



PRATAP PUBLIC SCHOOL, SEC-6, KARNAL

HOLIDAY HOMEWORK

CLASS IX

ENGLISH

I Read the passage given below.

1 Mountains have always been held in great awe by mankind. They have been a challenge to humans. Those brave among us have always wanted to conquer them. You see, the more incredible the mountains, the greater the thrill – a challenge to the bravery of the human race. Climbing mountains is an experience that is hard to put into words. You are in a beautiful environment and, when you reach the top, you feel incredible. But you also have to climb down, which is when most accidents happen – people are tired, it gets dark, it's harder. So, mountain climbing is undoubtedly one of the most popular adventure sports along with being challenging and risky for the climber.

2 Without any perceived risk, there can't be a feeling that any significant challenge has been surmounted. Fair, but we have to bear in mind that mountaineering is not a sport that can be embraced without preparation. The enthusiasts must develop in themselves the spirit of adventure, willingness to undertake hardships and risks, extraordinary powers of perseverance, endurance, and keenness of purpose before climbing a mountain. They should also know how to handle the mountaineering equipment. Then comes the penance of the rigorous training. This could very well be the lifeline up there. It helps inculcate and hone survival instincts that allow the climber to negotiate perilous situations. There are numerous institutes in India and abroad that offer such training.

3 Mountain climbers are unanimous in agreeing that the unpredictable weather is what they fear the most. There may be sunshine one moment and a snowstorm the other. At higher altitudes, snow is a regular feature and being decisive about setting up camps or proceeding further is crucial. The icy sheets after ice storms make walking treacherous, while the powdery snow makes a mountaineer sink deep into the snow. Up there, where the intention is to embrace Nature's wonder, one realises that it cannot be done without facing its formidable glory. A true mountaineer may challenge the mountain, yet is always respectful to the powerful forces of nature.

4 Summiting mountains carries its own health risks such as oxygen and altitude sickness problems, frost bites, swelling of hands and feet, fluid collection in brain or lungs and exhaustion. Yet, the gratification mountaineers feel from mastering something that is so frightening, urges them to undertake these endeavours. We may think that the mountaineers are fearless, experts say, "Not at all. It's fear that keeps them so intrigued with such arduous journeys." Impulse and brazenness can be deadly foes. In the words of the Indian mountaineer, Bachendri Pal, "The biggest risk ... is to not to take the risk at all. Remember that."

Based on your understanding of the passage, answer the questions given below.

1 Why does the writer say that mountains inspire 'awe' in humans? (Paragraph 1)

- A. They present us with opportunities for exciting sports.
- B. They evoke the wish in us, to master them.
- C. They inspire in us, deeds of valour.
- D. They represent peace and calm, to us.

2. Select the option that corresponds to the following relation below:

The more incredible the mountains—the greater the thrill (Paragraph 1)

- A. The higher the stamina—the lower the food intake
- B. The more you laugh—the lesser your illness
- C. The smaller the car—the bigger the advantage
- D. The heavier the luggage—the higher the penalty

3. Select the option that displays what the writer projects, with reference to the following:

So, mountain climbing is undoubtedly one of the most popular adventure sports

(Para 1)

- A. doubt
- B. caution
- C. conviction
- D. denial

4 The writer compares training to penance in the line --Then comes the penance of the rigorous training. (Para 2)

State 1 point of similarity between training and penance.

5. Based on your reading of the text, list 2 reasons why the writer says that “mountaineering is not a sport that can be embraced without preparation”. (Para 2)

1)_____ 2)_____

6. What connect does the writer draw out between unpredictable weather and setting up of camps? (Para 3)

7. The writer says, “A true mountaineer may challenge the mountain, yet is always respectful to the powerful forces of nature.” (Paragraph 3)

Select the reason the mountaineer is respectful to the forces of nature, up in the mountains.

- A. survival
- B. experience
- C. tradition
- D. directive

8. Supply 1 point to justify the following:

While mountain climbing, an impulsive mountaineer is either disaster-prone or as good as dead.

9. Evaluate the INAPPROPRIATE reason for the feeling of exhilaration on reaching a summit, that the mountain-climbers experience.

- A. Achievement of a seemingly impossible feat
- B. Spectacular panoramic view
- C. Application of the inculcated survival instincts
- D. Opportunity to use sophisticated mountaineering equipment

Answer the following by selecting the most appropriate option

10. You will work very hard to get the correct tune of this song.

- a. has to
- b. have to
- c. could
- d. must

11. I..... reach the station in time else I will miss the train.

- a. must
- b. should
- c. ought to
- d. will

12. I am taking music lessons now. Hopefully, I _____my proficiency certificate by November.

23. When did Evelyn start performing alone?

- A. When she was in school
- B. When she was at the Royal Academy of Music
- C. When she toured the United Kingdom as a teenager
- D. When she graduated from the Royal Academy of Music

Read the extract and answer the questions

Few had thought that it would one day be revived. A barber of a family of professional musicians, who had access to the royal palace, decided to improve the tonal quality of the pungi.

(24) What does 'it' refer to?

(25) Why did 'it' need to be revived?

(26) Why did the barber probably have interest in 'it'?

(27) Did he succeed in improving 'it'? If yes, how?

(28) Which of the quotes best sums up the message of the extract?

- A. United we stand divided we fall.
- B. Let's see which way the wind blows.
- C. Practice makes a man perfect.
- D. When life gets harder, challenge yourself to be stronger.

(29) Margie was disappointed. Margie was disappointed because

- A. The book was boring
- B. The teacher was repaired
- C. She had to wait till the next day to read the book
- D. Her geography marks were poor

(30) Why is Margie surprised to hear that the teacher in the book is a man?

(31) What is big break? How did Bismillah Khan get it?

(32) Which aspect of Bismillah Khan impressed you?

(33) Complete the analogy. (The Lost Child)

Sobbed: cried:: : requested

(34) The boy murmured every time he desired to buy anything. What trait of his do you identify?

(Answer in one or two words only)

(35) "A flower seller hawked, 'A gulmohur, a garland of gulmohur!'", The child seemed irresistibly drawn. He went towards the basket where the flowers lay heaped and half murmured, "I want that garland.

Select the option that correctly captures the usage of the word 'drawn' in the extract.

- A. Brazil had drawn the match 1-1.
- B. Hussain has drawn some of the most amazing portraits.
- C. The fan was drawn towards the aura of his favourite superstar.
- D. The car was drawn by 2 horses.

36. Why did the child keep moving without getting any answers?

- A) because of distractions
- B) because of too many attractions
- C) because of his experience and assumed notions about his parents
- D) none

37. Which emotions the child was going through initially and how did they change towards the end? (Answer in one sentence only)

38. The parents had to call the child again and again. He wanted everything he saw on the way. Do you think the child was greedy and careless. (yes/no)

39. How did the ticket-collector come to know that there was a monkey in grandfather's kit bag? (The Adventures of Toto)

- A. The ticket collector checked his bag and found out
- B. Toto had torn open his bag
- C. Toto had suddenly poked his head out of the bag
- D. Grandfather told the ticket collector

40. Fill in the blanks with suitable word/phrase.

To keep a pet one should be veryand.....

41. Grand father gave Nana a slap across her haunches, and she jerked back, dragging Toto with her. He had fastened on to her long ears with his sharp little teeth.

Complete the analogy with a suitable word from the extract.

