



PRATAP PUBLIC SCHOOL, SEC-6, KARNAL

HOLIDAY HOMEWORK

CLASS X

ENGLISH

Lesson 1- A LETTER TO GOD

1. Lencho's actions in the first paragraph shows that he was _____
 - A. Baffled
 - B. Alarmed
 - C. Concerned
 - D. Encouraged
2. Was Lencho's prediction of the weather accurate? Give reasons for your answer.

3. Why are locusts mentioned in the text?
 - A. To show how unpredictable farming can be
 - B. To compare this event to a past experience
 - C. To suggest that God was playing a role in the events
 - D. To indicate how much damage was done to the crops
4. Lencho was an ox of a man, working like an animal in the fields, but still he knew how to write. What attitude does this sentence highlight?
 - A. Prejudice
 - B. Tolerance
 - C. Scepticism
 - D. Appreciation
5. Why is Lencho compared to an ox?
 - A. To suggest that people underestimated him
 - B. To show how hard he worked
 - C. To insult his intelligence
 - D. To emphasise his size
6. What was the family's attitude the night after the hailstorm?
 - A. Frustrated
 - B. Optimistic
 - C. Confident
 - D. Furious
7. How did the postman feel when he found the letter?
 - A. Amused
 - B. Amazed

- C. Generous
 - D. Sympathetic
8. Why did Lencho call the post office employees crooks?
- _____
- _____
9. Lencho's response to the first letter shows that his faith in God can be best described as _____
- A. Shaken
 - B. Evolving
 - C. Absolute
 - D. Newly discovered
10. After reading the second letter the postmaster is most likely to have been _____
- A. Alarmed
 - B. Offended
 - C. Distressed
 - D. Bewildered

Lesson 2- NELSON MANDELA

1. What is the main purpose of the text?
- A. To pay tribute to the sacrifice of participants in the struggle
 - B. To describe the conditions that used to exist in the past
 - C. To reflect on the past in order to move forward
 - D. To create a vision for the future
2. For the past few days I had been pleasantly besieged by dignitaries and world leaders who were coming to pay their respects before the inauguration.
- Why does Mandela use the words 'pleasantly besieged'?
- _____
- _____
3. In the second paragraph of the text, the lovely sandstone amphitheatre is highlighted as what?
- A. An unusual seat of government
 - B. An important symbol of democracy
 - C. A symbol of contrast between the past and the present
4. What is the 'extraordinary human disaster' Nelson Mandela mentions in his speech?
- _____
- _____
5. What were the two ideas intended to be conveyed by the display of military force?
- _____
- _____
6. Why does Mandela mention various historical figures?
- A. Show that black South Africans do not lack courage
 - B. Acknowledge their efforts in the struggle against apartheid
 - C. Illustrate that character is hardened by difficult circumstances
 - D. Suggest that even apartheid had some positive consequences
7. What lesson did Mandela learn about courage?
- A. Anyone can show courage

- B. Courage is not found in the absence of fear
 - C. Courage cannot be shown when one is afraid
 - D. Courage can be found under any circumstance
8. No one is born hating another person.... but never extinguished.

What quality of Mandela's does this paragraph show?

- A. Resolve
 - B. Fortitude
 - C. Optimism
 - D. Perseverance
9. Did Mandela fulfil his twin obligations? Justify your answer:

10. What is Mandela's attitude towards his oppressors?
- A. Magnanimous
 - B. Patronising
 - C. Altruistic
 - D. Liberal

Fire and Ice , A Triumph of Surgery, Dust of Snow and The Thief's Story

1. Which of the following lines convey the meaning "will be equally effective"?

- (a) From what I've tasted of desire
- (b) I know enough of hate
- (c) Those who favour fire
- (d) And would suffice

2. State any one inference about Tricki from the given context.

"He had never had such a time in his life."

3. The Shaggy crew mentioned in the chapter refers to _____."?(A Triumph of Surgery)

4. Which phrase would correctly substitute "hadn't had much luck of late"?(The Thief's Story)

5. The narrator uses flattery" as a weapon. Explain in about 20 words with reference to the chapter "The Thief's Story.

6 Bring out the irony in the narrator's remark, "a queer way to make a living." (The Thief's Story)

7. "Anil was a man of his promise." Give one instance from the story "The Thief's Story" in support of this statement.

8. It is clear that synecdoche is the poetic device used in the lines: "has given my heart/ A change of mood because_____.

Short and Long Questions

Lesson -1 A letter to God

1. Lencho did not bother exploring any other means to resolve his situation but just turn to God. Do you feel that his approach was justified? Why / Why not? (3)

2. Suppose you are Lencho and you have come to know that it was the postmaster and his colleagues who had come to your rescue in the name of God. Write a letter to the postmaster to thank him for the help and say what you think of him and his colleagues now. You might also like to apologise to them.

(5)

Lesson 2 - Nelson Mandela

1. 'Man's goodness is a flame that can be hidden but never extinguished.' Illustrate this statement with respect to the lesson. (3)

2. Suppose you are a journalist sent by an International English newspaper to cover the ceremony of the inauguration of Nelson Mandela's government. Write a newspaper article detailing the happenings of the day. (5)

Poem 1 Dust of Snow

1. What is the underlying message for us in our hectic life with respect to the poem? (3)

2. "A little incident or action may have far reaching consequences." Discuss with special reference to the poem "Dust of Snow" by Robert Frost. (5)

Poem 2 Fire and Ice

1. Do you think socio-political events could have inspired the poet to write this poem? Give reasons in support of your answer. (3)

2. Imagine that Nelson Mandela read "Fire and Ice". As Mandela, write a diary entry associating the impact of troubled history of South Africa with the idea expressed in the poem. (5)

Lesson 3-Two Stories about Flying

1. Ray Lewis says, "Adversity defines true character." Justify the truth of this statement. (3)

2. "What we have to fear in life is fear itself." Justify the statement by citing examples from the stories of the seagull and the pilot. (5)

Supplementary

Lesson 1 A Triumph of Surgery

1. The story "A Triumph of Surgery" is a powerful example of the importance of saying "NO". Explain. (3)

2. Imagine that Mrs Pumphrey, from "A Triumph of Surgery" writes a letter to her friend sharing her own experience and exploring the range of emotions owners of pets go through once their pets fall sick.

(5)

Lesson 2 The Thief's Story

1. Fiction writers prefer creating grey characters rather than black and white. Analyse this in detail, with reference to both the characters of "The Thief's Story". (3)

2. Imagine that Hari Singh, the thief in the story "The Thief's Story" by Ruskin Bond writes a diary entry to describe his feelings when he finds no change in Anil's behaviour in the morning after the night the former had stolen and then returned the latter's money. Write a diary entry, as Hari Singh, in about 120 words. (5)

Read the passage carefully.

1. Everyday we're confronted with a barrage of choices. We make choices about the clothes we wear, the food we eat, the appointments we schedule, the people we meet, the time we turn up to work, which bus we catch, where we sit on the bus, what we do after work, and so on. Living a rich and satisfying life means making good choices on an ongoing basis.

2. What is a good choice? Good choices are decisions that keep you heading in the direction in which you want to go. Bad choices, on the other hand, end up being counterproductive and can quickly begin spiralling into stress, confusion, and despair.

3. Some of the trickiness of choice-making arises with options that may be joyous in the short-term but may incrementally steer us off course over the longer term. Just taking that one extra serving of dessert or staying in bed for only half an hour more can be choices like this. Conversely, some decisions can be a bit dreary or difficult at the time but lead to better directions down the track. Staying home and studying or completing another gruelling session at the gym are examples of short-term discomfort for longer-term benefits.

4. Perhaps the most fundamental consideration with choice-making is to ensure the choices you make are congruent with important goals you have. If you have a quiet, distant goal of being financially independent one day and building a successful career, then making decisions to party excessively with late nights will likely lead to later discontent and misery regardless of how good it all feels now. Perhaps the partying is related to an important goal of being accepted and liked by others but is at odds with career and financial goals.

