

Q1. Three different positions of the same dice are shown. Find the number on the face opposite the face showing 'D'.

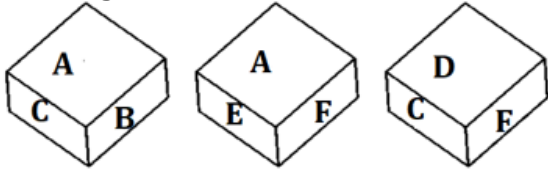


Fig 1.

Fig. 2

Fig. 3

- (a) A
- (b) B
- (c) C
- (d) F

Q2. Select the option that is related to the fifth letter-cluster in the same way as the second letter-cluster is related to the first letter-cluster and the fourth letter-cluster is related to the third letter-cluster.

IMPORTANT: LKNRRGMZG :: ADVANCE : EWZAVXM :: ENGLISH :: ?

- (a) TVMLSHR
- (b) TMLVSHR
- (c) TMVLHSR
- (d) TMVLSHR

Q3. Select the option that represents the correct order of the given words as they would appear in an English dictionary.

1. Magnify
2. Magnesium
3. Magnification
4. Magnum
5. Magic

- (a) 5, 2, 3, 1, 4
- (b) 5, 1, 3, 4, 5
- (c) 5, 2, 4, 3, 1
- (d) 5, 2, 3, 4, 1

Q4. Select the set in which the numbers are not related in the same way as are the numbers of the given sets. (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.)

- (18, 36, 108)
- (14, 28, 84)
- (a) (21, 44, 130)
- (b) (17, 32, 98)
- (c) (16, 28, 88)
- (d) (22, 44, 130)

Q5. Select the option that represents the letters that, when sequentially placed from left to right in the blanks, will complete the letter series.

S _ _ Q _ K R _ S T _ K K _ S _ _ Q K _ R

- (a) S T K Q S R S T K
- (b) S T K S Q R S T K
- (c) S T K R Q S S T K
- (d) S T K S Q S R T K

Q6. Select the word-pair that best represents a similar relationship to the one expressed in the pair of words given below. (The words must be considered as meaningful English words and must NOT be related to each other based on the number of letters/number of consonants/vowels in the word)

Pyramid : Egypt

- (a) Wall : Japan
- (b) Eiffel Tower: Russia
- (c) Statue of Liberty: China
- (d) Taj Mahal : India

Q7. Eight colleagues A, B, C, D, E, F, G, and H are seated in a straight-line facing north during a meeting. C and D are seated in the center of the line. A and H are at the ends of the line. E is seated to the right of A. D is immediately to the right of C and immediately to the left of B. F is seated fourth to the left of G. According to the given information, which of the following statements are correct?

- 1. A is sitting at the extreme left
- 2. A is sitting fourth to the left of D
- 3. H is fourth to the right of D.
- 4. Exact Position of C and D cannot be determined.

- (a) Only 1, 2, 3 and 4 are correct.
- (b) Only 1 and 2 are correct.
- (c) Only 1, 2 and 3 are correct
- (d) Only 3 and 4 correct

Q8. If P denotes '+', Q denotes '-', R denotes '÷', and S denotes '×', then what will come in place of '?' in the following equation?

36 S 6 R 3 P 8 Q 5 P 2 = ?

- (a) 75
- (b) 79
- (c) 71
- (d) 77

Q9. Three of the following four letter-clusters are alike in a certain way and one is different. Pick the odd one out.

- (a) OUL
- (b) QVJ
- (c) MRN
- (d) HMS

Q10. Select the set in which the numbers are related in the same way as are the numbers of the following sets. (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.)

