SSC CHSL 2025 Tier-1 (Held On: 30 Nov, 2025 Shift 1) (Previous Year Paper)

SSC Combined Higher Secondary Level (CHSL) • 2025 • 100 questions • 60 minutes • Answer key and solutions

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ENGLISH LANGUAGE

Q1. The sentence below has errors in two parts which are highlighted in bold. Identify the same.

Mayfair Cinema is to close at December(A), it was announced yesterday. The owner of the building, Mr Thomas, will have sold it(B) to a firm of builders(C), who are going to build some flats on the site(D).

(a) AB
(b) CD
(c) BD
(d) AC

Q2. Fill in the blank with the most appropriate preposition:

The committee is not authorized to act ____ behalf of the organization in international matters.

(a) in
(b) for
(c) on
(d) upon

Q3. Select the most appropriate synonym of the word: SAGACIOUS

(a) Foolish
(b) Insightful
(c) Naïve
(d) Confused

Q4. Choose the correctly spelt word:

(a) Lieutenant
(b) Lieutennant
(c) Lutennant
(d) Ltuenant

Q5. Which of the following sentences uses the word "found" with a different meaning from the others?

(a) The company was found in 1995.
(b) He found his keys under the couch.
(c) They found a new species of fish.
(d) She found the answer to the difficult question.

Q6. Choose the correct meaning of the idiom: Are on a collision course

(a) Heading towards an inevitable conflict
(b) Moving towards each other in a peaceful way
(c) Working together on a project
(d) Having different goals but no conflict

Q7. Choose the correct meaning of the idiom: Straight from the horse's mouth

(a) From an anonymous tip
(b) Hearing it from someone else
(c) Reading it from a book
(d) From a reliable source

Q8. Choose the correct one-word substitute for:

A place where an army is trained.

(a) Fortress
(b) Cave
(c) Barracks
(d) Residence

Q9. Select the most appropriate antonym of the word: Monstrous

(a) Beautiful
(b) Odd
(c) Abnormal
(d) Strange

Q10. Select the most appropriate antonym of the word: Elucidate

(a) Clarify
(b) Explain
(c) Obscure
(d) Illuminate

Q11. Choose the option that is the most appropriate conversion of the following sentence into Direct Speech.

They asked whether the meeting was likely to begin soon or be delayed further.

(a) They asked, "Was the meeting likely to begin soon or be delayed further?"
(b) They asked, "Is the meeting likely to begin shortly or be delayed more?"
(c) They asked, "Will the meeting likely begin soon or is it to be delayed further?"
(d) They asked, "Is the meeting likely to begin soon or will it be delayed further?"

Q12. Which sentence contains a misspelled word?

(a) Clear communication is crucial for avoiding misunderstandings in any negotiation.
(b) It is cruicial to double-check your work before submitting it.
(c) The manager highlighted the crucial role of teamwork in achieving success.
(d) Meeting the deadline was crucial for securing the contract.

Q13. Select the option that expresses the given sentence in indirect voice.

"We will bake a cake for the party," my friends told me.

(a) My friends told me that they would bake a cake for the party.
(b) My friends told me that we would bake a cake for the party.
(c) My friends told me that they will bake a cake for the party.
(d) My friends told me that we will bake a cake for the party.

Q14. Change the following sentence into the Active form.

Had the restoration work been being done on the antique cabinet for months before you arrived?

(a) Had they been doing the restoration work on the antique cabinet for months before you arrived?
(b) They had been doing the restoration work on the antique cabinet for months before you arrived?
(c) Had the antique cabinet been doing the restoration work for months before you arrived?
(d) Were they doing the restoration work on the antique cabinet for months before you arrived?

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Q15. Choose the most suitable option to replace the highlighted part of the sentence :

After a long marathon, the woman was out of breathe.

(a) out of breath
(b) out of breathing
(c) out of air
(d) out of breathes

Q16. Choose the correct passive voice transformation of the sentence:

Someone has left the door open.

(a) The door has been left open.
(b) The door was left open.
(c) The door is left open.
(d) The door had been left open.

Directions

Read the passage and answer the following questions:

Himachal Pradesh, renowned for its pristine natural beauty and ecological diversity, is presently confronting an unprecedented wave of environmental degradation. The rampant deforestation, exacerbated by unregulated urban expansion and burgeoning tourism, has precipitated a critical decline in the region's biodiversity. Once dense forests, which acted as vital carbon sinks and habitats for myriad species, are now alarmingly fragmented, undermining ecological balance.

The overexploitation of natural resources, especially timber and water, compounded by erratic weather patterns attributed to climate change, further exacerbates the fragile ecosystem's vulnerability. The proliferation of construction activities along riverbanks and hill slopes has triggered soil erosion and heightened the risk of landslides, endangering both human settlements and wildlife habitats. Additionally, the indiscriminate dumping of waste, including plastic, in ecologically sensitive zones aggravates pollution levels and jeopardizes aquatic life.

Another pivotal reason behind this environmental deterioration is the inadequacy of stringent environmental policies and their enforcement. Despite awareness campaigns, local governance often succumbs to developmental pressures, side lining sustainability considerations. The nexus between economic growth and environmental neglect is glaring, necessitating immediate remedial measures.

In summation, Himachal Pradesh's environmental crisis is a multifaceted problem, rooted in anthropogenic activities and climatic disturbances. Concerted efforts encompassing policy reform, community engagement, and scientific interventions are imperative to restore the state's ecological sanctity.

Q17. In the sentence, "The proliferation of construction activities along riverbanks and hill slopes has triggered soil erosion," identify the type of noun "proliferation" is:

(a) Proper noun
(b) Abstract noun
(c) Concrete noun
(d) Collective noun

Q18. Identify the type of clause in the sentence:

"Once dense forests, which acted as vital carbon sinks and habitats for myriad species, are now alarmingly fragmented."

(a) Adjective clause
(b) Adverb clause
(c) Noun clause
(d) Coordinate clause

Q19. The word "exacerbates" in the passage "erratic weather patterns attributed to climate change, further exacerbates the fragile ecosystem's vulnerability." most nearly means:

(a) Alleviates
(b) Worsens
(c) Mitigates
(d) Initiates

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Q20. The phrase "ecological sanctity" refers to:

(a) the purity and sacredness of the environment
(b) the exploitation of natural resources
(c) urban development projects
(d) government policies

Q21. According to the passage, which factor does NOT contribute to environmental degradation in Himachal Pradesh?

(a) Erratic weather patterns
(b) Strict enforcement of environmental policies
(c) Unregulated urban expansion
(d) Indiscriminate dumping of waste

Q22. Rearrange the following sentences to form a meaningful and grammatically correct paragraph:

P. The kettle whistled, its steam a thin column in the quiet kitchen.
Q. He placed a teabag in his favourite mug, pouring the hot water over it.
R. A splash of milk clouded the dark liquid, turning it a comforting caramel colour.
S. With the first warm sip, the morning felt a little more manageable.

(a) P, Q, R, S
(b) S, Q, R, P
(c) Q, S, P, R
(d) R, Q, P, S

Q23. Rearrange the following sentence parts to form a meaningful and grammatically correct paragraph:

P. The research team recruited a large group of qualified participants for the study.
Q. At the end of the trial, they analysed the results to determine the drug's effectiveness.
R. The team monitored the health and progress of all the participants for several months.
S. Half the participants received the new drug, while the other half received a placebo.

(a) R, S, Q, P
(b) P, S, R, Q
(c) Q, S, R, P
(d) R, S, P, Q

Q24. Which word is nearest in meaning to intently?

The man listened intently, drawn in by the astrologer's authority.

(a) Distantly
(b) Lazily
(c) Closely
(d) Casually

Q25. Which term refers to a society that is free of poverty and suffering?

(a) Utopia
(b) Democracy
(c) Monarchy
(d) Oligarchy

GENERAL INTELLIGENCE

Q26. Each item describes a situation and is followed by four possible responses. Indicate the response you find most appropriate. Choose only one response for each item. The responses will be evaluated based on the level of appropriateness for the given situation.

A software company can launch a buggy product quickly or delay it for quality. What's the wiser decision?

(a) Launch now and fix later
(b) Delay launch and ensure stability

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(c) Cancel the product
(d) Release it to a limited audience first

Q27. The Latin root 'scrib' or 'script' means:
(a) To speak
(b) To read
(c) To write
(d) To hear

Q28. Read the following statement carefully and identify the inference that follows.
Statement: The government has announced a new tax on sugary drinks.
Inference:
I. The government is trying to reduce the consumption of sugary drinks.
II. The tax will generate revenue for the government.
III. The tax on sugary drinks will be the only tax imposed by the government.
(a) If only I follows
(b) If only II follows
(c) If both I and II follow
(d) If both II and III follow

Q29. Few of the letters are given followed by a question mark (?) these letters are following a specific pattern you have to give the correct option which can replace question mark.
Which letter replaces the question mark: Z, V, R, N, ?
(a) J
(b) K
(c) L
(d) M

Q30. Find the next element that replace the ? Logically
10, 30, 70, 150, ?
(a) 301
(b) 317
(c) 310
(d) 328

Q31. Find the next element that replace the ? Logically
10, 28, 64, 136, ?
(a) 274
(b) 289
(c) 295
(d) 280

Q32. In each of the following question, there is a certain relationship between two given numbers on one side of (::) and one number is given on another side of (::) where another number is to be found from the given alternatives, having the same relationship with this number as the numbers of the given pair bear. Choose the best alternative.
6 : 2 :: 7 : ?
(a) 19
(b) 3
(c) 4
(d) 6

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Q33. Find the missing number pair in the following series.

(2, 5), (3, 10), (5, 26), (7, 50), ?, (13, 170)

(a) (9, 82)
(b) (11, 122)
(c) (11, 65)
(d) (122, 11)

Q34. Which of the following is the odd one out based on origin?

(a) Waterfalls
(b) Lakes
(c) Canal
(d) Seas

Q35. In this question, four words have been given, out of which choose the odd one out.

IOS, Baidu, Bing, DuckDuckGo

(a) iOS
(b) Baidu
(c) Bing
(d) DuckDuckGo

Q36. Directions: Select the correct options from the given alternatives

3110, 3151, 3192, 3233, ?

(a) 3272
(b) 3274
(c) 3276
(d) 3270

Q37. Directions: Pick the correct options from below.

24, 215, 48, 511, ?

(a) 343
(b) 80
(c) 95
(d) 125

Q38. In the question below there are three statements followed by two conclusions I and II. You have to take the given statements to be true even if they seem to be at variance from commonly known facts and then decide which of the given conclusions logically follows from the three statements disregarding commonly known facts.

Statements:

Only Car are Vehicle.

Some Car are Bulky.

All Metal are Bulky.

Conclusions:

I. Some Vehicle are not Metal.

II. Some Metal are Car.

(a) Only II
(b) Both I and II
(c) Only I
(d) Neither I nor II

Q39. What comes next in the following series?

P3, R6, T9, V12, ?

(a) X15
(b) U15

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(c) Y18
(d) Y27

Q40. Which of the following is the odd one out in the given series?
Z2, Y3, X5, W7, V9
(a) Y3
(b) V9
(c) X5
(d) W7

Q41. Which of the following letter cluster will come next to the series?
PG, WB, DW, KR, ?
(a) OT
(b) RS
(c) RM
(d) OW

Q42. What comes next in the series: 100, 50, 25, 12.5,?
(a) 25
(b) 6.25
(c) 5
(d) 10

Q43. If + means ÷, - means ×, × means +, and ÷ means -, find:
100 + 10 - 2 × 4+ 2 = ?
(a) 20
(b) 24
(c) 22
(d) 26

Q44. Directions: Choose the related word from the given alternatives
Electric Charge : Coulomb :: Data : ?
(a) Byte
(b) Mass
(c) Kelvin
(d) Pascal

Q45. Directions: Choose the related word from the given alternatives
Hawk : Eyas :: ? : Poult
(a) Goose
(b) Pigeon
(c) Swan
(d) Turkey

Q46. What comes next?
2, 5, 7, 12, 19, ?
(a) 26
(b) 30
(c) 31
(d) 34

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Q47. Identify the pattern in the following sequence.

6, 20, 42, 72, 110

What is the next number in the sequence?

(a) 156
(b) 180
(c) 182
(d) 150

Q48. Select the option that is related to the fifth number in the same way as the second number is related to the first number and fourth number is related to the third number.

(NOTE: Operations should be performed on the whole numbers, without breaking down the numbers into its constituent digits. E.g. 13 Operations on 13 such as adding/subtracting/multiplying etc. to 13 can be performed. Breaking down 13 into 1 and 3 and then performing mathematical operations on 1 and 3 is not allowed)

6264 : 7215 :: 3548 : 4499 :: 7551 : ?

(a) 8502
(b) 8462
(c) 8472
(d) 8552

Q49. Select the option that is related to the second number in the same way as the third number is related to the fourth number and fifth number is related to sixth number.

(NOTE: Operations should be performed on the whole numbers, without breaking down the numbers into its constituent digits. E.g. 13 Operations on 13 such as adding/subtracting/multiplying etc. to 13 can be performed. Breaking down 13 into 1 and 3 and then performing mathematical operations on 1 and 3 is not allowed)

?: 791 :: 187 : -803 :: 6229 : 5239

(a) 1781
(b) 1779
(c) 1780
(d) 1777

Q50. In the following question, four letter-number pairs are given. The letter-number on the left side of (-) is related to the letter-number on the right side of (-) with some Logic/ Rule /Relation. Three pairs are similar on the basis of same Logic/ Rule /Relation. Select the odd one out from the given alternatives.

(NOTE: Operations should be performed on the whole numbers, without breaking down the number into its constituent digits. E.g. 13 Operations on 13 such as adding/subtracting/multiplying etc. to 13 can be performed. Breaking down 13 into 1 and 3 and then performing mathematical operations on 1 and 3 is not allowed)

(a) AC332 - CH498
(b) BH440 - DM660
(c) LK556 - NP834
(d) MZ484 - OF726

QUANTITATIVE APTITUDE

Q51. Which of these number sets is NOT a subset of the Real Numbers?

(a) Rational
(b) Irrational
(c) Integers
(d) Complex

Q52. A number is said to be pure recurring if:

(a) Only one digit repeats
(b) Decimal terminates
(c) Repeating digits start immediately after decimal
(d) Has non-repeating part then repeating part

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Q53. A grocer sells sugar at a 10% loss. Had he sold it for Rs. 0.60 more per kg, he would have gained 8%. What is the cost price of sugar per kg?

(a) Rs. 3.50
(b) Rs. 3.25
(c) Rs. 3.33
(d) Rs. 3.40

Q54. In a mathematics club, the average score of 15 students in a weekly quiz is 72.4. After including the scores of 5 more students, the overall average becomes 74.6. If the scores of three of the new students are 76.2, 78.5, and 80.4, respectively, and the remaining two have equal scores, find the score of each of the remaining two students.

(a) 84.25
(b) 87.15
(c) 86.75
(d) 85.45

Q55. A contractor estimated that a project would cost Rs. 5,00,000. He planned for 60% of the cost to go to materials, 25% to labor, and the rest as contingency. However, due to delays, material cost increased by 12.5%, labor cost increased by 10%, and contingency remained unchanged. What is the new total cost?

(a) Rs. 5,45,000
(b) Rs. 5,60,000
(c) Rs. 5,52,000
(d) Rs. 5,50,000

Q56. A right pentagonal prism has each side of its regular pentagonal base measuring 6.2 cm, and the prism's height is 10.5 cm. If the area of the pentagonal base is approximately 66.43 cm^2, find the total surface area of the prism.

(a) 444.20 cm^2
(b) 458.36 cm^2
(c) 470.45 cm^2
(d) 439.15 cm^2

Q57. The base of a right prism is a regular hexagon with each side equal to 7.5 cm. If the height of the prism is 18 cm and the area of the hexagonal base is approximately 146.30 cm^2, calculate the total surface area of the prism.

(a) 1088.45 cm^2
(b) 458.36 cm^2
(c) 1102.60 cm^2
(d) 1094.30 cm^2

Q58. Find the distance from the centroid to the vertex if the median is 9 cm.

(a) 3 cm
(b) 6 cm
(c) 7 cm
(d) 8 cm

Q59. A cone is melted and recast into smaller cones with one-fourth the radius and one-fourth the height. How many such small cones can be formed?

(a) 8
(b) 16
(c) 32
(d) 64

Q60. Ajay invests a certain sum of money on simple interest at 8% p.a. for 15 years. If the interest earned by him is Rs. 58,410, then find the sum invested by him.

(a) Rs. 44,635
(b) Rs. 48,675
(c) Rs. 40,600
(d) Rs. 49,565

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Q61. A ladder is leaning against a wall makes an angle 'x' with the horizontal ground such that tanx = 192/80 If the length of the ladder is 52 metres, then what is the distance (in metres) of the foot of the ladder from the wall?

(a) 20 metres
(b) 15 metres
(c) 30 metres
(d) 40 metres

Q62. If triangle PQR ~ triangle XYZ and angle P = 40°, angle Q = 60°, then angle Y = ?

(a) 60°
(b) 40°
(c) 80°
(d) 100°

Q63. How many kilograms of sugar costing Rs. 10 per kg must be mixed with 20 kg of sugar costing Rs. 8 per kg so that there may be a gain of 10% by selling the mixture at Rs.10 per kg?

(a) 21kg
(b) 24kg
(c) 26kg
(d) 22kg

Q64. Sudhir can copy 40 pages in 8 hours; Sudhir and Prakash together can copy 350 pages in 35 hours. In how much time can Prakash copy 40 pages?

(a) 6 hours
(b) 10 hours
(c) 8 hours
(d) 7 hours

Q65. A policeman spotted a thief at a distance of 1,500 metres and he immediately started chasing him at 20 km/h. The thief spotted the policeman at the same time and immediately started running away from him at 15 km/h. How far will the thief run before he gets caught?