5. Understanding the dynamics of choices can help improve the decisions that you make. Essentially, any choice involves at least two options, both of which have pros and cons associated with them. Taking a moment to reflect on your inclinations and wishes that made you hesitate or go ahead with the choice

(b) inclinations – deliberations

(e) incrementally – excessively

(c) despair – misery

(vi) What is the author's advice/message to readers on 'more highly valued goals in life'? (1 Mark)

(vii) State whether the author's tone in the passage is provocative / sarcastic / matter-of-fact /condemnatory. Rationalize your answer response in about 40 words. (2 Marks)

(viii)State whether the following lines are in agreement with the author's views on tricky choices. Answer the following questions, based on the passage above. (1 Mark)

I shall be telling this with a sigh

Somewhere ages and ages hence:

Two roads diverged in a wood, and I

I took the one less travelled by,

And that has made all the difference.

विषय – हिंदी

1. नेता जी का चश्मा पाठ के उद्देश्य को स्पष्ट कीजिए।
2. कस्बे की विशेषताओं को अपने शब्दों में स्पष्ट कीजिए।
3. नगरपालिका ने चौराहे पर मूर्ति लगाने की हड़बड़ाहट क्यों दिखाई थी?
4. मूर्ति पर लगा सरकंडे का क्या उम्मीद जगाता है?
5. पानवाला हँसोड़ स्वभाव का था फिर भी उसके मन में संवेदना थी। इस कथन की पुष्टि कीजिए।
6. कैप्टन हालदार साहब के लिए सहानुभूति का पात्र क्यों था?
7. 'बालगोबिन भगत' पाठ लेखन का उद्देश्य स्पष्ट कीजिए।
8. गर्मियों की उमस में भगत का आँगन शीतलता प्रदान करता था। कैसे?
9. बालगोबिन भगत की मृत्यु उन्हीं के अनुरूप कैसे हुई?
10. भगत के जीवन की कौन-सी विशेषताएँ आपको सबसे अधिक प्रभावित करती हैं?
11. बालगोबिन भगत पाठ में समाज की किन बुराइयों को दूर करने का संदेश दिया गया है?
12. बालगोबिन भगत मौत को दुख का कारण क्यों नहीं मानते?
13. 'सनक' किसे कहते हैं? सकारात्मक सनक को उदाहरण देकर 'लखनवी अंदाज' पाठ के आधार पर स्पष्ट कीजिए।
14. बिना कथ्य के कहानी लिखना क्यों संभव नहीं है? तर्क देकर स्पष्ट कीजिए।
15. लेखक को नवाब साहब का मौन रहना जितना अधिक अखरता है उससे भी अधिक उसका अचानक बातें करना कचोटता है। क्यों?
16. गोपियों द्वारा उद्धव को भाग्यवान कहने के पीछे क्या व्यंग्य छिपा है। स्पष्ट कीजिए।
17. उद्धव गोपियों की मनोदशा क्यों नहीं समझ सके?
18. गोपियों ने अपने प्रेम की अभिव्यक्ति किस प्रकार से की है? स्पष्ट कीजिए।
19. कवि आत्मकथा लिखने से क्यों कतराता है?
20. 'आत्मकथ्य' कविता के आधार पर कवि की मनोदशा का वर्णन करें।
21. जयशंकर प्रसाद के जीवन की सबसे बड़ी त्रासदी क्या है?
22. कवि 'निराला' बादलों से किस बात के लिए अनुरोध करता है और क्यों?
23. 'उत्साह' कविता में 'नव-जीवन वाले' किसके लिए प्रयोग किया गया है और क्यों?
24. कविता के आधार पर राम और लक्ष्मण के चरित्र की विशेषताएँ लिखिए।
25. परशुराम के वक्तव्य में विरोधाभास कहाँ प्रतीत होता है? 'राम-लक्ष्मण-परशुराम' कविता के आधार पर स्पष्ट कीजिए।
26. लेखक का नाम 'भोलानाथ' क्यों पड़ा होगा? 'माता का आँचल' पाठ के आधार पर स्पष्ट कीजिए।
27. मूसन तिवारी ने बच्चों को क्यों खदेड़ा?
28. पिता के साथ सारा दिन रहने वाला भोलानाथ विपत्ति में माता जी के पास ही क्यों आया?
29. बच्चे माता-पिता के प्रति अपने प्रेम की अभिव्यक्ति किस प्रकार से करते हैं? 'माता का आँचल' पाठ के आधार पर स्पष्ट कीजिए।
30. भोलानाथ अपने साथियों के साथ मिलकर कौन-कौन से खेल खेलता था?
31. 'माता का आँचल' पाठ में कौन-कौन सी बालसुलभ मनोवृत्ति उभर कर आई हैं?

32. अलंकार किसे कहते हैं? इसके भेदों का वर्णन करें।
33. उपमा अलंकार की परिभाषा देते हुए कोई दो उदाहरण दीजिए।
34. उत्प्रेक्षा और मानवीकरण अलंकार की परिभाषा देते हुए दोनों में अंतर स्पष्ट कीजिए।
35. वाक्य किसे कहते हैं? रचना के आधार पर वाक्य के भेदों का वर्णन करें।
36. सरल वाक्य की परिभाषा बताते हुए प्रमुख पहचान लिखिए।
37. संयुक्त वाक्य की प्रमुख पहचान क्या है? उदाहरण देकर स्पष्ट कीजिए।
38. मिश्र वाक्य और सरल वाक्य में उदाहरण देकर अंतर स्पष्ट कीजिए।
39. प्रमुख और आश्रित उपवाक्य किसे कहते हैं? इनकी पहचान किस प्रकार से की जा सकती है?
40. आश्रित उपवाक्य के भेदों को उदाहरण देकर स्पष्ट करें।
41. 'पद' और 'शब्द' में उदाहरण देकर स्पष्ट कीजिए।
42. 'पद-परिचय' किसे कहते हैं?
43. विकारी और अविकारी की परिभाषा देते हुए उदाहरण दीजिए।
44. 'संज्ञा' शब्द का 'पद-परिचय' देते समय क्या-क्या बताया जाता है?
45. सकर्मक और अकर्मक क्रिया को उदाहरण देते हुए स्पष्ट कीजिए।
46. प्रेरणार्थक क्रिया को उदाहरण देते हुए स्पष्ट कीजिए।
47. 'राधा प्रतिदिन विद्यालय में पढ़ाई करती है।' रेखांकित पदों का पद-परिचय दीजिए।
48. वाच्य किसे कहते हैं? उदाहरण देकर स्पष्ट कीजिए।
49. वाच्य के कौन-कौन से भेद हैं? इनकी विशेष पहचान लिखिए।
50. कर्तृवाच्य को भाववाच्य या कर्मवाच्य में बदलते समय किन-किन बातों का ध्यान रखना चाहिए?

Science -Worksheets

Q1. Concave mirror cannot form image

- (i) Real but equal
- (ii) Real but smaller
- (iii) Real but larger
- (iv) Virtual but smaller

Q2. Virtual & large image is formed by

- (i) Plane mirror
- (ii) Concave mirror
- (iii) Convex mirror
- (iv) None

Q3. Image in convex mirror is always

- (i) Large erect
- (ii) Small erect
- (iii) Large inverted
- (iv) Small inverted.

Q4. For the focal length of mirror select true

- (i) In concave less than zero.
- (ii) In convex more than zero
- (iii) In plane focal length infinity
- (iv) All

Q5. Magnification in plane mirror is

- (i) 0
- (ii) +1
- (iii) -1
- (iv) None.

