



परमाणु ऊर्जा शिक्षण संस्था
Atomic Energy Education Society
आवधिक परीक्षा / Periodic Test II (2024-25)

कक्षा/ Class :X

अवधि/Duration :3 घंटे/Hours

विषय/Subject :English

अधिकतम अंक/Maximum Marks :80

सामान्य निर्देश / General Instructions:

Details and instructions :

1. 15-minute prior reading time allotted for Q-paper reading.
2. The Question Paper contains FOUR sections-READING SKILLS, WRITING SKILLS, GRAMMAR and LITERATURE TEXTBOOK.
3. Attempt questions based on specific instructions for each part.

SECTION A: READING SKILLS (22 Marks)

I. Read the following passage

- A. Can you imagine a college without walls, professors or classrooms? Educator Bunker Roy can. More than 40 years ago, Roy, now 79, founded the Barefoot College in Tilonia, Rajasthan. His school admits rural women, often grandmothers and teaches them the basics of solar engineering and freshwater technology. His efforts have yielded enormous benefits. When the women return to their homes, they are trained enough to provide their communities, some of the world's most lonely places, with electricity and clean water. They also gain something important: a newfound self-confidence.
- B. The Barefoot model has already been used to empower women throughout Asia, Africa, and Latin America. Former President, Bill Clinton presented Roy with a Clinton Global Citizen Award, which honours leaders who are solving the world's problems in effective ways. If you go all over the world, to very remote villages, you will often find only very old people and very young people. The men have already left. So two ideas were put into practice in order to make the Barefoot Model work.

- iv. W
- 4.
- C. First it was declared that men are untrainable, restless, always ready to move, ambitious, and they all want a certificate to show for their efforts. And the moment you give one of them a certificate, he leaves the village looking for a job in the city. That is how, the simple, practical solution of training grandmothers came up. They are sympathetic, tolerant, willing to learn, and patient. All the qualities you need are there. And the second idea was not to give out certificates. Because the moment a certificate is given, a woman, like a man, will see it as a passport for leaving rural areas and going to urban areas to find a job.
- D. Barefoot College follows the lifestyle of Mahatma Gandhi: Students eat, sleep, and work on the floor. They can work for 20 years or they can go home the next day. As of today, 604 women solar engineers from 1083 villages in 63 countries have been trained. The engineers have given solar power to 45,000 houses. These were done by women who had never left their homes before. They hate the idea of leaving their families and getting on a plane. When they reach India, sometimes after 19 hours of travel, they are faced with strange food, strange people, and a strange language. All the training is done in sign language.
- E. Yet in six months, they will know more about solar engineering than most university graduates. Some women face problems at home for attending college. Most of the husbands do not like their wives going to these colleges and tell them not to come back if they do so. But, on her return when she is able to help provide her village with solar electricity, her husband wants her to get back home. The respect she now has is enormous and she considers herself no less than solar engineers. Bunker Roy dreams of providing the world's 47 least-developed countries with Barefoot College-trained grandmothers and also to solar-electrify more than 1,00,000 houses.

Answer the following questions, based on the passage above.

- i. Why did the promoter of Barefoot Model decide to train grandmothers? (1)
- (a) Men do not want to be trained.
- (b) Grandmothers were patient, willing to learn and tolerant.
- (c) Men are lazy, want to make money.
- (d) Men and women are not skilled.
- ii. How is Barefoot College different from other colleges? Whom do they admit in the college? (2)
- iii. What did the women gain from the college apart from technology? (1)

- iv. What are the difficulties the women have to face during their travel and their life in Tilonia, Rajasthan? (2)
- v. Find a word from the passage which means the same as the following: (1)
(i) *many/great in size* (para A)
- vi. Find a word from the passage which is an antonym of 'enslave/subjugate' (para B) (1)
- vii. The attitude of the husbands to their wives on their return from training is different because (1)
(i) of the respect they gain from the villagers
(ii) they were away for a long time
(iii) they will again be looked after
(iv) they will not go back
- viii. What is the narrator's dream about solar electrification? (1)
- ix. How do the women consider themselves professionally, after their training? (1)
- x. **Assertion:** The Barefoot College model effectively empowers rural women by training them in solar engineering and freshwater technology, which has led to significant improvements in their communities. (1)
Reasoning: The Barefoot College trains grandmothers instead of younger men because grandmothers are more likely to remain in their villages and use their skills locally, avoiding the common problem of trained men leaving for city jobs.
- Choose the correct option:**
- A. Both Assertion and Reasoning are true, and the Reasoning is the correct explanation for the Assertion.
B. Both Assertion and Reasoning are true, but the Reasoning is not the correct explanation for the Assertion.
C. The Assertion is true, but the Reasoning is false.
D. The Assertion is false, but the Reasoning is true.

2. Read the following passage and answer the questions that follow.

- A. Reduction in green areas has caused various environmental problems. People squeezed between concrete structures are looking for various ways to meet their longing for green. One of the ways to do so is through vertical gardens and green walls. Vertical gardening is a unique method of gardening where plants are grown in a vertical position or upward,

- rather than in the traditional method of planting them on the ground.
- B. The purpose of vertical gardens and green walls, which arises from the studies of different disciplines (landscape architects, architects, engineers, etc.), is to close the cold image of concrete and increase its visual value. In these systems, nature and structures are integrated, and thus, urban areas and the desired environment have become intertwined.
- C. Vertical garden case studies often show that, though functionality should be in the foreground, when vertical gardens are planned, they are generally made as aesthetic elements in the city's underpasses and city squares, and decorative elements in residences, without seeking functionality.
- D. Experts support that the visual quality and evaluation of landscape architecture is determined based on the satisfaction of the users. Hence, a survey questionnaire was prepared for residents of varied age groups from of a metropolitan city. The given Table 1, displays these responses:

Table 1- Total number of participants :400

No.	Survey Statements	Strongly agree	Agree	Neutral	Disagree	Strongly Disagree
1	Improve quality of life of people in urban areas	191	138	43	9	19
2	Reduce noise pollution	128	164	77	25	6
3	Increase air quality indoors and outdoors	172	147	51	28	2
4	Reduce energy and water consumption	58	47	125	68	2
5	Positively impact global warming	114	144	106	30	6
6	Have a calming and relaxing effect	161	177	44	7	11
7	Cost too much	86	107	152	42	13
8	Make plants look beautiful	195	139	44	6	16
9	Add naturals to the environs	135	173	55	25	12

10	Determining factor to visit a place	59	133	141	54	13
11	Are inconvenient indoors	9	84	123	126	48
12	Can be applied in any place	71	132	97	77	23
13	Have a functional feature	81	207	100	10	2
14	Distract drivers	34	101	106	131	28
15	Funds are best used for social issues	57	72	100	130	41

Answer the following questions, based on the table above.

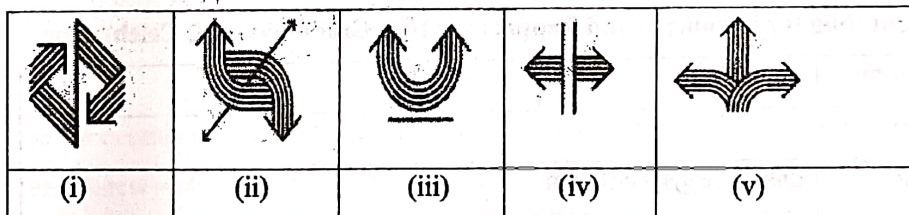
- i. Complete the following analogy appropriately, based on your understanding of paragraphs 1 & 2. (1)

We can say that the situation of people living in concrete structures is comparable with a fish living in a fishbowl, and the need for vertical gardens to the need for decorations in the fishbowl because_____.

- ii. Justify the following, in about 40 words. (1)

While the survey results suggest that vertical gardens may be effective in improving the quality of life in urban areas, further research and evaluation may be necessary to fully understand their effectiveness and potential drawbacks.

- iii. Select the option that correctly displays what 'intertwined' signifies. (reference – para2) (1)



1. (i), (iv) and (v)
 2. Only (ii)
 3. Only (iii)
 4. (ii) and (v)
- iv. Fill in the blanks with the appropriate option from those given in brackets, based on your understanding of para 2. (2)

The statement that urban spaces have become more closely connected with the desired natural surroundings through the incorporation of nature and structures in vertical gardens and green walls is a _____ (fact/ opinion) because it is a _____ (subjective judgement/ objective detail).

- v. Which of the following is the main takeaway from the study mentioned in the passage? (1)
- A. Vertical gardening has minimal impact on the environment or human well-being.
 - B. Vertical gardening is a sustainable practice that can transform urban spaces into green areas.
 - C. The impact of vertical gardening on the environment and human well-being has already been thoroughly explored.
- The study needs to include experts from horticultural firms to offer any recommendations for further research. (1)
- vi. Based on the survey results, which concern should a city government, looking to install vertical gardens, address?(any one concern) (2)
- vii. Infer one benefit and one drawback of vertical gardening in comparison to other solutions, such as community gardens or parks. (40 words) (2)
- viii. The antonym of the word 'agrarian or rural' is(para D) (1)

SECTION B: WRITING SKILLS (22 Marks)

3. Write an e-mail to the principal of your school, seeking permission and requesting for Resources and Support for 10th Grade Farewell Celebration. (3)

From:	
To:	
Cc:	dpsoffice@school.com
Date :	Sept 13, 2024, 07:03 PM
Subject:	

4. Write a brief description of your best friend in minimum 100 words using the following hints. (4)

Daniel Samson – belongs to a noble family – father Professor – mother Principal – well behaved – respectful – ready to help – intelligent – an orator – trustworthy – popular – among class fellows – feel pride – associated with him.