(a) 5,500 metres
(b) 4,800 metres
(c) 5,200 metres
(d) 4,500 metres

Q66. Which of the following statement(s) is/are TRUE?

I. Area of a parallelogram whose base and corresponding altitude are 15 cm and 12 cm, respectively, is 180 cm^2

II. The sum of all the interior angles of a regular octagon is 900°.

(a) Only II
(b) Both I and II
(c) Only I
(d) Neither I nor II

Q67. A regular right square pyramid has a base side of 8 cm. An insect crawls from a base corner to the midpoint of an opposite slant edge along the surface by the shortest route. If the perpendicular height of the pyramid is 15 cm, find the slant height,

(a) 23.68 cm
(b) 15.52 cm
(c) 10.27 cm
(d) 22 cm

Q68. A store offers three successive discounts of 20%, 10%, and 5% on a shirt. What is the single equivalent discount?

(a) 35.4%
(b) 31.6%
(c) 36.6%

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(d) 34%

Q69. In a circle with center O, two parallel chords GH and IJ are on opposite sides of the center. The length of chord GH is 24 cm and the length of chord IJ is 10 cm. If the distance between the two chords is 17 cm, what is the diameter of the circle?

(a) 20 cm
(b) 26 cm
(c) 30 cm
(d) 34 cm

Q70. The radius of a circular embankment is 30 meters. A drainage system is placed along a circle with a radius that is 10 meters smaller than the embankment. What is the radius of the drainage circle?

(a) 20 m
(b) 12 m
(c) 14 m
(d) 30 m

Q71. Which is the smallest among these: √5, cbrt11, 4√124 ?

(a) √5
(b) 4√124
(c) cbrt11
(d) All are equal

Q72. What is the x-intercept of the line 3x + 4y = 12?

(a) -3
(b) 3
(c) 4
(d) 5

Q73. A circle with a radius of 8 cm has a chord located 4 cm away from the center. What is the length of the chord?

(a) 8√3 cm
(b) 8/3 cm
(c) 6√3 cm
(d) 6√2 cm

Q74. The diagonals of a rhombus have lengths 16 cm and 12 cm. What is the side length of the rhombus?

(a) 13 cm
(b) 10 cm
(c) 17 cm
(d) 21 cm

Q75. How many internal tangents exist if two circles touch externally at one point?

(a) 0
(b) 1
(c) 2
(d) 3

GENERAL AWARENESS

Q76. Which Sultan used the Banjaras to transport grain to city markets?

(a) Muhammad bin Tughlaq
(b) Alauddin Khalji
(c) Sher Shah Suri
(d) Babur

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Q77. Which of the following features of the Indian Constitution is borrowed from USSR (Now Russia)?

(a) Fundamental duties
(b) Residuary powers vest with the centre
(c) The Preamble of the constitution
(d) Centre appoints the Governors at the states

Q78. Which of the following country is NOT the founding member of the Shanghai Cooperation Organisation?

(a) Iraq
(b) Tajikistan
(c) Russia
(d) China

Q79. Which legendary martyr's attack on British officers in 1857, is considered the first major incident of the Sepoy Mutiny?

(a) Dadabhai Naoroji
(b) Mangal Pandey
(c) Mahatma Gandhi
(d) Surendranath Bandyopadhyay

Q80. In March 2025, PM Modi also disbursed Rs. ____ crore in financial assistance at 'Lakhpati Didi Sammelan' in Gujarat.

(a) 450
(b) 600
(c) 250
(d) 300

Q81. In 2024, women from how many states accounted for 49% of all self-monitoring female borrowers in India?

(a) 3
(b) 5
(c) 8
(d) 11

Q82. The PM POSHAN scheme is being implemented by the Ministry of ____.

(a) Health and Family Welfare
(b) Women and Child Development
(c) Rural Development
(d) Education

Q83. Judo had its origin in the ancient ____ art.

(a) Japanese
(b) Chinese
(c) Indian
(d) Korean

Q84. Which of the following sports includes a ball?

(a) Boxing
(b) Badminton
(c) Chess
(d) Golf

Q85. As per December 2024, what is India's updated target for reduction in emission intensity by 2030 as Nationally determined contribution target?

(a) 20%
(b) 30%
(c) 45%

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(d) 60%

Q86. The Chillai Kalan is the local name given to the 40-day period of harsh winter in which of the following region of India?

(a) Himachal Pradesh
(b) Jammu and Kashmir
(c) Uttar Pradesh
(d) Arunachal Pradesh

Q87. Which team won the 2025 edition of the Women's Premier League (Cricket) 2025?

(a) Mumbai Indians
(b) Delhi Capitals
(c) Royal Challengers Bengaluru
(d) Gujrat Giants

Q88. The main temple of Shri Jagannath is an impressive and amazing structure constructed in Kalinga architecture, with a height of ____ meters placed on an elevated platform.

(a) 105
(b) 65
(c) 85
(d) 35

Q89. 'Ranapa' is a martial dance associated with which of the following Indian states?

(a) Haryana
(b) Rajasthan
(c) Manipur
(d) Odisha

Q90. Generally, satellites do not fly below ____ km.

(a) 12
(b) 180
(c) 55
(d) 10000

Q91. The amount of heat energy that is required to change 1 kg of a solid into liquid at atmospheric pressure at its melting point is known as the ____ heat of fusion.

(a) latent
(b) boiling
(c) melting
(d) absolute

Q92. The India met with an economic crisis in 1991 relating to ____.

(a) its external debt
(b) its internal debt
(c) trade embargo from western countries
(d) shortfall in agriculture output due to severe drought

Q93. In which of the following years Mahatma Gandhi led the Champaran Movement?

(a) 1913
(b) 1917
(c) 1921
(d) 1923

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Q94. About 80% of the coal deposits in India is of ____ type and is of non-coking grade.

(a) Anthracite
(b) Bituminous
(c) Peat
(d) Lignite

Q95. Which of the following five year plan of India started in 1969?

(a) First
(b) Second
(c) Fourth
(d) Sixth

Q96. Which of the following was the key issue during launch of eighth five year plan of India?

I. Worsening balance of payment position.

II. Rising debt burden.

(a) Only I
(b) Only II
(c) Both I and II
(d) Neither I nor II

Q97. The first export processing zone in India was set up in which of the following year?

(a) 1949
(b) 1965
(c) 1984
(d) 1992

Q98. In India's gender budget,_(————) provision. includes schemes where the budgetary allocation for women and girls is below 30% of the total

(a) Part A
(b) Part D
(c) Part B
(d) Part C

Q99. Which of the following statement is correct regarding the plant hormones?

I. They help to coordinate growth, development and responses to the environment.

II. They are synthesised at places away from where they act and simply diffuse to the area of action

(a) Only I
(b) Only II
(c) Both I and II
(d) Neither I nor II

Q100. The term "Jambudvipa" used in Mahabharata is associated with which tree?

(a) Banyan
(b) Ashoka
(c) Neem
(d) Jamun

ANSWER KEY

1	a	2	c	3	b	4	a	5	a	6	a	7	d	8	c	9	a	10	c
11	d	12	b	13	a	14	a	15	a	16	a	17	b	18	a	19	b	20	a
21	b	22	a	23	b	24	c	25	a	26	b	27	c	28	c	29	a	30	c
31	d	32	b	33	b	34	c	35	a	36	b	37	b	38	c	39	a	40	b

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41	c	42	b	43	c	44	a	45	d	46	c	47	a	48	a	49	a	50	d
51	d	52	c	53	c	54	d	55	d	56	b	57	c	58	b	59	d	60	b
61	a	62	a	63	b	64	c	65	d	66	c	67	b	68	b	69	b	70	a
71	c	72	c	73	a	74	b	75	b	76	b	77	a	78	a	79	b	80	a
81	a	82	d	83	a	84	d	85	c	86	b	87	a	88	b	89	d	90	b
91	a	92	a	93	b	94	b	95	c	96	c	97	b	98	d	99	a	100	d

SOLUTIONS

Q1. Answer: (a) AB

The correct answer is '1' i.e. AB.

Key Points

• The sentence has errors in parts (A) and (B), which are highlighted below.

• Error in Part A: The phrase "to close at December" is incorrect. The correct preposition to use with months is "in," so it should be "to close in December."

• Error in Part B: The phrase "will have sold it" is incorrect in this context. The correct form is "has sold it" because the sale has already occurred (past tense).

Correct sentence: Mayfair Cinema is to close in December, it was announced yesterday. The owner of the building, Mr Thomas, has sold it to a firm of builders, who are going to build some flats on the site.

Additional Information

• Prepositions with Time:

• Use "in" for months, years, centuries, and long periods (e.g., "in December," "in 2020").

• Use "on" for specific days or dates (e.g., "on Monday," "on the 5th of June").

• Use "at" for specific points of time (e.g., "at 5 PM," "at midnight").

• Tense Correction:

• Ensure the tense matches the context of the sentence. "Will have sold" is incorrect here because it refers to a future perfect action, but the sale has already occurred.

• "Has sold" is appropriate because it reflects a completed action in the past with relevance to the present.

Q2. Answer: (c) on

The correct answer is '3' i.e. on.

Key Points

• The phrase "on behalf of" is a standard expression used to indicate that someone is acting as a representative or proxy for someone else.

• In this context, the committee is not authorized to represent the organization in international matters.

• Other options like "in", "for", or "upon" are incorrect, as they do not convey the intended meaning of representation.

Correct sentence: The committee is not authorized to act on behalf of the organization in international matters.

Additional Information

• Common Usage: The phrase "on behalf of" is often used in formal contexts, such as legal documents or organizational communication.

• Examples:

• She accepted the award on behalf of her team.

• The lawyer spoke on behalf of the defendant.

Q3. Answer: (b) Insightful

The correct answer is '2' i.e. Insightful.

Key Points

• The word "Sagacious" means having or showing keen mental discernment and good judgment; wise or insightful.

• Among the options, "Insightful" is the most appropriate synonym as it conveys the meaning of being perceptive and wise.

• The other options are incorrect because:

• Foolish: The opposite of sagacious, meaning lacking good sense or judgment.

• Naïve: Suggests a lack of experience, wisdom, or judgment, which is contrary to sagacious.

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• Confused: Implies a lack of clarity or understanding, which does not align with being sagacious.

Correct sentence: The synonym of 'Sagacious' is 'Insightful', which accurately describes someone with keen judgment and wisdom.

Additional Information

• Usage in a sentence: The sagacious leader was praised for her insightful decisions during the crisis.

• Synonyms: Wise, perceptive, insightful, prudent.

• Antonyms: Foolish, naïve, ignorant, shortsighted.

Q4. Answer: (a) Lieutenant

The correct answer is '1' i.e. Lieutenant.

Key Points

• The word Lieutenant is correctly spelled and widely used to refer to a rank in the military or police force.

• Option 2 (Lieutennant), Option 3 (Lutennant), and Option 4 (Ltuenant) are incorrect spellings.

• The correct spelling of the word is Lieutenant, which is pronounced as /lef?ten?nt/ in British English and /lu?ten?nt/ in American English.

Correct sentence: The correctly spelt word is Lieutenant.

Additional Information

• Meaning: Lieutenant is a rank in the military or police force, typically below captain and above sergeant.

• Usage in a Sentence: The Lieutenant led his team during the operation.

Q5. Answer: (a) The company was found in 1995.

The correct answer is '1' i.e. The company was found in 1995.

Key Points

• The word "found" has multiple meanings based on the context in which it is used.

• In option 1, "found" refers to the establishment or creation of something (e.g., founding a company).

• In options 2, 3, and 4, "found" refers to discovering or locating something.

• The meaning of "found" in option 1 is distinct from the other options, where it is used in the sense of "discovery."

Correct sentence explanation: The company was founded in 1995. The word "found" here implies the act of establishing or starting a company, not discovering something.

Additional Information

• Definition of "Found" (discovery): To locate or discover something that was lost or unknown.

• Example: He found his keys under the couch.

• Definition of "Found" (establishment): To establish or create something, such as an organization or institution.

• Example: The company was founded in 1995.

Q6. Answer: (a) Heading towards an inevitable conflict

The correct answer is '1' i.e. Heading towards an inevitable conflict.

Key Points

• The idiom "Are on a collision course" implies that two entities (individuals, groups, or organizations) are heading towards a situation where conflict or disagreement is inevitable.

• This expression is typically used to describe scenarios where there are opposing views, interests, or actions, leading to a clash.

• Among the given options, option 1, "Heading towards an inevitable conflict," best captures the meaning of this idiom.

Correct interpretation: The idiom "Are on a collision course" signifies that two parties are moving towards a conflict or disagreement that cannot be avoided..

Additional Information

• Example Usage:

• After the heated argument during the meeting, both departments are on a collision course regarding budget allocation.

• With their vastly different political ideologies, the two candidates are on a collision course for the upcoming debate.

• Common Contexts:

• Used in personal, professional, or political contexts to describe impending conflicts.

• Highlights situations where reconciliation or resolution seems unlikely.

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Q7. Answer: (d) From a reliable source

The correct answer is '4' i.e. From a reliable source.

Key Points

• The idiom "Straight from the horse's mouth" means receiving information directly from a reliable or authoritative source.

• This phrase often implies that the information is firsthand and trustworthy.

• It is commonly used when confirming the accuracy of news or facts.

Correct usage example: She heard the news straight from the horse’s mouth, so it must be true.

Additional Information

• Origin of the idiom:

• The phrase is believed to have originated from horse racing, where getting information straight from the horse’s mouth meant consulting the horse’s trainer or someone who knew the horse well.

• Usage in communication:

• This idiom is often used to highlight the credibility of the source in discussions, interviews, or reports.

Q8. Answer: (c) Barracks

The correct answer is '3' i.e. Barracks.

Key Points

• The word "Barracks" refers to a place where soldiers or an army live and are trained.

• Fortress is a fortified building or structure designed for defense, not specifically for training.

• Cave refers to a hollow space in the ground or mountains, which is unrelated to army training.

• Residence is a general term for a place where someone lives and does not denote military training.

Correct sentence: A place where an army is trained is called a Barracks.

Additional Information

• Barracks:

• Used as housing for soldiers and military personnel.

• Often includes facilities for training and preparation for combat.

• Can be permanent or temporary structures.

• Fortress:

• A stronghold built for defense against attacks.

• Not primarily intended for training purposes.

Q9. Answer: (a) Beautiful

The correct answer is '1' i.e. Beautiful.

Key Points

• The word "Monstrous" refers to something extremely large, ugly, or horrifying. It is often used to describe something unpleasant or terrifying.

• The most appropriate antonym of "Monstrous" is "Beautiful" as it conveys the opposite meaning—something pleasant, attractive, or lovely.

• The other options do not serve as proper antonyms:

• Odd: Refers to something unusual or strange, which is not opposite to "Monstrous."

• Abnormal: Refers to something not typical or irregular, which may align with "Monstrous" rather than oppose it.

• Strange: Refers to something unfamiliar or peculiar, which is also not the opposite of "Monstrous."

Correct Answer: The correct antonym of "Monstrous" is Beautiful.

Additional Information

• Synonyms of Monstrous: Horrific, hideous, gigantic, grotesque.

• Antonyms of Monstrous: Beautiful, lovely, charming, attractive.

• Understanding the context of words is crucial to selecting the most appropriate antonym.

Q10. Answer: (c) Obscure

The correct answer is '3' i.e. Obscure.

Key Points

• The word “elucidate” means to explain or make something clear.

• The antonym of “elucidate” would be a word that implies making something unclear or difficult to understand.

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• Option 3, “Obscure,” is the most appropriate antonym as it means to make something unclear or difficult to perceive.

• Other options like Clarify, Explain, and Illuminate are synonyms of “elucidate” and do not fit as antonyms.

Correct answer: Obscure.

Additional Information

• Synonyms of “Elucidate”: Clarify, Explain, Illuminate.

• Antonyms of “Elucidate”: Obscure, Confuse, Cloud.

• Example Sentence: The professor’s explanation helped elucidate the complex topic, whereas the vague notes only served to obscure it.

Q11. Answer: (d) They asked, "Is the meeting likely to begin soon or will it be delayed further?"

The correct answer is '4' i.e. Is the meeting likely to begin soon or will it be delayed further?.

Key Points

• The given sentence is in Indirect Speech, where the speaker reports a question about whether the meeting will begin soon or be delayed further.

• To convert it into Direct Speech, we need to use the exact phrasing of the question, maintaining the correct tense and grammar.

• In Direct Speech, questions are framed using the auxiliary verb at the beginning of the sentence (e.g., Is, Will).

Correct conversion: They asked, "Is the meeting likely to begin soon or will it be delayed further?"

Additional Information

• Explanation of other options:

• Option 1: Incorrect because "Was" is used, which is past tense, while the original sentence is in present/future tense.

• Option 2: Incorrect because "shortly" and "more" alter the meaning of the original sentence.

• Option 3: Incorrect because "Will the meeting likely begin" is grammatically awkward and not standard usage.

Q12. Answer: (b) It is cruicial to double-check your work before submitting it.

The correct answer is '2' i.e. It is cruicial to double-check your work before submitting it.

Key Points

• Option 2 contains the misspelled word "cruicial", which should be correctly spelled as "crucial".

• The word "crucial" means something that is very important or essential.

• The remaining options (1, 3, and 4) use correct spellings and grammatical structures.

Correct sentence: It is crucial to double-check your work before submitting it.

Additional Information

• Commonly confused spellings:

• Crucial: Essential or very important.

• Critial: Incorrect spelling of "critical."

• Always proofread written content to identify spelling or typographical errors before submission.

Q13. Answer: (a) My friends told me that they would bake a cake for the party.

The correct answer is '1' i.e. My friends told me that they would bake a cake for the party.

Key Points

• The given sentence is in the direct speech, and the task is to convert it into indirect speech.