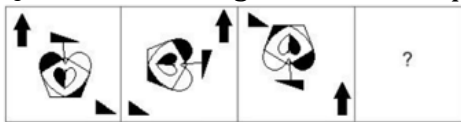
- (111, 212, 313)
 (36, 39, 42)
 (a) (41, 74, 108)
 (b) (66, 108, 150)
 (c) (121, 231, 342)
 (d) (28, 42, 55)

Q11. If \times means $-$, \div means $+$, $-$ means \div , and $+$ means \times , then what will be the value of the following expression?

$$36 - 6 \div 3 + 6 \times 3 + 9 = ?$$

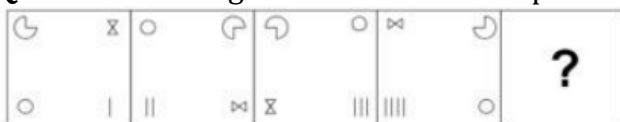
- (a) 5
 (b) 4
 (c) 2
 (d) -3

Q12. Select the figure that will replace the question mark (?) in the following figure series.



- (a)
- (b)
- (c)
- (d)

Q13. Select the figure that will come in place of the question mark (?) in the following figure series.



- (a)

- (b)
- (c)
- (d)

Q14. Select the option figure in which the given figure is embedded (rotation is Not allowed).

-
- (a)
- (b)
- (c)
- (d)

Q15. Select the Venn diagram that best illustrates the relationship between the following classes.

Animals, Dogs, Pets

- (a)
- (b)
- (c)
- (d)

Q16. Which of the given letter-clusters will replace the question mark (?) in the following series?

BLOOD, BLOOE, ?, BLPPE, BMPPE, CMPPE

- (a) BLOOE
- (b) BLOPE
- (c) BLOPF
- (d) BLOQE

Q17. Select the correct combination of mathematical signs to sequentially replace the * signs and to balance the given equation:

$(348 * 5) * (17 * 7) * 46 * 4 * 32$

- (a) $\div, +, \times, =, +, -$
- (b) $-, \times, =, \div, -, +$
- (c) $\times, \div, -, =, +, \times$
- (d) $+, \times, =, -, \div, -$

Q18. Seven people Kannu, Lalit, Monti, Nipa, Ojaswi, Pappu and Himesh, are sitting in a straight row, facing the north. Only four people sit to the left of Pappu. Himesh sits third to the left of Nipa. Nipa is not an immediate neighbour of Pappu. Monti sits third to the left of Lalit. Kannu sits to the immediate left of Monti. Who sits at the extreme left end of the row?

- (a) Himesh
- (b) Monti
- (c) Ojaswi
- (d) Kannu

Q19. If A denotes '+', B denotes '×', C denotes '-', and D denotes '÷', then what will be the value of the following expression?

$89 C 15 B 12 A 36 D 6$

- (a) -85
- (b) 85
- (c) - 80
- (d) 78

Q20. Find the odd one out.

- (a) 15-3375
- (b) 21-9261
- (c) 31-29792
- (d) 50-125000

Q21. Which letter-cluster will replace the question mark (?) to complete the given series?

BFDH, DIFJ, FLHL, ?

- (a) HKON
- (b) HION
- (c) HOJN
- (d) HOJM

Q22. In a certain code language, 'CREATION' is written as '5207322111716' and 'BOTANIC' is written as '41722316115'. How will 'HARMONIC' be written in that language?

- (a) 10320151716151
- (b) 13020151716115
- (c) 10320151716115
- (d) 10320151761115

Q23. Select the set in which the numbers are related in the same way as are the numbers of the given sets. (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)

- (27, 64, 7)
- (125, 343, 12)
- (a) (729, 512, 16)
- (b) (27, 125, 9)
- (c) (40, 67, 78)
- (d) (64, 729, 13)

Q24. Which of the following numbers will replace the question mark (?) in the given series?

148, 294, 592, 1182, ?

- (a) 2361
- (b) 2362
- (c) 2360
- (d) 2368

Q25. In this question, three statements are given, followed by two conclusions numbered I and II. Assuming the statements to be true, even if they seem to be at variance with commonly known facts, decide which of the conclusions logically follows/follow from the statements.

Statements:

All flowers are trees.

All trees are plants.

All plants are living.