- You are the Librarian at Devi charitable school, Lucknow. Place an order of (7)
- 5a. school books and other story books for the school library with Chitrakoot book shop, Mall road, Lucknow. (word limit -120 words).

OR

- 5b. You are Rajat, Rani, a student of Class XII and wants to pursue a course in Mass Communication. Write a letter in 120-150 words to the Dean, Institute of Mass Communication, University of Delhi, seeking information about the course admission procedure, eligibility criteria, fee structure, hostel facilities, placement opportunities, etc.
- 6a. High-tech devices in modern society has revolutionized communication and productivity. However, the potential negative effects, such as health concerns and environmental impacts are alarming. (8)

Using your own ideas and those taken from the unit "Science", write an article in 180 words, describing both the benefits and harms of using these high-tech devices. Conclude with suggestions on how to mitigate these harms and promote the responsible use of technology.

OR

- 6b. On the occasion of World Health Day, write an article in about 150 words for the school news-letter on the topic, 'Importance of Physical Health in Our Lives', using the clues given below.

Hints:

- Healthy mind lives in a healthy body.
- Lack of time for physical activity because of the demands of modern lives.
- Ignoring the health increases the risk of many diseases.
- Discipline is the key to resolving these concerns.

SECTION C : GRAMMAR (10 Marks)

7. Complete the tasks A-C, as directed.

A. Fill the blanks (i) - (iii) with the appropriate option from those in the brackets. (3)

Two friends were walking (a) _____ (through/ from / by) a desert. During some point of the journey they had an argument, one friend slapped the (b) _____ (another / other / neither) one on the face. The one who got slapped (c) _____ (were / is / was) hurt, but without saying any thing wrote in the sand.

B. In the following passage one word has been omitted in each line .Write the (4)
missing word, in any four sentences of the given paragraph, along with the word that comes before and the word that comes after it in the space provided .

No.	Text	Before	Missing word	After
(i)	Himachal Pradesh a good place for Eco Camp.			
(ii)	Pine Hill Eco Camp is one of ecotourism resorts			
(iii)	near Barog Himachal Pradesh. Ecotourism is			
(iv)	gaining popularity each passing day as more			
(v)	and more people want to get away from the hectic schedules.			

C. Do as directed.

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

The use of renewable energy sources can significantly reduce our carbon footprint. I agree. What are some examples of renewable energy sources?"

SOLAR ENERGY / WIND ENERGY / AND / HYDROPOWER /
EXAMPLES / ARE / OF / RENEWABLE ENERGY SOURCES.

(ii) Report the following dialogue to complete the paragraph: (1+1)

Manager: "We need to discuss the new project requirements in detail."

Employee: "When should we schedule this meeting?"

Manager: "We can meet tomorrow afternoon."

Complete the paragraph by reporting the dialogue:

The manager stated that they (a) _____. The employee inquired when they should schedule that meeting. The manager replied that (b). _____ the following afternoon.

SECTION D: LITERATURE TEXTBOOK (26 Marks)

8. Read the given excerpts and answer the questions briefly, for ANY TWO (4+4) excerpts, of the three, given.

A. *Neither stones nor prayers nor sticks,*

Insults or complaints or bricks

Stilled the frog's determination

To display his heart's elation. (The Frog and the Nightingale)

- i. At whom the stones were thrown? (1)
- ii. The frog is determined to _____ (1)
- iii. Which figure of speech is used in Line 1? (1)
- iv. What is the rhyme scheme of the above extract? (1)

B. *VICTORIA: (after a moment's thought.): Are we pinching it before Aunt Elizabeth comes?*

HENRY: (shocked) No, my child. Grandpa gave it to your mother before he died.

VICTORIA: This morning?

HENRY: Yes.

- i. What does 'it' refer to here? (1)
- ii. How does Vicky get to the conclusion that her parents are 'pinching it'? (1)
- iii. What does it say about the disparity between Vicky's attitude and that of the elders? (1)

iv. The phrase 'pinching in' here means _____ (1)

C. The two boys were seated at the bedside of a girl of about 20, who propped up on pillows wearing a pretty lace jacket, was listening to their chatter, her eyes soft and tender.

- i. Who are the two boys referred to here? (1)
- ii. Where are the boys at present? (1)
- iii. Who is the girl? (1)
- iv. Why was she propped up on the pillows? (1)

9. Answer ANY FIVE of the following six questions in about 30- 40 words each
- Who was Ozymandias? What do the words written on the pedestal reflect about Ozymandias? (2)
 - What does the writer wish to convey via the use of the metaphor for a false friend in the given line from The Letter?
...the cold used sleep to extend its sway over all things even as a false friend lulls his chosen victim with caressing smiles. (2)
 - What does Mrs Jordan describe as a fatal mistake? What is the irony in the comment she makes on Mrs Slater's defence? (2)
 - Why did Mrs. Packletide decide to give a party in honour of Loona Bimberton? What did she plan to present Loona on her birthday? (2)
 - How will the poet's friend and patron find a permanent place in the hearts of coming generations and lovers? (Not Marble Nor the Gilded Monuments) (2)
 - Whom did the mariners blame for such an omen condition? How did they punish him? (2)
10. Answer ANY ONE of the following two questions in about 150 words. (8)
- A. In both "The Dear Departed" by Stanley Houghton and Vikram Seth's poem "The Frog and the Nightingale," the themes of manipulation and exploitation are central. Compare and contrast how manipulation is depicted in both works.

OR

- B. "Only the wearer knows where the shoe pinches". Elucidate the statement with reference to the story The Letter.



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Atomic Energy Education Society
आवधिक परीक्षा / Periodic Test-II (2024 - 25)

कक्षा / Class : 10

अवधि / Duration : 3 घंटे

विषय / Subject- हिंदी (द्वितीय भाषा)

अधिकतम अंक / Max. Marks : 80

सामान्य निर्देश / General Instructions:

1. इस प्रश्नपत्र में चार खण्ड हैं -खण्ड 'क', 'ख', 'ग' और 'घ'।
2. प्रश्नपत्र के चारों खण्डों में कुल प्रश्नों की संख्या 15 है और सभी प्रश्न अनिवार्य हैं।
3. यथासंभव सभी प्रश्नों के उत्तर क्रमानुसार दीजिए।

खंड-क (अपठित बोध)

(प्रश्न -1) निम्नलिखित गद्यांश को पढ़कर नीचे दिए गए प्रश्नों के उत्तर लिखिए-

कबीर ने समाज में रहकर समाज का बड़े समीप से निरीक्षण किया। समाज में फैले बाह्याडंबर, भेदभाव, साम्प्रदायिकता आदि का उन्होंने पुष्ट-प्रमाण लेकर ऐसा दृढ़ विरोध किया कि किसी की हिम्मत नहीं हुई जो उनके अकाट्य तर्कों को काट सके। कबीर का व्यक्तित्व इतना ऊँचा था कि उनके सामने टिक सकने की हिम्मत किसी में नहीं थी। इस प्रकार उन्होंने समाज तथा धर्म की बुराइयों को निकाल-निकालकर सबके सामने रखा। ऊँचा नाम रखकर संसार को ठगने वालों के नकली चेहरे सबको दिखाए। दीन-दलितों को ऊपर उठाने का उपदेश देकर, अपने व्यक्तित्व को सुधार कर सबके सामने एक महान आदर्श प्रस्तुत कर सिद्धांतों का निरूपण किया। कर्म, सेवा, अहिंसा तथा निर्गुण मार्ग का प्रसार किया। कर्म-काण्ड तथा मूर्तिपूजा का विरोध किया। अपनी साखियों, रमैणियों तथा सबदों को बोलचाल की भाषा में रचकर सबके सामने एक विशाल ज्ञानमार्ग खोला। इस प्रकार कबीर ने समन्वयवादी दृष्टिकोण अपनाया और कथनी-करनी की एकता पर बल दिया। वे महान युगदृष्टा, समाज-सुधारक तथा महान कवि थे। उन्होंने हिन्दू-मुस्लिम के बीच समन्वय की धारा प्रवाहित कर दोनों को ही शीलता प्रदान की।

(अ) गद्यांश पर आधारित नीचे लिखे बहुविकल्पी प्रश्नों के उत्तर लिखिए। (1×3=3)

1. कबीर किस भक्ति-मार्ग का प्रसार करते थे?

(क) सगुण (ख) निर्गुण (ग) सगुण व निर्गुण (घ) इनमें कोई नहीं

2. कबीर ने हिन्दू-मुस्लिम के मध्य कौन सा दृष्टिकोण अपनाया?
(क) समाजवादी (ख) धार्मिक (ग) समन्वयवादी (घ) ऐतिहासिक

3. कर्म, सेवा, अहिंसा एवं निर्गुण मार्ग के पक्षधर इनमें से कौन थे?
(क) तुलसीदास (ख) कबीरदास (ग) सूरदास (घ) मीराबाई

(ब) गद्यांश पर आधारित नीचे लिखे प्रश्नों के उत्तर लिखिए। (2×2=4)

1. कबीर ने समाज में रहकर किसका दृढ़ विरोध किया?

2. कबीर कौन थे?

(प्रश्न-2.) नीचे दिये गए पद्यांश को ध्यानपूर्वक पढ़कर उस पर आधारित प्रश्नों के उत्तर दीजिए।

हे ग्राम देवता ! नमस्कार !