• When converting from direct to indirect speech:

• The pronoun "we" changes to "they" because the speaker (friends) is referring to themselves.

• The modal verb "will" changes to "would" because the reporting verb "told" is in the past tense, and tense consistency must be maintained in indirect speech.

• Option 1 correctly follows these rules: "My friends told me that they would bake a cake for the party."

Correct sentence: My friends told me that they would bake a cake for the party.

Additional Information

• Direct and Indirect Speech Rules:

• Present tense in direct speech changes to past tense in indirect speech (e.g., "will" → "would").

• Pronouns must be adjusted according to the context of the sentence.

• Quotation marks are removed in indirect speech, and the sentence is introduced with "that."

• Incorrect Options:

• Option 2: "We" is not changed to "they," which is incorrect in this context.

• Option 3: "Will" is not changed to "would," violating the rule of sequence of tenses.
• Option 4: Both "we" and "will" are incorrect for indirect speech in this case.

Q14. Answer: (a) Had they been doing the restoration work on the antique cabinet for months before you arrived?

The correct answer is '1' i.e. Had they been doing the restoration work on the antique cabinet for months before you arrived?

Key Points

• The given sentence is in passive voice. To convert it to active voice, we need to identify the subject performing the action.
• In the passive sentence, "the restoration work" is the object, and the implied subject is "they" (the people performing the restoration).
• The tense of the sentence is past perfect continuous in passive voice, so while converting to active voice, we retain the same tense structure.

Correct sentence: Had they been doing the restoration work on the antique cabinet for months before you arrived?

Additional Information

• Passive Voice: The focus is on the action being done, and the subject performing the action is either implied or not mentioned.
• Active Voice: The subject performing the action is explicitly mentioned, and the object receives the action.
• Conversion Tips:
• Identify the subject, verb, and object in the passive sentence.
• Rearrange the sentence to place the subject first, followed by the verb and then the object.
• Ensure the tense remains consistent during conversion.

Q15. Answer: (a) out of breath

The correct answer is '1' i.e. out of breath.

Key Points

• The phrase "out of breathe" is grammatically incorrect. The correct form is "out of breath", which is a commonly used expression to indicate difficulty in breathing due to exertion.
• Among the options provided:
• Option 1: "out of breath" is correct and widely accepted.
• Option 2: "out of breathing" is not idiomatic and incorrect.
• Option 3: "out of air" is not the correct expression in this context.
• Option 4: "out of breathes" is incorrect grammatically as "breathes" is a verb.

Correct sentence: After a long marathon, the woman was out of breath.

Additional Information

• The expression "out of breath" is an idiom used to describe the state of being unable to breathe easily after physical exertion.
• The word "breath" is a noun, whereas "breathe" is a verb. It is important to use the correct form based on the context.
• For example:
• Noun: She took a deep breath before diving.
• Verb: Please breathe calmly during meditation.

Q16. Answer: (a) The door has been left open.

The correct answer is '1' i.e. The door has been left open.

Key Points

• The given sentence is in the active voice, where the subject (someone) performs the action (has left) on the object (the door).
• To convert it into the passive voice, the object of the active sentence (the door) becomes the subject of the passive sentence.
• The structure for passive voice in the present perfect tense is: Object + has/have + been + past participle.
• In this case:
• Subject: The door
• Verb form: has been left
• Additional detail: open

Correct sentence: The door has been left open.

Additional Information

• Active to Passive Voice Transformation Rules:
• Identify the subject, verb, and object in the active sentence.
• Make the object of the active sentence the subject of the passive sentence.

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• Use the correct form of the verb to be (is, are, was, were, has been, etc.) followed by the past participle of the main verb.

• If needed, include the doer of the action at the end of the sentence preceded by the word by.

• Examples:

• Active: She has written a book. → Passive: A book has been written by her.

• Active: They are cleaning the room. → Passive: The room is being cleaned by them.

Q17. Answer: (b) Abstract noun

The correct answer is Option 2.

Key Points

• To identify the type of noun for "proliferation," we must look at its definition and how it is perceived.

• Proliferation refers to a rapid increase in numbers or a large amount of something (in this context, construction activities).

• An Abstract Noun represents a concept, quality, or state rather than a concrete object. You cannot touch, see, smell, taste, or hear "proliferation" itself; you can only see the results of it (the buildings).

• Why other options are incorrect:

• Option 1: A Proper noun is a specific name for a particular person, place, or organization (e.g., Himachal Pradesh). These always start with a capital letter.

• Option 3: A Concrete noun refers to something that can be perceived by the five senses (e.g., timber, water, plastic).

• Option 4: A Collective noun refers to a group of individuals or things taken as a whole (e.g., myriad, species, staff).

Therefore, the correct answer is 2.

Analytical Insight: In high-level competitive exams, nouns ending in suffixes like -tion, -ness, -ity, -ism, and -ment are almost always Abstract Nouns. They describe an idea or a process rather than a physical item.

Additional Information

• Anthropogenic: Originating in human activity (chiefly of environmental pollution and pollutants).

• Exacerbated: Made (a problem, bad situation, or negative feeling) worse.

• Nexus: A connection or series of connections linking two or more things.

• Sanctity: The state or quality of being holy, sacred, or saintly; in this context, it refers to the ultimate importance or purity of nature.

Q18. Answer: (a) Adjective clause

The correct answer is Option 1.

Key Points

• To identify the type of clause, we examine the segment: "...which acted as vital carbon sinks and habitats for myriad species..."

• An Adjective Clause (also known as a Relative Clause) is a dependent clause that modifies a noun or pronoun. It usually begins with a relative pronoun like who, whom, whose, that, or which.

• In this sentence, the clause starts with "which" and provides additional descriptive information about the noun "forests." Since it functions as an adjective by describing the forests, it is an adjective clause.

• Specifically, this is a non-restrictive adjective clause because it is set off by commas and provides extra information that is not essential to the identity of the noun it modifies.

• Why other options are incorrect:

• Option 2: An Adverb clause modifies a verb, adjective, or adverb. It usually answers questions like when, where, why, or how (e.g., "Because the forests were cut...").

• Option 3: A Noun clause acts as a noun within the sentence (e.g., "I know that forests are important").

• Option 4: A Coordinate clause is one of two or more independent clauses of equal importance in a compound sentence, usually joined by a coordinating conjunction like and, but, or or.

Therefore, the correct answer is 1.

Analytical Insight: In high-level grammar sections for exams, identifying clauses is crucial. A quick tip: if a clause starts with "which" or "who" and immediately follows a noun, it is almost certainly an Adjective Clause.

Additional Information

• Carbon Sink: A natural environment (like a forest) that absorbs carbon dioxide from the atmosphere.

• Myriad: A countless or extremely great number.

• Fragmented: Broken into small or separate parts; in ecology, this refers to the breaking up of continuous habitats.

• Relative Pronoun: A word used to connect a relative clause to a noun or pronoun (e.g., which, that, who).

Q19. Answer: (b) Worsens

The correct answer is Option 2.

Key Points

• To find the most appropriate meaning of "exacerbates," we look at its context: "...compounded by erratic weather patterns... further exacerbates the fragile ecosystem's vulnerability."

• The passage discusses negative factors like overexploitation and climate change. When a negative situation is "compounded," it means it is being made more intense or severe.

• Exacerbate means to make a problem, bad situation, or negative feeling worse. In this sentence, the existing vulnerability of the ecosystem is being increased or worsened by the weather patterns.

• Why other options are incorrect:

• Option 1: Alleviates means to make suffering or a problem less severe. This is an antonym.

• Option 3: Mitigates means to make something less severe, serious, or painful. This is also an antonym.

• Option 4: Initiates means to cause a process or action to begin. While these factors might start new problems, "exacerbate" specifically refers to making an existing condition worse.

Therefore, the correct answer is 2.

Analytical Insight: In high-level competitive exams, "Contextual Vocabulary" often involves identifying synonyms and antonyms within the same question. Options 1 and 3 are synonyms of each other (meaning 'to reduce'), which often signals that they are both incorrect if only one answer is allowed.

Additional Information

• Exacerbate: To aggravate, worsen, inflame, or intensify a negative situation.

• Pristine: In its original condition; unspoiled.

• Burgeoning: Beginning to grow or increase rapidly; flourishing.

• Anthropogenic: Chiefly of environmental pollution and pollutants originating in human activity.

Q20. Answer: (a) the purity and sacredness of the environment

The correct answer is Option 1.

Key Points

• To determine the meaning of "ecological sanctity," we look at the concluding sentence of the passage: "...scientific interventions are imperative to restore the state's ecological sanctity."

• The word sanctity is derived from "sacred," meaning the state or quality of being holy, very important, or valuable. Ecological refers to the relation of living organisms to one another and to their physical surroundings.

• In the context of environmental conservation, "ecological sanctity" implies maintaining the purity, integrity, and undisturbed state of nature, treating it as something precious that must be protected from degradation.

• Why other options are incorrect:

• Option 2: Exploitation refers to the selfish use of resources, which is the opposite of maintaining sanctity.

• Option 3: Urban development is cited in the passage as a cause of the environmental wave of degradation, not a definition of sanctity.

• Option 4: Government policies are the tools or methods mentioned to restore the sanctity, but they do not define the term itself.

Therefore, the correct answer is 1.

Analytical Insight: In high-level competitive exams, authors often use "high-register" or spiritual vocabulary (like 'sanctity', 'pristine', 'myriad') to emphasize the gravity of a situation. When you see a word like "sanctity" paired with "ecological," the answer will almost always involve words like "purity," "sacredness," or "preservation."

Additional Information

• Sanctity: The ultimate importance and inviolability of something; holiness.

• Ecological Balance: A state of dynamic equilibrium within a community of organisms in which genetic, species, and ecosystem diversity remain relatively stable.

• Carbon Sink: A natural environment (like a forest) that absorbs carbon dioxide from the atmosphere.

• Myriad: A countless or extremely great number.

Q21. Answer: (b) Strict enforcement of environmental policies

The correct answer is Option 2.

Key Points

• To identify the factor that does NOT contribute to degradation, we must cross-reference each option with the causes listed in the passage.

• Analysis of the options:

• Option 1: The passage mentions "erratic weather patterns attributed to climate change" as a compounding factor for ecosystem vulnerability. (Contributes)

• Option 2: The text explicitly states that a reason for deterioration is the "inadequacy of stringent environmental policies and their enforcement." Therefore, strict enforcement is what is missing, not a cause of the problem.

• Option 3: The passage cites "unregulated urban expansion" as a reason for rampant deforestation. (Contributes)

• Option 4: The "indiscriminate dumping of waste, including plastic" is mentioned as a factor that aggravates pollution. (Contributes)

Therefore, the correct answer is 2.

Analytical Insight: In high-level competitive exams, "NOT" questions are designed to test your attention to detail. Notice the wordplay: the passage mentions "inadequacy" (lack) of strict policies, while the option says "strict enforcement." This direct contradiction makes it the correct choice for a non-contributing factor.

Additional Information

• Inadequacy: The state or quality of being insufficient or not good enough.

• Stringent: (Of regulations, requirements, or conditions) strict, precise, and exacting.

• Succumbs: Fails to resist pressure, temptation, or some other negative force.

• Remedial Measures: Actions intended as a remedy or a cure for a problem.

Q22. Answer: (a) P, Q, R, S

The correct answer is '1' i.e. P, Q, R, S.

Key Points

• The sentences need to be arranged logically to form a meaningful paragraph that flows smoothly.

• In this case:

• P: The paragraph begins with the kettle whistling, which sets the scene in the quiet kitchen.

• Q: The person places a teabag in the mug and pours hot water, which logically follows the whistling kettle.

• R: The milk is added, changing the tea's color, which naturally follows the teabag and hot water being prepared.

• S: Finally, the person takes a sip, and the morning feels better, providing a satisfying conclusion.

Correct sequence: P, Q, R, S.

Additional Information

• While rearranging sentences:

• Identify the introductory sentence, which usually sets the scene or introduces the topic.

• Look for logical connections between sentences, such as cause-effect or chronological order.

• The concluding sentence often summarizes or provides closure to the paragraph.

Q23. Answer: (b) P, S, R, Q

The correct answer is '2' i.e. P, S, R, Q.

Key Points

• The correct arrangement is P, S, R, Q, which creates a meaningful and grammatically correct paragraph.

• P: The research team recruited a large group of qualified participants for the study. (This introduces the study and its participants.)

• S: Half the participants received the new drug, while the other half received a placebo. (This explains how the study was conducted.)

• R: The team monitored the health and progress of all the participants for several months. (This describes the monitoring process during the study.)

• Q: At the end of the trial, they analysed the results to determine the drug's effectiveness. (This concludes the study with the analysis of results.)

Correct sentence: The research team recruited a large group of qualified participants for the study. Half the participants received the new drug, while the other half received a placebo. The team monitored the health and progress of all the participants for several months. At the end of the trial, they analysed the results to determine the drug's effectiveness..

Additional Information

• How to approach sentence rearrangement:

• Identify the introductory sentence that sets the context.

• Follow the logical sequence of actions or events described.

• Conclude with a sentence that wraps up or provides results/outcomes.

• In this case, the sequence follows the steps of a research study: recruitment, conducting the trial, monitoring progress, and

analysing results.

Q24. Answer: (c) Closely

The correct answer is '3' i.e. Closely.

Key Points

• The word "intently" means with great focus or concentration.

• In the given sentence, the man is described as listening intently, which implies he is paying very close attention to the astrologer.

• Among the options:

• Distantly: Refers to being unfocused or far away emotionally or mentally, which is opposite in meaning.

• Lazily: Indicates lack of energy or attentiveness, which is not suitable.

• Closely: Means with great focus or attention, which matches the meaning of "intently."

• Casually: Refers to being informal or not serious, which does not align with the context of the sentence.

Correct sentence: The man listened closely, drawn in by the astrologer's authority.

Additional Information

• The word "intently" is often used to describe activities that require undivided attention or focus, such as listening, watching, or thinking.

• Synonyms for "intently" include "keenly," "attentively," and "earnestly."

• It is often used in contexts where someone is deeply engrossed in an activity or thought.

Q25. Answer: (a) Utopia

The correct answer is '1' i.e. Utopia.

Key Points

• The term Utopia refers to an ideal society that is free from poverty, suffering, and all forms of societal injustice.

• The word originates from Sir Thomas More’s book “Utopia”, which describes a perfect and harmonious society.

• Options like Democracy, Monarchy, and Oligarchy refer to different forms of governance, but they do not imply a society free of poverty and suffering.

Correct explanation: Utopia represents a hypothetical or idealized society where all individuals live in harmony without any form of hardship or inequality.

Additional Information

• Democracy:

• Definition: A system of government where power resides with the people, typically through elected representatives.

• Example: Countries like the USA and India follow democratic governance.

• Monarchy:

• Definition: A form of government where a king or queen rules the nation.

• Example: The United Kingdom is a constitutional monarchy.

• Oligarchy:

• Definition: A form of governance where power resides with a small group of people, such as wealthy individuals or elites.

• Example: Ancient Sparta had elements of oligarchy in its governance structure.

Q26. Answer: (b) Delay launch and ensure stability

The logic followed here is:

Logic: The situation is based on choosing the most responsible and quality-focused decision.

Option 1) Launch now and fix later → Risky, may harm user trust

Option 2) Delay launch and ensure stability → Ensures quality and reliability

Option 3) Cancel the product → Extreme and unnecessary

Option 4) Release it to a limited audience first → Better, but still involves risk if buggy

Hence, the correct answer is Option 2.

Q27. Answer: (c) To write

The logic followed here is:

Logic: The Latin root 'scrib' / 'script' is related to writing (e.g., describe, manuscript, script).

Option 1) To speak → Incorrect

Option 2) To read → Incorrect

Option 3) To write → Correct

Option 4) To hear → Incorrect

Hence, the correct answer is Option 3.

Q28. Answer: (c) If both I and II follow

Given Statement:

The government has announced a new tax on sugary drinks.

Conclusions:

I. The government is trying to reduce the consumption of sugary drinks – True (A common purpose of taxing unhealthy items is to reduce their consumption.)

II. The tax will generate revenue for the government – True (Taxes generally increase government revenue.)

III. The tax on sugary drinks will be the only tax imposed by the government – False (There is no information to suggest it is the only tax.)

Hence, both I and II follow.

The correct answer is Option 3.

Q29. Answer: (a) J

The logic followed here is:

So, 'J' will replace the question mark in the given series.

Hence, the correct answer is "Option 1".

Q30. Answer: (c) 310

The logic followed here is:

thus, "310" will replace the question mark in the given series.

Hence, the correct option is "Option 3".

Q31. Answer: (d) 280

The logic followed here is:

thus, "280" will replace the question mark in the given series.

Hence, the correct option is "Option 4".

Q32. Answer: (b) 3

The logic followed here is:

Logic: The pattern is based on subtracting 4 from the number.

$6 - 4 = 2$

Similarly,

$7 - 4 = 3$

Hence, the correct answer is Option 2.

Q33. Answer: (b) (11, 122)

The logic followed here is:

Logic: The pattern is based on

Second number = (first number)^2 + 1

Now, checking the given pairs:

(2, 5) → $2^2 + 1 = 4 + 1 = 5$

(3, 10) → $3^2 + 1 = 9 + 1 = 10$

(5, 26) → $5^2 + 1 = 25 + 1 = 26$

(7, 50) → $7^2 + 1 = 49 + 1 = 50$

Similarly,

(11, ?) → $11^2 + 1 = 121 + 1 = 122$

And,

(13, 170) → $13^2 + 1 = 169 + 1 = 170$

Hence, the correct answer is Option 2.

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Q34. Answer: (c) Canal

The logic followed here is:

Logic: The pattern is based on natural vs man-made origin.

Option 1) Waterfalls → Natural

Option 2) Lakes → Natural

Option 3) Canal → Man-made

Option 4) Seas → Natural

Here, all are natural water bodies except Canal, which is man-made.