Conclusions:

I. Some plants are flowers.

II. All trees are living.


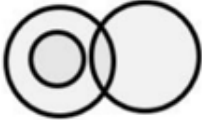
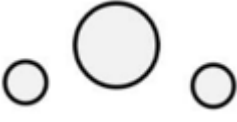
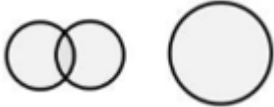
III. Some livings are plants.

IV. All living are flowers.

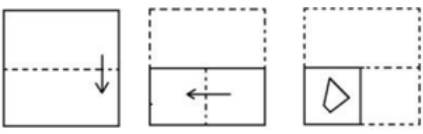
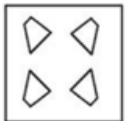
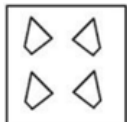
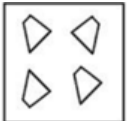
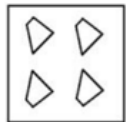
- (a) Conclusions I, II and III follow
- (b) Neither conclusion II nor III follows
- (c) Only conclusion I follows
- (d) Only conclusion II follows

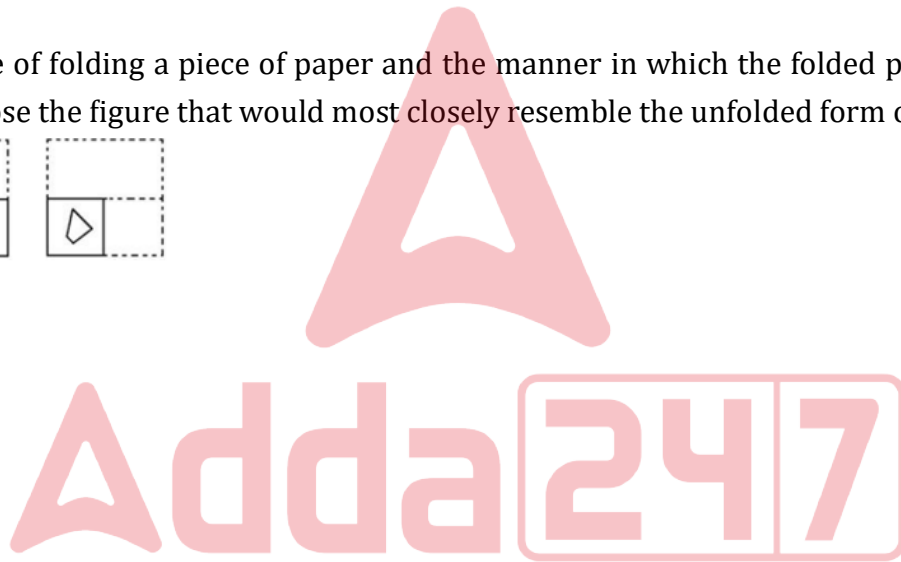
Q26. Select the Venn diagram that best illustrates the relationship between the following classes.

Taj Mahal, Agra, Uttar Pradesh

- (a) 
- (b) 
- (c) 
- (d) 

Q27. The sequence of folding a piece of paper and the manner in which the folded paper has been cut is shown below. Choose the figure that would most closely resemble the unfolded form of the paper.

- 
- (a) 
- (b) 
- (c) 
- (d) 



Q28. Which of the following interchanges of signs would make the given equation correct?

$$3 \div 6 + 2 \times 5 - 4 = 2$$

- (a) \div and $+$
 (b) \times and $-$
 (c) $-$ and \div
 (d) $+$ and \times

Q29. In a certain code language:

'P = Q' means 'P is the son of Q'.

'P + Q' means 'P is the sister of Q'

'P * Q' means 'P is the father of Q'.

'P ÷ Q' means 'P is the brother of Q'

'P @ Q' means 'P is the daughter of Q'.

How is N related to M in the expression: X * N @ Y + M?

- (a) Mother
- (b) Sister
- (c) Niece
- (d) Daughter

Q30. Select the option that is related to the third term in the same way as the second term is related to the first term and sixth term is related to fifth term.