सोने-चाँदी से नहीं किंतु

तुमने मिट्टी से किया प्यार ।

हे ग्राम देवता ! नमस्कार !

जन-कोलाहल से दूर कहीं

एकाकी सिमटा-सा निवास,

रवि-शशि का उतना नहीं कि

जितना प्राणों का होता प्रकाश ।

श्रम-वैभव के बल पर करते हो,

जड़ में चेतन का विकास,

दानों-दानों में फूट रहे,

सौ-सौ दानों के हरे हास ।

यह है न पसीने की धारा,

यह गंगा की है धवल धार ।

हे ग्राम देवता ! नमस्कार !

अधखुले अंग जिनमें केवल है

करो हुए कुछ अस्थि-खंड
जिनमें दधीचि की हड्डी है,
यह वज्र इंद्र का है प्रचंड !
जो है गतिशील सभी ऋतु में
गर्मी, वर्षा हो या कि ठंड ।
जग को देते हो पुरस्कार,
देकर अपने को कठिन दंड ।
झोंपड़ी झुकाकर तुम अपनी,
ऊँचे करते हो राज-द्वार !
हे ग्राम देवता । नमस्कार !

(i) किसान को कवि ने 'देवता' क्यों कहा है? (1)

- (क) गर्मी-सर्दी सभी ऋतुओं में कठोर परिश्रम करने के कारण।
- (ख) ऊँचे-ऊँचे राज-प्रासादों में रहने वालों का पेट भरने के कारण।
- (ग) सोने-चाँदी के स्थान पर मिट्टी से प्रेम करने के कारण।
- (घ) अपने श्रमबल से अन्न उपजा कर संसार का पेट भरने के कारण।

(ii) किसान के परिश्रम का परिणाम है- (1)

- (क) गंगा की धारा का धवल होना
- (ख) खेतों में चहल-पहल होना
- (ग) ऊसर भूमि का हरे-भरे खेतों में बदलना।
- (घ) पसीने का वर्षा में बदलना

(iii) 'किसान स्वयं छोटे-से घर में संतुष्ट रहता है' यह भाव किन पंक्तियों में आया है? (1)

- (क) सोने-चाँदी से नहीं किंतु
तुमने मिट्टी से किया प्यार।

(प्रश्न-5) निम्नलिखित वाक्यों में से किन्हीं चार रेखांकित पदों का पद-परिचय दीजिए -

(1x4=4)

- (1) सीरा पाँचवी कक्षा में पढ़ती है।
- (2) हम बाग में गए किन्तु वहाँ कोई आम नहीं मिला।
- (3) रंग-बिरंगे फूल देखकर मन प्रसन्न हो गया।
- (4) घोड़ा तेज दौड़ रहा है।
- (5) 'बच्चे' मैदान में खेल रहे थे।

(प्रश्न-6) निर्देशानुसार अलंकार पर आधारित किन्हीं चार प्रश्नों के उत्तर दीजिए। (1x4=4)

- (i) 'पीपर-पात सरिस मन डोला' में कौन-सा अलंकार है?
- (ii) 'मानो माई घनघन अंतर दामिनी' में कौन-सा अलंकार है?
- (iii) 'प्रातः जगावत गुलाब चटकारी दै' में कौन-सा अलंकार है?
- (iv) उपमा अलंकार के कितने अंग हैं?
- (v) 'पानी परात को हाथ छुयो नहीं, नैनन के जल से पग धोए' में कौन-सा अलंकार है?

खंड-ग (पाठ्यपुस्तक एवं पूरक पाठ्यपुस्तक)

(प्रश्न-7) निम्नलिखित पठित गद्यांश पर आधारित बहुविकल्पी प्रश्नों के सर्वाधिक उपयुक्त विकल्प लिखिए -

(1 x 5 =5)

कार्तिक आया नहीं कि बालगोबिन भगत की प्रभातियाँ शुरू हुईं, जो फाल्गुन तक चला करतीं [इन दिनों वह सवेरे ही उठते] न जाने किस वक्त जगकर वह नदी-स्नान को जाते, गाँव से दो मील दूर। वहाँ से नहा-धोकर लौटते और गाँव के बाहर ही पोखरे के ऊँचे भिंडे पर अपनी खंजड़ी लेकर बैठ जाते और अपने गाने टेरने लगते। मैं शुरू से ही देर तक सोनेवाला हूँ किन्तु, एक दिन माघ की उस दाँत किटकिटानेवाली भोर में भी उनका संगीत मुझे पोखरे पर ले गया था। अभी आसमान के तारों के दीपक बुझे नहीं थे। हाँ पूरब में लोही लग गई थी जिसकी लालिमा को शुक्र तारा और बढ़ा रहा था। खेत, बगीचा, घर सब पर कुहासा छा रहा था। सारा वातावरण अजीब रहस्य से आवृत मालूम पड़ता था। उस रहस्यमय वातावरण में एक कुश की चटाई पर पूरब मुँह, काली कमली ओढ़े, बालगोबिन भगत अपनी खंजड़ी लिए बैठे थे। उनके मुँह से शब्दों का ताँता लगा था, उनकी अंगुलियाँ खंजड़ी पर लगातार चल रही थीं।

(i) प्रभातियाँ किस समय गाया जाने वाला गीत है ?

(क) भोर

(ख) मध्याह्न

(ग) संध्या

(घ) अपराह्न

(ii) 'उनके मुँह से शब्दों का तौता लगा था का आशय है :

(क) वह एक के बाद एक गीत गाए जा रहे थे। (ख) वह लगातार प्रवचन दिए जा रहे थे।

(ग) वह लोगो को आशीर्वचन दे रहे थे। (घ) वह किसी से लगातार बातें किए जा रहे थे।

(iii) गद्यांश में किस ऋतु का उल्लेख है ?

(क) वसंत ऋतु

(ख) शीत ऋतु

(ग) ग्रीष्म ऋतु

(घ) वर्षा ऋतु

(iv) बालगोबिन की प्रभातियाँ कब तक चला करती थीं ?

(क) फाल्गुन से कार्तिक तक

(ख) कार्तिक से फाल्गुन तक

(ग) फाल्गुन से आषाढ़ तक

(घ) कार्तिक से चैत्र तक

(v) भगत गाँव के बाहर पोखरे के ऊँचे भिंडे पर क्यों गाया करते थे ?

(क) शांत और प्राकृतिक वातावरण के कारण। (ख) ताकि गाँववाले को परेशानी न हो।

(ग) गाँव में अधिक शोर की मनाही थी। (घ) ताकि वे गाँववालों पर नज़र रख सकें।

(प्रश्न-8) गद्य पाठों के आधार पर निम्नलिखित चार प्रश्नों में से किन्हीं तीन प्रश्नों के उत्तर लगभग 25 से 30 शब्दों में लिखिए - (2x3=6)

i) सेनानी न होते हुए भी चश्मेवाले को लोग कैप्टन क्यों कहते थे?

ii) वो लँगड़ा क्या जाएगा फ़ौज में। पागल है पागल!"

कैप्टन के प्रति पानवाले की इस टिप्पणी पर अपनी प्रतिक्रिया लिखिए।

iii) पाठ के आधार पर बालगोबिन भगत के गायन की विशेषताएँ लिखिए।

iv) लेखक को नवाब साहब के किन हाव-भावों से महसूस हुआ कि वे उनसे बातचीत करने के लिए तनिक भी उत्सुक नहीं हैं?

(प्रश्न-9) निम्नलिखित पठित पद्यांश पर आधारित बहुविकल्पी प्रश्नों के उपयुक्त उत्तर लिखिए- (1X5=5)

बिहसि लखनु बोले मृदु बानी। अहो मुनीसु महा भटमानी॥
पुनि पुनि मोहि देखाव कुठारु। चहत उड़ावन फूँकि पहारु॥
इहाँ कुम्हड़बतिया कोउ नाहीं। जे तरजनी देखि मरि जाहीं॥
देखि कुठारु सरासन बाना। मैं कछु कहा सहित अभिमाना॥
भृगुसुत समुझि जनेउ बिलोकी। जो कछु कहहु सहउँ रिस रोकी॥
सुर महिसुर हरिजन अरु गाई। हमरें कुल इन्ह पर न सुराई॥
बधैं पापु अपकीरति हारैं। मारतहूँ पा परिअ तुम्हारैं॥
कोटि कुलिस सम बचनु तुम्हारा। व्यर्थ धरहु धनु बान कुठारा॥
जो बिलोकि अनुचित कहेउँ छमहु महामुनि धीर।
सुनि सरोष भृगुबंसमनि बोले गिरा गंभीर॥

(I) निम्नलिखित पंक्तियों में से किस पंक्ति से लक्ष्मण के शक्तिशाली होने का पता चलता है:

(क) बिहसि लखनु बोले मृदु बानी। अहो मुनीसु महाभट मानी॥

(ख) पुनि पुनि मोहि देखाव कुठारु। चहत उड़ावन फूँकि पहारु॥

(ग) देखि कुठारु सरासन बाना। मैं कछु कहा सहित अभिमाना॥

(घ) इहाँ कुम्हड़बतिया कोउ नाहीं। जे तरजनी देखि मरि जाहीं ॥

(II) लक्ष्मण ने परशुराम के किस स्वभाव पर व्यंग्य किया है?

(क) चाटुकारिता

(ख) आलसीपन

(ग) मधुरता

(घ) बड़बोलापन

(III) 'बिहसि लखनु बोले मृदु बानी। अहो मुनीसु महाभट मानी' यह कथन किसका उदाहरण है -

(क) व्यंग्य

(ख) हास्य

(ग) क्रोध

(घ) वैराग्य

(iv) लक्ष्मण का यह कथन 'एक फूँक से पहाड़ उड़ाना' परशुराम के किस गुण को दर्शाता है?