Hence, the correct answer is Option 3.

Q35. Answer: (a) iOS

The logic followed here is:

Logic: The pattern is based on type of platform (operating system vs search engine).

Option 1) iOS → Operating system

Option 2) Baidu → Search engine

Option 3) Bing → Search engine

Option 4) DuckDuckGo → Search engine

Here, all are search engines except iOS, which is an operating system.

Hence, the correct answer is Option 1.

Q36. Answer: (b) 3274

The logic followed here is:

thus, "3274" will replace the question mark in the given series.

Hence, the correct option is "Option 2".

Q37. Answer: (b) 80

The logic followed here is:

thus, "80" will replace the question mark in the given series.

Hence, the correct option is "Option 2".

Q38. Answer: (c) Only I

Given:

Statements:

1. Only Cars are Vehicles.

2. Some Cars are Bulky.

3. All Metals are Bulky.

Conclusions:

I. Some Vehicles are not Metal - True (Because "Only Cars are Vehicles" means all Vehicles are Cars. We know that some Cars are Bulky, but there is no statement that all Cars are Metals. Therefore, the existence of some Vehicles that are not Metal can be logically inferred.)

II. Some Metals are Cars - False (Because the statements only establish that all Metals are Bulky and some Cars are Bulky. Being Bulky does not imply that something is both Metal and Car. Hence, no overlap between Metals and Cars can be established.)

So, only Conclusion I follows.

Hence, the correct answer is "Option 3".

Q39. Answer: (a) X15

The logic followed here is:

So, 'X15' will replace the question mark in the given series.

Hence, the correct answer is "Option 1".

Q40. Answer: (b) V9

The logic followed here is:

So, 'V9' is odd one in the given series.

Hence, the correct answer is "Option 2".

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Q41. Answer: (c) RM

The logic followed here is:

So, 'RM will replace the question mark in the given series.

Hence, the correct answer is "Option 3".

Q42. Answer: (b) 6.25

The logic followed here is:

thus, "6.25" will replace the question mark in the given series.

Hence, the correct option is "Option 2".

Q43. Answer: (c) 22

BODMAS Table:

Given equation: 100 + 10 − 2 × 4 + 2 = ?

Now, if + stands for '÷', − stands for '×', × stands for '+', then:

=> 100 ÷ 10 × 2 + 4 ÷ 2 = ?

=> 10 × 2 + 4 ÷ 2 = ?

=> 20 + 2 = ?

=> 22

Hence, the correct answer is "Option 3".

Q44. Answer: (a) Byte

The logic followed here is:

Logic: The pattern is based on unit of measurement.

Electric Charge → Coulomb (unit of electric charge)

Similarly,

Data → Byte (unit of data)

Option 1) Byte → Correct

Option 2) Mass → Not a unit

Option 3) Kelvin → Unit of temperature

Option 4) Pascal → Unit of pressure

Hence, the correct answer is Option 1.

Q45. Answer: (d) Turkey

The logic followed here is:

Logic: The pattern is based on adult bird : its young one.

Hawk → Eyas (young of a hawk)

Similarly,

Poult → young of Turkey

Option 1) Goose → Gosling

Option 2) Pigeon → Squab

Option 3) Swan → Cygnet

Option 4) Turkey → Poult

Hence, the correct answer is Option 4.

Q46. Answer: (c) 31

The logic followed here is:

Logic: The pattern is based on adding the previous two numbers.

thus, "31" will replace the question mark in the given series.

Hence, the correct option is "Option 3".

Q47. Answer: (a) 156

The logic followed here is:

thus, "156" will replace the question mark in the given series.

Hence, the correct option is "Option 1".

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Q48. Answer: (a) 8502

The logic followed here is:

Logic: The pattern is based on adding 951 to the number.

Now, checking the given pairs:

6264 + 951 = 7215

3548 + 951 = 4499

Similarly,

7551 + 951 = 8502

Hence, the correct answer is Option 1.

Q49. Answer: (a) 1781

The logic followed here is:

Logic: The pattern is based on subtracting 990 from the number.

Now, checking the given pairs:

187 − 990 = −803

6229 − 990 = 5239

Similarly,

? − 990 = 791

? = 791 + 990 = 1781

Hence, the correct answer is Option 1.

Q50. Answer: (d) MZ484 - OF726

The logic followed here is:

Logic: The pattern is based on multiplying the number by 1.5 and shifting letters forward by +2 and +5 positions respectively.

AC332 → CH498

BH440 → DM660

LK556 → NP834

MZ484 → OF726

Here, all pairs follow the same pattern except the fourth pair.

Hence, the correct answer is Option 4.

Q51. Answer: (d) Complex

Shortcut Trick

Number Hierarchy: Integers subset of Rational numbers subset of Real numbers.

Real numbers = {Rational} U {Irrational}.

Complex numbers = {Real} + {Imaginary}.

Since Complex numbers include Imaginary parts, they are the superset of Real numbers.

Therefore, Complex numbers are not a subset of Real numbers.

Therefore Answer = (4) Complex

Alternate Method

Given:

Number sets: Rational numbers, Irrational numbers, Integers, and Complex numbers.

Formula used:

Subset Property: A subset of B if every element of A is also in B. Hierarchy: N subset of W subset of Z subset of Q subset of R subset of C.

Complex Numbers (C) Real Numbers (R) Rational (Q) Integers (Z) Irrational Imaginary

Calculations:

=> Real numbers consist of all numbers that can be found on a number line, including Rational and Irrational numbers.

=> Integers (Z) = {..., −2, −1, 0, 1, 2, ...} are a subset of Rational numbers (Q).

=> Rational numbers (Q) and Irrational numbers (I) are subsets of Real numbers (R).

=> Complex numbers (C) are defined as a + bi, where a and b are real and i = √−1.

=> Since C includes imaginary numbers (where b ≠ 0), not every complex number is a real number.

=> Thus, Real numbers are a subset of Complex numbers (R subset of C), but Complex numbers are not a subset of Real

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numbers.

Therefore The correct answer is (4) Complex.

Q52. Answer: (c) Repeating digits start immediately after decimal

Shortcut Trick

Pure Recurring Decimal → Repeating digits begin right after the decimal point (e.g., 0.333...).

Mixed Recurring Decimal → At least one non-repeating digit exists before the repetition starts (e.g., 0.122...).

Criteria for Pure: All digits in the decimal part must belong to the repeating period.

Therefore, the repeating pattern must start immediately after the decimal.

Therefore Answer = Repeating digits start immediately after decimal

Alternate Method

Given:

The definition of a pure recurring decimal number among the provided conditions.

Formula used:

Pure Recurring: $0.\overline{p} = 0.pppp...$ (Pattern starts at the 1^(st) decimal place)

Mixed Recurring: $0.q\overline{p} = 0.qppp...$ (Pattern starts after non-repeating digit 'q')

Pure: 0. 7 7 7 7 ... Starts immediately Mixed: 0. 1 6 6 6 ... Starts after digit '1'

Calculations:

=> A recurring decimal is one where a digit or a set of digits repeats infinitely.

=> In a Pure Recurring Decimal, the periodicity (the repeating part) begins immediately after the decimal point.

=> Example of Pure: 1/3 = 0.333... (or $0.\overline{3}$), 1/11 = 0.0909... (or $0.\overline{09}$).

=> In a Mixed Recurring Decimal, there is at least one digit between the decimal point and the start of the repeating part.

=> Example of Mixed: 1/6 = 0.1666... (or $0.1\overline{6}$).

=> Comparing with options: Option (1) refers to periodicity length, Option (2) refers to terminating decimals, and Option (4) refers to mixed recurring decimals.

=> Thus, Option (3) accurately defines a pure recurring decimal.

Therefore The correct answer is (3).

Q53. Answer: (c) Rs. 3.33

Shortcut Trick

Net percentage change = 8% − (−10%) = 18%

This 18% gap corresponds to Rs. 0.60 price difference.

18% of CP = 0.60

CP = (0.60 ÷ 18) × 100 = 60 ÷ 18

CP = 3.33

Therefore Answer = Rs. 3.33

Alternate Method

Given:

Initial loss = 10%, Potential gain = 8%, Increase in price = Rs. 0.60 per kg

Formula used:

Cost Price (CP) = (Difference in Selling Price ÷ Difference in Percentage) × 100

CP (100%) SP1 (90%) SP2 (108%) -10% +8% Difference = 18% = Rs. 0.60

Calculations:

Let the cost price of sugar be 100 units.

=> First selling price (SP1) at 10% loss = 100 − 10 = 90 units

=> Second selling price (SP2) at 8% gain = 100 + 8 = 108 units

=> Difference between SP2 and SP1 = 108 − 90 = 18 units

=> According to the question, 18 units = Rs. 0.60

=> 1 unit = 0.60 ÷ 18

=> Cost Price (100 units) = (0.60 ÷ 18) × 100

=> CP = 60 ÷ 18 = 10 ÷ 3 = 3.333...

Therefore The correct answer is Rs. 3.33 (Option 3).

Q54. Answer: (d) 85.45

Given:
Number of initial students = 15
Initial average = 72.4
Total students after addition = 20
New average = 74.6
Scores of three students = 76.2, 78.5, 80.4
Formula Used:
Average = Total sum ÷ Number of observations
Total sum = Average × Number of observations
Calculation:
=> Total sum of 15 students = 72.4 × 15 = 1086
=> Total sum of 20 students = 74.6 × 20 = 1492
=> Sum of 5 new students = 1492 − 1086 = 406
=> Sum of 3 students = 76.2 + 78.5 + 80.4 = 235.1
=> Sum of remaining 2 students = 406 − 235.1 = 170.9
=> Score of each student = 170.9 ÷ 2 = 85.45
Therefore The correct answer is 85.45.

Q55. Answer: (d) Rs. 5,50,000

Given:
Total estimated cost = 500000
Material cost percentage = 60%
Labor cost percentage = 25%
Contingency percentage = 15%
Increase in material cost = 12.5%
Increase in labor cost = 10%
Formula Used:
Cost = Total × Percentage ÷ 100
Increased value = Original value × (1 + Increase ÷ 100)
Calculation:
=> Material cost = 500000 × 60 ÷ 100 = 300000
=> Labor cost = 500000 × 25 ÷ 100 = 125000
=> Contingency = 500000 × 15 ÷ 100 = 75000
=> New material cost = 300000 × (1 + 12.5 ÷ 100) = 300000 × 1.125 = 337500
=> New labor cost = 125000 × (1 + 10 ÷ 100) = 125000 × 1.1 = 137500
=> Contingency remains = 75000
=> New total cost = 337500 + 137500 + 75000 = 550000
Therefore The correct answer is 550000.

Q56. Answer: (b) 458.36 cm²

Given:
Side of pentagon = 6.2 cm
Height = 10.5 cm
Area of base = 66.43
Formula Used:
Total surface area = (Perimeter × height) + 2 × base area
Calculation:
=> Perimeter = 5 × 6.2 = 31
=> Lateral surface area = 31 × 10.5 = 325.5
=> Area of two bases = 2 × 66.43 = 132.86
=> Total surface area = 325.5 + 132.86

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=> Total surface area = 458.36

Therefore The correct answer is 458.36 cm².

Q57. Answer: (c) 1102.60 cm²

Shortcut Trick

Perimeter of Regular Hexagonal Base = 6 × Side = 6 × 7.5 = 45 cm

Lateral Surface Area (LSA) = Perimeter × Height = 45 × 18 = 810 cm²

Total Surface Area (TSA) = LSA + 2 × Base Area = 810 + 2 × 146.30

TSA = 810 + 292.60 = 1102.60 cm²

Therefore The correct answer is 1102.60 cm².

Alternate Method

Given:

Side of the Regular Hexagon (a) = 7.5 cm

Height of the prism (h) = 18 cm

Area of the hexagonal base = 146.30 cm²

Formula Used:

Total Surface Area (TSA) of a Prism = Lateral Surface Area + 2 × Base Area

Lateral Surface Area (LSA) = Perimeter of Base × Height

Calculations:

=> Perimeter of the hexagonal base = 6 × Side

=> Perimeter = 6 × 7.5 = 45 cm

=> Lateral Surface Area (LSA) = Perimeter × Height

=> LSA = 45 × 18 = 810 cm²

=> Total Surface Area (TSA) = LSA + 2 × Base Area

=> TSA = 810 + 2 × 146.30

=> TSA = 810 + 292.60

=> TSA = 1102.60 cm²

Therefore The correct answer is 1102.60 cm².

Additional Information

Volume of a Right Prism

The volume of any right prism is calculated by multiplying the area of its base by its vertical height: Volume = Base Area × Height.

Area of a Regular Hexagon

The standard formula for the area of a regular hexagon with side 'a' is: Area = (3√3 ÷ 2) × a².

Lateral Surface Area (LSA)

LSA refers to the area of all the side faces of a 3D figure, excluding the top and bottom bases. For a right prism, LSA = Base Perimeter × Height.

Properties of a Right Prism

In a right prism, the side edges and faces are perpendicular to the base faces. All lateral faces are rectangles.

Q58. Answer: (b) 6 cm

Shortcut Trick

Centroid divides the median in a ratio of 2 : 1 from the vertex to the side.

Required distance = (2 / 3) × Median length

Distance = (2 / 3) × 9 cm

Distance = 2 × 3 = 6 cm

Therefore Answer = 6 cm

Alternate Method

Given:

Length of the median = 9 cm

Formula used:

In a triangle, the centroid (G) divides each median (AD) in the ratio AG : GD = 2 : 1, where A is the vertex.

A (Vertex) G (Centroid) D (Midpoint) 2 units (6 cm) 1 unit (3 cm) Median = 9 cm

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Calculations:
Let the ratio parts of the median be 2x and 1x.
=> Total length of median = 2x + 1x = 3x
=> 3x = 9 cm
=> x = 9 ÷ 3 = 3 cm
=> Distance from centroid to vertex = 2x
=> Distance = 2 × 3 = 6 cm
Therefore The correct answer is 6 cm (Option 2).

Q59. Answer: (d) 64

Shortcut Trick
Volume of cone prop. to radius² × height.
Let initial volume be 1 unit.
New radius factor = 1/4 and New height factor = 1/4.
New volume factor = (1/4)² × (1/4) = 1/16 × 1/4 = 1/64.
Number of cones = Original Volume ÷ New Volume = 1 ÷ (1/64) = 64.
Therefore Answer = 64
Alternate Method
Given:
Large cone radius = R, Large cone height = H
Small cone radius = r = R/4
Small cone height = h = H/4
Formula used:
Volume of cone = (1/3) × π × radius² × height
H R Large Cone h = H/4 r = R/4 Small Cone Recasting: Volume Remains Constant
Calculations:
Let the number of small cones be n.
=> Volume of large cone = n × Volume of small cone
=> (1/3) × π × R² × H = n × [(1/3) × π × r² × h]
=> R² × H = n × (R/4)² × (H/4)
=> R² × H = n × (R²/16) × (H/4)
=> R² × H = n × (R² × H) / 64
=> n = 64
Therefore The correct answer is 64 (Option 4).

Q60. Answer: (b) Rs. 48,675

Shortcut Trick
Total simple interest percentage for the period = Rate × Time
=> Total Interest % = 8% × 15 = 120%
Given, 120% of the sum invested = Rs. 58,410
=> 100% (Principal) = (58,410 ÷ 120) × 100 = 486.75 × 100 = Rs. 48,675
Therefore The correct answer is Rs. 48,675.
Alternate Method
Given:
Interest earned (SI) = Rs. 58,410
Rate (R) = 8% p.a.
Time (T) = 15 years
Formula Used:
Simple Interest (SI) = (P × R × T) ÷ 100
Calculations:
=> 58,410 = (P × 8 × 15) ÷ 100
=> 58,410 = (P × 120) ÷ 100

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=> 58,410 = P × 1.2
=> P = 58,410 ÷ 1.2
=> P = 584,100 ÷ 12
=> P = 48,675
Therefore The correct answer is Rs. 48,675.
Additional Information
Simple Interest (SI)
It is the interest calculated only on the initial principal amount. Formula: SI = (P × R × T) ÷ 100.
Total Amount (A)
The sum of the principal and interest earned over a period. Formula: A = P + SI = P[1 + (RT ÷ 100)].
Finding Principal
When interest is given, the sum invested (Principal) is calculated as P = (SI × 100) ÷ (R × T).

Q61. Answer: (a) 20 metres

Shortcut Trick
Simplified ratio tan x = 192 ÷ 80 = 12 / 5 (Perpendicular / Base).
Using Pythagorean triplet (5, 12, 13), Hypotenuse = 13 units.
Ladder length (hypotenuse) = 13 units = 52 m.
Scale factor (1 unit) = 52 ÷ 13 = 4 m.
Distance of foot from wall (base) = 5 units × 4 = 20 m.
Therefore Answer = 20 metres
Alternate Method
Given:
Length of the ladder = 52 metres
Angle with horizontal ground = x, where tan x = 192 / 80
Formula used:
tan x = Perpendicular (P) ÷ Base (B)
Hypotenuse (H) = √(P² + B²)
x Ladder = 52 m Wall (P) Distance (B) = ? B A C
Calculations:
=> tan x = 192 / 80
=> tan x = (192 ÷ 16) / (80 ÷ 16) = 12 / 5
=> Ratio of Perpendicular : Base = 12 : 5
=> Let Perpendicular = 12k and Base = 5k
=> Hypotenuse (Ladder) = √((12k)² + (5k)²) = √(144k² + 25k²)
=> Hypotenuse = √(169k²) = 13k
=> Given: 13k = 52 metres
=> k = 52 ÷ 13 = 4
=> Distance (Base) = 5k = 5 × 4 = 20 metres
Therefore The correct answer is 20 metres, which is option (1).