Apparent : obvious ::: tied

42. Which thing decides a person's future according to this poem? (The Road Not Taken)

- A) The path one chooses to walk
- B) The path one leaves behind
- C) The regrets
- D) The success

43. What is the message of this poem?

- A) Be wise while choosing and taking decisions
- B) Two roads are confusing
- C) Road is nothing but a pathway
- D) All

44. The tone of this poem in the last stanza is.....

45. What shows that the road has not been used by many people?

- A) The green and untrampled grass on it
- B) The mud on it
- C) The broken stones on it
- D) All

46. What do the words 'Long I stood' mean in the poem?

47. He won't do what you tell him", means..... (Poem: Wind)

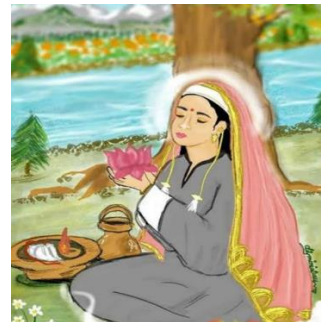
48. Strong wind blows ascomes to an individual's life.(complete the sentence)

49. To face the adversities of life one should be.....(complete the sentence)

50. The poem 'Wind' is writtenhence there's no rhyming scheme or pattern in it. (complete the sentence)

ग्रीष्मकालीन गृह अवकाश कार्य
कक्षा - नवमी
विषय - हिंदी

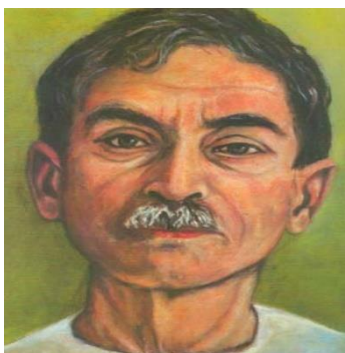
प्रश्न 1 नीचे दिए गए चित्रों के आधार पर पात्रों के नाम लिखें:-



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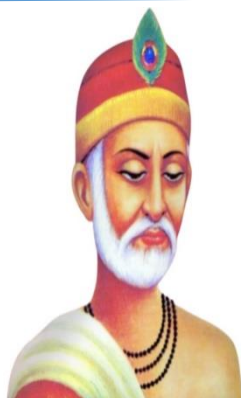
प्रश्न 2 पाठ के आधार पर निम्न चित्रों की कोई दो विशेषताएं लिखिए।

(i)



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(ii)



हिंदू मूया राम कही मुसलमान खुदाई
कहे कबीर सो जीवता जे दुहूँ के निकटि न जाई।

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(iii)



प्रश्न 3 निम्नलिखित अपठित काव्यांश को पढ़कर नीचे दिए गए प्रश्नों के उत्तर दीजिए-

एक दिन भी जी मगर
तू ताज बनकर जी
अटल विश्वास बनकर जी।
अमर युग-गान बनकर जी
आज तक तू समय के
पद-चिह्न सा खुद को मिटाकर
कर रहा निर्माण जग-हित
एक सुखमय स्वर्ग सुंदर
स्वार्थी दुनिया मगर
बदला तुझे यह दे रही है-
भूलता युग-गीत तुझको ही
सदा तुझसे निकलकर
'कल' न बन तू जिंदगी का
'आज' बनकर जी
जगत सरताज बनकर जी
एक दिन भी जी मगर
तू ताज बनकर जी।।

बहुवैकल्पिक प्रश्न-

1. ताज बनकर जी का क्या आशय है?

(क) राजा बनकर जी

(ख) नेता बनकर जी

(ग) धनी बनकर जी

(घ) प्रभावी बनकर जी।

2. यहाँ 'तू' किसे कहा गया है?

(क) अबला नारियों को

(ख) दीन-हीन मजदूरों को

(ग) भोले-भाले मनुष्यों को

(घ) किसानों को

3. स्वार्थी दुनिया कैसा व्यवहार करती है?

(क) वह बेचारों को भूल जाती है

(ख) वह निर्माण करने वालों को भूल जाती है

(ग) वह बलिदानियों को याद रखती है

(घ) वह बड़ों-बड़ों को याद रखती है।

4. जिंदगी का 'आज' बनकर जीने का क्या अर्थ है?

(क) ठोस जीवन जीना

(ख) सपनों में जीना

(ग) भविष्य उज्ज्वल बनाना

(घ) वर्तमान को सुखी बनाना।

5. कथन (A) - 'ताज बनकर जी' का आशय है महत्त्वपूर्ण बनकर जी।

कारण (R) - दुनिया असली निर्माताओं को भुला देती है।

विकल्प

(क) कथन सत्य है और कारण भी सत्य है।

(ख) कथन असत्य है और कारण भी असत्य है।

(ग) कथन सत्य है किंतु कारण असत्य है।

(घ) कथन असत्य है किंतु कारण सत्य है।

प्रश्न- 4 निम्नलिखित अपठित गद्यांश को पढ़कर नीचे दिए गए प्रश्नों के उत्तर दीजिए-

सिने जगत के अनेक नायक-नायिकाओं, गीतकारों, कहानीकारों और निर्देशकों को हिंदी के माध्यम से पहचान मिली है। यही कारण है कि गैर-हिंदी भाषी कलाकार भी हिंदी की ओर आए हैं। समय और समाज के उभरते सच को परदे पर पूरी अर्थवत्ता में धारण करने वाले ये लोग दिखावे के लिए भले ही अंग्रेजी के आग्रही हों, लेकिन बुनियादी और जमीनी हकीकत यही है कि इनकी पूँजी, इनकी प्रतिष्ठा का एकमात्र निमित्त हिंदी ही है। लाखों-करोड़ों दिलों की धड़कनों पर राज करने वाले ये सितारे हिंदी फिल्म और भाषा के सबसे बड़े प्रतिनिधि हैं।

'छोटा परदा' ने आम जनता के घरों में अपना मुकाम बनाया तो लगा हिंदी आम भारतीय की जीवन-शैली बन गई। हमारे आद्यग्रंथों-रामायण और महाभारत को जब हिंदी में प्रस्तुत किया गया तो सड़कों का कोलाहल सत्राटे में बदल गया। 'बुनियाद' और 'हम लोग' से शुरू हुआ सोप-ऑपेरा का दौर हो या सास-बहू धारावाहिकों का, ये सभी हिंदी की रचनात्मकता और उर्वरता के प्रमाण हैं। 'कौन बनेगा करोड़पति' से करोड़पति चाहे जो बने हो, पर सदी के महानायक की हिंदी हर दिल की धड़कन और हर धड़कन की भाषा बन गई। सुर और संगीत की प्रतियोगिताओं में कर्नाटक, गुजरात, महाराष्ट्र, असम, सिक्किम जैसे गैर-हिंदी क्षेत्रों के कलाकारों ने हिंदी गीतों के माध्यम से पहचान बनाई। ज्ञान गंभीर 'डिस्कवरी' चैनल हो या बच्चों को रिझाने-लुभाने वाला 'टॉम एंड जेरी'- इनकी हिंदी उच्चारण की मिठास और गुणवत्ता अद्भुत, प्रभावी और ग्राह्य है। धर्म-संस्कृति, कला-कौशल, ज्ञान-विज्ञान-सभी कार्यक्रम हिंदी की संप्रेषणीयता के प्रमाण हैं।

बहुविकल्पी प्रश्न

1. कथन (A) और कारण (R) - पढ़कर उचित विकल्प पर (✓) लगाइए-

कथन (A)-हिंदी भारत की शेष भाषाओं से अधिक श्रेष्ठ है।

कारण (R)-हिंदी की लोकप्रियता पूरे देश में है।

(क) कथन (A) सही है और कारण (R) भी उचित प्रमाण है।

(ख) कथन (A) गलत है और कारण (R) भी गलत है।

(ग) कथन (A) गलत है किंतु कारण (R) सही है।

(घ) कथन (A) सही है किंतु कारण (R) गलत है।

2. गैर- हिंदी क्षेत्र की सूची में कौन नहीं आता?