(क) योद्धा

(ख) कायर

(ग) आलसी

(घ) मूर्खता

(v) रघुकुल में किन-किन के प्रति अपनी वीरता का प्रदर्शन नहीं किया जाता है?

- (क) देवता, ब्राह्मण, ईश्वर भक्त और गाय पर
- (ख) स्त्रियों, बच्चों, ईश्वर भक्त और गाय पर
- (ग) देवता, राजा, वीर योद्धा और स्त्रियों पर
- (घ) स्त्रियों, बच्चों, राजा और गाय पर

(प्रश्न-10) पद्य पाठों के आधार पर निम्नलिखित चार प्रश्नों में से किन्हीं तीन प्रश्नों के उत्तर दीजिए। (2 x 3 = 6)

1. गोपियों द्वारा उद्धव को भाग्यवान कहने में क्या व्यंग्य निहित है?
2. मरजादा न लही' के माध्यम से कौनसी मर्यादा न रहने की बात की जा रही है-?
3. परशुराम के क्रोध करने पर राम और लक्ष्मण की जो प्रतिक्रियाएँ हुईं उनके आधार पर दोनों के स्वभाव की विशेषताएँ अपने शब्दों में लिखिए।
4. साहस और शक्ति के साथ विनम्रता हो तो बेहतर है। इस कथन पर अपने विचार लिखिए।

(प्रश्न-11) पूरक पाठ्यपुस्तक पर आधारित निम्नलिखित तीन प्रश्नों में से किन्हीं दो प्रश्नों के उत्तर दीजिए। (4 x 2 = 8)

1. भोलानाथ और उसके साथियों के खेल और खेलने की सामग्री आपके खेल और खेलने की सामग्री से किस प्रकार भिन्न है?
2. गंतोक को 'मेहनतकश बादशाहों का शहर' क्यों कहा गया?
3. 'कटाओ' पर किसी भी दुकान का न होना उसके लिए वरदान है। इस कथन के पक्ष में अपनी राय व्यक्त कीजिए?

खंड-घ (रचनात्मक लेखन)

(प्रश्न-12) निम्नलिखित तीन विषयों में से किसी एक विषय पर लगभग 120 शब्दों में सार गभित अनुच्छेद लिखिए।

(6)

1) बच्चों की शिक्षा में माता-पिता की भूमिका

- शिक्षा और माता-पिता
- शिक्षा की महत्ता
- उत्तरदायित्व
- शिक्षाविहीन नर पशु समान।

2) विज्ञान की अद्भुत खोज: मोबाइल फ़ोन

- विज्ञान की अद्भुत खोज
- फ़ोनों की बदलती दुनिया में
- संचार क्षेत्र में क्रांति
- स्ता और सुलभ साधन
- लाभ और हानियाँ।

3) मानव जीवन पर विज्ञापनों का असर

- विज्ञापन का अर्थ एवं प्रचार-प्रसार
- विज्ञापनों की लुभावनी भाषा
- विज्ञापन का प्रभाव
- विज्ञापन के लाभ-हानि।

(प्रश्न-13) किसी एक विषय पर लगभग 100 शब्दों में औपचारिक /अनौपचारिक पत्र लिखिए: (5)

(ख) जिला स्तर पर आयोजित विज्ञान प्रदर्शनी में आपके द्वारा तैयार मॉडल को प्रथम पुरस्कार प्राप्त हुआ। अपने मित्र को इसकी जानकारी देते हुए और अपनी खुशी साझा करते हुए लगभग 100 शब्दों में एक पत्र लिखिए।

अथवा

आप नमित नमिता हैं। जिला अस्पताल में उचित चिकित्सा सुविधाएँ उपलब्ध कराने का अनुरोध करते हुए अपने जिले के मुख्य चिकित्सा अधिकारी को एक पत्र लिखिए।

(प्रश्न-14) (क) आप अनन्य/अनन्या हैं। दवाइयों की कंपनी में लेखापाल (अकाउन्टेंट) का पद रिक्त है। आप उक्त पद की योग्यता बी. कॉम (ऑनर्स) धारण करते हैं। निदेशक को आवेदन भेजने के लिए लगभग 80 शब्दों में स्ववृत्त लिखिए। (5)

अथवा

आप ग्रीन वेल अपार्टमेंट, मुंबई में रहते हैं। आपके इलाके में एक सीवर का पाइप टूट गया है जिसके कारण नाले का गंदा पानी सड़क पर आ गया है और ज्यादा गंदगी फैल रही है। नगर निगम अधिकारी को abc@efg.com पर ई-मेल लिखकर-सीवर की मरम्मत करवाने का अनुरोध कीजिए।

(प्रश्न-15) (क) आप स्पेंडर/रूपा हैं। आप अपनी पुरानी साइकिल बेचना चाहते हैं। उससे संबंधित जानकारी देते हुए एक आकर्षक विज्ञापन लगभग 40 शब्दों में तैयार कीजिए। (4)

अथवा

(ख) आप शिक्षा/विदित हैं। अपनी मित्र स्नेहा को बैडमिंटन के लिए राष्ट्रीय स्तर पर चयनित होने के लिए लगभग 40 शब्दों में एक बधाई-संदेश लिखिए।



परमाणु ऊर्जा शिक्षण संस्था
Atomic Energy Education Society
आवधिक परीक्षा / Periodic Test-II (2024 – 25)

कक्षा / Class : X

अवधि/Duration : 3 HOURS

विषय / Subject : Mathematics

अधिकतमअंक/Maximum Marks: 80

सामान्य निर्देश/General Instructions:

1. This Question Paper has 5 Sections A-E.
2. Section A has 20 MCQs carrying 1 mark each.
3. Section B has 5 questions carrying 2 marks each.
4. Section C has 6 questions carrying 3 marks each.
5. Section D has 4 questions carrying 5 marks each.
6. Section E has 3 case based integrated units of assessment (04 marks each) with sub-parts of the values of 1, 1 and 2 marks each respectively.
7. All Questions are compulsory. However, an internal choice in 2 Qs of 5 marks, 2 Qs of 3 marks and 2 questions of 2 marks has been provided. An internal choice has also been provided in the 2marks questions of Section E.
8. Draw neat figures wherever required. Take $\pi = 22/7$ wherever required, if not stated.

SECTION A (1X20)

- 1 The exponent of 2 in the prime factorisation of 144, is [1]
a) 4 b) 2 c) 6 d) 1
- 2 If the HCF of 65 and 117 is expressible in the form $65m - 117$, then the value of 'm' is [1]
a) 3 b) 1 c) 2 d) 4
- 3 The zeroes of the quadratic polynomial $x^2 + 5x + 6$ are [1]
(a) both negative (b) one positive and one negative
(c) both positive (d) both equal
- 4 A quadratic polynomial, whose zeros are 5 and - 8 is [1]
a) $x^2 + 4x - 3$ b) $x^2 + 3x - 40$ c) $x^2 + 13x - 40$ d) $x^2 - 3x - 40$

5 Graphically, the pair of linear equations $3x - y + 8 = 0$ and $3x - y = 24$ represents two lines which are: [1]

- a) intersecting exactly at one point b) intersecting exactly at two points
c) coincident d) parallel

6 For what value of k , do the equations $3x - y + 8 = 0$ and $6x - ky = -16$ represent coincident lines? [1]

- a) -2 b) 2 c) $-\frac{1}{2}$ d) $\frac{1}{2}$

7 A quadratic equation $ax^2 + bx + c = 0$ has real and equal roots, if [1]

- a) $b^2 - 4ac = 0$ b) $b^2 - 4ac < 0$ c) $b^2 - 4ac > 0$ d) $b^2 - 4ac \neq 0$

8 The discriminant of $4x^2 + 3x - 2 = 0$ is [1]

- a) -23 b) 41 c) 39 d) -31

9 The 11th term of the AP: $-5, -\frac{5}{2}, 0, \frac{5}{2}, \dots$ is [1]

- a) -30 b) -20 c) 30 d) 20

10 If the common difference of an A.P. is 5, then the value of $a_{20} - a_{13}$ is [1]

- a) 35 b) 25 c) 40 d) 30

11 If in $\triangle ABC$ and $\triangle PQR$, we have $\frac{AB}{QR} = \frac{BC}{RP} = \frac{CA}{PQ}$ then [1]

- a) $\triangle BCA \sim \triangle PQR$ b) $\triangle PQR \sim \triangle ABC$ c) $\triangle QRP \sim \triangle ABC$ d) $\triangle CBA \sim \triangle PQR$

12 If in $\triangle ABC$ and $\triangle DEF$, $\frac{AB}{DE} = \frac{BC}{FD}$, then $\triangle ABC \sim \triangle DEF$ when [1]

- a) $\angle B = \angle E$ b) $\angle B = \angle D$ c) $\angle A = \angle F$ d) $\angle A = \angle D$

13 D and E are respectively the points on the sides AB and AC of a triangle ABC such that $AD = 2$ cm, $BD = 3$ cm, $BC = 7.5$ cm and $DE \parallel BC$. Then, length of DE (in cm) is [1]