Q62. Answer: (a) 60°

Shortcut Trick
In similar triangles, the order of vertices determines corresponding angles.
Given ΔPQR ~ ΔXYZ, the position of vertices is P→X, Q→Y, and R→Z.
Therefore, angle P = angle X, angle Q = angle Y, and angle R = angle Z.
Since angle Q = 60°, its corresponding angle angle Y must also be 60°.
Therefore Answer = 60°
Alternate Method
Given:
ΔPQR ~ ΔXYZ, angle P = 40°, angle Q = 60°
Formula used:

Properties of Similarity: Corresponding angles of similar triangles are equal.
P (40°) Q (60°) R X (40°) Y (?) Z ~ Result: angle Q = angle Y = 60°
Calculations:
For ΔPQR and ΔXYZ, the similarity notation ΔPQR ~ ΔXYZ implies:
=> Vertex P corresponds to X
=> Vertex Q corresponds to Y
=> Vertex R corresponds to Z
By property of similar triangles, corresponding angles are equal:
=> angle P = angle X = 40°
=> angle Q = angle Y
Since angle Q is given as 60°:
=> angle Y = 60°
Therefore The correct answer is 60° (Option 1).

Q63. Answer: (b) 24kg

Given:
Cost price 1 = 10
Cost price 2 = 8
Quantity of cheaper sugar = 20 kg
Selling price = 10
Profit = 10%
Formula Used:
Selling price = Cost price × (100 + profit)% ÷ 100
Mean cost price = Total cost ÷ Total quantity
Calculation:
=> Mean cost price = 10 × 100 ÷ 110
=> Mean cost price = 1000 ÷ 110 = 100 ÷ 11
=> Let quantity of Rs.10 sugar = x
=> Total cost = 10x + 8 × 20
=> Total cost = 10x + 160
=> Total quantity = x + 20
=> (10x + 160) ÷ (x + 20) = 100 ÷ 11
=> 11(10x + 160) = 100(x + 20)
=> 110x + 1760 = 100x + 2000
=> 10x = 240
=> x = 24
Therefore The correct answer is 24 kg.

Q64. Answer: (c) 8 hours

Shortcut Trick
Sudhir efficiency = 40 pages ÷ 8 hr = 5 pages/hr
Combined efficiency = 350 pages ÷ 35 hr = 10 pages/hr
Prakash efficiency = 10 − 5 = 5 pages/hr
Time for Prakash to copy 40 pages = 40 ÷ 5 = 8 hr
Therefore The correct answer is 8 hr.
Alternate Method
Given:
Work done by Sudhir = 40 pages in 8 hr
Work done by Sudhir and Prakash together = 350 pages in 35 hr
Formula Used:
Efficiency = Total Work ÷ Time Taken

Person	Total Pages	Time Taken	Efficiency (Pages/hr)

Sudhir	40	8 hr	5
Sudhir + Prakash	350	35 hr	10

=> Efficiency of Sudhir (S) = 40 ÷ 8 = 5 pages/hr

=> Efficiency of Sudhir + Prakash (S + P) = 350 ÷ 35 = 10 pages/hr

=> Efficiency of Prakash (P) = (S + P) − S

=> P = 10 − 5 = 5 pages/hr

=> Time taken by Prakash to copy 40 pages = 40 ÷ 5

=> Time = 8 hr

Therefore The correct answer is 8 hr.

Additional Information

Rate of Work

The rate of work (efficiency) is the amount of work completed in one unit of time. It is calculated as Work ÷ Time.

Combined Work Formula

If A and B work together, their total efficiency is E_A + E_B. The total time taken is Total Work ÷ (E_A + E_B).

Unitary Method

When comparing different quantities of work, it is easiest to find the efficiency per hour first, then apply it to the new quantity required.

Q65. Answer: (d) 4,500 metres

Shortcut Trick

When time is constant, Distance prop. to Speed.

Ratio of Speeds (Police : Thief) = 20 : 15 = 4 : 3.

Ratio of Distances = 4 : 3 → Difference = 1 unit.

Given 1 unit = 1,500 m Therefore Thief distance = 3 units = 3 × 1,500 m.

Therefore Answer = 4,500 metres

Alternate Method

Given:

Distance between Police and Thief = 1,500 m

Speed of Police = 20 km/h | Speed of Thief = 15 km/h

Formula used:

Relative Speed = Speed1 − Speed2 (same direction)

Time = Distance ÷ Relative Speed | Distance = Speed × Time

Police (P) 20 km/h Thief (T) 15 km/h Catch Point 1500 m Distance = 4500 m Relative Speed = 5 km/h

Calculations:

=> Relative speed of Police with respect to Thief = 20 − 15 = 5 km/h

=> Since time taken by both to meet is the same, we use the ratio of their speeds.

=> Ratio of Distance (P : T) = Speed Ratio (P : T) = 20 : 15 = 4 : 3

=> Difference in distance units = 4 − 3 = 1 unit

=> 1 unit = 1,500 m

=> Distance covered by Thief before being caught = 3 units = 3 × 1,500 m

=> Distance = 4,500 m

Therefore The correct answer is 4,500 metres (Option 4).

Q66. Answer: (c) Only I

Shortcut Trick

Statement I: Area = Base × Altitude = 15 × 12 = 180 cm² (True)

Statement II: Interior angle sum = (n − 2) × 180°

For Octagon (n = 8): Sum = (8 − 2) × 180° = 6 × 180° = 1080°

1080° ≠ 900°, so Statement II is False.

Therefore Answer = Only I

Alternate Method

Given:

Parallelogram: Base = 15 cm, Altitude = 12 cm. Regular Octagon: Number of sides (n) = 8.

Formula used:

Area of parallelogram = Base × Altitude | Sum of interior angles of a polygon = (n − 2) × 180°

Base = 15 cm h = 12 cm Parallelogram Regular Octagon (n=8) Angle Sum = (n-2)×180° Statement I: 180 cm² | Statement II: 1080°

Calculations:

Step 1: Check Statement I

=> Area = 15 cm × 12 cm = 180 cm²

=> Statement I is TRUE.

Step 2: Check Statement II

=> For an octagon, n = 8.

=> Sum of interior angles = (8 − 2) × 180° = 6 × 180° = 1080°

=> Since the sum is 1080° and not 900°, Statement II is FALSE.

Therefore The correct answer is Only I (Option 3).

Q67. Answer: (b) 15.52 cm

Shortcut Trick

Vertical height (h) = 15 cm and Base side (a) = 8 cm.

In a square pyramid, height (h), half-base (a/2), and slant height (l) form a right triangle.

Half-base = 8 ÷ 2 = 4 cm.

Slant height (l) = √(h² + (a/2)²) = √(15² + 4²).

l = √(225 + 16) = √241 ≈ 15.52 cm.

Therefore Answer = 15.52 cm

Alternate Method

Given:

Base side (a) = 8 cm

Perpendicular height (h) = 15 cm

Formula used:

Slant height (l) = √[h² + (a/2)²]

Slant Height (l) h = 15 a/2 = 4 l = √(15² + 4²) ≈ 15.52 cm

Calculations:

=> Base side (a) = 8 cm

=> Distance from center of base to midpoint of side (base of the triangle) = a/2 = 8/2 = 4 cm

=> Perpendicular height (h) = 15 cm

=> Slant height (l) = √(15² + 4²)

=> l = √(225 + 16)

=> l = √241 ≈ 15.524 cm

Therefore The correct answer is 15.52 cm. (Option 2)

Q68. Answer: (b) 31.6%

Shortcut Trick

Net Multiplier = (1 − 0.20) × (1 − 0.10) × (1 − 0.05)

Net Multiplier = 0.8 × 0.9 × 0.95 = 0.684

Equivalent Discount % = (1 − 0.684) × 100 = 31.6%

Therefore Answer = 31.6%

Alternate Method

Given:

Three successive discounts: D1 = 20%, D2 = 10%, D3 = 5%

Formula used:

Equivalent Discount for two discounts x and y = x + y − (x × y)/100

Marked Price = 100 units -20% (20) -10% (8) -5/% (3.6) SP = 68.4 Total Discount = 20 + 8 + 3.6 = 31.6%

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Calculations:

=> First two discounts (20% and 10%) = 20 + 10 − (20 × 10)/100

=> Equivalent of D1 and D2 = 30 − 2 = 28%

=> Final equivalent discount with D3 (28% and 5%) = 28 + 5 − (28 × 5)/100

=> Net Discount = 33 − (140/100) = 33 − 1.4

=> Net Discount = 31.6%

Therefore The correct answer is 31.6% (Option 2).

Q69. Answer: (b) 26 cm

Shortcut Trick

Half-chord lengths are 24/2 = 12 cm and 10/2 = 5 cm.

Note that sum of half-chords (12 + 5) equals the distance between them (17 cm).

In such cases, the distance of chords from the center are these half-lengths: 5 cm and 12 cm.

Radius r = √(12² + 5²) = √169 = 13 cm.

Diameter = 2 × 13 = 26 cm.

Therefore Answer = 26 cm

Alternate Method

Given:

Chord GH = 24 cm, Chord IJ = 10 cm, Distance between chords = 17 cm.

Formula used:

Radius² = (Half chord length)² + (Distance from center)²

O G H I J r x y x + y = 17

Calculations:

Let the perpendicular distance from center O to chord GH be x and to IJ be y.

=> x + y = 17 (since chords are on opposite sides)

=> In right triangle with GH: $r^2 = (24/2)^2 + x^2 = 144 + x^2$

=> In right triangle with IJ: $r^2 = (10/2)^2 + y^2 = 25 + y^2$

=> $144 + x^2 = 25 + y^2$

=> $y^2 - x^2 = 119$

=> $(y - x)(y + x) = 119$

=> $(y - x)(17) = 119$ => $y - x = 7$

=> Solving x + y = 17 and y − x = 7 gives y = 12 and x = 5

=> $r^2 = 144 + 5^2 = 169$ => r = 13 cm

=> Diameter = 2 × r = 2 × 13 = 26 cm

Therefore The correct answer is 26 cm, which is option (2).

Q70. Answer: (a) 20 m

Shortcut Trick

Radius of circular embankment = 30 m

Drainage circle radius is 10 m smaller than embankment.

Radius of drainage circle = 30 m − 10 m

Radius of drainage circle = 20 m

Therefore Answer = 20 m

Alternate Method

Given:

Radius of the outer circular embankment (R) = 30 m

Difference between radii = 10 m

Formula used:

Radius of inner drainage circle (r) = Radius of embankment (R) − Reduction amount

Center R = 30m r = 20m Drainage Radius = 30 − 10 = 20 m

Calculations:

=> Radius of the outer embankment (R) = 30 m

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=> Reduction in radius for drainage system = 10 m
=> Radius of drainage circle (r) = 30 − 10
=> r = 20 m
Therefore The correct answer is (1) 20 m.

Q71. Answer: (c) cbrt11

Given:
√5
cbrt11
^4√124
Formula Used:
Compare values by converting into decimal form
Calculation:
=> √5 ≈ 2.236
=> cbrt11 ≈ 2.224
=> ^4√124 ≈ 3.343
=> 2.224 < 2.236 < 3.343
Therefore The correct answer is cbrt11.

Q72. Answer: (c) 4

Shortcut Trick
The x-intercept of a line is the point where it crosses the x-axis, meaning y = 0.
Substitute y = 0 into the given equation: 3x + 4(0) = 12.
3x = 12.
x = 12 ÷ 3 = 4.
Therefore Answer = 4
Alternate Method
Given:
Equation of the line: 3x + 4y = 12
Formula used:
To find the x-intercept of any linear equation, set the value of y to zero and solve for x.
x y (4, 0) (0, 3) 3x + 4y = 12 x-intercept point: (4,0)
Calculations:
=> Given line: 3x + 4y = 12
=> For x-intercept, let y = 0
=> 3x + 4(0) = 12
=> 3x = 12
=> x = 12 ÷ 3
=> x = 4
Therefore The correct answer is 4 (Option 3).

Q73. Answer: (a) 8√3 cm

Given:
Radius = 8 cm
Distance from center to chord = 4 cm
Formula Used:
Chord length = 2 × √(r² − d²)
Calculation:
=> r² = 8² = 64
=> d² = 4² = 16
=> r² − d² = 64 − 16 = 48
=> √48 = √(16 × 3) = 4√3
=> Chord length = 2 × 4√3

=> Chord length = 8√3

Therefore The correct answer is 8√3 cm.

Q74. Answer: (b) 10 cm

Shortcut Trick

The side of a rhombus acts as the hypotenuse of a right-angled triangle formed by the half-diagonals.

Half-diagonals are 8 cm (16 ÷ 2) and 6 cm (12 ÷ 2).

Using the Pythagorean triplet (6, 8, 10):

Side = $\sqrt{(8^2 + 6^2)} = \sqrt{100} = 10$ cm.

Therefore The correct answer is 10 cm.

Alternate Method

Given: Diagonals of the rhombus are d1 = 16 cm and d2 = 12 cm.

Formula: The relationship between the side (a) and diagonals (d1, d2) of a rhombus is given by $4a^2 = d1^2 + d2^2$ or $a = \sqrt{[(d1/2)^2 + (d2/2)^2]}$.

=> Half of the first diagonal (OA) = 16 ÷ 2 = 8 cm

=> Half of the second diagonal (OB) = 12 ÷ 2 = 6 cm

=> In right-angled ΔAOB, $AB^2 = OA^2 + OB^2$

=> $(Side)^2 = 8^2 + 6^2$

=> $(Side)^2 = 64 + 36 = 100$

=> Side = √100 = 10 cm

Therefore The correct answer is 10 cm.

Additional Information

Area of a Rhombus

The area is calculated as half the product of its diagonals: Area = 1/2 × d1 × d2.

Perimeter of a Rhombus

Since all sides are equal, the perimeter is 4 × side length.

Diagonal Properties

The diagonals of a rhombus bisect each other at right angles (90°) and also bisect the internal angles.

Pythagorean Triplets

Common triplets like (3, 4, 5) and (6, 8, 10) help in solving geometry problems involving right angles quickly.

Q75. Answer: (b) 1

Given:

Two circles touch externally at one point

Formula Used:

Number of common tangents depends on position of circles

If two circles touch externally, internal tangents = 1

Calculation:

=> For two separate circles, internal tangents = 2

=> When circles touch externally, one internal tangent coincides

=> Remaining internal tangent = 1

Therefore The correct answer is 1.

Q76. Answer: (b) Alauddin Khalji

The correct answer is Alauddin Khalji.

Key Points

• Alauddin Khalji used the Banjaras to transport grain from the countryside to the city markets.

• The Banjaras were a community of caravan traders and transporters who carried food grains and other goods over long distances.

• Alauddin Khalji introduced strict market control measures in Delhi and ensured a regular supply of grain to the markets.

• The Banjaras played an important role in transporting grain to Delhi, helping the Sultan maintain stable and low prices.

• Hence, the correct answer is Option 2 – Alauddin Khalji.

Additional Information

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• Alauddin Khalji (1296–1316): Famous for his market-control policy, including regulation of prices and ensuring adequate supplies of essential commodities.

• Banjaras: Important transporters and traders who moved grain and other commodities using pack animals and caravans.

• The supply of grain by Banjaras was particularly important for maintaining the functioning of Delhi's regulated markets.

Important Points

• Alauddin Khalji → Market Control System

• Banjaras → Transported grain to city markets

• Objective → Ensure adequate grain supply and control prices

Q77. Answer: (a) Fundamental duties

The correct answer is Fundamental Duties.

Key Points

• The concept of Fundamental Duties in the Indian Constitution is inspired by the Constitution of the USSR (now Russia).

• These duties were added to the Indian Constitution through the 42nd Amendment Act of 1976 during the tenure of Prime Minister Indira Gandhi.

• The Fundamental Duties are enshrined under Part IVA of the Indian Constitution in Article 51A.

• Originally, there were 10 Fundamental Duties, but later one more was added by the 86th Amendment Act, 2002, bringing the total to 11 duties.

• The Fundamental Duties primarily aim to promote a sense of patriotism and to uphold the unity and integrity of the nation.

Additional Information

• Features of Fundamental Duties:

• These duties are non-justiciable, meaning they cannot be enforced by the courts.

• They act as a constant reminder to citizens about their responsibilities towards the nation.

• The Fundamental Duties emphasize respecting the Constitution, the national flag, and the national anthem.

• They aim to promote scientific temper, humanism, and the spirit of inquiry and reform.

• Other Features Borrowed from Different Countries:

• Residuary powers vest with the centre – This feature is borrowed from the Canadian Constitution.

• The Preamble of the Constitution – The idea of a preamble is inspired by the United States Constitution.

• Centre appoints the Governors at the states – This is a feature influenced by the Government of India Act, 1935.

• Importance of Fundamental Duties:

• They serve as a moral compass and guide citizens in their conduct and behavior.

• They ensure that citizens uphold the sovereignty, unity, and integrity of India.

• They aim to create a sense of responsibility and civic consciousness among citizens.

• Fundamental Duties in Practice:

• Citizens are expected to protect the environment and safeguard public property.

• They are also encouraged to promote harmony and work towards the eradication of practices derogatory to the dignity of women.

• While not legally enforceable, these duties play a crucial role in shaping responsible citizens.

Q78. Answer: (a) Iraq

The correct answer is Iraq.

Key Points

• The Shanghai Cooperation Organisation (SCO) is a Eurasian political, economic, and security alliance established on 15 June 2001 in Shanghai, China.

• The founding members of SCO are China, Russia, Kazakhstan, Kyrgyzstan, Tajikistan, and Uzbekistan.

• Iraq is not a member of the SCO, neither as a founding member nor as a subsequent member. It is located in the Middle East and has no direct involvement with the Eurasian-focused organization.

• The primary goals of the SCO include promoting mutual trust, cooperation, regional stability, and countering terrorism, extremism, and separatism among its member states.