Q6. Magnification in convex mirror is

- (i) 0
- (ii) +1
- (iii) -1.
- (iv) Between 0 & 1

Q7. Magnification in concave mirror is

- (i) 0
- (ii) +1
- (iii) Less than zero or greater than 1
- (iv) None

Q8. Which mirror has negative focal length

- (i) Concave
- (ii) Convex
- (iii) Plane
- (iv) None.

Q9. Which mirror have positive focal length

- (i) Concave
- (ii) Convex.
- (iii) Plane.
- (iv) None

Q10. In a mirror 10cm far object image is at 20cm real magnification is

- (i) +2
- (ii) -2
- (iii) +1/2
- (iv) -1/2

Q11. Speed of light in vacuum is 3×10^8 m/s. Find speed in glass if $n_g = 1.5$

- (i) 4.5×10^8 m/s.
- (ii) 2×10^8 m/s.
- (iii) 2×10^{-8} m/s.
- (iv) 4.5×10^{-8} m/s.

Q12. Maximum Refractive index is of

- (i) Glass
- (ii) Water
- (iii) Diamond
- (iv) None

Q13. Lens which can never form real image is

- (i) Concave.
- (ii) Convex.
- (iii) Converging.
- (iv) All

Q14. Only lens that can make real as well as virtual image is

- (i) Convex
- (ii) Diverging
- (iii) Concave
- (iv) None.

Q15. For real image value of magnification is

- (i) 0
- (ii) Less than 0

(iii) 1

(iv) Greater than 1

Q16. At which location of object in front of concave lens, the image between focus and optical centre is formed

(i) anywhere between centre and infinity

(ii) at F

(iii) at 2F

(iv) infinity

Q17. CASE STUDY: The lenses form different types of images when an object is placed at different locations. When a ray is incident parallel to the principal axis, then after refraction, it passes through the focus or appears to come from the focus. When a ray goes through the optical centre of the lens, it passes without any deviation. If the object is placed between focus and optical center of the convex lens, an erect and magnified image is formed. As the object is brought closer to the convex lens from infinity to focus, the image moves away from the convex lens from focus to infinity. Also the size of the image goes on increasing and the image is always real and inverted. A concave lens always gives a virtual, erect and diminished image irrespective to the position of the object.

(i) The location of image formed by a convex lens when the object is placed at infinity is

(a) at focus

(b) at 2F

(c) at optical center

(d) between F and 2F

(ii) When the object is placed at the focus of a concave lens, the image formed is

(a) real and smaller

(b) virtual and inverted

(c) virtual and smaller

(d) real and erect

(iii) The size of image formed by a convex lens when the object is placed at the focus of a convex lens is

(a) small

(b) point in size

(c) highly magnified

(d) same as that of object

(iv) When the object is placed at 2F in front of a convex lens, the location of image is

(a) at F

(b) at 2F on the other side

(c) at infinity

(d) between F and optical center

Q18. Which one of the following is acidic?

(i) Lemon juice

(ii) Tomatoes

(iii) Tomatoes

(iv) All

Q19. Which one of the following will turn red litmus blue?

(i) Vinegar

(iii) Lemon juice

(ii) Baking Soda

(iv) Soft drinks

Q20. Which one of the following will turn blue litmus red?

(i) Vinegar

(iii) Baking soda solution

(ii) Lime water

(iv) Washing soda solution

Q21. Methyl orange is

(i) Pink in acidic medium, yellow in basic medium

(ii) Yellow in acidic medium, pink in basic medium

(iii) Colourless in acidic medium, pink in basic medium

(iv) Pink in acidic medium, colourless in basic medium

Q22. Lime water is

(i) CaO

(iii) CaCO₃

(ii) Ca(OH)₂

(iv) CaCl₂

Q23. The nature of calcium phosphate is present in tooth enamel is:

(i) Basic

(iii) Acidic

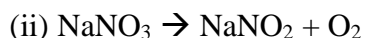
(ii) Amphoteric

(iv) Neutral

Q24. Which of the given chemical equations is balanced?

(i) $\text{H}_2\text{O}_2 \rightarrow \text{H}_2\text{O} + \text{O}_2$

(iii) $\text{CaCO}_3 \rightarrow \text{CaO} + \text{CO}_2$



Q25. Which of the following conditions is necessary for a chemical reaction?

(i) It must be accompanied with change in temperature and pressure.

(ii) At least one of the reactants must be in a fixed quantity.

(iii) It must follow the law of conservation of mass.

(iv) All of the above.

Q26. What is the reaction in which a substance or substances undergo change to produce new substances with new properties called?

(i) A biochemical reaction

(iii) A physical reaction

(ii) A nuclear reaction

(iv) A chemical reaction

Q27. In which reaction is an atom or a group of atoms present in a molecule displaced by another atom?

(i) Displacement reaction

(iii) decomposition reaction

(ii) Double decomposition reaction

(iv) Synthesis reaction

Q28. In which reaction do two compounds exchange their ions to form two new compounds?

(i) Displacement reaction

(iii) Synthesis reaction

(ii) Double displacement reaction

(iv) decomposition reaction

Q29. In which reaction does a solid get separated from the solution?

(i) Neutralization reaction

(iii) Redox reaction

(ii) Precipitation reaction

(iv) All of the above.

Q30. Identify the substance which reduces a compound.

(i) A hydrating agent

(iii) An oxidizing agent

(ii) A dehydrating agent

(iv) A reducing agent.

Q31. In which reaction does the addition and the removal of oxygen takes place simultaneously?

(i) Oxidation reaction

(iii) Redox reaction

(ii) Reduction reaction

(iv) Precipitation reaction

Q32. Identify the type of reaction $\text{H}_2 + \text{O}_2 \rightarrow 2\text{H}_2\text{O}$

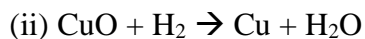
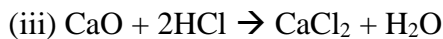
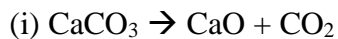
(i) Decomposition reaction

(iii) Double displacement reaction

(ii) Combination reaction

(iv) Displacement reaction

Q33. Which of the following is a redox reaction?



Q34. Which of the following statements is correct about the given reaction? $\text{ZnO} + \text{CO} \rightarrow \text{Zn} + \text{CO}_2$

(i) ZnO is being oxidized

(iii) CO is being oxidized

(ii) CO is being reduced

(iv) ZnO is being reduced.

Q35. pH meter is a scientific instrument that measures the hydrogen-ion activity in water-based solution water-based solutions, indicating its acidity or alkalinity, expressed as pH. The pH meter measures the difference in electrical potential between a pH electrode and a reference electrode, and so the pH meter is sometimes referred to as a "potentiometric pH meter". The difference in electrical potential relates to the acidity or pH of the solution. The pH meter is used in many applications ranging from laboratory experimentation to quality control.

1. Which of the following statement is correct regarding pH Scale?

(i) It is the negative logarithm of H^+ ion concentration of a given solution.

(ii) It is the positive logarithm of H^+ ion concentration of a given solution.

(iii) It is a 14 point scale.

(iv) pH is an example of an extrinsic property.

Correct Options are:

A. (i) and (iii)

B. (ii) and (iii)

C. (i), (iii) and (iv)

D. Only (ii)

2. What is the neutral value of pH scale?

A. Less than 5

B. Equal to 7

C. Less than 8

D. Less than 10

3. In which of the following field pH scale is important for measurements?

A. Medicine

B. Forestry

C. Food Science

D. All of the above

4. What is the pH value of very strong acid solution?

A. Less than 7

B. Less than 5

C. Less than 10

D. Less than 2

5. Why we measure the pH of sea water?

Q36. In amoeba, food is digested in the:

(a) food vacuole

(b) mitochondria

(c) pseudopodia

(d) chloroplast

Q37. In which of the following groups of organisms, food materials are broken down outside the body and absorbed?