3. सुमेलित कीजिए-

कॉलम-1	कॉलम-2
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1. बुनियाद	(a) संस्कृत
2. फिल्म	(b) अंग्रेजी
3. उर्वरता	(c) उर्दू

(क) 1-(c)2-(a), 3-(b)

(ख) 1-(c), 2-(b), 3-(a)

(ग) 1-(a), 2-(b), 3-(c)

(घ) 1-(b), 2-(c), 3-(a)

4. कोलाहल सत्राटे में क्यों बदल गया उदाहरण सहित लिखें। (2)
5. संप्रेषणीयता का क्या आशय है अपने विचार लिखें। (2)

प्रश्न- 5 निम्नलिखित शब्दों का विलोमार्थी शब्दों से मिलान कीजिए-

सूची-1	सूची-II
A तामसिक	1. नैसर्गिक
B. ग्राह्य	2. बहिरंग
C. कृत्रिम	3. सात्विक
D. अंतरंग	4. त्याज्य
E. अवनति	5. पुरातन
F. अधुनातन	6. तिरोभाव
G. आविभांव	7. विनीत
H. धृष्ट	8.. उन्नति

प्रश्न- 6 नीचे छह अव्यवस्थित वाक्य-खण्ड दिए गए हैं, जिनका क्रमांक A, B, C, D, E और F है, लेकिन यह आवश्यक नहीं है कि ये इसी क्रम में हों, इन्हें सही क्रम में व्यवस्थित कीजिए।

- (A) यदि उस देश की सरकार नागरिक बना लेती है तो ऐसा नागरिक राज्यकृत नागरिक कहलायेगा।
- (B) यदि कोई व्यक्ति किसी दूसरे देश में जा बसे और वहाँ की नागरिकता प्राप्त करना चाहे तो वह ऐसा कर सकता है।
- (C) भारत के अनेक लोग दक्षिण अफ्रीका तथा श्रीलंका भी गए हुए हैं।
- (D) इसके लिए उसे अपने देश की नागरिकता का त्याग करना पड़ेगा तथा उस देश की सरकार से प्रार्थना करनी पड़ेगी कि उसे नागरिक बना लिया जाए।
- (E) कई पीढ़ियाँ बीतने के बाद भी वहाँ की सरकारें उन्हें अपने देश का नागरिक नहीं बना रही हैं।
- (F) जैसे बहुत से भारतीय कनाडा गए हुए हैं और वहाँ प्रार्थना-पत्र देकर कनाडा के राज्यकृत नागरिक बन गए हैं।...

प्रश्न-7 चित्र के आधार पर लघु कहानी लिखिए।



प्रश्न-8 निम्नलिखित चित्र के आधार पर संवाद लेखन कीजिए।



प्रश्न 9 समास का विग्रह कर नाम लिखें।

समस्त पद	विग्रह	समास
1. दही बड़ा		
2. मेघनाथ		
3. षडानन		
4. रातोंरात		

प्रश्न 10 उपसर्ग, प्रत्यय, व मूल शब्द बताइए।

शब्द	उपसर्ग	मूलशब्द	प्रत्यय
1-व्यापारिक			
2-दढ़ियल			

3-समर्पित			
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4-स्वागत में उपसर्ग है.

(1) स्व (2) स (3) स्वा (4) सु

प्रश्न 11 अलंकार भेद कारण सहित बताइए।

1. संकट कटै मिटै सब पीरा		
2. तू मोहन के उरबसी, है उरबसी समान		
3. सुबरन को ढूँढत फिरत, कवि, व्याभिचारी, चोर		
4. दे रहा हो कोकिल सानंद सुमन को ज्यों मधुमय संदेश		

प्रश्न 12 अर्थ के आधार पर वाक्य भेद कारण सहित बताइए।

1. मैं थोड़े ही उसके साथ कहीं जाता हूँ।
2. कल 15 अगस्त होने के कारण समाचार पत्र नहीं छप सका।
3. हरिद्वार में गंगा के किनारे ऊँची पहाड़ी पर मनसा देवी का मंदिर है।
4. कृपया सड़क के बाएँ तरफ चलें।

कृतिका:

1. इस जल प्रलय में

1. लेखक ने किस पत्रिका में 'कथा-दशक' के अंतर्गत बाढ़ की कहानी को नए पाठ के साथ प्रस्तुत किया था?
2. लोगों को किस की तरह पटना के लापता होने का भय था?
3. 'मनिहारी' क्षेत्र में किस नदी से बाढ़ आई थी?
4. उस आदिवासी जाति को क्या कहते हैं, जो दोने-पत्तल आदि बनाने का काम करती है?

2. मेरे संग की औरतें

1. लेखिका ने किस दिशा में उल्लेखनीय प्रयास किए ?
2. लेखिका के पिता को किस परीक्षा में बैठने से रोक दिया गया ?
3. लेखिका के पिता ने उसे _____ उपन्यास पढ़ने के लिए दिया।
4. किसने, किसको कहा:-
 ① "हमारी बहू तो ऐसी है कि धोई, पोंछी और छींके पर टाँग दी।".....
 ② "नहीं चाहिए, मैं तो रोज नहाती हूँ।".....

दीर्घ उत्तरात्मक प्रश्न

प्रश्न-मृदला गर्ग ने बच्चों की शिक्षा के लिए क्या प्रयास किए?

संकेत बिन्दु

1. बिशप से आग्रह
2. विद्यालय स्वयं खोलने का मन
3. कन्नड़-अंग्रेजी - हिंदी की शिक्षा
4. लोगों का साथ

लघु उत्तरात्मक प्रश्न

प्रश्न- कृतिका और क्षितिज में कौन-कौन से साहित्यिक उपकरण पाए जाते हैं और वे किस प्रकार से प्रयोग किए गए हैं?

प्रश्न-लेखिका के अपनी नानी से प्रभावित होने के क्या कारण थे?

संकेत बिन्दु

1. साहसी व्यक्तित्व
2. स्वतंत्रता की सच्ची भावना
3. जीवन भर परदे में रहने के बावजूद, पर-पुरुष से मिलने की हिम्मत ।

प्रश्न- पहले सवैये से किस प्रकार के भाव का पता चलता है?

- (a) प्रेमिका के प्रति समर्पित प्रेमभाव का।
- (b) द्वारकापुरी के प्रति प्रेमभाव का।
- (c) द्वारकाधीश और उनकी क्रीड़ास्थली के प्रति प्रेमभाव का।
- (d) ब्रज की संस्कृति के प्रेमभाव का।

प्रश्न- सालिम अली का एक और नाम _____ है।

प्रश्न- साइलेंट वैली" किसे कहा गया है?

प्रश्न- सालिम अली की जीवन-संगिनी का क्या नाम था?

प्रश्न- रसखान ब्रजभूमि के करील कुंजों पर क्या न्योछावर करना चाहते हैं?

प्रश्न- कृष्ण का रूप धारण करने के लिए गोपी _____ वस्त्र पहनने को तैयार है।

प्रश्न- गधे के चेहरे पर _____ भाव छाया रहता है।

प्रश्न- कुची -कुची से अभिप्राय है.....

प्रश्न- वैशाख नंदन किसे और क्यों कहा जाता है?

प्रश्न- कुञ्जर ग्रंथियां किसे कहा गया है? इसकी कितनी संख्या और कितना वजन है?

प्रश्न- 'सूर्य' को कबीर ने किसकी संज्ञा दी है?

प्रश्न- हरि-भजन के लिए किस भावना का होना आवश्यक है?

प्रश्न- कबीर के अनुसार..... मनुष्य सही मायनों में जीवित कहलाता है।

MATHEMATICS

1. In between any two numbers, there are:

- a. Only one rational number b. Two rational numbers
c. Infinite rational numbers d. No rational number

2. Every rational number is a

- a. Whole number b. Natural number c. Integer d. Real number

3. Which of the following is an irrational number?

- a. $\sqrt{16}$ b. $\sqrt{\frac{12}{3}}$ c. $\sqrt{12}$ d. $\sqrt{100}$

4. $3\sqrt{6} + 4\sqrt{6}$ is equal to:

- a. $6\sqrt{6}$ b. $7\sqrt{6}$ c. $4\sqrt{12}$ d. $7\sqrt{12}$

5. $\sqrt{6} \times \sqrt{27}$ is equal to:

- a. $9\sqrt{2}$ b. $3\sqrt{3}$ c. $2\sqrt{2}$ d. $9\sqrt{3}$

6. Two angles whose sum is equal to 180° are called:

- a. Vertically opposite angles b. Complementary angles
c. Adjacent angles d. Supplementary angles

7. The angles of a triangle are in the ratio 5: 3: 7. The triangle is

- (a) a right triangle (b) an acute-angled triangle
(c) an obtuse-angled triangle (d) an isosceles triangle

8. An exterior angle of a triangle is 105° and its two interior opposite angles are equal. Each of these equal angles is

- (a) $37\frac{1}{2}^\circ$ (b) $72\frac{1}{2}^\circ$ (c) 75° (d) $52\frac{1}{2}^\circ$

