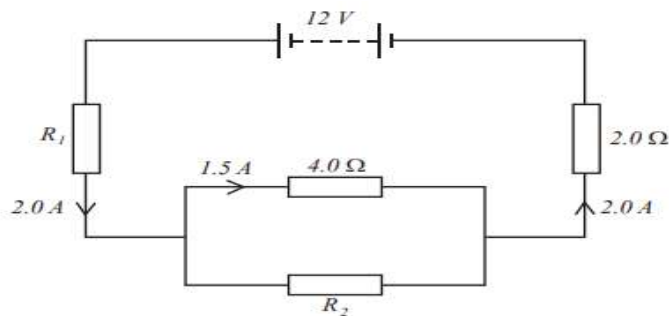
- B. A developing fetus is connected to the placenta by means of umbilical cord. The Umbilical vein and artery run inside the umbilical cord.

- (i) Name two substance that moves through the blood vessels. (1)
- (ii) If the placenta has less villi how will it affect the baby's growth? (1)
- (iii) Name the region where the embryo develops inside the female body. Explain how this region is adapted for nourishing the baby. (1)
- (iv) Some of the fetal cells fall off into the amniotic fluid and can be collected by careful procedure. The cells were screened and found to contain XY chromosome.
 - a) What is the sex of the foetus?
 - b) How is this prenatal sex determination misused? (2)

36 Attempt either option A or B.

5

A.

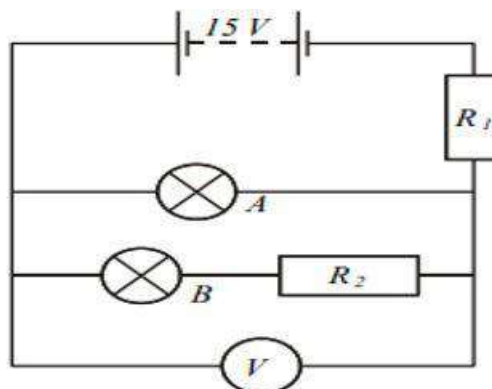


The above circuit is a part of an electrical device. Use the information given in the question to calculate the following.

- (i) Potential Difference across R_2 .
- (ii) Value of the resistance R_2 .
- (iii) Value of resistance R_1

OR

B.



As shown in the figure above A and B are two lamps. Lamp A is rated at 12 V, 24W. Lamp B is rated at 6.0 V. When lamp B operates at its rated voltage, the current in it is 3.0 A. The values of R_1 and R_2 are chosen so that both lamps operate at their rated voltages.

Based on the information given, answer the following.

- (i) Calculate the current in Lamp A.
- (ii) State and give reason for the reading of the Voltmeter.
- (iii) Calculate the resistance of R_2 .
- (iv) Find the value of the resistance R_1 .

For visually impaired students

- A.
- State the law and write the formula connecting the electric current flowing through a conductor and voltage applied across it.
 - In a household five fans each of 100W are used for 4 hours and an electric press of 500W for 2 hours every day. Calculate the cost of using tube-lights and electric press for 60 days if the cost of 1 unit of electrical energy is Rs. 6.5.

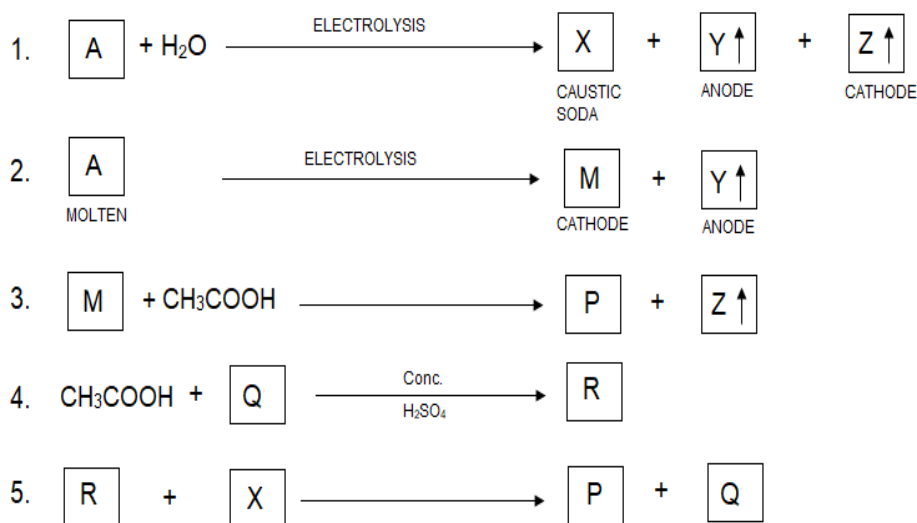
OR

- B.
- State Joules law of heating and write its mathematical expression.
 - Two resistors of resistances 2Ω and 4Ω are connected in
 - series
 - parallelwith a battery of given potential difference. Compute the ratio of total quantity of heat produced in the combination in the two cases if the total voltage and time are kept the same for both.