- a) 6 b) 5 c) 2.5 d) 3

- 14 In what ratio does x - axis divide the line segment joining the points A(2, - 3) and B(5, 6)? [1]
 a) 1 : 2 b) 3 : 5 c) 2 : 1 d) 2 : 3
- 15 The distance between the points (c, 0) and (0, - c) is: [1]
 a) 2c units b) c units c) $c\sqrt{2}$ units d) $2\sqrt{c}$ units
- 16 If the distance between the points A(4, p) & B(1, 0) is 5 units, then the value(s) of p is/are [1]
 a) 0 b) 4 only c) - 4 only d) ± 4
- 17 The zeroes of the polynomial $3x^2 - 5x - 2$ are [1]
 a) $\frac{1}{3}, 2$ b) $-\frac{1}{3}, 2$ c) $-\frac{1}{3}, -2$ d) $\frac{1}{3}, -2$
- 18 The LCM of the smallest odd composite number and the smallest prime number is [1]
 a) 1 b) 10 c) 18 d) 4
- 19 **Assertion (A):** The graphic representation of the equations $x + 2y = 3$ and $2x + 4y + 7 = 0$ gives a pair of coincident lines. [1]
Reason (R): The graph of linear equations $a_1 x + b_1 y + c_1 = 0$ and $a_2 x + b_2 y + c_2 = 0$ gives a pair of coincident lines if $\frac{a_1}{a_2} = \frac{b_1}{b_2} = \frac{c_1}{c_2}$
 a) Both A and R are true and R is the correct explanation of A.
 b) Both A and R are true but R is not the correct explanation of A.
 c) A is true but R is false.
 d) A is false but R is true.
- 20 **Assertion (A):** Common difference of the AP - 5, - 1, 3, 7, ... is 4. [1]
Reason (R): Common difference of the AP a, a + d, a + 2d, ... is given by $d = 2^{\text{nd}} \text{ term} - 1^{\text{st}} \text{ term}$.
 a) Both A and R are true and R is the correct explanation of A.
 b) Both A and R are true but R is not the correct explanation of A.
 c) A is true but R is false.
 d) A is false but R is true.

SECTION B (2X5)

- 21 Explain why $7 \times 11 \times 13 + 13$ is a composite number. [2]
- 22 Find out whether the following pair of linear equations are consistent or inconsistent: [2]
- $5x - 3y = 11, -10x + 6y = -22$

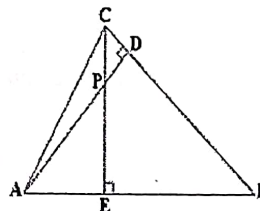
OR

The difference between two numbers is 26 and one number is three times the other. Find the numbers.

- 23 Solve the quadratic equation using quadratic formula: [2]

$$3x^2 - 2\sqrt{6}x + 2 = 0$$

- 24 In the figure, altitudes AD and CE of $\triangle ABC$ intersect each other at the point P. Show that: $\triangle AEP \sim \triangle ADB$ [2]



- 25 Find the value(s) of y for which the distance between the points A(3, -1) and B(11, y) is 10 units. [2]

OR

In what ratio does the point P(-4,6) divide the line segment joining the points A(-6,10) & B(3,-8)?

SECTION C (3X6)

- 26 Show that. $5 - \sqrt{3}$ is irrational. [3]
- 27 Find the zeroes of the polynomial $4x^2 + 5\sqrt{2}x - 3$ by factorisation method and verify the relationship between the zeroes and coefficient of the polynomial. [3]
- 28 The sum of two numbers is 27. If their product is 182, find the numbers. [3]
- 29 One root of the quadratic equation $2x^2 - 8x - k = 0$ is $\frac{5}{2}$. Find the value of k. Also, find the other root. [3]

OR

Find two consecutive odd positive integers, sum of whose squares is 970.

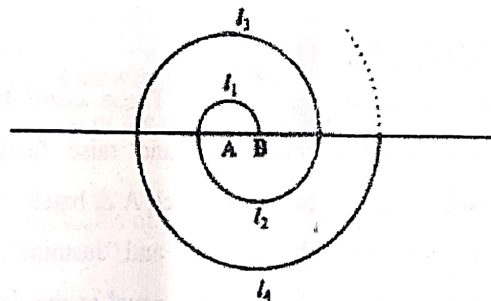
- 20 The sum of the 4th and 8th terms of an AP is 24 and the sum of the 6th and 10th terms is 44. [3]
Find the first three terms of the AP.
- 31 If the point C(-1, 2) divides internally the line segment joining A (2, 5) and B(x, y) in the [3]
ratio 3:4, find the coordinates of B.

OR

Find the co-ordinates of the point on y-axis which is equidistant from the points A (5, -2) and B (-3, 2).

SECTION D (5X4)

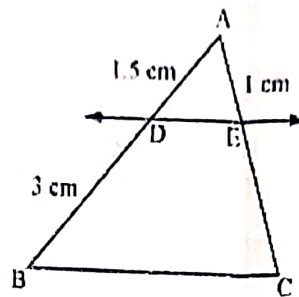
- 32 Draw the graphs of the pair of linear equations $x - y + 2 = 0$ and $4x - y - 4 = 0$. Calculate [5]
the area of the triangle formed by the lines so drawn and the x-axis.
- 33 A train travels 360km at a uniform speed. If the speed had been 5km/h more, it would [5]
have taken 1 hour less for the same journey. Find the speed of the train.
- 34 A spiral is made up of successive semicircles, with centres alternately at A and B, starting [5]
with centre at A, of radii 0.5 cm, 1.0 cm, 1.5 cm, 2.0 cm, ... as shown in figure below.
What is the total length of such a spiral made up of thirteen consecutive semicircles?
(Take $\pi = \frac{22}{7}$)



OR

The sum of four consecutive numbers in an AP is 32 and the ratio of the product of the first and the last terms to the product of the two middle terms is 7: 15. Find the numbers.

- 35 State and prove Basic Proportionality Theorem and hence find EC in given figure if $DE \parallel BC$.



OR

In the fig 6.13, OB is the perpendicular bisector of the line segment DE, $FA \perp OB$ and FE intersects OB at the point C. Prove that $\frac{1}{OA} + \frac{1}{OB} = \frac{2}{OC}$

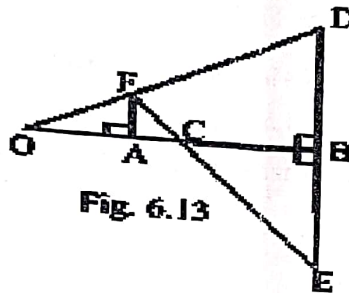


Fig 6.13

- 36 An alumni association is an association of former students. These associations often organize social events, publish newsletters or magazines and raise funds for the organisation. The alumni meet of two batches of a college - batch A & batch B were held on the same day in the same hotel in two separate halls "Rose" and "Jasmine". The rents were the same for both the halls. The expense for each hall is equal to the fixed rent of each hall and proportional to the number of persons attending each meet. 50 persons attended the meet in "Rose" hall, and the organisers had to pay ₹ 10000 towards the hotel charges. 25 guests attended the meet in "Jasmine" hall and the organisers had to pay ₹ 7500 towards the hotel charges. Denote the fixed rent by ₹ x and proportional expense per person by ₹ y.

1. Represent algebraically the situation in hall "Rose".
2. Represent algebraically the situation in hall "Jasmine".
3. What is the fixed rent of the halls?

[1]

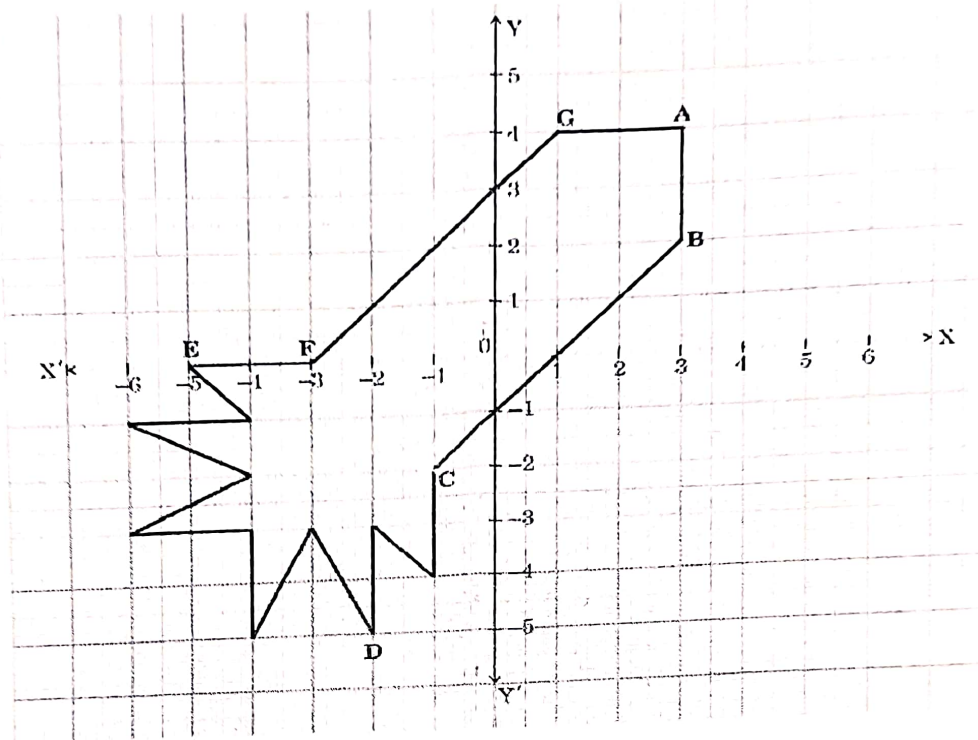
[1]

[2]

OR

Find the amount the hotel charged per person.