9. If one of the angles of a triangle is 130° , then the angle between the bisectors of the other two angles can be

- (a) 50° (b) 65° (c) 145° (d) 155°

10. If two interior angles on the same side of a transversal intersecting two parallel lines are in the ratio 2: 3, then the greater of the two angles is:

- (a) 54° (b) 108° (c) 120° (d) 136°

11. Two parallel lines intersect at:

- a. One point b. Two points c. Three points d. Null

12. The name of the vertical line in the cartesian plane which determines the position of a point is called:

- a. Origin b. X-axis c. Y-axis d. Quadrants

13. The section formed by horizontal and vertical lines determining the position of the point in a cartesian plane is called:

- a. Origin b. X-axis c. Y-axis d. Quadrants

14. If the coordinates of a point are (0, -4), then it lies in:

- a. X-axis b. Y-axis c. Third quadrant d. Fourth quadrant

15. A quadrant in which both x and y values are negative is

- a. First quadrant b. Second quadrant c. Third quadrant d. Fourth quadrant

16. Points (1, -1), (2, -2), (4, -5), (-3, -4)

- a. lie in II quadrant
b. lie in III quadrant
c. lie in IV quadrant
d. Does not lie in the same quadrant

17. The sides of a triangle are 122 m, 22 m and 120 m respectively. The area of the triangle is:

- a. $1320 m^2$ b. $1300 m^2$ c. $1400 m^2$ d. $1420 m^2$

18. The sides of a triangle are in the ratio 12: 17: 25 and its perimeter is 540 cm. The area is:

- a. $1000 cm^2$ b. $5000 cm^2$ c. $9000 cm^2$ d. $8000 cm^2$

19. The equal sides of the isosceles triangle are 12 cm, and the perimeter is 30 cm. The area of this triangle is:

- a. $9\sqrt{15} cm^2$ b. $6\sqrt{15} cm^2$ c. $3\sqrt{15} cm^2$ d. $\sqrt{15} cm^2$

20. The area of an equilateral triangle having side length equal to $\frac{\sqrt{3}}{4} cm$ (using Heron's formula) is:

- a. $\frac{2}{27} cm^2$ b. $\frac{2}{15} cm^2$ c. $\frac{3\sqrt{3}}{64} cm^2$ d. $\frac{3}{14} cm^2$

21. The sides of a triangle are in the ratio of 3: 5: 7 and its perimeter is 300 cm. Its area will be:

- a. $1000\sqrt{3} cm^2$ b. $1500\sqrt{3} cm^2$ c. $1700\sqrt{3} cm^2$ d. $1900\sqrt{3} cm^2$

Case study based MCQ'S

Case Study 1: A group of students is learning about Heron's Formula for finding the area of a triangle. They encountered the following scenario:

Rohan and Kavya came across a triangular field in their village. They made the following observations:

1. The lengths of the three sides of the triangular field are 8 meters, 12 meters, and 15 meters.
2. The perimeter of the triangular field is 35 meters.

Based on this information, the students were asked to apply Heron's Formula to find the area of the triangular field. Let's see if you can answer the questions correctly:

MCQ Questions:

22. The semi perimeter of the triangular field is:

- (a) 8 meters (b) 12 meters (c) 15 meters (d) 17.5 meters

23. Using Heron's Formula, the area of the triangular field is:

- (a) $24 m^2$ (b) $30 m^2$ (c) $36 m^2$ (d) $40 m^2$

24. The type of triangle formed by the sides of the field is:

- (a) Equilateral (b) Isosceles (c) Scalene (d) Right-angled

25. The length of the altitude corresponding to the side of 15 meters is:

- (a) 2 meters (b) 4 meters (c) 6 meters (d) 8 meters

26. The lengths of the altitudes corresponding to the sides of 8 meters and 12 meters are:

- (a) 4 meters and 6 meters (b) 6 meters and 8 meters
(c) 8 meters and 10 meters (d) 10 meters and 12 meters

Case Study 2: A group of students is studying Heron's Formula for finding the area of a triangle. They encountered the following scenario:

Neha and Mohan went on a field trip to a riverbank. They noticed a triangular piece of land that they wanted to measure and calculate its area. They made the following observations:

1. Neha measured the lengths of the three sides of the triangular piece of land as 7 meters, 9 meters, and 11 meters.
2. Mohan measured the lengths of the three sides of the same triangular piece of land as 10 meters, 12 meters, and 15 meters.

Based on this information, the students were asked to apply Heron's Formula to find the area of the triangular piece of land. Let's see if you can answer the questions correctly:

MCQ Questions:

27. Using Neha's measurements, the semi perimeter of the triangular piece of land is:

- (a) 13 meters (b) 16 meters (c) 19 meters (d) 23 meters

28. Using Neha's measurements, the area of the triangular piece of land is:

- (a) $24 m^2$ (b) $26 m^2$ (c) $28 m^2$ (d) $30 m^2$

Q29. Using Mohan's measurements, the semi perimeter of the triangular piece of land is:

- (a) 16 meters (b) 18 meters (c) 21 meters (d) 25 meters

Q30. Using Mohan's measurements, the area of the triangular piece of land is:

- (a) $40 m^2$ (b) $42 m^2$ (c) $45 m^2$ (d) $48 m^2$

Q31. The measurements taken by Neha represent a triangle that is:

- (a) Equilateral (b) Isosceles (c) Scalene (d) Right-angled

Read the Source/Text given below and answer any four questions:

There is a square park ABCD in the middle of Saket Delhi. Four children Deepak, Ashok, Arjun and to play with their balls. The colour of the ball of Deepak, Arjun and Deepa are red, blue, yellow and respectively.

children roll their ball from centre point O in the of XOY , $X'OY$, $X'OY'$ and XOY' . Their balls shown in the above image.

Answer the following questions:

32. What are the coordinates of the ball of Ashok?

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

33. What are the coordinates of the ball of Deepa?

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

34. What the line XOX' is called?

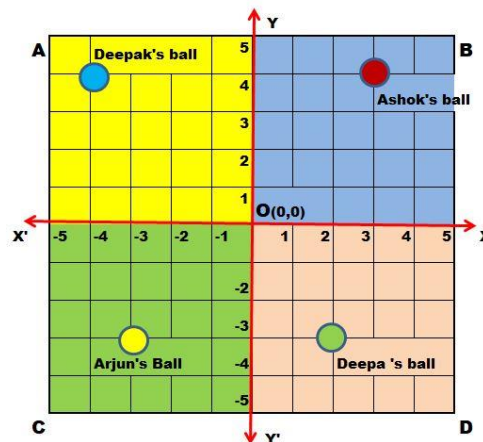
- (a) y-axis (b) ordinate (c) x-axis (d) origin

35. What the point $O(0,0)$ is called?

- (a) y-axis (b) ordinate (c) x-axis (d) origin

36. What is the ordinate of the ball of Arjun?

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

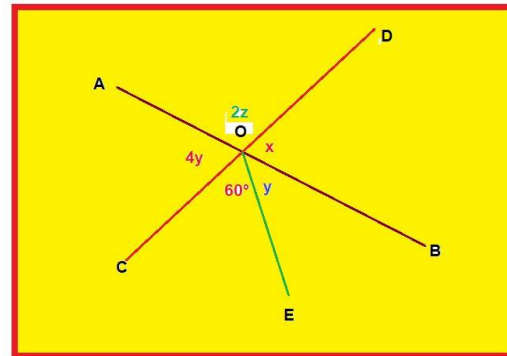


colony in
Deepa went
Ashok,
green
All four
direction
stopped as

Read the Source/Text given below and answer any four questions:

Maths teacher draws a straight-line AB shown on the blackboard as per the following figure.