• In 2017, the SCO expanded its membership to include India and Pakistan, making the organization more diverse and influential.

Additional Information

• Shanghai Cooperation Organisation (SCO):

• The SCO was initially formed as the Shanghai Five in 1996 by China, Russia, Kazakhstan, Kyrgyzstan, and Tajikistan to resolve border disputes and promote regional security.

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• Uzbekistan joined the group in 2001, and it was officially renamed the Shanghai Cooperation Organisation.

• The headquarters of the SCO is located in Beijing, China.

• Key Functions of SCO:

• Focuses on counter-terrorism, combating drug trafficking, and fostering economic, cultural, and humanitarian cooperation among its members.

• It established the Regional Anti-Terrorist Structure (RATS) in Tashkent, Uzbekistan, to coordinate counter-terrorism efforts.

• Membership Expansion:

• India and Pakistan became full members in 2017, marking a significant expansion in the organization's scope and influence.

• The inclusion of these South Asian nations added to the SCO's strategic depth and economic potential.

• Iraq:

• Iraq is located in the Middle East and is a member of the Arab League, Organization of Islamic Cooperation (OIC), and other international organizations.

• Iraq's focus has historically been on its regional and internal affairs rather than participating in Eurasian regional alliances like the SCO.

Important Points

• Strategic Importance of SCO:

• The SCO covers approximately 60% of Eurasia and has a population of over 3 billion people, making it one of the largest regional organizations in terms of geographical scope and population.

• It acts as a counterbalance to Western organizations such as NATO and promotes a multipolar world order.

• SCO Observers and Dialogue Partners:

• The SCO also includes observer states and dialogue partners, such as Iran, Afghanistan, and Belarus, which aim to enhance their engagement with the organization.

• Iraq is not part of these categories, further emphasizing its non-affiliation with the SCO.

Q79. Answer: (b) Mangal Pandey

The correct answer is Mangal Pandey.

Key Points

• Mangal Pandey was a soldier in the 34th Bengal Native Infantry of the East India Company.

• He is regarded as one of the initial figures who actively resisted British rule during the 1857 Sepoy Mutiny, which marked the beginning of India's first war of independence.

• The incident occurred on 29 March 1857 at the Barrackpore cantonment, where Mangal Pandey attacked British officers due to his anger against the introduction of new rifle cartridges rumored to be greased with cow and pig fat.

• The use of such cartridges was deeply offensive to both Hindu and Muslim soldiers, leading to widespread discontent and rebellion.

• Though Mangal Pandey was executed on 8 April 1857, his actions inspired further uprisings across India, making him a legendary martyr in Indian history.

Additional Information

• Sepoy Mutiny of 1857:

• The Sepoy Mutiny began as a revolt of Indian soldiers against the British East India Company, primarily due to cultural and religious insensitivity displayed by the British.

• It quickly expanded into a larger rebellion involving civilians, spreading across northern and central India.

• The mutiny was fueled by grievances such as high taxes, land annexation policies, and the disrespect of Indian traditions.

• Other Leaders of the 1857 Revolt:

• Rani Lakshmibai: She led the resistance in Jhansi and became a symbol of bravery in India's freedom struggle.

• Bahadur Shah Zafar: The last Mughal Emperor, he was proclaimed the leader of the revolt but was later exiled by the British.

• Tantia Tope: A key strategist in the rebellion, he fought valiantly against the British forces in multiple battles.

• Impact of the Revolt:

• The mutiny led to the end of the rule of the British East India Company and brought India under direct control of the British Crown through the Government of India Act 1858.

• The rebellion exposed the need for reforms in the administration and military policies of the British in India.

• Legacy of Mangal Pandey:

• Mangal Pandey's bravery and sacrifice are celebrated in Indian history as a turning point in the fight against colonial oppression.

• He is commemorated in various forms, such as films, books, and statues, symbolizing resistance and the quest for freedom.

Important Points

• Introduction of Rifle Cartridges:
• The new cartridges were rumored to be greased with cow and pig fat, which was offensive to Hindus and Muslims.
• Soldiers had to bite off the cartridge tip before loading, leading to widespread anger and mistrust against British intentions.
• Execution of Mangal Pandey:
• He was court-martialed and hanged on 8 April 1857, making him one of the first martyrs of the revolt.
• Historical Recognition:
• Mangal Pandey is remembered as a revolutionary figure who inspired subsequent leaders in India's struggle for independence.
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Q80. Answer: (a) 450

The correct answer is 450 crore.

Key Points

• PM Modi disbursed a financial assistance of Rs. 450 crore at the 'Lakhpati Didi Sammelan' event held in Gujarat in March 2025.
• The 'Lakhpati Didi Sammelan' is organized to empower women and promote self-help groups (SHGs) in rural areas.
• The assistance aims to benefit women associated with SHGs under various government schemes, promoting financial inclusion and entrepreneurship.
• Gujarat has been a key state for implementing women-centric initiatives, with a focus on enhancing the socio-economic status of rural women.
• The funds are provided to support businesses and livelihoods of women under the umbrella of government-backed programs.

Additional Information

• Self-Help Groups (SHGs):
• SHGs are small groups of individuals, often women, who pool their resources to promote collective economic activity.
• They aim to enhance financial independence and improve livelihood opportunities for marginalized sections of society.
• SHGs are supported under government schemes such as the National Rural Livelihood Mission (NRLM).
• Women Empowerment in Gujarat:
• Gujarat has been at the forefront of implementing programs aimed at uplifting women.
• Initiatives such as Sakhi Mandals and skill training programs have boosted women's participation in economic activities.
• These programs focus on sectors like handicrafts, agriculture, and micro-enterprises.
• Financial Inclusion:
• Financial inclusion refers to providing accessible and affordable financial services to all sections of society, especially the underprivileged.
• Government schemes like Pradhan Mantri Mudra Yojana and Stand-Up India aim to provide loans and support to small businesses.
• These initiatives also target women entrepreneurs to promote gender parity in economic growth.
• Key Government Schemes:
• National Rural Livelihood Mission (NRLM): Focuses on poverty alleviation and empowerment through SHGs.
• Pradhan Mantri Mudra Yojana: Provides microfinance loans to small businesses for economic development.
• Stand-Up India Scheme: Supports women entrepreneurs and SC/ST individuals in setting up businesses.

Important Points

• Role of SHGs: SHGs play a crucial role in strengthening rural economies and fostering social inclusion.
• Government's Vision: Financial assistance disbursed at events like 'Lakhpati Didi Sammelan' aligns with the government's vision of empowering women through self-reliance.
• Impact: The Rs. 450 crore assistance will significantly enhance the operational capacity of SHGs, enabling them to reach more women and expand their activities.

Q81. Answer: (a) 3

The correct answer is Option 1.

Key Points

• 49% of self-monitoring female borrowers in India in 2024 were concentrated in women from only 3 states, highlighting the regional disparity in access to financial opportunities for women.
• These 3 states likely contributed significantly due to factors such as higher microfinance penetration, established self-help group (SHG) networks, and better financial literacy programs targeting women.
• The dominance of these states in terms of women's participation in self-monitoring borrowing could also be attributed to state-specific policies promoting microfinance and small-scale entrepreneurship.

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• Other options (5, 8, 11, and more states) are incorrect as they overestimate the number of states contributing to the specified percentage (49%) of self-monitoring female borrowers, based on the available data for 2024.

• This statistic underscores the need to expand financial inclusion efforts to other states to ensure equitable participation by women nationwide.

Additional Information

• Self-monitoring female borrowers:

• Women borrowers who actively monitor their financial activities and repayments are often part of microfinance institutions (MFIs) or self-help groups (SHGs).

• These systems promote empowerment, financial independence, and entrepreneurship among women, particularly in rural and semi-urban areas.

• Self-monitoring ensures better repayment rates and encourages disciplined financial behavior.

• Regional disparity in financial inclusion:

• Some states, such as Karnataka, Tamil Nadu, and West Bengal (examples), have been early adopters of microfinance initiatives, resulting in higher participation.

• Other states may lag due to lack of infrastructure, financial literacy, or cultural barriers.

• This highlights the need for targeted interventions and support to less-performing states to ensure balanced growth.

• Role of microfinance and SHGs:

• Microfinance and SHGs play a critical role in alleviating poverty, especially among women, by providing small loans for entrepreneurship and other income-generating activities.

• They also foster social cohesion and help women build networks for mutual support and learning.

• Government initiatives:

• Programs like Deendayal Antyodaya Yojana - National Rural Livelihoods Mission (DAY-NRLM) are aimed at promoting financial inclusion and strengthening SHGs.

• Other initiatives, such as Jan Dhan Yojana, aim to improve access to banking and financial services for marginalized groups, including women.

Important Points

• Microfinance penetration: States with a higher penetration of microfinance institutions often see greater participation of women in borrowing activities, as these institutions primarily target women borrowers.

• Financial literacy programs: Effective financial literacy campaigns improve women's confidence in managing loans and participating in formal financial systems.

• Policy support: State-specific schemes promoting women entrepreneurs and SHGs contribute significantly to financial inclusion.

• Challenges: Despite progress, many women still face barriers such as limited access to credit, cultural restrictions, and lack of awareness about financial products.

Q82. Answer: (d) Education

The correct answer is Education.

Key Points

• PM POSHAN Scheme, previously known as the Mid-Day Meal Scheme, is implemented by the Ministry of Education in India.

• The scheme aims to provide nutritious meals to children studying in government and government-aided schools, ensuring their overall development and addressing malnutrition.

• It covers students from Classes 1 to 8 and is designed to support education by improving enrollment, retention, and attendance rates.

• The scheme is operational in all states and union territories, benefiting millions of children across the country.

• The Ministry of Education oversees the planning, funding, implementation, and monitoring of the scheme, with cooperation from state governments and local administrative bodies.

Additional Information

• PM POSHAN Scheme Objectives:

• To improve nutritional levels among school-going children, especially those from economically weaker sections.

• To enhance enrollment, attendance, and retention rates in primary and upper primary schools.

• To promote social equity by ensuring all children, regardless of caste, religion, or economic status, receive meals together.

• Implementation:

• The scheme is jointly funded by the Central and State Governments under a cost-sharing basis.

• Meals are prepared in hygienic conditions and served to children during school hours.

• Local community involvement, including Self-Help Groups (SHGs) and non-governmental organizations (NGOs), ensures effective implementation.

• Coverage:

• The scheme benefits children studying in government and government-aided schools, Education Guarantee Scheme (EGS) centers, and Alternative and Innovative Education (AIE) centers.

• Approximately 11.8 crore children in India are beneficiaries of the scheme.

• Impact:

• The scheme has contributed to a reduction in dropout rates and an increase in school enrollment, especially among girls and children from disadvantaged groups.

• It has helped in addressing the issue of hidden hunger and improving the overall health of children.

Important Points

• Historical Background:

• The Mid-Day Meal Scheme was first launched in 1995 as a centrally sponsored scheme under the Ministry of Education.

• In 2021, the scheme was renamed as PM POSHAN (Pradhan Mantri Poshan Shakti Nirman).

• Monitoring Mechanism:

• The scheme is monitored through regular inspections by state governments, district authorities, and local-level committees.

• Real-time monitoring systems, including the use of technology, have been introduced to track the distribution of meals and ensure transparency.

• Challenges:

• Issues such as irregular fund flow, poor infrastructure, and quality control in meal preparation remain concerns.

• The government continues to focus on addressing these challenges through capacity building and policy initiatives.

Q83. Answer: (a) Japanese

The correct answer is Japanese.

Key Points

• Judo originated in Japan and is deeply rooted in the traditional martial art of Jujutsu.

• The martial art of Judo was founded in 1882 by Jigoro Kano, who adapted Jujutsu techniques to develop a modern sport that emphasized skill and control over brute force.

• Judo translates to "the gentle way" in Japanese, reflecting its principle of using an opponent's strength against them rather than directly opposing it.

• It was officially recognized as an Olympic sport in 1964 during the Tokyo Summer Olympics, further establishing its international prominence.

• Judo is not only a martial art but also a philosophy that promotes self-discipline, respect, and mutual welfare, which are intrinsic to Japanese culture.

Additional Information

• Jujutsu:

• Judo evolved from the ancient Japanese martial art of Jujutsu, which involved grappling, throwing, and joint-locking techniques.

• Jujutsu was practiced by samurai warriors during the feudal era in Japan as a method of self-defense without weapons.

• Principles of Judo:

• The two core principles of Judo are maximum efficiency with minimum effort (Seiryoku Zenyo) and mutual welfare and benefit (Jita Kyoei).

• These principles emphasize using technique and leverage rather than physical strength to overcome an opponent.

• Spread of Judo:

• Judo gained popularity worldwide after it was introduced to Western audiences in the early 20th century.

• It has influenced the development of other martial arts, including Brazilian Jiu-Jitsu and Sambo.

• Other Martial Arts and Their Origins:

• Chinese Martial Arts: Known as Kung Fu or Wushu, these martial arts have a rich history dating back thousands of years and are rooted in Chinese philosophy and medicine.

• Indian Martial Arts: Kalaripayattu, one of the oldest martial arts in the world, originated in Kerala, India, and combines strikes, kicks, and weaponry.

• Korean Martial Arts: Taekwondo is a modern Korean martial art that emphasizes high kicks and fast movements; it became an Olympic sport in 2000.

• Important Points:

• Judo is governed internationally by the International Judo Federation (IJF), established in 1951.

• It emphasizes moral education alongside physical training, making it not only a sport but also a way of life.

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Q84. Answer: (d) Golf

The correct answer is Golf.

Key Points

• Golf is a sport that specifically involves the use of a ball. Players use clubs to hit the ball into a series of holes on a course in as few strokes as possible.

• Golf balls are typically small, hard, and dimpled to improve aerodynamic performance and ensure proper flight during play.

• This sport has a long history, with its origins traced back to Scotland during the 15th century.

• Golf courses are designed with varying terrains, including fairways, greens, bunkers, and water hazards, to make the sport challenging and engaging.

• In professional tournaments, players compete individually or in teams, and scoring is based on the number of strokes used to complete the course.

Additional Information

• Boxing: Boxing does not involve a ball. It is a combat sport where two participants fight using their fists, wearing protective gloves. Scoring is based on punches landed and overall performance.

• Badminton: Badminton uses a shuttlecock instead of a ball. Players hit the shuttlecock over a net using rackets, aiming to score points by landing it within the opponent's court.

• Chess: Chess is a board game involving strategy and tactics. It uses pieces like pawns, knights, and queens but does not include a ball. The objective is to checkmate the opponent's king.

• Golf: Golf uniquely involves a ball. Players aim to hit the ball into designated holes on a course using various clubs. The sport is both recreational and competitive, with tournaments held worldwide.

• Important Characteristics of Golf Balls:

• Golf balls are typically made of layers, including a core and a cover, to optimize distance and control.

• The dimples on the ball reduce air resistance and improve flight stability.

• Golf balls come in different types, such as two-piece and multi-layer balls, catering to players of varying skill levels.

Important Points

• Golf Equipment:

• Golfers use clubs such as drivers, irons, wedges, and putters, each designed for specific shots.

• Golf courses vary in size and design, typically including 9 or 18 holes.

• The sport also requires accessories like tees, gloves, and golf bags for convenience during play.

• Professional Golf Tournaments:

• Major tournaments include The Masters, U.S. Open, The Open Championship, and PGA Championship.

• Golf is governed internationally by organizations like the R&A and the United States Golf Association (USGA).

• Global Popularity: Golf is played worldwide, with notable courses located in countries like Scotland, the United States, and Australia. The sport attracts both amateurs and professionals.

• Historical Significance: Golf's origins date back to 15th-century Scotland, with the first recorded rules established in 1744.

Q85. Answer: (c) 45%

The correct answer is 45%.

Key Points

• India's updated target for reducing emission intensity by 2030 is set at 45%, as per the country's Nationally Determined Contributions (NDCs) under the Paris Agreement.

• This target represents a significant increase from the earlier commitment of reducing emission intensity by 33-35% from 2005 levels by 2030.

• The updated NDCs were officially submitted to the United Nations Framework Convention on Climate Change (UNFCCC) in 2022, aligning with India's commitment to achieving Net Zero by 2070.

• Emission intensity refers to the amount of greenhouse gas (GHG) emissions per unit of GDP. A reduction in emission intensity implies decoupling economic growth from GHG emissions.

• India's enhanced target reflects its dedication to meeting the global climate goals set under the Paris Agreement, which aims to limit global warming to below 2 degrees Celsius, preferably to 1.5 degrees Celsius, compared to pre-industrial levels.

Additional Information

• Paris Agreement:

• The Paris Agreement, adopted in 2015, is a legally binding international treaty on climate change.

• It aims to strengthen the global response to climate change by keeping global temperature rise this century well below 2°C above pre-industrial levels and pursuing efforts to limit the temperature increase even further to 1.5°C.

• Countries submit their climate action plans, called Nationally Determined Contributions (NDCs), outlining their efforts to reduce emissions and adapt to climate impacts.

• India's NDC Commitments:

• India has committed to reducing the emission intensity of its GDP by 45% by 2030 compared to 2005 levels.

• It also aims to achieve approximately 50% of its installed electricity capacity from non-fossil fuel sources by 2030.

• India's updated NDCs emphasize renewable energy expansion, energy efficiency, and afforestation efforts.

• Net Zero by 2070:

• India announced its commitment to achieving Net Zero emissions by 2070 at the COP26 summit held in Glasgow in 2021.

• Net Zero means balancing the amount of greenhouse gases emitted with the amount removed from the atmosphere.

• This long-term target aligns with India's sustainable development goals and climate mitigation strategies.

• Emission Intensity:

• Emission intensity is measured as the amount of greenhouse gas emissions per unit of a country's GDP.

• Reducing emission intensity allows a country to grow economically while minimizing its environmental impact.

• India's target of reducing emission intensity by 45% signifies its commitment to sustainable and green economic growth.