(a) Mushroom, green plants, Amoeba

(b) Yeast, mushroom, bread mould

(c) Paramecium, Amoeba, Cuscuta

(d) Cuscuta, lice, tapeworm

Q38. The contraction and expansion movement of the walls of the food pipe is called:

(a) translocation

(b) transpiration

(c) peristaltic movement

(d) digestion

Q39. What are the products obtained by anaerobic respiration in plants?

(a) Lactic acid + Energy

(b) Carbon dioxide + Water + Energy

(c) Ethanol + Carbon dioxide + Energy

(d) Pyruvate

Q40. When a few drops of iodine solution are added to rice water, the solution turns blue- black in colour. This indicates that rice water contains:

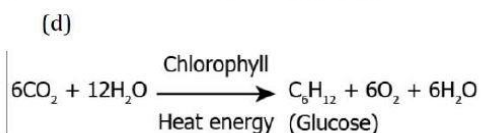
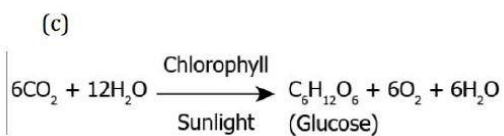
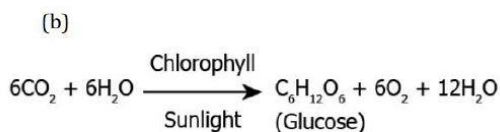
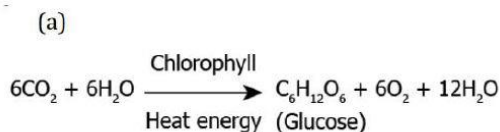
(a) fats

(b) complex proteins

(c) starch

(d) simple proteins

Q41. Which of the equations show correct conversion of CO₂ and H₂O into carbohydrates in plants?



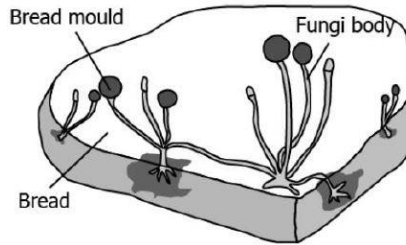
Q42. The respiratory pigment in human beings is:

- (a) carotene (b) chlorophyll (c) haemoglobin (d) mitochondria

Q43. Which of the following is the important characteristic of Emphysema:

- (a) Destruction of the alveolar wall and air sacs in the lungs are damaged.
(b) Increase in the growth of the lung tissue.
(c) Inflammation in the wall of bronchi.
(d) Thickening of the artery walls of the lungs.

Q44. The image shows the bread moulds on a bread. How do these fungi obtain nutrition?



- (a) by eating the bread on which it is growing
(b) by using nutrients from the bread to prepare their own food
(c) by breaking down the nutrients of bread and then absorbing them
(d) by allowing other organisms to grow on the bread and then consuming them

Q45. The characteristic processes observed in anaerobic respiration are

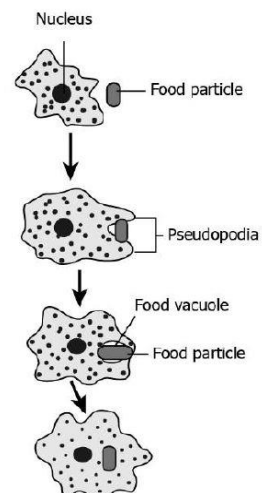
- i) presence of oxygen
ii) release of carbon dioxide
iii) release of energy
iv) release of lactic acid
- (a) i), ii) only (b) i), ii), iii) only (c) ii), iii), iv) only (d) iv) only

Q46. The opening and closing of the stomatal pore depends upon

- (a) Oxygen (b) temperature (c) water in the guard cells (d) concentration of CO₂

Q47. The image shows how Amoeba obtains nutrition. How is this process advantageous for Amoeba?

- (a) capturing of food takes less time
(b) complex food can be digested easily
(c) more amount of food can be consumed
(d) fast distribution of nutrition within the body



Q48. A plant gets rid of excess water through transpiration. Which is a method used by plants to get rid of solid waste products?

- (a) shortening of stem
- (b) dropping down of fruits
- (c) shedding of yellow leaves
- (d) expansion of roots into the soil

Q49. Chemicals present in the tobacco smoke lead to the breakdown of the elastic tissue in the alveoli.

Name this specific condition.

- (a) Heart disease
- (b) Emphysema
- (c) Bronchitis
- (d) Lung cancer

Q50. Digestion of food starts from which organ of the human digestive system?

- (a) mouth due to the presence of saliva
- (b) oesophagus that moves the food in gut
- (c) that releases juices for fat breakdown
- (d) which helps in mixing food with digestive juices

Social Science - Worksheet

Part I - Economics

- Q: 1** Which of the following groups of people are likely to have the **MOST** conflicting developmental goals? [1]
1. students and teachers
 2. tribals and industrialists
 3. small farmers and large farmers
 4. municipal corporations and road-construction companies

Answer - _____

- Q: 2** Study the data given below: [1]
Source: World Bank

COUNTRY	TOTAL GDP	GDP PER CAPITA
Japan	\$4,872,415,104,315	\$38,214
Germany	\$3,693,204,332,230	\$44,680

Despite having a higher total income than Germany, Japan has a lower per capita income. What is the reason for this?

1. Japan has a more equitable distribution of income.
2. Germany has more rich people than poor people.
3. Japan has a smaller population than Germany.
4. Japan has a bigger population than Germany.

Answer - _____

- Q: 3** Which of the following is the best example of a public good? [1]
1. medicines and injections
 2. books and stationary
 3. houses and furniture
 4. law and order

Answer - _____

- Q: 4** "We have not inherited the world from our forefathers, we have borrowed it from our children." - Mr. Lester Brown
Which of the following **BEST** displays this principle in action? [1]
1. using up current oil reserves before beginning to explore more reserves
 2. moving to oil reserves under the sea to avoid drilling on land
 3. moving to alternative fuels to conserve world oil reserves
 4. using modern drilling facilities to extract petroleum

Answer - _____

- Q: 5** For a famous businessman's mall-building project, a slum in Mumbai is being cleared and its people displaced, with only a small payment for their land. There have been protests and a Public Interest Litigation has been filed in the court.
What should the local government do? [1]

1. cancel the project
2. arrest the protesters
3. forcefully remove the people
4. wait for the court's judgement

Answer - _____

- Q: 6** Welfare economics is the branch of economics that seeks to evaluate economic policies in terms of their effects on the well-being of the community.

Which of the following improvements to your locality would NOT align with this view of welfare? [1]

1. vaccinating the stray dogs in the area
2. building ramps in the society to aid the disabled
3. providing safety equipment to the garbage collectors
4. opening a park for people who can pay the membership fees

Answer - _____

Q: 7 Our development is the earth's destruction. Do you agree with the given statement? Give 2 reasons to support your answer. [3]

Answer - _____

Q: 8 People only need a good income to have a good standard of living, as income can buy everything that one needs for a good life. Is this statement correct? Give reason to support your answer. [1]

Answer - _____

Q: 9 How does the Human Development Report give a holistic view of development? [3]

Answer - _____

Q: 10 Sex ratio refers to the number of females per 1000 males in the population. Odisha has a better sex ratio (972) than Madhya Pradesh (919). All other indicators being equal, how does this affect the Human Development Index of the two states? [1]

Answer - _____

Q: 11 The table below shows the income of the citizens of two countries, A and B, assuming that they have only 4 citizens. [5]

COUNTRY	CITIZEN I	CITIZEN II	CITIZEN III	CITIZEN IV
Country A	2,000	2,400	2,400	2,700
Country B	700	40,000	750	710

(a) Calculate the per capita income of both the countries.
Answer - _____

(b) Which country has a higher per capita income?
Answer - _____

(c) Which country has a more equitable distribution of income?
Answer - _____

(d) Is the answer for (b) and (c) the same? Give reasons.
Answer - _____

Q: 12 The human development approach, developed by Mahbub ul Haq is often framed in terms of whether people are able to "be" and "do" desirable things in life. The freedom of choice is central someone choosing to be hungry (as during a religious fast) is quite different from someone who is hungry because they cannot afford to buy food, or because the country is in a famine.