Ryan, from a very young age, was fascinated by the twinkling of stars and the vastness of space. He always dreamt of becoming an astronaut one day. So he started to sketch his own rocket designs on the graph sheet. One such design is given below.



Based on the above, answer the following questions:

(i) Find the mid-point of the segment joining F and G.

[1]

(ii) Write the coordinates of D.

[1]

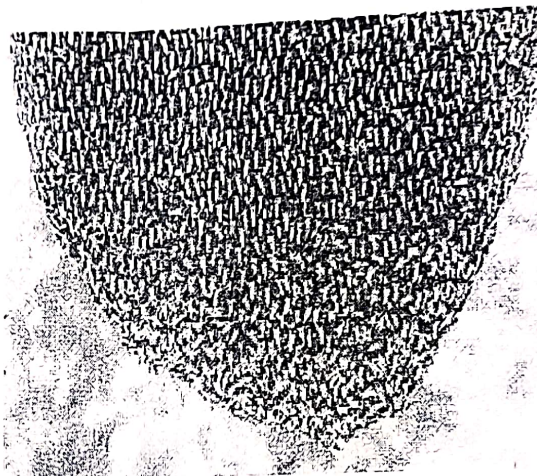
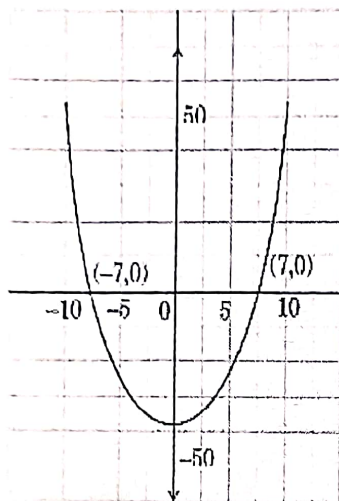
(iii) (a) What is the distance between the points A and C?

[2]

OR

(b) find the coordinates of the point which divides the line segment joining the points A and B in the ratio 1:3 internally.

- 38 While playing in a garden, Samaira saw a honeycomb and asked her honey bees to store honey. Also, she told her that the shape of the honeycomb formed is a mathematical structure. The mathematical representation of the honeycomb is shown in the graph. Based on the above information, answer the following question



- (i) How many zeroes are there for the polynomial represented by the given graph ? [1]
(ii) Write the zeroes of the polynomial. [1]
(iii) (a) If the zeroes of a polynomial $x^2 + (a + 1)x + b$ are 2 and 3, then [2]
determine the values of a and b.

OR

- (b) If the square of difference of the zeroes of the polynomial $x^2 + px + 45$ is 144, then find the value of p.



परमाणु ऊर्जा शिक्षण संस्था
Atomic Energy Education Society
आवधिक परीक्षा / Periodic Test II (2024-25)

कक्षा/ Class: X

विषय/Subject: SCIENCE

अवधि/Duration: 3 घंटे/Hours

अधिकतम अंक/Maximum Marks: 80

सामान्य निर्देश / General Instructions:

Read the following instructions very carefully and strictly follow them:

- This question paper comprises 39 questions . All questions are compulsory.
- This question paper is divided into five sections - A, B, C, D and E
- Section A-Questions No. 1 to 20 are Multiple Choice Questions. Each question carries 1 mark.
- Section B-Questions No. 21 to 26 are Very Short Answer type questions .Each question carries 2 marks . Answer to these questions should be in the range of 30 to 50 words.
- Section C-Questions No. 27 to 33 are Short Answer type questions .Each question carries 3 marks . Answer to these questions should be in the range of 50 to 80 words.
- Section D-Questions No. 34 to 36 are Long Answer type questions .Each question carries 5 marks . Answer to these questions should be in the range of 80 to 120 words.
- Section E-Questions No. 37 to 39 are of 3 source - based / case-based units of assessment carrying 4 marks each with sub-parts.
- There is no overall choice. However, an internal choice has been provided in some sections. Only one of the alternatives has to be attempted in such questions.

SECTION A (1x 20 = 20)

Select and write the most appropriate option out of four options given for each of the question no. 1 to 20 . There is no negative marking for incorrect response.



The above reaction is an example of a

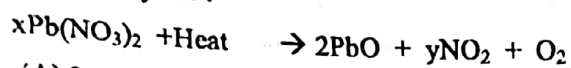
(A) combination reaction

(C) decomposition reaction

(B) double displacement reaction

(D) displacement reaction

2. In order to balance the following chemical equation, the values of the coefficients x and y respectively are :

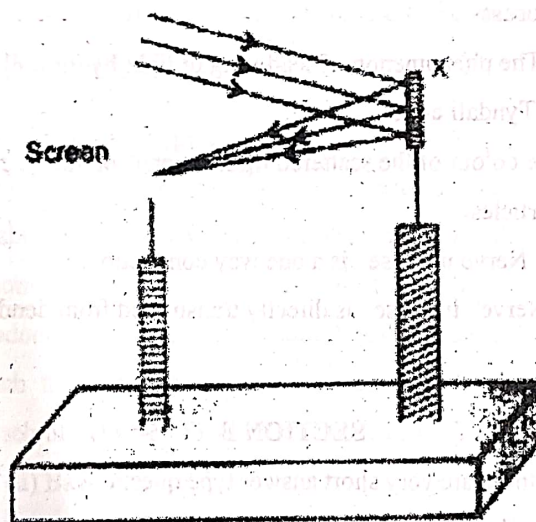


- (A) 2, 4 (B) 2, 2 (C) 2, 3 (D) 4, 2
3. When zinc reacts with sodium hydroxide, the product formed is:
- (A) Sodium oxide (B) Sodium zincate
(C) Zinc hydroxide (D) Zinc oxide
4. Select the correct option from the following:

	Salt	Parent Acid	Parent base	Nature of salt
A	Sodium acetate	CH_3COOH	NaOH	Neutral
B	Sodium carbonate	H_2CO_3	NaOH	Basic
C	Sodium chloride	HCl	NaOH	Acidic
D	Sodium nitrate	HNO_3	NaOH	Acidic

5. 10 mL of a solution of NaOH is found to be completely neutralised by 8 mL of a given solution of HCl . If we take 20 mL of the same solution of NaOH , the amount HCl solution (the same solution as before) required to neutralise it will be
- (A) 4 mL (B) 8 mL (C) 12 mL (D) 16 mL
6. Sphincter muscles are present at the exit of:
- (A) Stomach and small intestine (B) Stomach and anus
(C) Small intestine and large intestine (D) Oesophagus and stomach
7. During vigorous exercise, the occurrence of cramps in the outer muscles of an athlete is due to the conversion of pyruvate to :
- (A) Glucose (B) Ethanol (C) Lactic acid (D) Lactose
8. Plants which bear unisexual flowers are :
- (A) Mustard and Papaya (B) Hibiscus and Watermelon
(C) Mustard and Hibiscus (D) Watermelon and Papaya
9. A plant growth inhibitor hormone which causes wilting of leaves is called:
- (A) Auxin (B) Cytokinin (C) Absciscic acid (D) Gibberellin

10. The anther contains
 (A) sepals (B) ovules (C) carpels (D) pollen grains
11. Colour of sky appears blue, due to the
 (A) atmospheric refraction (B) presence of plants in water
 (C) scattering of light (D) none of these
12. Which of the following controls the amount of light entering the eye
 (A) pupil (B) iris (C) cornea (D) lens
13. If an object is placed at Focus of concave lens, the image is formed due to concave lens
 (A) at infinity (B) within focus (C) beyond focus (D) twice the focal length
14. The change of focal length of eye lens is caused by the action of the
 (A) ciliary muscles (B) iris (C) cornea (D) pupil
15. Name the type of image that can be obtained on the retina
 (A) Real and erect (B) Virtual and erect (C) Real and inverted (D) virtual and inverted
16. A student determines the focal length of a device X, by focusing the image of a far off object on the screen positioned as shown in the figure below:



The device X is a:

- (A) Convex lens (B) Concave mirror (C) Concave lens (D) Convex mirror

For Questions Numbers 17 to 20, two statements are given - one labelled Assertion (A) and the other labelled as Reason (R). Select the correct answer to these questions from the codes (A), (B), (C) and (D) as given below:

- (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, but 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

17. **Assertion (A):** Hydrochloric acid helps in the digestion of food in the stomach.
Reason (R): Hydrochloric acid creates an acidic medium to activate protein digesting enzymes.
18. **Assertion (A):** When a bacterium divides into two, and the resultant two bacteria divide again, the four bacteria produced would be almost similar..
Reason (R): DNA copying involves small inaccuracies in the reproduction process.
19. **Assertion (A):** The phenomenon of scattering of light by the colloidal particles gives rise to Tyndall effect.
Reason (R): The colour of the scattered light depends on the size of the scattering particles.
20. **Assertion (A):** Nerve impulse is a one way conduction.
Reason (R): Nerve impulse is directly transmitted from dendrite to axon terminals.

SECTION B (2 x 6 = 12)

Questions no. 21 to 26 are very short answer type questions.

21. (a) What is observed when aqueous solutions of potassium iodide and lead nitrate are mixed together? Name the type of reaction and write the chemical equation for the reaction that occurs. (2)

OR

(b) When copper powder is heated in a watch glass, a black substance is formed.

(i) Why is this black substance formed? Name it.

(ii) How can this black substance be reversed to its original form?

22. A solution of a substance "X" is used for white washing.

(i) Name the substance "X" and write its formula.