Section – E

Question No. 37 to 39 are case-based/data -based questions.

37



4

A. Derive the names of A, Y, Z, M, P & R

Attempt either subpart B or C.

B. Improvise an activity to test Z.

OR

C. Name the process in which compounds X, Y & Z are formed from A. Justify your response.

For visually impaired students

A. Distinguish between ethanol and ethanoic acid experimentally.

Attempt either subpart B or C.

B. Give the IUPAC name of the first member of Alkene which is formed by addition of conc. sulphuric acid to it. Illustrate the change with the help of a chemical equation.

OR

C. "All combustion reactions are oxidation but all oxidation reactions are not combustion." Justify.

38 Mohan and Rohit observed that shoots of a plant growing in shade bend towards the sunlight. Whereas, leaves of 'Touch me not' plant fold and droop soon after touching. They were curious to know how these movements occur in plants.

4



A. Shoots of a plant bending towards light



B. Folding of leaves Touch me not plant

In order to help them understand the movements in the plants, answer the following questions:

Attempt either subpart A or B.

A. What causes the bending of shoots in the plants as shown in figure A?

OR

B. What causes the folding of the leaves in 'Touch me not' plant as shown in figure B? (2)

C. Compare the movement of growth of the pollen tube towards ovule with the movements shown in part A of the above figure. (1)

D. Compare the movement shown in figure B with the movement of body parts in the animals. (1)

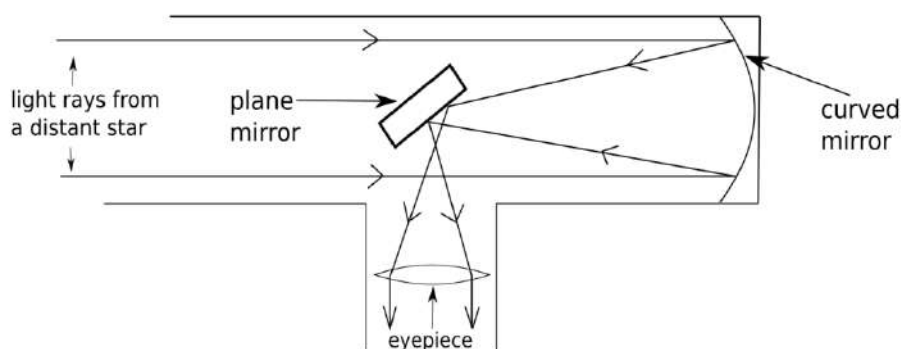
For visually impaired students

During a field trip, Mohan and Rohit observed that shoots of sunflower plants bend towards the sunlight. Whereas, leaves of 'Touch me not' plant begin to fold and droop soon after touching even during the day. They were curious to know how these movements occur in plants.

Attempt either subpart A or B.

- A. What causes the bending of shoots in the sunflower plants towards sunlight?
OR
- B. What causes the folding of the leaves in 'Touch me not' plants when touched by hand? (2)
- C. Compare the movement of growth of the pollen tube towards ovule with the bending of shoots of sunflower plant towards sunlight. (1)
- D. Compare the movement in folding of leaves of 'Touch me not' plants with the movement of body parts in the animals. (1)

39



4

The above image is that of a reflecting telescope. Reflecting telescopes revolutionised our ways of looking into the sky. They employ mirrors to gather and focus light, rather than relying solely on lenses as in their refracting counterparts. These telescopes utilise precisely shaped and polished mirrors to capture incoming light and reflect it to a focal point, where it forms an image for observation.

- A. What kind of image of the star is seen by the observer at the eyepiece?
B. What kind of mirror is used in this reflecting telescope?

Attempt either subpart C or D.

- C. Explain with reason what kind of optical device (type of lens or mirror) that is used at the eyepiece.

OR

- D. What is the role of the plane mirror in the telescope?

For visually impaired students

Azim Taraporewala was a traveller and science enthusiast. During one of his

travels he found himself on the edge of an island without any mode of communication. As he had read in many stories, he thought he would light a fire on the beach and travelling boats or ships could see that fire and come to give him a ride. He had run out of lighters and match-sticks but had a reading glass. Being a science enthusiast he knew some tricks and used that lens and a scrap of paper to light a fire, with the help of scorching rays from the sun.

- A. Which lens can be used by Azim to create the fire?
- B. What property of the lens helps Azim to create the fire?

Attempt either subpart C or D.

- C. List two more uses of this kind of lens.

OR

- D. Explain with reason the condition under which the lens can form both real as well as virtual images.