Give an example (other than the one given) to demonstrate the 'freedom of choice' explained above. [1]

Answer - _____

Part II - Geography

Q: 1 In a village, the grazing ground can hold up to 10 cows per day. Beyond this, it cannot replenish itself. The villagers did not pay attention to this information and brought 50 cows to graze in the ground and soon the grazing ground ceased to exist. [1]

What kind of resource is being depleted here?

1. potential resource
2. individual resource
3. non-renewable resource
4. community-owned resource

Answer - _____

Q: 2 Most of the alluvial soil found in India is formed from the silt deposited by the Indo-Gangetic-Brahmaputra rivers.

Which of the following regions contains the parent rock that forms this silt? [1]

1. Himalayas
2. Gangetic delta
3. Northern plains
4. Eastern coastal plains

Answer - _____

Q: 3 An Indian state was taken over by a new government. Which of the following actions by the government will reduce land degradation? [1]

1. setting up three new quarries for the mining of limestone near the capital city
2. granting permissions for cement factories near farmlands
3. converting forest areas to greenhouse horticulture
4. creating separate grazing zones for livestock

Answer - _____

Q: 4 The forest cover in India as of December 2019 is nearly 25%. In the past decade, the government has tried meet the target of increasing the forest cover to 33%. [1]

Although there have been efforts to increase the forest cover in the past few years, forests are not thriving as they used to.

What could be the reason for this?

1. soil erosion and low soil quality
2. lack of irrigation around forests
3. low quality of seeds and saplings
4. cultivating food grains within forest areas

Answer - _____

Q: 5 Uranium is found in Ladakh but has not been mined due to a lack of funding. What kind of resource is this? [1]

1. stock
2. reserves
3. potential resources
4. developed resources

Answer - _____

Q: 6 Which of the following is NOT an important factor in the formation of soil? [1]

1. running water

2. chemical reactions
3. atmospheric pressure
4. change in temperature

Answer - _____

Q: 7 There are two statements given below, marked as Assertion (A) and Reason (R). Read the statements and choose the correct option. [1]

Assertion(A): Soil formation and erosion go hand in hand but sometimes this balance is disrupted by human activities.

Reason(R): The formation of soil takes millions of years while soil erosion takes much less time.

1. A is true but R is false.
2. A is false but R is true.
3. Both A and R are true and R explains A.
4. Both A and R are true but R does not explain A.

Answer - _____

Q: 8 Historically, colonising countries took advantage of India's rich resources to gain supremacy. Why was India not able to resist the exploitation of her resources? [1]

1. due to lack of use for products derived from natural resources
2. due to the colonising countries' superior technology
3. due to lack of awareness about India's resources
4. due to over-utilisation of resources

Answer - _____

Q: 9 The inequitable distribution of access to resources has disrupted world peace by dividing society into _____. [1]

1. the haves and the have nots
2. the environmentalists and the exploiters
3. resource-rich regions and resource-poor regions
4. the climate change believers and climate change deniers.

Answer - _____

Q: 10 A river valley in India is being developed into a hydroelectric power plant. State the three steps of resource planning to achieve this. [3]

Answer - _____

Q: 11 Give one example of an urban community-owned resource. [1]

Answer - _____

Q: 12 Aaron gave his friends three clues about a type of soil. [1]

1. It is found in Maharashtra, the largest producer of cotton in India.
2. During summers, the soil exhibits self-aeration capacity.
3. It is rich in nutrients.

What soil is being referred to by Aaron?

Answer - _____

Q: 13 "It's surely our responsibility to do everything within our power to create a planet that provides a home not just for us, but for all life on Earth." Sir David Attenborough [3]

1. What is meant by the above quote? Explain in two points.

Answer - _____

2. How does this quote align with sustainable development?

Answer - _____

Q: 14 (a) Give two examples of resource conservation practices in our daily lives that make way for sustainable development. [5]

Answer - _____

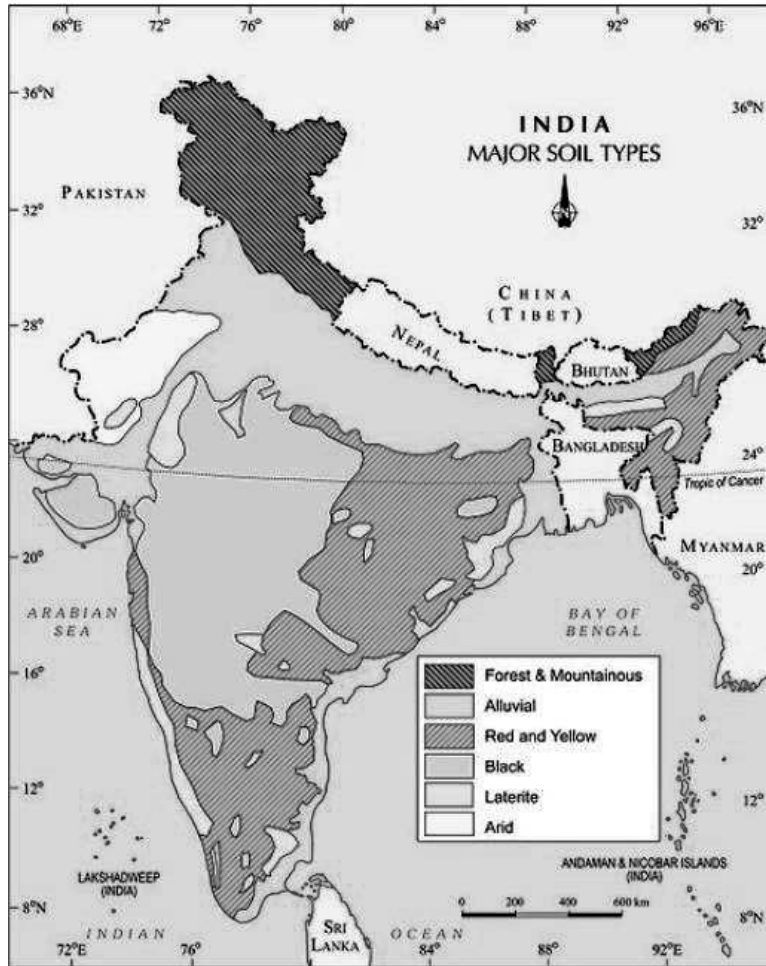
(b) We need sustainable development because resource exploitation is leading to inequality. Explain the inequity of resources in two points.

Answer - _____

(c) Name one international summit that discussed sustainable development as a goal.

Answer - _____

Q: 15 Look at the map given below. [3]



Observe the regions where laterite soil is present. Using the map, explain the similarities between areas that have laterite soil.

Answer - _____

Part III – History

Q: 1 What impact did the storming of the Bastille by the French have on Europe? [1]

1. People across Europe got inspired to fight against the rule of the monarch.
2. Made monarchs from different parts of Europe abdicate from the throne.
3. Inspired nations across Europe to colonise other countries of the world.
4. People in Europe started to fear the French revolutionaries.