1. Now he told Raju to draw another line CD as in the
2. The teacher told Ajay to mark $\angle AOD$ as $2z$
3. Suraj was told to mark $\angle AOC$ as $4y$
4. Clive Made and angle $\angle COE = 60^\circ$
5. Peter marked $\angle BOE$ and $\angle BOD$ as y and x respectively



figure

Now answer the following questions (37 to 41)

37. What is the value of x ?

- (a) 48° (b) 96° (c) 100° (d) 120°

38. What is the value of y ?

- (a) 48° (b) 96° (c) 100° (d) 24°

39. What is the value of z ?

- (a) 48° (b) 96° (c) 42° (d) 120°

40. What should be the value of $x + 2z$?

- (a) 148° (b) 360° (c) 180° (d) 120°

41. What is the relation between y and z ?

- (a) $2y + z = 90^\circ$ (b) $2y + z = 180^\circ$ (c) $4y + 2z = 120^\circ$ (d) $y = 2z$

42. The linear equation $3x - 11y = 10$ has:

- (a) Unique solution (b) Two solutions
(c) Infinitely many solutions (d) No solutions

43. $3x + 10 = 0$ will have:

- (a) Unique solution (b) Two solutions
(c) Infinitely many solutions (d) No solutions

44. The solution of equation $x - 2y = 4$ is:

- (a) (0,2) (b) (2,0) (c) (4,0) (d) (1,1)

45. Find the value of k , if $x = 1, y = 2$ is a solution of the equation $2x + 3y = k$.

- (a) 5 (b) 6 (c) 7 (d) 8

46. Point (3, 4) lies on the graph of the equation $3y = kx + 7$. The value of k is:

- (a) $\frac{4}{3}$ (b) $\frac{5}{3}$ (c) 3 (d) $\frac{7}{3}$

47. Any point on line $x = y$ is of the form:

- (a) $(k, -k)$ (b) $(0, k)$ (c) $(k, 0)$ (d) (k, k)

48. The graph of the linear equation $2x + 3y = 6$ cuts the y -axis at the point

- (a) (2, 0) (b) (0, 2) (c) (3, 0) (d) (0, 3)

49. The equation $2x + 5y = 7$ has a unique solution, if x, y are:

- (a) Rational numbers (b) Real numbers (c) Natural numbers (d) Positive real numbers

50. The point of the form (a, a) always lies on:

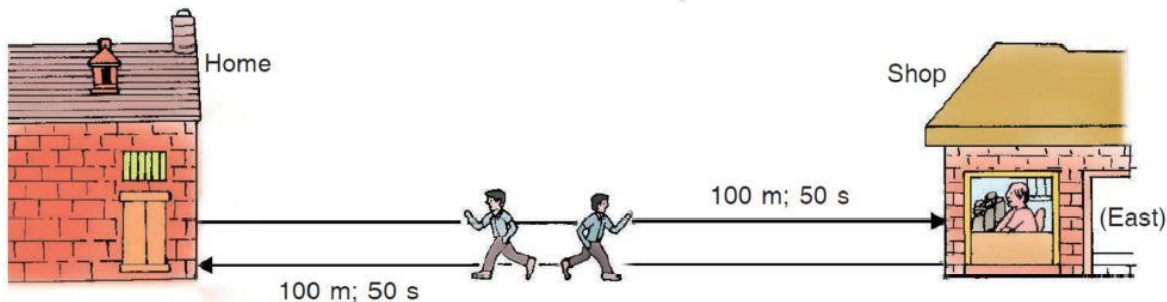
- (a) On the line $x + y = 0$ (b) On the line $y = x$
(c) x - axis (d) y - axis

(PHYSICS)

- What is the direction of velocity of an object moving along a circular path?
(a) Inward (b) Outward (c) Tangential (d) Upward
- A particle moves over three quarters of a circle of radius 'r'. What is the magnitude of its displacement?
(a) r (b) $\sqrt{2}r$ (c) $2r$ (d) None of these
- A particle moves 3 m north, then 4m east and finally 6 m south. The magnitude of displacement is
(a) $3m$ (b) $4m$ (c) $5m$ (d) None of these
- A cyclist completes 8 revolutions of a circular track of radius 98 m with uniform speed in 40 minutes. The speed of cyclist is
(a) 2 m/s (b) 2.05 m/s (c) 2.1 m/s (d) None of these
- The momentum of a man of mass 75 kg when he walks with a velocity of 2 m/s is
(a) 100 kg m/s (b) 150 kg m/s (c) 200 kg m/s (d) None of these
- Which would require a greater force accelerating a 3 kg mass at 4m/s^2 or a 5 kg mass at 2m/s^2 ?
(a) 3 kg mass (b) 5 kg mass (c) Both are equal (d) None of these
- A ball is thrown vertically upwards. Its momentum at the highest point is
(a) 0 (b) 9.8 kg m/s (c) -9.8 kg m/s (d) None of these
- There are three solids made up of aluminum, steel and wood of the same shape and volume. The solid with highest inertia is
(a) aluminium (b) steel (c) wood (d) None of these
- State two advantages of plotting distance time graph.
- Under what conditions are the three equations of motion applicable?
- Can an object have constant speed and still be accelerating? Give an example.
- Give the net force acting on a body at rest.

Case Study Question

Suppose the boy first runs a distance of 100 metres in 50 seconds in going from his home to the shop in the East direction, and then runs a distance of 100 metres again, in 50 seconds in the reverse direction from the shop to reach back home from where he started



- Find the speed of the boy.
(a) 1 m/s (b) 2 m/s (c) 3 m/s (d) none of these
- Find the Velocity of the boy.
(a) 1 m/s (b) 2 m/s (c) 3 m/s (d) 0 m/s
- A boy is sitting on a merry-go-round which is moving with a constant speed of 10m/s. This means that the boy is :
(a) at rest (b) moving with no acceleration
(c) in accelerated motion (d) moving with uniform velocity
- In which of the following cases of motion, the distance moved and the magnitude of displacement are equal?

- (a) if the car is moving on straight road (b) if the car is moving on circular road
(c) if the pendulum is moving to and fro (d) if a planet is moving around the sun

(CHEMISTRY)

- Intermolecular force of attraction is maximum in _____
(a) solids (b) liquids (c) gases (d) plasma particles.
- Gases are liquified under _____
(a) high pressure, high temperature (b) high pressure, low temperature
(c) low pressure, high temperature (d) low pressure, low temperature.
- Particles of a liquid _____
(a) are most ordered (b) move randomly
(c) have large intermolecular spaces (d) can slip and slid over each other.
- Which of the following decreases the rate of evaporation?
(a) Surface area (b) Humidity (c) Temperature (d) Wind.
- The intermixing of particles of two substances on their own is known as _____
- The rate of diffusion of all substances is higher in liquids state than in _____
- The state of matter can be changed by changing or
- Rate of evaporation increases with of the vessel.
- select a heterogeneous mixture of the following:
(a) Air (b) *NaCl* in water (c) Emulsion (d) Alloy
- Which of the following properties is not characteristic of colloidal particles?
(a) particles are uniformly distributed throughout the solution
(b) particles from their solution cannot be separated by centrifugation
(c) particles do not settle down when left undisturbed
(d) particles scatter the beam of visible light
- Cloud is an example of _____
(a) solid dispersed in a gas (b) liquid dispersed in a gas
(c) liquid dispersed in a solid (d) solid dispersed in a gas
- The solubility of a salt in water is 20 g/100 g at 25° C. It increases 10% for every 5° C rise of temperature up to 50° C and then becomes constant. A solution of 26 g of the same salt in 100 g of water at 35° C would be
(a) saturated (b) unsaturated (c) translucent (d) colloidal
- Which of the following is a physical change?
(a) Electric current is passed through water (b) Burning of a candle
(c) Making of curd from milk (d) electric current is passed through a bulb and its glows

Case Study Question

Look at the diagram on the right side. Jar A contains a red-brown gas whereas jar B contains a colourless gas. The two gas jars are separated by a glass plate placed between them. We observe that the red-brown gas will diffuse from jar A into colourless gas in jar B due to which is red-brown colour will also spread into jar B

14. What name is given to the phenomenon which takes place?

- (a) distribution (b) intrusion (c) diffusion (d) effusion

15. Name the brown gas which could be in jar A.

- (a) Bromine vapour (b) carbon vapour
(c) sulphur vapour (d) phosphorous vapour

16. Which is the colourless gas most likely to be present in jar B?

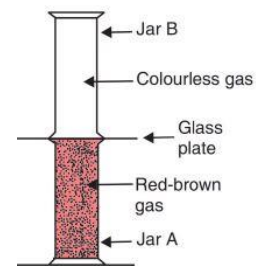
- (a) Bromine vapour (b) oxygen (c) air (d) None of these

17. When a gas jar full of air is placed upside down on a gas jar full of bromine vapours, the red-brown vapours of bromine from the lower jar go upward into the jar containing air. In this experiment:

- (a) air is heavier than bromine
(b) both air and bromine have the same density
(c) bromine is heavier than air
(d) bromine cannot be heavier than air because it is going upwards against gravity

18. When a gas jar containing colourless air is kept upside down over a gas jar full of brown-coloured bromine vapour, then after some time, the brown colour of bromine vapour spreads into the upper gas jar making both the gas jars appear brown in colour. Which of the following conclusion obtained from these observations is incorrect?