(ii) Write the reaction of the substance "X" named in (i) above with water. (2)

23. (a) We need to water the soil in plants on a regular basis. But it ultimately reaches the leaves of the plant. Explain how this takes place. (2)

OR

(b) Name the type of nutrition exhibited by Amoeba. Explain how food is taken in and digested by this organism.

24. Name the part of brain which is responsible for the following actions: (2)

(i) Maintaining posture and balance

(ii) Beating of heart

(iii) Thinking

(iv) Blood pressure

25. With the help of a diagram, show recombination of the spectrum of white light. (2)

26. Why do we prefer a convex mirror as a rear-view mirror in vehicles? (2)

SECTION C (3 x 7 = 21)

Questions no. 27 to 33 are short answer type questions.

27. (a) Why does distilled water not conduct electricity whereas rain water does?

(b) Why do acids not show acidic behaviour in the absence of water?

(c) Plaster of Paris should be stored in a moisture -proof container. Explain why? (3)

28. What are the three products of 'Chlor-alkali process'? Write one commercially or industrially important material each that can be prepared from each of these products? (3)

29. Write two examples each of Sexually Transmitted Diseases (STD) caused by

(i) Virus

(ii) Bacteria

Explain how the transmission of such diseases be prevented. (3)

OR

(a) Describe in brief the functions of the following parts in human male reproductive system :

(i) Testes

(ii) Seminal vesicle

(iii) Vas deferens

(iv) Urethra

(b) Why are testes located outside the abdominal cavity?

30. What are the different pathways by which break-down of glucose take place to provide energy in various organisms? Explain. (3)

31. If the image formed by a lens for all positions of an object placed in front of it is always erect and diminished, what is the nature of this lens? Draw a ray diagram to justify your answer. If the numerical value of the power of this lens is of 10 D, what is its focal length in the Cartesian system. (3)

32. Explain why:

(a) stars twinkle

(b) planets do not twinkle.

(c) the sky appears dark instead of blue to an astronaut (3)

33. A person has been advised by a doctor to reduce his sugar intake:

(i) Name the disease he is suffering from and name of the hormone whose deficiency causes it.

(ii) Identify the gland that secretes it and mention the function of this hormone.

(iii) Explain how the time and amount of secretion of this hormone is regulated in human system. (3)

OR

Which part of nervous system controls reflex action? With the help of a diagram trace the sequence of events which occur when we touch a hot object. Mention the part of the neuron that acquires information and the form in which information travels.

SECTION D (5 x 3=15)

Question no. 34 to 36 are long answer type questions.

34. (a) With the help an activity explain that hydrogen and oxygen are released when an electric current is passed through water.

(b) What change in colour observed when white silver chloride is left exposed to sun light?

State the type of chemical reaction in this change. (5)

OR

(a) What is the difference between displacement and double displacement reactions? Write examples for these reactions.

(b) Oil and fat containing food items are flushed with nitrogen .Why?

35. (a) A student suffering from myopia is not able to see distinctly the objects placed beyond 5 m.

List two possible reasons due to which this defect of vision may have arisen. With the help of ray diagrams, explain:

(i) Why is the student unable to see distinctly the objects placed beyond 5 m from his eyes?

(ii) The type of the corrective lens used to restore proper vision and how this defect is corrected by the use of this lens.

(b) If, in this case, the numerical value of the focal length of the corrective lens is 5 m, find the Power of the lens as the new Cartesian sign convention. (5)

OR

(a) What is meant by the term 'power of accommodation'? Name the component of eye that is responsible for the power of accommodation.

(b) A security mirror used in a big showroom has radius of curvature 5 m. If a customer is standing at a distance of 20 m from the mirror, find the position, nature and size of the image formed in the security mirror.

36. (a) Draw excretory system in human beings and label the following organs of excretory system which perform following functions:

(i) Form urine

(ii) Is a long tube which collects urine from kidney.

(iii) Store urine until it is passed out.

(b) How is urine produced? Explain the process of urine formation. (5)

OR

(a) (i) Write one structural difference between the composition of artery and vein.

(ii) Trace the movement of oxygenated blood in the body.

(iii) Write the function of valves present in between atria and ventricles.

(b) Why is it necessary to separate oxygenated and deoxygenated blood in mammals and birds?

SECTION E (3x4=12)

The following questions are source-based/ case based questions. Read the case carefully and answer the questions that follow.

37. When a ray of light incident on a prism it will split in seven colours that is called dispersion of light. A prism is a transparent refracting body bounded by plane faces which are inclined to each other at a particular angle called angle of prism.. When a ray of light passes through a prism, it suffers refraction twice and hence the ray deviates through a certain angle from its original path. The angle between the incident ray and emergent ray is called angle of deviation.

(a) For which colour, the angle of deviation is minimum? (1)

(b) When a white light falls on a prism, the ray at its surface suffers: (1)

(A) Refraction only (B) dispersion only (C) deviation only (D) all of above

(c) What is the cause of dispersion of light? (2)

OR

(c) Define Spectrum of white light & write the colour of spectrum in ascending order with respect to wavelength. (2)

38. Acids, bases and salts are three main categories of chemical compounds. These have certain definite properties which distinguish one class from the other. The acids are sour in taste while bases are bitter in taste. Tasting a substance is not a good way of finding out if it is an acid or a base. Acids and bases can be better distinguished with the help of indicators. Indicators are substances that undergo a change of colour with a change of acidic, neutral or basic medium. Many of these indicators are derived from natural substances. Litmus, a purple dye is extracted from the lichen plant. Some indicators are prepared artificially. For example, methyl orange and phenolphthalein. Given below is a table of indicators and their colour change in acidic and basic medium.

Indicator	Colour in Acid	Colour in Alkali
Litmus	Red	Blue
Methyl orange	Pinkish red	Yellow
Phenolphthalein	Colourless	Pink

- (a) Give two examples each of natural and artificial indicators. (1)
- (b) An aqueous solution turns red litmus solution blue. Excess addition of which solution would reverse the change - ammonium hydroxide or hydrochloric acid? (1)
- (c) What will be the change in colour when a few drops of phenolphthalein is added to a solution having pH 8.5 ? (2)

OR

- (c) What are universal indicators? (2)
39. All the reproductive methods of living organisms are broadly categorized into two types :

1. Asexual reproduction and 2. Sexual reproduction

Asexual reproduction involves the participation of a single parent without the formation of gametes, fertilisation and transfer of genetic material. This method is a common means of rapidly increasing offsprings under favorable conditions.

- (a) Name the type of fission that occurs in *Leishmania* and *Plasmodium* . (1)
- (b) Write one advantage of sexual mode of reproduction over asexual reproduction. (1)

(c) Give reasons why:

- (i) Colonies of yeast fail to multiply in water but multiply in sugar solution. (2)
- (ii) *Rhizopus* individuals do not grow on a dry slice of bread.

OR

- (c) Name the filamentous structures a student could identify when he collected water from a pond that appeared dark green. How do these organisms multiply? Explain.



परमाणु ऊर्जा शिक्षण संस्था
Atomic Energy Education Society
आवधिक परीक्षा / Periodic Test-II (2024 – 25)

कक्षा /Class : X

अवधि/Duration :3 Hours

विषय/Subject :Social Science

अधिकतम अंक/Maximum Marks :80

सामान्य निर्देश/General Instructions:

- This question paper comprises Five sections – A,B,C,D,E and F. There are 3 questions in this question paper
- Section A- Questions from serial number 1 to 20 are MCQs of 1 mark each.
- Section B –Question no 21 to 24 are Very Short Answer Type Questions, carrying 2 marks each. Answer to each question should not exceed 40 words
- Section C - Question no 25 to 29 are Short Answer Type Questions, carrying 3 marks each. Answer to each question should not exceed 60 words
- Section D - Question no 30 to 33 are long Answer Type Questions, carrying 5 marks each. Answer to each question should not exceed 80 words.
- Section E- Question no 34 to 36 are case based questions with four sub questions and are of 4 marks each
- Section F - Question no 37 is map based carrying 5 marks
- There is no overall choice in the question paper. However, an internal choice has been provided in a few questions. Only one of the choices in such questions has to be attempted.
- In addition to this, separate instructions are given with each section and question, wherever necessary.

SECTION-A
(MULTIPLE CHOICE QUESTIONS)

(1x20=20)

1. From which of the following countries Giuseppe Garibaldi belonged to? (1 mark)
(a) Austria (c) Italy
(b) Greece (d) Spain
2. Two Statements are given below. They are assertion (A) and Reason (R). Read both the statements and choose the correct option. (1 mark)

Assertion (A): The most serious source of nationalist tension in Europe after 1871 was Balkan.
Reason (R): A large part of the Balkan was under the control of Ottoman Empire.

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

3. Arrange the following events in chronological order and choose the correct option from the following: (1 mark)

I. Treaty of Constantinople
III. Unification of Italy

II. Defeat of Napoleon
IV. Unification of Germany

(a) I, II, IV and III

(b) II, I, III and IV

(c) II, I IV and III

(d) IV, I, III and II

4. Read the given statements and choose the correct option with regard to Rabi cropping season from the following. (1 mark)

1. Rabi crops are sown in winter.
 2. Sown from October to December and harvested from April to June.
 3. Important crops are Maize, Cotton and Jute.
 4. Punjab, Haryana, Uttar Pradesh are important for the production of wheat.

(a) 1,3 and 4

(b) 2,3 and 4

(c) 1,2 and 4

(d) 1,2, and 3.