Answer - _____

Q: 2 There are two statements given below, marked as Assertion (A) and Reason (R). Read the statements and choose the correct option. [1]

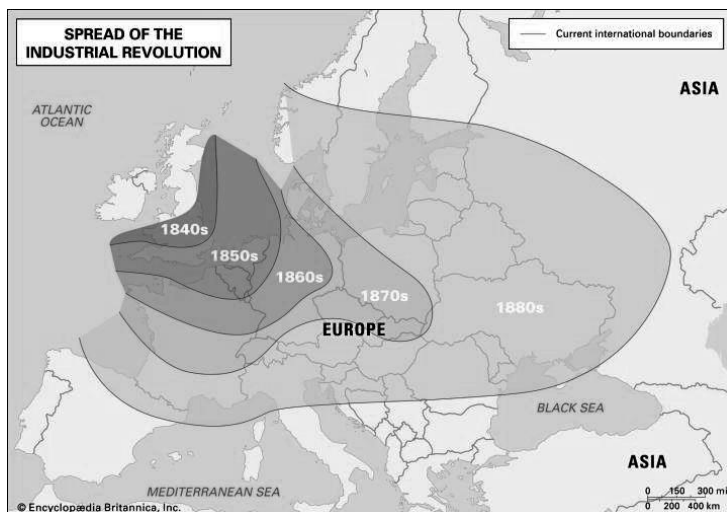
Assertion (A): Napoleon's French army brought democracy and accountability in governance across Europe by 1804.

Reason (R): Napoleon simplified administrative divisions, abolished the feudal system, and freed peasants from serfdom and manorial dues.

1. A is true but R is false.
2. A is false but R is true.
3. Both A and R are true and R explains A.
4. Both A and R are true but R does not explain A.

Answer - _____

Q: 3 Observe the image below. [1]



Which of the following is FALSE based on the above map?

1. Industrialisation first started in England.
2. Nations from eastern Europe were industrialised by the late 19th century.
3. All European nations reaped the benefits of industrialisation at the same time.
4. Most factories were set up in western Europe during the initial phase of industrialisation.

Answer - _____

Q: 4 There are two statements given below, marked as Assertion (A) and Reason (R). Read the statements and choose the correct option. [1]

A: Many artists and poets within Europe made paintings and wrote poems to highlight the plight of Greeks under the Ottoman empire.

R: Many Europeans had sympathies for ancient Greek culture and supported the work of Greek nationalists.

1. A is true but R is false.
2. A is false but R is true.
3. Both A and R are true and R explains A.
4. Both A and R are true but R does not explain A.

Answer - _____

Q: 5 Omar wanted to learn more about the Ottoman Empire. [1]

Which of the following European countries he should visit?

1. France

2. Austria
3. Bulgaria
4. Switzerland

Answer - _____

Q: 6 Who would Rico be fighting against if he was a volunteer in the Red Army which was led by Garibaldi in 1867? [1]

Answer - _____

Q: 7 Write one key feature of constitutional monarchy. [1]

Answer - _____

Q: 8 Oliver Kahn ran a business that spread across Germany, the Dutch Republic, and Italy when the Napoleonic Code of 1804 was implemented. [5]

What were the five key changes Mr. Kahn experienced due to the Napoleonic Code of 1804?

Answer - _____

Q: 9 State any two characteristics of a utopian society. [1]

Answer - _____

Q: 10 The French revolutionaries introduced the French flag as a measure to create a sense of collective identity amongst the French people. [1]

Similarly, name two nation-states that had adopted a national flag for their respective nations by 1848.

Answer - _____

Q: 11 Folk dances and their association with national identity have made their vehicles for government propaganda. In Nazi Germany in the 1930s and 1940s, the government used charming folk dances to embody the mystique of an idyllic Germany. Similarly, in the present scenario certain governments, for example, those of North Korea and China have used dance in mass performances to symbolize the people's support of their political systems.'

Source (edited): Joann W. Kealiinohomoku (October 2020) 'Trends into the 21st century: Political uses of folk dance'. Encyclopedia Britannica, Inc.

Give a similar example of how dance forms helped in developing nationalist sentiments among people from 19th century Europe. [1]

Answer - _____

Q: 12 Explain any five challenges which the Silesian weavers faced in 1845 when contractors reduced their payments?[5]

Answer - _____

Q: 13 Write any five expectations which the monarch of the Bourbon dynasty would have had from the French people after he was restored to power in 1815. [5]

Answer - _____

Part IV – Social and Political Life

Q: 1 Proportionality is an important practice in power sharing which includes proportional allocation of jobs, representation and participation by ethnic group leaders etc. [1]

Which of the following is an example of proportionality?

1. Many political organisations demanded an independent Tamil state in Sri Lanka.
2. Roles and responsibilities are allotted to both the Central and the State government in India.
3. Around 24% of total seats in Lok Sabha are reserved for members belonging to SC-ST categories.
4. The minority French-speaking community (around 45%) is more rich and powerful than the majority Dutch-speaking community in Belgium.

Answer - _____

Q: 2 There are two statements given below, marked as Assertion (A) and Reason (R). Read the statements and choose the correct option. [1]

A: Power-sharing can only emerge in a democratic setup.

R: In an ideal democracy, political power is distributed among as many people as possible.

1. A is true but R is false.
2. A is false but R is true.
3. Both A and R are true and R explains A.
4. Both A and R are true but R does not explain A.

Answer - _____

Read the passage given below and answer the questions 3, 4, and 6 based on it.

Between 1992-95, a conflict broke out between three ethnic groups in the Bosnian territory. These three ethnic groups are the Bosnian Serbs, the Bosnians Croats and the Bosnian Muslims. These ethnic groups had religious differences as the Serbs were Orthodox, the Croats were Catholics and the Muslims followed Islam.

As a compromise, Dayton agreement was designed. It proposed power-sharing as a solution to reduce the conflict. Dayton consisted of both territorial and political power-sharing.

A system was chosen where the national ethnicities were separated by territory. There is significant autonomy granted to the separate entities, since they each have their own presidents, parliaments and other governing bodies, which are responsible for policy making on the entity level.

So instead of having one president, the entire population of Bosnia is represented by a three-presidency which consist of a Bosniak, a Croat and a Serb. The 42 seats of the House of Representatives are chosen by proportional representation which results in a corresponding reflection of the population. The seats in the other house, House of Peoples, are equally divided amongst the ethnicities. There is clear political and territorial power sharing found within the case of Bosnia-Herzegovina.

Although the Dayton Agreement did stop the violence and stabilised the conflict, it seems to have made the ethnic differences more rigid.

Source(edited): The Experience of power sharing through Bosnia Herzegovina, Wageningen University, 2014

Q: 3 (a) What was the reason for the conflict in the Bosnian territory? [1]

Answer - _____

Q: 4 (b) Mention the two forms of power-sharing that were proposed as a solution to the conflict. [1]

Answer - _____

Q: 5 (c) Mention one example each for the two forms of power sharing that was adopted in the Bosnian territory. [1]

Answer - _____

Q: 6 (d) Mention one positive effect that power sharing had on the conflict in the Bosnian territory. [1]

Answer - _____

Q: 7 Read the following lines from an article written by a group of authors. [1]

"The rise of majoritarianism in recent years may weaken power-sharing in Indian democracy. There is a need for constitutional provisions to protect minority rights." Which type of reasoning for power-sharing is visible here?

Answer - _____

Q: 8 (a) State whether the following statement is true or false.
'Power sharing is effective only for small countries like Belgium.'

Answer - _____

(b) Given an example to support your answer.

Answer - _____

Q: 9 One of the remedies that are suggested for societies struggling with civil conflict are power-sharing arrangements that accommodate the various parties involved in the civil conflict. Power-sharing guarantees each of the critical players, a significant payoff from cooperation and peaceful behavior. This peaceful behaviour can be maintained in the power-sharing arrangements in two ways:
(1) by providing minimum benefit to each party from cooperation in collective decisions, and
(2) through provisions that protect group autonomy in sensitive policy areas. **[3]**

1) In Lebanon, The Prime Minister must be a Sunni Muslim and the Deputy Prime Minister must be an Orthodox Christian. Which of the two ways of maintaining peaceful behaviour given above is this an example of?