- (a) bromine vapour is made of tiny particles which are moving
(b) air is made up of tiny particles which are moving
(c) the particles of bromine are moving but those of air are not moving
(d) even though bromine vapour is heavier than air, it can move up against gravity



(BIOLOGY)

1. Which of these is not related to endoplasmic reticulum?

- (a) It behaves as transport channel for proteins between nucleus and cytoplasm.
(b) It transports materials between various regions in cytoplasm.
(c) It can be the site of energy generation.
(d) It can be the site for some biochemical activities of the cell.

2. Following are a few definitions of osmosis. Read carefully and select the correct definition.

- (a) Movement of water molecules from a region of higher concentration to a region of lower concentration through a semipermeable membrane.
(b) Movement of solvent molecules from its higher concentration to lower concentration.
(c) Movement of solvent molecules from higher concentration to lower concentration of solution through a permeable membrane.
(d) Movement of solute molecules from lower concentration to higher concentration of solution through a semipermeable membrane

3. Plasmolysis in a plant cell is defined as

- (a) break down (lysis) of plasma membrane in hypotonic medium.
(b) shrinkage of cytoplasm in hypertonic medium.
(c) shrinkage of nucleoplasm.
(d) none of them

4. Which of the following are covered by a single membrane?

- (a) Mitochondria (b) Vacuole (c) Lysosome (d) Plastid

5. Find out the false sentences
 - (a) Golgi apparatus is involved with the formation of lysosomes
 - (b) Nucleus, mitochondria and plastid have DNA; hence they are able to make their own structural proteins.
 - (c) Mitochondria is said to be the power house of the cell as ATP is generated in them.
 - (d) Cytoplasm is called as protoplasm
6. Find out the correct sentence
 - (a) Enzymes packed in Lysosomes are made through RER (rough endoplasmic reticulum)
 - (b) Rough endoplasmic reticulum and smooth endoplasmic reticulum produce lipid and protein respectively
 - (c) Endoplasmic reticulum is related with the destruction of plasma membrane
 - (d) Nucleoid is present inside the nucleoplasm of eukaryotic nucleus
7. Cell theory was given by
 - (a) Schleiden and Schwann
 - (b) Virchow
 - (c) Hooke
 - (d) Haeckel
8. The only cell organelle seen in prokaryotic cell is
 - (a) mitochondria
 - (b) ribosomes
 - (c) plastids
 - (d) lysosomes
9. Organelle without a cell membrane is
 - (a) ribosome
 - (b) golgi apparatus
 - (c) chloroplast
 - (d) nucleus
10. Give one word answer to the following -
 - (a) Living matter of the cell.
 - (b) Cell without well-defined nucleus
11. If cells of onion peel and RBC are separately kept in hypotonic solution, what among the following will take place? Explain the reason for your answer.
 - (a) Both the cells will swell.
 - (b) RBC will burst easily while cells of onion peel will resist the bursting to some extent.
 - (c) a and b both are correct.
 - (d) RBC and onion peel cells will behave similarly.
12. Name the organelles which show the analogy written as under
 - (a) Transporting channels of the cell——
 - (b) Power house of the cell——
 - (c) Packaging and dispatching unit of the cell——
 - (d) Digestive bag of the cell——
 - (e) Storage sacs of the cell——
 - (f) Kitchen of the cell——
 - (g) Control room of the cell——
13. Which kind of plastid is more common in
 - (a) roots of the plant,
 - (b) leaves of the plant,
 - (c) flowers and fruits
14. What are the consequences of the following conditions?
 - (a) A cell containing higher water concentration than the surrounding medium.
 - (b) A cell having low water concentration than the surrounding medium.
 - (c) A cell having equal water concentration to its surrounding medium.

For questions number 15 and 16, two statements are given - one labelled as 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 the Assertion (A).

(b) Both **Assertion (A)** and **Reason (R)** are true, but Reason (R) is not the correct explanation of the Assertion (A).

(c) **Assertion (A)** is true, but **Reason (R)** is false.

(d) **Assertion (A)** is false, but **Reason (R)** is true.

15. **Assertion:** The endoplasmic reticulum which lacks ribosomes is called smooth endoplasmic reticulum

Reason: SER is mainly involved in protein synthesis.

16. **Assertion:** Mitochondria and chloroplasts are semiautonomous organelles.

Reason: They are formed by division of pre-existing organelles and contain DNA but lack protein synthesizing machinery.

17. Case Study

Plant cells, in addition to the plasma membrane, have another rigid outer covering called the cell wall. The cell wall lies outside the plasma membrane. The plant cell wall is mainly composed of cellulose. Cellulose is a complex substance and provides structural strength to plants. When a living plant cell loses water through osmosis there is shrinkage or contraction of the contents of the cell away from the cell wall. This phenomenon is known as plasmolysis.

(i) Which of the following is the main constituent of cell wall?

(a) Proteins (b) Lipids (c) Lipoproteins (d) Cellulose

(ii) Which of the following is outer most covering of the plant cell?

(a) Cell membrane (b) Plasma membrane (c) Cell wall (d) Cellulose

(iii) Choose the correct set of statements from the following.

Statement 1 – Cell wall lies outside the plasma membrane.

Statement 2 – Cell wall is mainly composed of cellulose.

Statement 3 – Cellulose is a complex substance and provides structural strength to plants.

(a) Statement 1 & 3 (b) Statement 1 & 2 (c) Statement 2 & 3 (d) All statements are correct

(iv) What is mean by plasmolysis?

(v) What is the reason behind structural strength of plant cell?

HISTORY

1. What was 'Subsistence Crisis which occurred frequently in France?

- (a) An extreme situation endangering the basic means of livelihood
- (b) Subsidy in food grains
- (c) Large-scale production of food grains
- (d) None of the above

2. Identify the statement which is wrong with reference to Robespierre.

- (a) He banned the use of white flour.
- (b) He rationed meat and bread.
- (c) He exempted his party men from punishment.
- (d) He converted churches into barracks or offices.

3. The National Assembly framed a constitution in 1791 to limit the powers of the

- (a) monarch
- (b) businessmen
- (c) wealthy man
- (d) press

4. Which of the following events took place as a result of the revolt of Jacobins in 1792?

- (a) Massacre of the king's guards
- (b) Storming of the Palace of the Tuileries
- (c) King was held in hostage for several hours.
- (d) All of the above

5. French women demanded the right

- (a) to vote.
- (b) to be elected to the assembly.
- (c) to hold political office.
- (d) All of the above

6. A triangular slave trade took place between Europe, the America and

- (a) Africa
- (b) Asia
- (c) Australia
- (d) None of the above

7. Assertion (A): Caught in a frenzy of fear, peasants in several districts seized hoes and pitchforks and attacked chateaux. They looted hoarded grain and burnt down documents containing records of manorial dues.

Reason (R): In the countryside rumours spread from village to village that the price of the foodgrains are going to increase.

- (i) Both A and R are true and R is correct explanation of the assertion.
- (ii) Both A and R are true but R is not the correct explanation of the assertion.
- (iii) A is true but R is false.
- (iv) A is false but R is true.

8. Assertion (A): Peasants and workers participated in French Revolution.

Reason (R): They wanted to protest against increasing taxes and food security.

- (i) Both A and R are true and R is correct explanation of the assertion.
- (ii) Both A and R are true but R is not the correct explanation of the assertion.
- (iii) A is true but R is false.
- (iv) A is false but R is true.

9. Assertion (A): The Estates General was a political body.

Reason (R): Only royal family members can participate in the body.