Important Points

• COP26: The 26th UN Climate Change Conference of the Parties (COP26) was held in Glasgow, UK, in 2021. It was a pivotal moment for international climate action, where India announced its Net Zero by 2070 target.

• Renewable Energy Expansion: India's renewable energy capacity has seen significant growth, with a target to achieve 500 GW of non-fossil fuel capacity by 2030.

• Key Challenges: While India has made ambitious commitments, challenges like financial constraints, technological advancements, and international cooperation remain critical factors in achieving these goals.

• Global Implications: As the third-largest emitter of GHGs, India's climate actions play a crucial role in determining the success of global climate goals, making its commitments a matter of global significance.

Q86. Answer: (b) Jammu and Kashmir

The correct answer is Jammu and Kashmir.

Key Points

• Chillai Kalan is a term used to describe the 40-day harsh winter period in the region of Jammu and Kashmir, starting from December 21 to January 31 each year.

• During this period, the weather is characterized by extreme cold, with temperatures often dropping below freezing point, particularly in areas like Srinagar.

• It is considered the coldest part of winter, and snowfall during Chillai Kalan is usually heavy and frequent, significantly impacting daily life and transportation in the region.

• The period is crucial for replenishing water resources, as the snow accumulated during Chillai Kalan melts gradually in spring and summer, feeding rivers and streams.

• The harsh weather conditions lead to increased use of traditional heating methods like Kangri (an earthen pot used by locals to keep warm) and specialized winter clothing.

Additional Information

• Geography of Jammu and Kashmir:

• The region is located in the northernmost part of India, surrounded by the Himalayas.

• It is known for its cold climate, especially during winter, and experiences heavy snowfall during Chillai Kalan.

• The Dal Lake and other water bodies in Srinagar often freeze during this period due to sub-zero temperatures.

• Significance of Chillai Kalan:

• The period plays an important role in maintaining the hydrological cycle of the region, as the melting snow ensures adequate water supply during summer.

• Local traditions and festivals are influenced by Chillai Kalan, with many families preparing special foods and engaging in cultural activities to cope with the extreme cold.

• Impact on Daily Life:

• Transportation and accessibility are significantly affected due to heavy snowfall, making roads and highways difficult to navigate.

• Residents rely on traditional heating systems like the Kangri and wear woolen clothing to combat the cold.

• Tourists visiting the region during Chillai Kalan often enjoy the scenic beauty of snow-covered landscapes, contributing to winter tourism.

• Comparison with Other Regions:

• Unlike Jammu and Kashmir, regions like Himachal Pradesh and Arunachal Pradesh experience cold winters but do not have a

defined 40-day period like Chillai Kalan.

• Uttar Pradesh experiences relatively mild winters compared to Jammu and Kashmir.

Important Points

• Traditional Practices:

• Locals use a Kangri, a portable heating device, to keep warm during Chillai Kalan.

• Special winter foods like Harissa, a meat-based dish, are popular during this time to maintain body heat.

• Tourism:

• Chillai Kalan attracts tourists who enjoy activities like skiing and exploring the snow-covered landscapes.

• Places like Gulmarg and Pahalgam become hubs for winter sports and sightseeing.

Q87. Answer: (a) Mumbai Indians

The correct answer is Mumbai Indians.

Key Points

• The Mumbai Indians emerged as the winners of the 2025 edition of the Women's Premier League (Cricket), showcasing their dominance and consistent performance in the tournament.

• The Women's Premier League (WPL) is a professional cricket league for women in India, modeled after the Indian Premier League (IPL).

• The Mumbai Indians, known for their strong team composition and experienced players, have consistently performed well in past tournaments.

• The 2025 WPL final witnessed a thrilling match where the Mumbai Indians defeated their opponents to secure the championship title.

• The team’s victory was attributed to outstanding performances by key players, strategic gameplay, and effective leadership from the captain and coaching staff.

Additional Information

• Mumbai Indians:

• The Mumbai Indians are a franchise cricket team based in Mumbai, Maharashtra.

• Owned by Reliance Industries, the team is one of the most successful franchises in Indian cricket.

• The team has a reputation for nurturing young talent and having a balanced squad of experienced and emerging players.

• Women's Premier League (WPL):

• The WPL was launched by the Board of Control for Cricket in India (BCCI) to promote women's cricket in India.

• The league features top women cricketers from India and around the globe, contributing to the growth and popularity of women's cricket.

• The inaugural edition of the WPL was held in 2023, with teams competing in a format similar to the IPL.

• Key Teams in WPL:

• Mumbai Indians: Known for their strong performance and experienced players.

• Delhi Capitals: A competitive team with skilled players and promising young talent.

• Royal Challengers Bengaluru: A team with a passionate fan base and exciting gameplay.

• Gujarat Giants: Representing Gujarat, they are focused on developing women's cricket in the region.

• Importance of Women's Cricket:

• The WPL has played a significant role in increasing visibility and opportunities for women cricketers in India.

• It serves as a platform for players to showcase their skills and inspire the next generation of women cricketers.

• Women's cricket has seen a rapid rise in popularity, with increasing support from fans and sponsors.

Important Points

• Role of BCCI:

• The BCCI has been instrumental in organizing and promoting the Women's Premier League.

• It has provided financial support and infrastructure to ensure the successful conduct of the league.

• Impact of WPL:

• The WPL has significantly contributed to the popularity and development of women's cricket in India.

• It has created opportunities for players to gain recognition and improve their skills through competitive matches.

Q88. Answer: (b) 65

The correct answer is 65 meters.

Key Points

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• The Shri Jagannath Temple is located in Puri, Odisha, and is one of the Char Dham pilgrimage sites of Hinduism.
• The main temple is an outstanding example of Kalinga architecture.
• The temple's main shrine (Vimana/Deula) rises to a height of approximately 65 meters (214 feet) and stands on an elevated stone platform.
• The temple was built during the reign of Anantavarman Chodaganga Deva of the Eastern Ganga dynasty in the 12th century CE, with later additions by his successors.
• At the summit of the temple is the Nilachakra, an eight-spoked wheel made of an alloy of eight metals (Ashtadhatu).
• Hence, the correct answer is Option 2 – 65 meters.

Additional Information
• Location: Puri, Odisha.
• Presiding Deities:
• Lord Jagannath
• Lord Balabhadra
• Goddess Subhadra
• Architectural Style: Kalinga architecture (Rekha Deula style).
• Famous Festival: The annual Rath Yatra (Chariot Festival), celebrated with great devotion and attended by millions of pilgrims.

Important Points
• Temple Height: 65 meters (214 feet).
• Location: Puri, Odisha.
• Architecture: Kalinga architecture.
• Builder: Anantavarman Chodaganga Deva (Eastern Ganga dynasty).
• Special Feature: The Nilachakra crowns the temple's main spire.

Q89. Answer: (d) Odisha

The correct answer is Odisha.

Key Points
• Ranapa is a traditional folk and martial dance that originates from the Indian state of Odisha.
• The dance is named after the Ranapa, a type of stilt used by the performers during the dance, showcasing their acrobatic skills.
• It is primarily performed during festive occasions, particularly during the Dussehra festival and other cultural celebrations in Odisha.
• The performers wear vibrant costumes, use wooden stilts, and perform synchronized movements to traditional music, creating a visually captivating performance.
• This dance form is a blend of martial arts and acrobatics, signifying strength, agility, and valor.

Additional Information
• Folk Dances of Odisha:
• Besides Ranapa, Odisha is home to other famous folk dances such as Chhau, Ghumura, and Sambalpuri dance forms.
• Chhau Dance: A semi-classical Indian dance that combines martial, tribal, and folk traditions, often performed during the Chaitra Parva festival.
• Sambalpuri Dance: A popular folk dance of western Odisha, performed during festivals and cultural occasions with the rhythm of the Sambalpuri folk music.
• Ghumura Dance: A martial dance form performed with the accompaniment of the Ghumura drum, symbolizing heroic valor.
• Significance of Ranapa Dance:
• Ranapa is believed to have originated as a form of military training, teaching warriors the use of balance and agility in battle.
• The dance has evolved into a celebratory and recreational art form, performed to entertain and showcase cultural heritage.
• The dance is often accompanied by traditional music played on instruments like the dhol, mridangam, and flute.
• Characteristics of Ranapa Dance:
• Performers balance themselves on long wooden stilts, which requires immense physical strength and training.
• The dance is characterized by energetic and rhythmic movements, often involving jumps, spins, and acrobatic stunts.
• The costumes are bright and colorful, adding to the vibrancy of the performance.
• Other States in the Options:
• Haryana: Known for its folk dance forms like Ghoomar and Khoria, which are performed during festivals and celebrations.
• Rajasthan: Popular for folk dances like Ghoomar, Kalbeliya, and Bhavai, often reflecting the rich cultural heritage of the state.
• Manipur: Famous for its classical dance form, Manipuri, which is based on the themes of Lord Krishna and Radha.

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Important Points

• Martial Dance Forms in India:

• Kalaripayattu: A martial art and dance form from Kerala, considered one of the oldest fighting systems in existence.

• Thang Ta: A martial dance from Manipur that combines sword and spear fighting with graceful movements.

• Chhau Dance: Found in Odisha, West Bengal, and Jharkhand, it incorporates elements of martial arts and is performed during religious festivals.

• Odisha's Cultural Heritage:

• Odisha is known for its rich cultural heritage, including classical dance forms like Odissi and various folk arts.

• The state celebrates numerous festivals, such as Rath Yatra and Durga Puja, showcasing its traditions and religious significance.

• Art forms like Pattachitra painting and stone carving also contribute to Odisha's cultural identity.

Q90. Answer: (b) 180

The correct answer is 180 km.

Key Points

• Satellites generally do not fly below 180 km because of the effects of atmospheric drag. At lower altitudes, the density of Earth's atmosphere increases significantly, creating resistance that slows down the satellite and causes it to lose altitude rapidly.

• The minimum altitude for most satellites is usually above 180 km to ensure stability and longevity of their orbit. Below this, satellites would require constant propulsion to maintain their trajectory.

• The region below 180 km is considered part of the upper atmosphere, where air molecules are present in sufficient density to create significant drag forces, making it unsuitable for sustained satellite operation.

• Satellites in Low Earth Orbit (LEO) typically operate at altitudes between 180 km and 2,000 km, providing a balance between proximity to Earth for communication and reduced atmospheric drag.

• Flying at altitudes below 180 km would lead to a rapid orbital decay, necessitating frequent re-boosts to maintain altitude, which is not energy efficient.

Additional Information

• Atmospheric Drag:

• Atmospheric drag is a force exerted by air molecules on satellites as they orbit Earth. It is proportional to the density of the atmosphere.

• At altitudes below 180 km, atmospheric drag becomes significant enough to decelerate satellites, causing them to lose altitude and eventually burn up upon re-entry.

• Low Earth Orbit (LEO):

• LEO extends from approximately 180 km to 2,000 km above Earth's surface.

• Satellites in LEO are used for various purposes such as Earth observation, communication, and scientific research.

• Examples of satellites in LEO include the International Space Station (ISS), which orbits at an altitude of about 400 km.

• Orbital Decay:

• Orbital decay occurs when a satellite loses energy due to drag, causing it to spiral downward toward Earth.

• Sustained operations below 180 km are impractical due to rapid orbital decay.

• Geostationary and Higher Orbits:

• Satellites in geostationary orbits are positioned approximately 35,786 km above Earth, where atmospheric drag is negligible.

• These orbits are used for applications such as weather monitoring and telecommunications.

• Historical Examples:

• Early satellites like Sputnik 1, launched in 1957, orbited at an altitude of approximately 215 km initially but decayed rapidly due to drag.

• Modern satellites are designed to operate at higher altitudes for better efficiency and durability.

Important Points

• Benefits of Higher Altitude Orbits:

• Higher altitudes reduce atmospheric drag, enhancing the longevity of satellites.

• They provide a wider coverage area, which is advantageous for communication and monitoring purposes.

• Challenges of Lower Altitudes:

• Satellites require more fuel for frequent altitude corrections due to drag at lower altitudes.

• Increased risk of re-entry and destruction due to atmospheric friction.

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Q91. Answer: (a) latent

The correct answer is latent heat of fusion.

Key Points

• Latent heat of fusion is the amount of heat energy required to change 1 kg of a solid into liquid at its melting point under atmospheric pressure without any change in temperature.

• The energy supplied is used to overcome the forces of attraction between particles in the solid, allowing it to transition into a liquid state.

• This concept is important in understanding phase transitions in substances, such as when ice melts to water or metals are melted for industrial applications.

• The latent heat of fusion is specific to each substance and is usually measured in joules per kilogram (J/kg).

• For example, the latent heat of fusion of water is approximately 334,000 J/kg, meaning it takes this much energy to convert 1 kg of ice at 0°C to water at 0°C.

Additional Information

• Phase Transitions:

• When a substance transitions between solid, liquid, and gas phases, energy is absorbed or released without changing its temperature.

• Latent heat of vaporization: The energy required to convert a liquid into a gas without a temperature change.

• Sublimation: The direct conversion of a solid into a gas, bypassing the liquid phase. This process also involves latent heat.

• Boiling Point vs. Melting Point:

• The boiling point is the temperature at which a liquid turns into a gas, while the melting point is the temperature at which a solid turns into a liquid.

• Both processes require energy input, but the type of latent heat involved differs: fusion for melting, vaporization for boiling.

• Applications of Latent Heat:

• Used in refrigeration and air conditioning systems to absorb and release heat efficiently.

• Plays a critical role in meteorological phenomena, such as the formation of clouds and precipitation.

• Important in industrial processes like metal casting and welding, where substances are melted and reshaped.

• Specific Characteristics of Related Options:

• Boiling: Refers to the phase transition from liquid to gas, requiring latent heat of vaporization.

• Melting: Refers to the physical transition from solid to liquid, governed by latent heat of fusion.

• Absolute: This term is unrelated to phase transitions; it typically refers to numerical values such as absolute temperature.

Important Points

• Measurement Units: Latent heat is commonly measured in Joules (J), and its value depends on the substance's physical properties and phase transition.

• Example Values: The latent heat of fusion for ice is 334,000 J/kg, while the latent heat of vaporization for water is approximately 2,260,000 J/kg.

• Scientific Significance: Understanding latent heat is fundamental to thermodynamics, phase equilibria, and material science.

• Practical Use: This concept is utilized in designing systems like heat exchangers, thermal storage devices, and cryogenic cooling systems.

Q92. Answer: (a) its external debt

The correct answer is its external debt.

Key Points

• India's Economic Crisis of 1991: The crisis stemmed primarily from an unsustainable level of external debt. By mid-1991, India’s foreign exchange reserves had plummeted to nearly $1 billion, which was insufficient to finance imports for even two weeks.

• The external debt had accumulated due to excessive borrowing from foreign lenders, leading to repayment obligations that India could not meet without further borrowing or drastic measures.

• The situation worsened with the Gulf War (1990-91), which caused a spike in oil prices and disrupted foreign exchange inflows, further exacerbating the crisis.

• India was forced to pledge 67 tons of gold to the Bank of England and other lenders to secure emergency loans to stabilize its economy.

• This crisis led to significant economic reforms, including the introduction of the Liberalization, Privatization, and Globalization (LPG) policies, aimed at restructuring the economy and reducing dependence on external debt.

Additional Information

• Details on External Debt:

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• External debt refers to the total borrowing a country owes to foreign creditors, including governments, financial institutions, and private lenders.

• During the crisis, India's debt-servicing obligations (interest and principal repayments) exceeded its ability to pay, leading to a balance of payments (BoP) problem.

• The external debt burden was further aggravated by a trade deficit, where imports exceeded exports, draining foreign exchange reserves.

• Economic Reforms Post-1991:

• The crisis prompted India to adopt far-reaching economic reforms under Prime Minister P.V. Narasimha Rao and Finance Minister Dr. Manmohan Singh.

• Key reforms included reducing trade barriers, deregulating industries, privatizing state-owned enterprises, and liberalizing foreign investment policies.

• These reforms marked a shift from a socialist economy to a more market-oriented economy.

• Impact of the Gulf War:

• The 1990-91 Gulf War disrupted oil supplies, causing oil prices to surge and straining India's import bill.

• Reduced remittances from Indian workers in the Gulf further impacted foreign exchange inflows.

• Role of IMF and World Bank:

• India approached the International Monetary Fund (IMF) for a bailout package, which came with conditions for economic reforms.

• The IMF provided $2.2 billion in loans, while the World Bank also extended support for structural adjustments.

Important Points

• Comparison with Other Options:

• Internal debt: While internal debt was present, it did not directly trigger the 1991 crisis.

• Trade embargo: No trade embargo from Western countries existed during this period.

• Shortfall in agricultural output: Agriculture faced challenges, but these were not the primary cause of the crisis.

• Historical Significance: The 1991 crisis is considered a turning point in India's economic history, leading to the modernization of its economy.

• Key Figures: The reforms were spearheaded by Dr. Manmohan Singh, who is regarded as the architect of India's economic liberalization.

Q93. Answer: (b) 1917

The correct answer is 1917.

Key Points

• The Champaran Movement, led by Mahatma Gandhi, began in the year 1917.

• The movement was initiated to address the grievances of the indigo farmers of the Champaran district in Bihar.

• Under the tinkathia system, farmers were forced to grow indigo on a portion of their land (three out of twenty parts) and sell it at prices fixed by the British planters, which caused severe economic exploitation.

• Mahatma Gandhi, after being persuaded by local leaders like Rajkumar Shukla, visited Champaran to investigate the plight of the farmers.

• The movement led to the abolition of the tinkathia system and marked Gandhi’s first significant political victory in India, establishing him as a major leader in the Indian freedom struggle.

Additional Information

• Significance of Champaran Movement:

• The Champaran Movement is considered the first Satyagraha led by Mahatma Gandhi in India.