Answer - _____

2) Give one example each for the two ways of maintaining peaceful behaviour in the context of power sharing arrangement in Belgium.

Source: Power sharing, Agency and Civil Conflicts, Scott Gates, 2007.

Answer - _____

Q: 10 (1) Bengaluru's Jalaposhan trust, a citizens collective, collaborates with the Municipal Corporation (BBMP) of Bengaluru to conserve and revive a lake in the city.

(2) In Maharashtra, every level of government was given a stake in taking action against the spread of coronavirus. **[5]**

(a) State the type of power-sharing arrangement that each of the two examples represent?

Answer - _____

(b) In the above examples, who is sharing power with whom?

Answer - _____

(c) In which kind of government are such power-sharing arrangements possible?

Answer - _____

Subject AI

MCQ

Q. 1. Pick the odd one out and justify your answer:

- i. Snap Chat Filter
- ii. Face Lock in Phone
- iii. Chatbot
- iv.. Image search Option

2. Stress causing agents are

- i. Mental
- ii. Financial
- iii Physical
- iv. All of the above

3. _____ is a practice where an individual is supposed to focus his/her mind.

- i. Yoga
- ii. Meditation
- iii Physical Exercise
- iv. Nature Walk

4. Sucheta decides to sell her company tyres in Sri Lanka. It does not sell and she has a loss She apologizes to the people who work for her.

She says she will plan better next time. She _____.

- i. takes responsibility for your mistakes
- ii. thinks before making a decision
- ill. does not give up
- iv. is creative

5. To provide financial assistance to entrepreneurs the government has set up a number of

- i. Financial advisors
- ii. Financial intermediaries
- ill. Financial institutions
- iv. Industrial estates

Fill in the blanks.

1. _____ stress makes a person worrisome, less productive and may lead to various disorders.
2. Irritation, impatience, loneliness, upset mood, anxiety are sign of _____.
3. Realistic belief and trust of an individual in one's own judgment, capabilities and worthiness is _____.
4. Students may feel _____ stress if they are unable to submit their assignment.
5. AI has created more _____ for people.

Questions

1. Your friend Sohan is always stressed during exam time. He is a sincere and studious student, but the thought of exams creates anxiety in him.

What are some stress management techniques that you would suggest to help him?

2. Tarun is preparing a lecture for her students on self-motivation, which skills should she highlight to help the students become self-motivated and take charge of their learning?

3. You are planning a day out with your friends. Make a list of at least 4 points which you will take care of to make your trip memorable.

4. Why do we need Artificial Intelligence?
5. Give some real-world applications of AI.
6. Explain how AI works in the following areas (any two):
 - a. Google Search Engine
 - b. Voice Assistants
 - c. E-commerce website
7. What do you understand by linguistic Intelligence?
8. Mention two types of machines which have evolved with time.
9. What do you understand by mathematical and logical reasoning?
10. Mention four examples of artificially intelligent applications in our smartphone



CLASS X(IT)

1. Which of the following are the qualities of successful entrepreneurs?
 - a. They are confident.
 - b. They take responsibility for their actions.
 - c. They work hard
 - d. All of the above
2. Qualities of successful entrepreneurs are.
 - a. They keep trying new ideas.
 - b. They are confident.
 - c. They are creative
 - d. All of the above
3. A _____ is a set of formats that you can apply to selected pages, text, frames.
 - a. Style
 - b. Template
 - c. Image
 - d. Graphics
4. We can quickly change the appearance of documents by applying styles. (T/F)
 - a. True
 - b. False
5. Which of the following styles is not offered by OpenOffice.org?
 - a. Page Style
 - b. Frame Style
 - c. Presentation Style
 - d. Video Style
6. Explain the term Alignment.
7. What is Table of Contents? Write on the basis of Digital Documentation.
8. Explain Mail Merge.
9. What do you mean by Self-management?
10. Write Self – management skills strengths and weaknesses?
11. Write the effects of stress on our life.
12. What is Stress management?
13. What are the techniques to manage Stress?
14. Write a short note on the factors influencing self – management.
15. What are the different practices of self-management skills?
16. Do you think entrepreneur is a leader? Discuss.
17. Do you think an entrepreneur is innovative by nature?
18. Explain the risk bearing characteristic of an entrepreneur.
19. What do you mean by the term entrepreneurial skills?
20. What are the disadvantages of nonverbal communication?
21. What is style in Digital documentation?
22. Explain Different types of styles.
23. Abhishek is always stressed when he has to appear for an exam. What are some stress management techniques you would suggest him in order to manage this kind of stress?
24. Roshan is trying to work on a school project all alone. What strategies should he keep in mind to work independently?
25. Harleen has written a report on the topic Healthy Diet. She wants to add some table of contents. How will she be able to do this?

MATHEMATICS

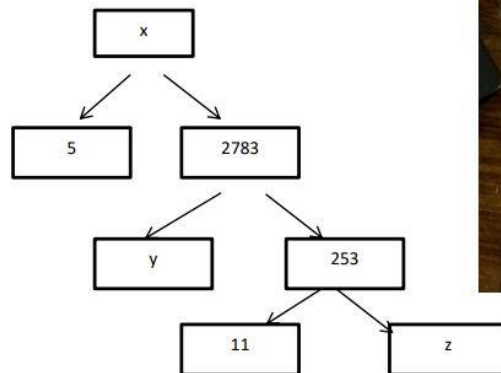
CHAPTER -1 (REAL NUMBERS)

1. A merchant has 120 litres of oil of one kind, 180 litres of another kind and 240 litres of third kind. He wants to sell the oil by filling the three kinds of oil in tins of equal capacity. The greatest capacity of such a tin is
(a) 40 litres (b) 120 litres (c) 180 litres (d) 60 litres
2. The L.C.M and H.C.F of two numbers are 180 and 6 respectively. If one of the numbers is 30, The other number is
(a) 36 (b) 45 (c) 180 (d) 100
3. The least number that is divisible by all the numbers between 1 to 10 (both inclusive) is
(a) 252 (b) 2520 (c) 250 (d) 2500
4. Two numbers have 16 as their H.C.F and 380 as their L.C.M. (True/False)
5. During a sale, colour pencils were being sold in packs of 24 each and crayons in packs of 32 each. If you want full packs of both and the same number of pencils and crayons, how many of each would you need to buy?
6. In a morning walk, three persons step off together, their steps measure 80 cm, 85 cm and 90 cm respectively. What is the minimum distance each should walk so that they can cover the distance in complete steps?
7. If two positive integers a and b are written as $a = x^3y^2$ and $b = xy^3$ where x, y are prime numbers, then find the result obtained by dividing the product of the positive integers by the LCM (a, b).

CASE STUDY QUESTION

A Mathematics Exhibition is being conducted in your School and one of your friends is making a model of a factor tree. He has some difficulty and asks for your help in completing a quiz for the audience.

Observe the following factor tree and answer the following:



8. **What will be the value of x?**
9. **What will be the value of y?**
10. **What will be the value of z?**
11. **According to Fundamental Theorem of Arithmetic 13915 is a**
(a) Composite number (b) Prime number
(c) Neither prime nor composite (d) Even number

CHAPTER – 2 (POLYNOMIALS)

1. If α and β are the zeroes of the quadratic polynomial $f(x) = x^2 - 8x + 4$, The value of $\frac{1}{\alpha} + \frac{1}{\beta}$ is
(a) 1 (b) 2 (c) 3 (d) 4
2. If α and β are zeroes of the polynomial $2x^2 - 5x + 7$, then the value of $\alpha^{-1} + \beta^{-1}$ is
(a) $-\frac{5}{2}$ (b) $\frac{7}{2}$ (c) $\frac{5}{7}$ (d) None of these
3. If one zero of the quadratic polynomial $f(x) = 4x^2 - 8kx - 9$ is negative of the other, then value of k is

- (a) 0 (b) 1 (c) 2 (d) None of these

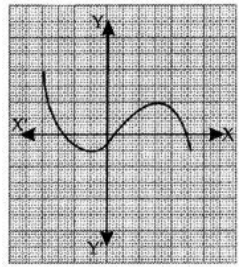
4. The graph of $y = p(x)$ is shown in the figure below. How many zeroes does $p(x)$ have?