- (i) Both A and R are true and R is correct explanation of the assertion.
- (ii) Both A and R are true but R is not the correct explanation of the assertion.
- (iii) A is true but R is false.
- (iv) A is false but R is true.

10. Assertion (A): The ideas of philosophers were discussed intensively in salons and coffee houses and spread among people through books and newspapers.

Reason (R): These were frequently read aloud in groups for the benefit of those who could not read or write.

- (i) Both A and R are true and R is correct explanation of the assertion.
- (ii) Both A and R are true but R is not the correct explanation of the assertion.
- (iii) A is true but R is false.
- (iv) A is false but R is true.

11. Read the given passage and answer the questions that follow:

In his Two Treatises of Government, Locke sought to refute the doctrine of the divine and absolute right of the monarch. Rousseau carried the idea forward, proposing a form of government based on a social contract between people and their representatives. In The Spirit of the Laws, Montesquieu proposed a division of power within the government between the legislative, the executive and the judiciary. This model of government was put into force in the USA, after the thirteen Colonies declared their independence from Britain. The American constitution and its guarantee of individual rights was an important example for political thinkers in France.

- (a) Who was the author of the book “The Spirit of the Laws”?
- (b) Where did the model of division of power within the government first come into effect?
- (c) What was the central theme of the book ‘Two Treatises of Government’? Who wrote the book?

12. Read the given passage & answer the questions that follow:

From the very beginning women were active participants in the events which brought about so many important changes in French society. They hoped that their involvement would pressurise the revolutionary government to introduce measures to improve their lives. Most women of the third estate had to work for a living. They worked as seamstresses or laundresses, sold flowers, fruits and vegetables at the market, or were employed as domestic servants in the houses of prosperous people. Most women did not have access to education or job training. Only daughters of nobles or wealthier members of the third estate could study at a convent, after which their families arranged a marriage for them. Working women had also to care for their families, that is, cook, fetch water, queue up for bread and look after the children. Their wages were lower than those of men.

- (a) Name the most famous club started by women to voice their interests.
- (b) What laws were introduced by the revolutionary government to help improve the lives of women?

Mention any two laws.

- (c) When did they finally get the right to vote?

13. On the outline of political map of France, locate & label the following places.

- (a) Nantes
- (b) Marseilles
- (c) A port related to slave trade
- (d) Paris.

POLITICAL SCIENCE

1. Which of these statements is/are correct in the case of Zimbabwe?

- (a) Popular governments are always democratic.
- (b) Popular governments can be undemocratic.
- (c) Popular leaders can be autocratic.
- (d) Both (b) and (c).

2. Which party has ruled Zimbabwe since its independence and who is its ruler?

- (a) ZANU-PF, Robert Mugabe (b) ZANU-PF, Kenneth Kaunda
(c) Zimbabwe Freedom Party, Nelson Mandela (d) Zimbabwe Party, P Johnson

3. What is the Chinese Parliament called?

- (a) National People's Congress (b) Chinese Communist Party
(c) The Communist party of China (d) People's Congress

4. It has nearly members elected from all over China?

- (a) 2000 (b) 3000 (c) 2500 (d) 3500

5. When did Mexico become independent?

- (a) 1979 (b) 1981 (c) 1980 (d) 1982

6. In a democracy the final decision-making power must rest with

- (a) The official heads (b) The monarchs
(c) Those elected by the people. (d) None of the above

7. Estonia has made its citizenship rules in such a way that people belonging to Russian minority find it difficult to get the

- (a) economic rights. (b) right to vote.
(c) right to women's vote. (d) All of the above

8. What kind of oppression did Mugabe give to his people?

- (a) Opposition party workers were harassed and their meeting disrupted.
(b) Public protests and demonstrations against the government were declared illegal
(c) There was a law that limited the right to criticise the President
(d) All of the above

9. Assertion (A): Democracy enhances the dignity of citizens.

Reason (R): Democracy is based on the principle of political equality.

- (i) Both A and R are true and R is correct explanation of the assertion.
(ii) Both A and R are true but R is not the correct explanation of the assertion.
(iii) A is true but R is false.
(iv) A is false but R is true.

10. Assertion (A): Every democracy has to try to realise the ideals of a democratic decision making.

Reason (R): Every country is a perfect democracy.

- (i) Both A and R are true and R is correct explanation of the assertion.
(ii) Both A and R are true but R is not the correct explanation of the assertion.
(iii) A is true but R is false.
(iv) A is false but R is true.

11. Assertion (A): Democracy provides a method to deal with differences and conflicts.

Reason (R): In a democracy, each adult citizen must have one vote and each vote must have one value.

- (i) Both A and R are true and R is correct explanation of the assertion.
(ii) Both A and R are true but R is not the correct explanation of the assertion.
(iii) A is true but R is false.

(iv) A is false but R is true.

12. Read the given passage and answer the questions that follow:

In Pakistan, General Pervez Musharraf led a military coup in October 1999. He overthrew a democratically elected government and declared himself the 'Chief Executive' of the country. Later he changed his designation to President and in 2002 held a referendum in the country that granted him a five year extension. Pakistani media, human rights organisations and democracy activists said that the referendum was based on the cartoon malpractices and fraud. In August 2002 he issued a 'Legal Framework Order' that amended the Constitution of Pakistan.

- (a) What is 'Legal Framework Order'?
- (b) Why Pakistan under General Musharraf should not be called a democratic country?
- (c) Who led the military coup in Pakistan?
- (d) What step did he take to establish himself as the ruler of Pakistan in 1999?

GEOGRAPHY

1. Name the glaciers and passes that lie in the Great Himalayas.
2. In which of the following states of India Dudhwa National Park is located?
(a) Madhya Pradesh (b) Uttar Pradesh (c) Rajasthan (d) West Bengal
3. By which name river Brahmaputra is known as in Tibet?
(a) Tsangpo (b) Lohit (c) Dihang (d) Dibang
4. The river Narmada has its source at the
(a) Brahmagiri Hills (b) Sahayadris (c) Amarkantak Hills (d) None of the above
5. Name the second largest river of the Peninsular India.
(a) The river Godavari (b) The river Krishna
(c) The river Kaveri (d) The river Mahanadi
6. Assertion (A): The latitudinal and longitudinal extent of the mainland of India is about 30° but the East-West extent appears smaller than the North-South extent.
Reason (R): The North-South distance of India is 3214 km.
(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.
7. Assertion (A): India is bounded by young fold mountains in the North-West, North and North-East.
Reason (R): The Himalayas lie on the Northern part of India.
(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.
8. The Ganga System: - The Ganga is the most important river of India both from the point of view of its basin and cultural significance. It rises in the Gangotri glacier near Gaumukh (3,900 m) in the

Uttarkashi district of Uttarakhand. Here, it is known as the Bhagirathi. It cuts through the Central and the Lesser Himalayas in narrow gorges. At Devprayag, the Bhagirathi meets the Alaknanda; hereafter, it is known as the Ganga. The Alaknanda has its source in the Satopanth glacier above Badrinath. The Alaknanda consists of the Dhauli and the Vishnu Ganga which meet at Joshimath or Vishnu Prayag. The other tributaries of Alaknanda such as the Pindar joins it at Karna Prayag while Mandakini or Kali Ganga meets it at Rudra Prayag. The Ganga enters the plains at Haridwar. The Yamuna, the western most and the longest tributary of the Ganga, has its source in the Yamunotri glacier on the western slopes of Banderpunch range (6,316 km). It joins the Ganga at Prayag (Allahabad). It is joined by the Chambal, the Sind, the Betwa and the Ken on its right bank which originates from the Peninsular plateau while the Hindan, the Rind, the Sengar, the Varuna, etc. join it on its left bank. Much of its water feeds the western and eastern Yamuna and the Agra canals for irrigation purposes.

The Kosi is an antecedent river with its source to the north of Mount Everest in Tibet, where its main stream Arun rises. After crossing the Central Himalayas in Nepal, it is joined by the Son Kosi from the West and the Tamur Kosi from the east. It forms Sapt Kosi after uniting with the river Arun.

8.a From where does the right bank tributaries of the river Yamuna originates?

8.b What is the source of the river Kosi?