5. Identify the soil with the help of the following information. (1 mark)

- It develops in area with high temperature.
 - It is the result of intense leaching due to heavy rain.
 - Humus content is low.

(a) Arid Soil

(b) Yellow Soil

(c) Laterite Soil

(d) Black Soil

6. Which of the following term refers to the belief in and advocacy for the social, political and economic equality of women? (1 mark)

(a) Patriarchy

(b) Matriarchy

(c) Socialist

(d) Feminists.

7. Per capita income refers to _____. (1 mark)

(a) Whole income of the country

(b) average income of the country

(c) Average Income of an individual

(d) income of the rich people

8. Which of the following was the primary objective of Belgium to form the separate government in Brussels? (1 mark)

(a) Promoting cultural events.

(b) Managing international relations.

(c) Enforcing local laws

(d) Ensuring Linguistic accommodation.

9. Production of a commodity, mostly through the natural process is an activity in _____ sector. (1 mark)

(a) Tertiary sector

(b) Secondary sector

(b) Information sector

(d) Primary sector

10. Suppose, the monthly income of the family members is as follows respectively: (1 mark)

Mother- Rs. 50,000/- Father- Rs. 40,000/- Son- Rs. 20,000/- Daughter- Rs. 20,000/-
The average income of the family would be:

- (a) Rs. 32,000/-
- (b) Rs. 30,000/-
- (c) 32,500/-
- (d) 33,000/-

11. Which one of the following is an example of organised sector activities? (1 mark)

- (a) A farmer irrigating his field
- (b) A handloom weaver working in her house.
- (c) A headload worker carrying cement.
- (d) A teacher taking classes in a government school

12. Which one was the reason for calling off 'the Non-Cooperation Movement' by Gandhi? (1 mark)

- (a) Pressure from the British Government
- (b) Second Round Table Conference.
- (c) Chauri- Chaura incident
- (d) Gandhi's arrest.

13. Arrange the following events in the correct sequence: (1 mark)

1. Mahatma Gandhi returned to India from South Africa.
2. Congress gave the support to Khilafat movement.
3. Dandi March.
4. Mahatma Gandhi travelled to Champaran in Bihar to inspire the peasants to struggle against the oppressive plantation system.

- (a) 1,4,2,3
- (b) 2,3,4,1
- (c) 4,2,3,1
- (d) 2,1,4,3

14. Assertion- Alluvial soil is ideal for growth of paddy, wheat, cereal and pulse crops.

Reason- Alluvial soil is well known for its capacity to hold moisture. (1 mark)

- (a) Both assertion and reason are true and reason is the correct explanation of assertion.
- (b) Both assertion and reason are true but reason is not the correct explanation of assertion.
- (c) Assertion is true but reason is false.
- (d) Assertion is false but reason is true

15. Disguised unemployment means a situation where people are : (1 mark)

- (a) Unemployed
- (b) employed but earning less
- (c) Seems to be employed but in reality, not employed
- (d) Unemployed for a short period of time

16. Identify the kind of administration system: (1 mark)

It consists of two level governments. One level of government is for the whole country and another for states, USA is known for the oldest country running this system successfully.

- (a) Unitary
- (b) Presidential government
- (c) Federal
- (d) None of these.

17. Assertion: India is a secular state.

Reason: Constitution gives freedom to everyone to profess, practice and propagate any religion without prejudice or any discrimination. (1 mark)

- (a) Both assertion and reason are correct and reason is the correct explanation of assertion.
- (b) Both assertion and reason are true but reason is not the correct explanation of assertion.
- (c) Assertion is true but reason is wrong.
- (d) Reason is true but assertion is wrong.

18. Which one of the following is not a developmental goal for the landless rural labourers? (1 mark)

- (a) Many days of work and better wages.
- (b) Local school is able to provide quality education for their children.
- (c) There is no social discrimination.
- (d) They cannot become leaders in the village.

19. Which one of the following pairs is correctly matched? (1 mark)

- (a) Primary Sector- Money lender.
- (b) Secondary Sector- Priest
- (c) Tertiary Sector- Bank
- (d) Manufacturing Sector- Gardener.

20. Which of the following statement is correct. (1 mark)

- (a) Service sector contributes more than half of the GDP of India.
- (b) The scope of attracting tourists is limited as there is hardly any place of tourist attraction in India.
- (c) As the economy grows, first service sector grows and then agriculture and industrial sector grows.
- (d) None of the above

SECTION -B
(VERY SHORT ANSWER TYPE QUESTIONS)

21. Suggest any two measures for the conservation of Forest. (2x4=8)

OR

Suggest any two measures for the conservation of wild life.

22. Why is power sharing desirable? Explain. (2 marks)

23. Differentiate between public sector and private sector. (2 marks)

24. Briefly explain the idea of Satyagrah according to Gandhiji? (2 marks)

SECTION-C
(Short Answer type Questions)

25. Describe the various step that are involved in planning? (3x5=)

26 (a) Write a note on Jallianwala Baug massacre. (3 marks)

OR

(b) Which were the earlier political agitations of Mahatma Gandhi in India? (3 marks)

27. Who was Count Camilo De Cavour? Mention his contribution in the unification of Italy? (3 marks)

28. (a) What objections have been raised against multipurpose valley projects? Explain any three? (3 marks)

OR

(b) What are the factors responsible for the scarcity of water in India? (3 marks)

29. What were the Majoritarian measures taken in Srilanka to establish Sinhala supremacy? (3 marks)

SECTION-D (LONG ANSWER TYPE QUESTIONS)

30. (a) Explain the process of unification of Germany. (5x4=20)

Or

(b) Explain the process of formation of 'United Kingdom of Great Britain'. (5 marks)

31. Describe any five institutional and technological reforms introduced by the government in the interest of farmers after independence. (5 marks)

32. (a). Describe any five steps taken by the Indian Government towards decentralisation of power in 1992. (5 marks)

Or

(b) What do you mean by federalism? How can you say that India is a federal country?

33. Tertiary sector is not playing any significant role in the development of Indian Economy'. Do you agree with this statement? Give reason in support of your answer. (5 marks)

SECTION-E (CASE STUDY QUESTIONS)

(4X3=12)

34. Read the given source and answer the questions that follow

This type of farming is still practiced in few pockets of India. Primitive subsistence agriculture is practiced on small patches of land with the help of primitive tools like hoe, dao and digging sticks and family/ community labour. This type of farming depends upon monsoon, natural fertility of soil and suitability of other environmental conditions to the crops given.

The main feature of commercial farming is the use of higher doses of modern inputs, e.g. High yield variety seeds, chemical fertilizers, insecticides and pesticides, in order to obtain higher productivity. The degree of commercialisation of agriculture varies from one region to another. For example, rice is a commercial crop in Haryana and Punjab but in Orissa it is a subsistence crop.

34. A. Subsistence farming use _____ kind of tools for farming. (1 mark)

34. B. What does commercial farming use in order to obtain higher productivity? (1 mark)

34. C. Write down any two differences between subsistence farming and commercial farming. (2 marks)

35. Read the given source and answer the questions that follow

Communalism was and will continue to be one of the major challenge to democracy in our country. The makers of our constitution were aware of this challenge. That is why they choose the model of a secular state. This choice was reflected in several constitutional provisions. There

is no official religion for the Indian state. Our constitution does not give any special status to any religion.

All societies have some form of division of labour. In most societies, occupations are passed on from one generation to other. Caste system is an extreme form of this. Caste system is a class structure which is determined by birth. Caste system was based on exclusion of and discrimination against the outcaste groups. They were subject to the inhuman practice of untouchability. That's why leaders like Jotiba Phule, Gandhiji and B.R. Ambedkar advocated and worked to establish a society in which caste inequalities are absent.

- 35. A. What is the basic principle of secular state? (1 mark)
- 35. B. What do you mean by caste system? (1 mark)
- 35. C. Who advocated establishing a society with caste inequalities? (1 mark)
- 35. D. Name any two social reformers that worked for the upliftment of untouchables. (1 mark)

36. Read the given source and answer the questions that follow

A developed country is a highly industrial growth oriented country where quality of life is high, presence of developed economy and advanced technology. While the developing countries are those that are in either pre industrialization or in industrialization process. These economies are mostly relies in agrarian form of economy and there per capita income is generally less than the others. Another aspect of the developed countries are their highly dominating tertiary and Quaternary Sector. While tertiary sector provides services such as entertainment, finance and retailers quaternary sector comprises of knowledge based activities like of Information technology, research and development as well as areas of consulting services etc. There is no all-agreed definition of a developed country.

Agencies such as the United Nations, the World Bank, the World Trade Organization, and the World Economic Forum use their indicators to club developed and developing countries. For example, the UN classifies countries into low, lower-middle, upper-middle, and high-income countries.

- 36. A. What do you understand by the term per capita income? (1 mark)
- 36. B. What is the most important attribute to compare development of the countries? (1 mark)
- 36. C. Differentiate between development and growth? (2 marks)

SECTION-F
(MAP SKILL BASED QUESTIONS)

- 37 (A) Two places A and B have been marked on the given political outline map of India. Identify with the help of the following information and write their correct names on the line drawn near them

- (a) The place where Mahatma Gandhi broke the Salt Law
- (b) The place where Session of Indian National Congress was held in 1927

- (B) On the same outline map of India, locate and label any three of the following with suitable symbols:

- (a) Sardar Sarovar dam
- (b) Hirakud Dam
- (c) Mark the state with Mountainous soil
- (d) Mark the state which is the largest producer of tea

INDIA POLITICAL