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

5. If α and β are the zeros of the quadratic polynomial such that $\alpha + \beta = 24$ and $\alpha - \beta = 8$, find a quadratic polynomial having α and β as its zeroes.

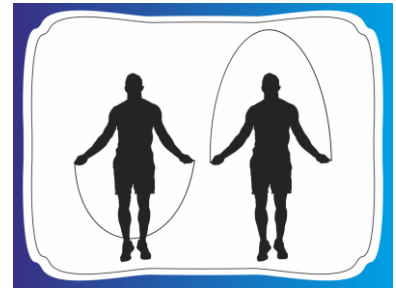
6. If α and β are the zeroes of the quadratic polynomial $f(x) = x^2 - p(x + 1) - c$, show that $(\alpha + 1)(\beta + 1) = 1 - c$.

7. If p and q are the zeroes of $ax^2 - bx + c$, $a \neq 0$, then find the value of $p + q$.



CASE STUDY QUESTION

During the skipping through skipping rope, its look like the in the form of parabola. It is a natural example of parabolic shape which is represented by a quadratic polynomial. Similarly, we can observe many other cases forming a variety of forms of different parabolas.



Based on given information, answer the following questions: -

8. The value of $p(x) = x^2 - 3x - 4$ at $x = -1$ is

- (a) 0 (b) 1 (c) 2 (d) None of these

9. If $p(x) = x^2 + 5x + 2$, then the value of $p(3) + p(2) + p(0)$ is

- (a) 28 (b) 38 (c) 44 (d) None of these

10. If -1 is a zero of quadratic polynomial, $p(x) = kx^2 - 5x - 4$, then the value of k is

- (a) -1 (b) 1 (c) 5 (d) None of these

11. If one zero of the polynomial $(a^2 + 9)x^2 + 13x + 6a$ is reciprocal of the other, find the value of a .

CHAPTER – 3 (PAIR OF LINEAR EQUATIONS IN TWO VARIABLES)

1. If the system of linear equations $a_1x + b_1y + c_1 = 0$ and $a_2x + b_2y + c_2 = 0$ is inconsistent, then:

- (a) $\frac{a_1}{a_2} \neq \frac{b_1}{b_2}$ (b) $\frac{a_1}{a_2} = \frac{b_1}{b_2} = \frac{c_1}{c_2}$ (c) $\frac{a_1}{a_2} = \frac{b_1}{b_2} \neq \frac{c_1}{c_2}$ (d) None of these

2. If a pair of equations is consistent then the graphs of these equations are

- (a) parallel (b) coincident (c) intersecting (d) either coincident or intersecting

3. The graph of the line $y = 2$ is a line parallel to

- (a) $x = -axis$ (b) $y = axis$ (c) both x and $y axis$ (d) None of these

4. The graph of a system of dependent equations is

- (a) intersecting lines (b) parallel lines (c) coincident lines (d) None of these

5. If $am \neq bl$, then the system of equations $ax + by = c$ and $lx + my = n$ has

- (a) unique solution (b) no solution (c) many solution (d) None of these

6. The sum of two natural numbers is 240 and their ratio is 3: 5. Then the greater number is

- (a) 180 (b) 160 (c) 150 (d) 90

Case Study Question

Pro Kabaddi League, is a professional level Kabaddi league, launched in 2014 in India. One successful defense is worth 1 point and one successful raid is worth 2 points. In a match, Dabang Delhi team has 30 successful defenses and raids and the number of raids was 10 more than the number of defenses. Based on the above information, answer the following questions:

- If x and y are the numbers of successful defenses and raids respectively, then find equations which represent the problem.
- How many points were scored by raiders?
- How many points were scored by defenders?
- What was the total number of points scored by Dabang Delhi in that match?

CHAPTER – 4 (QUADRATIC EQUATIONS)

- If $x^2 + 2kx + 4 = 0$ has a root $x = 2$, then the value of k is
 (a) -1 (b) -2 (c) 2 (d) -4
- The positive root of $\sqrt{3x^2 + 6} = 9$ is
 (a) 3 (b) 4 (c) 5 (d) 7
- The roots of quadratic equations $x^2 + 7x + 12 = 0$ are
 (a) $1, 6$ (b) $-1, -6$ (c) $3, 4$ (d) $-3, -4$
- If the equation $kx^2 + 4x + 1 = 0$ has real and distinct roots, then:
 (a) $k < 4$ (b) $k > 4$ (c) $k \leq 4$ (d) $k \geq 4$
- The discriminant of the equation $3x^2 - 2x + \frac{1}{3} = 0$ is
 (a) 0 (b) 1 (c) 2 (d) 3
- The positive real root of the equation $81x^2 - 4 = 0$ is
 (a) 9 (b) $\frac{1}{9}$ (c) $\frac{2}{9}$ (d) 81
- If the roots of the quadratic equation $x^2 + px + 4 = 0$ are equal then the value of p is
 (a) ± 4 (b) ± 8 (c) ± 16 (d) ± 6
- The common root of $x^2 - 5x + 6 = 0$ and $x^2 - 9 = 0$ is
 (a) 2 (b) -3 (c) -2 (d) 3
- The condition for a general quadratic equation $ax^2 + bx + c = 0$ have real and equal roots is
 (a) $b^2 = 4ac$ (b) $b^2 \neq 4ac$ (c) $b^2 > 4ac$ (d) $b^2 < 4ac$
- If the equation $9x^2 + 6kx + 4 = 0$ has equal roots, then the value of k is
 (a) ± 2 (b) $\pm \frac{3}{2}$ (c) 0 (d) ± 3

CHAPTER – 5 (ARITHMETIC PROGRESSION)

- The value of k for which $k + 9$, $2k - 1$ and $2k + 7$ are the consecutive terms of an A.P is
 (a) 20 (b) 18 (c) 2 (d) 10
- Find how many integers between 200 and 500 are divisible by 8.
 (a) 37 (b) 36 (c) 35 (d) 38
- Preeti saved Rs 5 in the first week of a year and then increased her weekly saving by Rs 1.75. If in the n th week, her weekly savings become Rs 20.75, find n .**
- A sum of Rs 700 is to be used to give seven cash prizes to students of a school for their overall academic performance. If each prize is Rs 20 less than its preceding prize, find the value of each of the prizes.**
- Your friend Veer wants to participate in a 200m race. He can currently run that distance in 51 seconds and with each day of practice it takes him 2 seconds less. He wants to do in 31 seconds. What is the minimum number of days he needs to practice till his goal is achieved?

6. Your elder brother wants to buy a car and plans to take loan from a bank for his car. He repays his total loan of Rs 1,18,000 by paying every month starting with the first instalment of Rs 1000. If he increases the instalment by Rs 100 every month. What amount does he still have to pay after 30th instalments?

CASE STUDY QUESTION

India is competitive manufacturing location due to the low cost of manpower and strong technical and engineering capabilities contributing to higher quality production runs. The production of TV sets in a factory increases uniformly by a fixed number every year. It produced 16000 sets in 6th year and 22600 in 9th year.



7. Find the production during first year.
(a) 5000 (b) 6000 (c) 7000 (d) None
8. Find the production during 8th year.
(a) 20000 (b) 20200 (c) 20400 (d) None
9. In which year, the production is Rs 29,200.
(a) 11 (b) 12 (c) 13 (d) None
10. Find the difference of the production during 7th year and 4th year.
(a) 6600 (b) 6800 (c) 7000 (d) None

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