8.c Name the two headstreams of river Ganga? Where do they meet to form the river, Ganga?

9. Locate and label the following on the political map of India.

9.a The river Damodar.

9.b Ladakh mountain range.

ECONOMICS

1. Which age group of children does the Sarva Shiksha Abhiyan aim to promote education?

- (a) 6-14 years (b) 6-15 years (c) 8-14 years (d) 8-15 years

2. Disguised unemployment could be traced in:

- (a) mining activity (b) service sector (c) agriculture (d) social forestry

3. In which sector should India increase maximum employment opportunities?

- (a) mining activity (b) service sector (c) agriculture (d) social forestry

4. Which of the following is not an economic activity?

- (a) Banking (b) Teaching (c) Dairy farming (d) Farming for self-consumption

5. Why are rural women employed in low-paid jobs?

- (a) They do not need to work in high-paid jobs.
(b) They lack in education or the necessary skills.
(c) They are not allowed by their families to do high paid jobs.
(d) They are not aware of the wage structure.

6. The two determinants of earning by an individual in the market are:

- (a) Health and education (b) Education and skill
(c) Age and education (d) Skill and age

7. Human resources refer to:
- (a) The population of a country
 - (b) The skills and abilities of individuals
 - (c) The financial resources of a nation
 - (d) The natural resources available in an area
8. What does investment in human capital include?
- (a) Building factories and industries
 - (b) Training and education of individuals
 - (c) Construction of roads and infrastructure
 - (d) Exploration of natural resources
9. Which sector is responsible for the formation of human capital?
- (a) Primary sector
 - (b) Secondary sector
 - (c) Tertiary sector
 - (d) None of the above
10. Which of the following is an example of human-made capital?
- (a) Rivers
 - (b) Factories
 - (c) Forests
 - (d) Minerals
11. What is the aim of the National Rural Employment Guarantee Act (NREGA)?
- (a) To promote industrial growth
 - (b) To provide employment opportunities in rural areas
 - (c) To improve agricultural productivity
 - (d) To conserve natural resources
12. The term brain drain refers to:
- (a) The movements of skilled individuals from one country to another.
 - (b) The migration of unskilled workers to urban areas.
 - (c) The loss of natural resources due to unsustainable practices.
 - (d) The decline in literacy rates in a population.
13. Which of the following statements is true about the population of a country?
- (a) More population always leads to economic development
 - (b) Population growth is always a burden on the economy
 - (c) Population can be an asset if provided with proper education and skills
 - (d) Population has no impact on economic growth

ARTIFICIAL INTELLIGENCE

1. Write some methods of communication.
2. Write the effects of stress on our life.
3. What is Stress management?
4. What do you mean by Self motivation?
5. Write some Factors Influencing Communication Skills.
6. What are the various areas where AI can be used?
7. Give any three examples of AI Domain.
8. What are the advantages of Smart Homes?
9. What are the different career opportunities in AI?
10. What are different AI project stages?

MCQ (Multiple Choice Questions)

1. Which of the following machine requires input from the humans but can interpret the outputs themselves?

- a) Actuators b) Sensor c) Agents d) AI system

2. With so many people using electricity on a daily basis—whether it is to charge their cell phones or to use their TV—a lot of cables (made of plastic) must be used. Plastic destroys our ecosystem, yet we continue to produce it. Indispensable as it may seem, it has an adverse effect on the environment. The manufacturing of plastic is not exactly ecofriendly. With a little help from modern technology Elif discovered a way to help curb our plastic problem. She used banana peels as the main ingredient to make bio-plastics.

Which of the Sustainable Development Goal does this scenario relate to?

- a) Life on land b) Responsible consumption, and production
c) Affordable and clean energy d) Sustainable cities and communities

3. information about three games are given below. Identify the game and the respective domain

1. The players of this game have to guess what the opponents will choose and make an appropriate shape to defeat them.
2. This is a simple twenty questions game in which the player can ask 20 Yes/No questions to identify the animal.
3. In this game, the computer asks the player to find the objects that match certain images within a time limit.

- a) 1. Emoji Scavenger Hunt -> Computer vision; 2. Rock, Paper, Scissor -> Natural Language Processing;
3. Mystery Animal -> Data Sciences
b) 1. Mystery Animal -> Data Sciences; 2. Emoji Scavenger Hunt -> Natural Language Processing;
3. Rock, Paper, Scissor -> Computer vision
c) 1. Rock, Paper, Scissor -> Data Sciences; 2. Emoji Scavenger Hunt -> Natural Language Processing;
3. Mystery Animal -> Computer vision

d) 1. Rock, Paper, Scissor -> Data Sciences; 2. Mystery Animal -> Natural Language Processing; 3. Emoji Scavenger Hunt -> Computer vision ✓

4. When you search for 'Doctor' on a search website, the results for Doctor images might mostly come up as 'male'. Whereas for 'Nurse' most results would be 'female'. What does this depict?

- a) Gender bias b) Data Privacy c) Poor training d) Lack of access

5. Rahul gets feedback on his project work from his class teacher. Which of these options demonstrates positive attitude in this situation?

- (a) Rahul ignores the feedback.
(b) Rahul takes the feedback but does not use it.
(c) Rahul tells others that the teacher is wrong.
(d) Rahul learns from the feedback and makes his project work better.

6. How can we manage stress?

- a. Be aware that you are stressed b. Identify what is causing you stress
c. Apply stress management methods. d. All of the above

7. Grooming is a term associated with

- (a) time management (b) problem solving
(c) neat and clean appearance (d) self-management

8. Niraj had difficulty in speaking English. He, therefore, avoided talking to his classmates. He believed that he can learn English by joining English speaking classes and in few days he was able to speak English fluently. Which of the following quality is he demonstrating?

- a) Personal hygiene and grooming b) Self-control
c) Self-confidence d) Team work

9. Statement 1: The drone technology help farmers spot intrusions, crop diseases, predict the amount of crop production, and saves time and avoids the difficulties of physical manual inspections.

Statement 2: The statement given above is an example of Natural Language Processing.

- a) Both Statement1 and Statement2 are correct
b) Both Statement1 and Statement2 are incorrect
c) Statement 2 is correct and Statement 1 is incorrect.
d) Statement 1 is correct and Statement 2 is incorrect

10. Statement 1: AI is getting integrated into our lives seamlessly.

Statement 2: Often, we do not even realize that we are using AI.

- a) Statement 2 is correct and Statement 1 is incorrect.
b) Statement 1 is correct and Statement 2 is incorrect
c) Both Statement 1 and Statement 2 are correct
d) Both Statement 1 and Statement 2 are incorrect

INFORMATION TECHNOLOGY

1. Physical exercise is used as a stress management technique because
 - a) It improves blood circulation
 - b) improves self-image
 - c) make us feel better
 - d) All of the above
2. Stress management prevents _____
 - a) psychological disorders
 - b) behavioural problems
 - c) both of the above
 - d) none of the above
3. Which of the following styles is not offered by OpenOffice.org?
 - a. Page Style
 - b. Frame Style
 - c. Presentation Style
 - d. Video Style
4. Which of the style include header and footers, border, margins.
 - a. Character Style
 - b. Page Style
 - c. Frame style
 - d. Presentation Style
5. By what method we can know what the receiver understood or got the message
 - a) transmitting
 - b) feedback
 - c) message
 - d) listening
6. List any 3 websites of the Indian government which provide IT enabled services to the people.
7. Write some methods of communication.
8. What do you mean by a Sentences and write parts of a sentence.
9. What do you mean by Self-management?
10. What is Stress?
11. Write the effects of stress on our life.
12. What is Stress management?
13. What are the benefits of Stress management?
14. Explain Image Cropping.
15. List methods of inserting images in a text document.
16. What do you understand by the term: Text Wrapping
17. What do you mean by Self-motivation?
18. Write the four steps for effective Time management.
19. Explain Grouping objects.
20. Write some Factors Influencing Communication Skills.
21. What do you understand by the term IT and ITeS?
22. What are the pros and cons of using ICT?
23. What precautions are required to ensure that ICT use is safe?
24. What are the various processes of education where IT is used?
25. Which are the prominent areas where IT is used in science and engineering?

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