• It was a non-violent campaign that focused on truth and moral force to achieve justice for the oppressed farmers.

• It demonstrated the effectiveness of mass civil disobedience and became a template for future struggles in India’s freedom movement.

• Tinkathia System:

• Under this system, farmers were compelled to grow indigo on a part of their land, which was used for dye production.

• The system caused economic hardships as farmers were paid meager amounts and could not grow food crops on the land forced for indigo cultivation.

• Role of Local Leaders:

• Rajkumar Shukla, a local farmer from Champaran, played a significant role in bringing Gandhi to the region to address the plight of farmers.

• Other key figures like Rajendra Prasad, who later became the first President of India, and Anugrah Narayan Sinha, also supported the movement.

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• Impact of the Movement:

• The success of the Champaran Satyagraha inspired confidence in the Indian masses about their ability to challenge British authority.

• It marked the beginning of Gandhi's leadership in the Indian freedom movement and established the principle of non-violent resistance.

Important Points

• Background to the Movement:

• Indigo cultivation was introduced by the British in India during the colonial period.

• The demand for indigo declined after the invention of synthetic dyes in Germany, but British planters continued to exploit Indian farmers.

• Gandhi's Methodology:

• Gandhi adopted the method of fact-finding and negotiation with the British authorities to resolve the issues.

• He also encouraged farmers to speak up about their grievances, empowering them politically and socially.

• Legacy:

• The Champaran Movement set the stage for subsequent struggles such as the Kheda Satyagraha (1918) and the Non-Cooperation Movement (1920).

• It also marked the beginning of Gandhi's rise as a prominent leader in India's fight for independence.

Q94. Answer: (b) Bituminous

The correct answer is Bituminous.

Key Points

• About 80% of the coal deposits in India are of Bituminous type. This type of coal is primarily used for electricity generation and in industries due to its high carbon content and relatively high calorific value.

• Bituminous coal is a middle-rank coal, formed by further heat and pressure on lignite and can have carbon content ranging from 60% to 80%.

• The majority of India's bituminous coal is of non-coking grade, which means it is not suitable for producing coke used in metallurgical processes but is ideal for thermal power generation.

• Major deposits of bituminous coal in India are found in the Damodar Valley regions, which include states like Jharkhand, West Bengal, Odisha, and Chhattisgarh.

• The predominance of bituminous coal in India has made it a crucial resource for the country's energy needs, especially for running thermal power plants that contribute to a significant portion of India's electricity supply.

Additional Information

• Anthracite Coal:

• Anthracite is the highest grade of coal with a carbon content of more than 80%. It has the highest calorific value and burns with minimal smoke.

• In India, Anthracite coal is found in small quantities in regions like Jammu and Kashmir.

• It is primarily used in industrial applications that require high heat intensity, such as metallurgy.

• Peat:

• Peat is the lowest rank of coal and is not considered a significant source of energy due to its low carbon content and high moisture levels.

• It is mostly found in swampy areas and is rarely used for industrial purposes due to its low energy output.

• Lignite:

• Lignite, also known as brown coal, is a low-grade coal with a carbon content of around 25%-35%.

• It is primarily used in power generation and is found in states like Gujarat, Rajasthan, and Tamil Nadu.

• Lignite has a lower calorific value compared to bituminous coal, making it less efficient for energy production.

• Non-Coking Coal:

• Non-coking coal, predominantly bituminous, is not suitable for metallurgical purposes due to its low caking properties.

• It is mainly used in power plants as a source of thermal energy and is a vital component of India's energy sector.

• India is one of the largest producers of non-coking coal, making it a critical resource for the country's industrial and energy needs.

Important Points

• India is the second-largest coal producer in the world, with significant deposits located in the eastern and central parts of the country.

• The Damodar Valley, including regions in Jharkhand and West Bengal, is considered the heartland of India's coal reserves.

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• Coal is classified into four main types: Anthracite, Bituminous, Lignite, and Peat, based on carbon content and calorific value.

• The dominance of non-coking bituminous coal in India makes it highly suitable for thermal power generation, which accounts for more than 60% of India's electricity production.

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Q95. Answer: (c) Fourth

The correct answer is Fourth Five-Year Plan.

Key Points

• The Fourth Five-Year Plan of India was implemented from 1969 to 1974. It was the first plan after the Green Revolution, focusing on agricultural productivity and self-sufficiency.

• The plan aimed at achieving economic stability and emphasizing the removal of poverty through self-reliance and increased production.

• During this period, India faced challenges such as a food crisis and inflation, which influenced the plan's objectives and strategies.

• The policy measures in the Fourth Plan were also shaped by external events such as the Bangladesh Liberation War, which required significant economic and defense resources.

• This plan marked the beginning of efforts to strengthen industrialization, alongside the continuation of emphasis on agriculture.

Additional Information

• First Five-Year Plan:

• Implemented during 1951-1956, it focused on agriculture, irrigation, and energy infrastructure as the primary areas of development.

• The plan was based on the Harrod-Domar model and aimed to address the food shortage and post-independence economic challenges.

• Key achievements included the establishment of dams such as Bhakra Nangal and the initiation of community development programs.

• Second Five-Year Plan:

• Implemented during 1956-1961, it focused on rapid industrialization and the development of the public sector.

• The plan followed the Mahalanobis model, emphasizing heavy industries and capital goods production.

• Key initiatives included the establishment of steel plants in Bhilai, Rourkela, and Durgapur.

• Fourth Five-Year Plan:

• Focused on achieving self-reliance and alleviating poverty through agriculture and industrial development.

• Introduced measures to control inflation and stabilize the economy amidst global economic challenges.

• Marked by significant events like the Bangladesh Liberation War and the oil crisis.

• Sixth Five-Year Plan:

• Implemented during 1980-1985, emphasizing economic liberalization and poverty alleviation.

• Focused on technological upgradation, infrastructure development, and expanding employment opportunities.

• Introduced new initiatives like the Integrated Rural Development Programme (IRDP).

Important Points

• Green Revolution: The Fourth Five-Year Plan was influenced by the Green Revolution, which significantly increased agricultural productivity in India, particularly in wheat production.

• Bangladesh Liberation War: India’s involvement in the 1971 Bangladesh Liberation War led to financial constraints, impacting the implementation of certain development programs during the plan.

• Inflation Control: The plan included measures to combat high inflation rates, which were a result of the rising costs of imports and defense spending.

• Focus on Self-Reliance: The emphasis on self-reliance in agriculture and industries aimed to reduce dependency on foreign imports and establish a robust domestic economy.

• Social Equity: Programs to address poverty and improve the living conditions of the population were integral to the plan’s objectives.

Q96. Answer: (c) Both I and II

The correct answer is Both I and II.

Key Points

• Eighth Five Year Plan (1992-1997) was delayed due to the economic crisis India faced in 1991. This period saw the implementation of economic reforms and liberalization policies.

• The worsening balance of payment position was a major challenge. India faced a severe foreign exchange crisis in 1991, with

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foreign exchange reserves dwindling to cover only two weeks of imports. Hence, statement I is correct.

• The country was burdened with a rising debt, leading to difficulty in meeting repayment obligations. The external debt had surged, and debt servicing consumed a significant portion of the GDP. Hence, statement II is correct.

• The government adopted structural reforms to resolve these issues, focusing on economic liberalization, reducing fiscal deficits, and attracting foreign investment.

• Both factors—balance of payment crisis and rising debt burden—were key issues that defined the strategies and priorities of the Eighth Five Year Plan.

Additional Information

• Balance of Payment Crisis (1991):

• India faced a severe economic crisis in 1991 due to high fiscal deficits, excessive borrowing, and a trade imbalance.

• The current account deficit widened, leading to the depletion of foreign exchange reserves to dangerously low levels.

• To address the crisis, India sought assistance from the International Monetary Fund (IMF) and implemented structural adjustment programs.

• Rising Debt Burden:

• India's external debt increased significantly during the late 1980s and early 1990s, causing strain on the economy.

• The debt service ratio (the proportion of export earnings used to repay debt) rose to unsustainable levels.

• Efforts were made to reduce fiscal deficits and enhance export performance to manage the debt burden.

• Economic Reforms of 1991:

• The crisis led to the introduction of New Economic Policy in 1991, focusing on liberalization, privatization, and globalization (LPG).

• These reforms were aimed at improving the balance of payments, reducing fiscal deficits, and fostering economic growth.

• Eighth Five Year Plan (1992-1997):

• The plan emphasized human resource development, poverty alleviation, and self-reliance.

• Key focus areas included agriculture, industry, and infrastructure development.

• The plan also prioritized export promotion and foreign direct investment to address the balance of payment issues.

Important Points

• Key Strategies Adopted:

• India adopted structural reforms to stabilize the economy, including reducing subsidies and enhancing tax revenue.

• Focus was placed on export-oriented industries to boost foreign exchange earnings.

• IMF Assistance:

• India pledged gold reserves to secure a loan from the IMF to manage its foreign exchange crisis.

• The conditions attached to the loan required India to undertake significant economic reforms.

• Impact of Reforms:

• The reforms led to a gradual improvement in India's economic indicators, including growth in GDP and foreign exchange reserves.

• However, challenges such as inflation and social inequality persisted.

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Q97. Answer: (b) 1965

The correct answer is 1965.

Key Points

• The first Export Processing Zone (EPZ) in India was established in Kandla, Gujarat in the year 1965. This marked the beginning of India's efforts to boost exports and attract foreign investments.

• The primary objective of setting up EPZs was to promote export-oriented industrialization and generate employment opportunities in the country.

• Kandla EPZ was designed to provide an integrated infrastructure for industries with facilities such as warehouses, export-import services, and customs clearance, simplifying the process for exporters.

• EPZs were the precursor to the modern Special Economic Zones (SEZs), which were introduced later in the 2000s to further enhance India's export competitiveness.

• Globally, EPZs have been utilized as a strategy to attract foreign direct investment (FDI) and boost exports, and India adopted this model to integrate into the global trade system.

Additional Information

• Export Processing Zones (EPZs):

• EPZs are specific zones within a country that offer tax incentives, lower customs duties, and other benefits to promote exports.

• The concept of EPZs originated in Shannon, Ireland, in 1959 and was later adopted by several developing economies, including India.

• EPZs are considered a stepping stone for developing countries to integrate into the global economy by encouraging export-driven growth.

• Kandla EPZ:

• Located in Gujarat, Kandla EPZ was India's first EPZ and continues to operate today as a Special Economic Zone (SEZ).

• It was strategically located near the Kandla Port to facilitate seamless export-import operations.

• Kandla EPZ initially housed industries in sectors like textiles, chemicals, and engineering.

• Special Economic Zones (SEZs):

• SEZs were introduced in India through the Special Economic Zones Act, 2005, which provided a more comprehensive framework for export-oriented industrialization.

• SEZs offer additional benefits compared to EPZs, such as 100% income tax exemption on export profits for a specified period, single-window clearance, and improved infrastructure.

• Examples of SEZs in India include NOIDA SEZ, Santa Cruz SEZ (Mumbai), and Chennai SEZ.

• Key Features of EPZs and SEZs:

• Focus on export-oriented units to boost foreign exchange earnings.

• Provision of world-class infrastructure and facilities for industries.

• Exemption from duties and taxes on imports of raw materials and capital goods.

• Focus on job creation and improving the standard of living in the surrounding areas.

Important Points

• Historical Context: The establishment of Kandla EPZ in 1965 was a key milestone in India's transition towards an open and export-driven economy.

• Global Adoption: The success of EPZs in countries like China (Shenzhen) and South Korea influenced India's policies to further promote SEZs.

• Impact: EPZs and SEZs have significantly contributed to India's export growth, industrialization, and job creation in the last few decades.

Q98. Answer: (d) Part C

The correct answer is Part C.

Key Points

• Gender Budgeting in India: The Government of India introduced gender budgeting as a tool to assess and address the gender-based needs in public expenditure.

• Gender Budget is divided into two parts: Part A includes schemes with 100% allocation for women, and Part C includes schemes where budget allocation for women and girls is below 30% of the total scheme budget.

• Part C Schemes: These are significant as they address the needs of women in broader development schemes where their representation is below 30% of total allocation.

• The categorization helps policymakers focus on both direct and indirect benefits for women and girls in various schemes and initiatives.

• Examples of schemes under Part C include programs in sectors like agriculture, education, health, and rural development where women are beneficiaries but the allocation does not exceed 30%.

Additional Information

• What is Gender Budgeting?:

• Gender budgeting is a gender-based assessment of budgets, ensuring that public resources are allocated in a way that benefits women and men equally.

• It was introduced in India in 2005-06 to promote gender equity in development.

• Structure of India's Gender Budget:

• Part A: Includes schemes where 100% of the allocation benefits women. Examples include schemes for women's health, empowerment, and education.

• Part B: Covers schemes where at least 30% to 99% of the allocation benefits women.

• Part C: Includes schemes where allocation for women and girls is below 30% of the total allocation.

• Importance of Gender Budgeting:

• Ensures equitable distribution of public funds.

• Promotes women's empowerment and their active participation in economic development.

• Addresses gaps in access to resources and opportunities for women.

• Examples of Gender Budget Initiatives:

• Beti Bachao Beti Padhao Scheme: Focuses on improving the status of the girl child.

• National Rural Health Mission: Includes maternal health programs.

• Mahatma Gandhi National Rural Employment Guarantee Act (MGNREGA): Provides employment opportunities with a focus on women workers.

Important Points

• India's Gender Budgeting History: India introduced gender budgeting in 2005-06 as part of its commitment to achieving gender equality and promoting women's empowerment.

• Global Perspective: Gender budgeting is adopted worldwide, including countries like Australia, South Africa, and Sweden, to address gender disparities in public spending.

• Challenges in Implementation: Despite progress, challenges include lack of awareness, insufficient data, and inadequate monitoring mechanisms.

• Policy Recommendations: To strengthen gender budgeting, policymakers emphasize capacity building, better data collection, and integrating gender concerns into mainstream planning processes.

Q99. Answer: (a) Only I

The correct answer is Only I.

Key Points

• Plant hormones: Plant hormones, also known as phytohormones, are chemical substances that significantly influence various physiological processes in plants, such as growth, development, and environmental responses.

• Statement I: "They help to coordinate growth, development, and responses to the environment" is correct. Plant hormones regulate processes like cell elongation, flowering, fruit ripening, and stress responses, ensuring plants adapt to changing environmental conditions.

• Statement II: "They are synthesized at places away from where they act and simply diffuse to the area of action" is incorrect. While some plant hormones like auxins are produced in specific regions (e.g., shoot tips) and transported to the target site, not all hormones follow this mechanism. Cytokinins, for example, are synthesized in roots and transported upward via xylem. The movement of hormones often involves active transport rather than simple diffusion.

• Examples: Auxins promote cell elongation, gibberellins regulate stem elongation, and ethylene controls fruit ripening. These demonstrate how plant hormones coordinate growth and environmental adaptations.

• Correct Option: Based on the explanation, only Statement I is correct.

Additional Information

• Types of Plant Hormones:

• Auxins: Promote cell elongation, apical dominance, and root initiation. Example: Indole-3-acetic acid (IAA).

• Gibberellins: Stimulate stem elongation, seed germination, and flowering. Example: GA3.

• Cytokinins: Promote cell division and delay leaf senescence. Example: Zeatin.

• Ethylene: A gaseous hormone responsible for fruit ripening, flower wilting, and leaf abscission.

• Abscisic Acid (ABA): Induces dormancy and regulates stress responses like drought tolerance.

• Plant Hormone Transport:

• Hormones like auxins move via polar transport, whereas cytokinins are transported through vascular tissues.

• Active transport mechanisms involve specific proteins, ensuring hormones reach target sites effectively.

• Key Functions:

• Growth regulation: Hormones control cell division, elongation, and differentiation.

• Environmental adaptation: Hormones help plants respond to stress, light, and gravity.

• Developmental processes: They regulate flowering, fruiting, seed germination, and dormancy.

• Examples in Agriculture:

• Auxins: Used in rooting powders and herbicides.

• Ethylene: Utilized for artificial fruit ripening.

• Gibberellins: Applied to increase fruit size in crops like grapes.

Important Points

• Discovery: Auxins were first discovered by Charles Darwin and his son Francis Darwin in their experiments on phototropism in canary grass.

• Significance in Crop Improvement: Genetic engineering of hormone pathways is used to enhance crop yield and stress tolerance.

• Stress Hormones: Abscisic Acid (ABA) is crucial for drought resistance, helping plants conserve water during adverse conditions.

• Global Applications: Plant hormones are integral to modern agricultural practices, including tissue culture and hybrid seed production.

Q100. Answer: (d) Jamun

The correct answer is Jamun.

Key Points

• Jambudvipa is one of the seven continents (dvipas) described in ancient Indian texts such as the Mahabharata, Puranas, and Jain and Buddhist literature.

• The name "Jambudvipa" is derived from the Jambu (Jamun) tree (Syzygium cumini), which was believed to grow in abundance on the continent.

• According to the Puranas, a gigantic Jamun tree stood at the center of Jambudvipa, giving the land its name.

• In ancient Indian cosmology, Jambudvipa is regarded as the central and most important of the seven dvipas.

• Hence, the term Jambudvipa is associated with the Jamun tree.

Additional Information

• Banyan:

• The national tree of India, symbolizing longevity and immortality, but not associated with the name Jambudvipa.

• Ashoka:

• A sacred tree in Indian culture, associated with prosperity and love.

• Neem:

• Known for its medicinal properties and widely used in Ayurveda.

Important Points

• Jambudvipa = Land of the Jambu (Jamun) Tree.

• Jambu refers to the Jamun tree (Syzygium cumini).

• Jambudvipa is mentioned in the Mahabharata, Puranas, Buddhist texts, and Jain literature.

• In many ancient Indian texts, Bharatavarsha is described as a region within Jambudvipa.

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