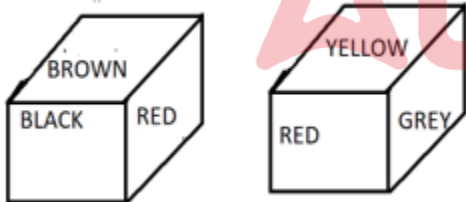
24 : 36 :: 10 : ? :: 16 : 24

- (a) 20
- (b) 15
- (c) 30
- (d) 25

Q31. Based on the position in the English alphabetical order, three of the following letter clusters are alike in some manner and one is different. Select the odd letter-cluster.

- (a) TMAC
- (b) QUTS
- (c) ECJS
- (d) ABPR

Q32. Two different positions of the same dice are shown in the given below figure. Select the colour among the given options that will be on the face opposite to the one showing 'RED'.



- (a) GREEN
- (b) BLACK
- (c) RED
- (d) GREY

Q33. If A denotes '+', B denotes '×', C denotes '-', and D denotes '÷', then what will be the value of the following expression?

12 D 6 A 4 B 2 C 3

- (a) 7
- (b) 5
- (c) 9
- (d) 11

Q34. P, Q, R, S, T and U were sitting around a circular table, facing the centre. They were sitting at equal distances from one another. T and R were sitting exactly next to each other. P was at the immediate right of U. Q was at the immediate left of T. R is third to the left of S. Who is sitting to the right of S?

- (a) T
- (b) S
- (c) U
- (d) Q

Q35. In a certain code language, 'ELEPHANT' is written as 'TELHPNAE' and 'GIRAFFES' is written as 'SRIFAEFG'. How will 'RHINOCEROS' be written in that language?

- (a) RONICERSHI
- (b) RONICERHSO
- (c) ROSICERHIN
- (d) SIHONECORR

Q36. If M denotes '-', N denotes '÷', O denotes '×', and P denotes '+', then what will come in place of '?' in the following equation?

$$1728 \text{ N } 6 \text{ M } \sqrt[3]{2197} \text{ O } 5 \text{ P } 125 = ?$$

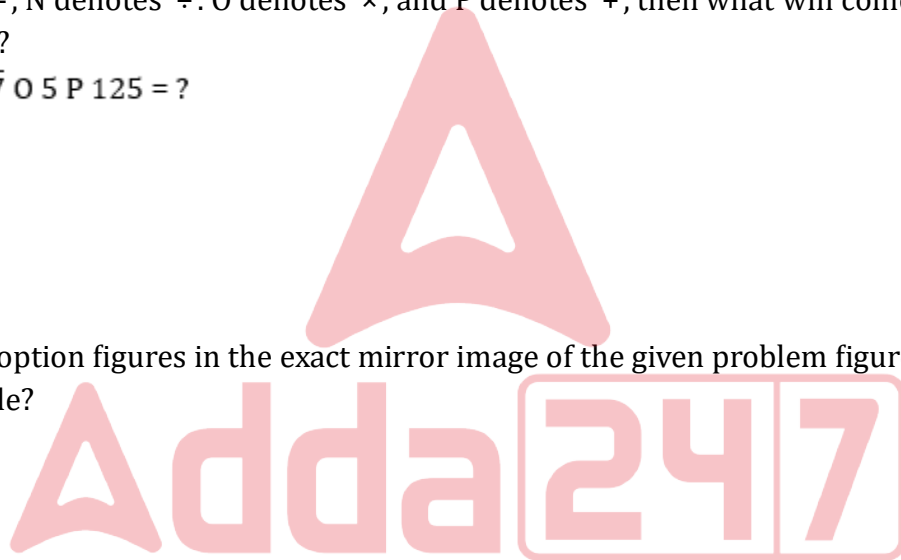
- (a) 228
- (b) 350
- (c) 348
- (d) 338

Q37. Which of the option figures in the exact mirror image of the given problem figure when the mirror is held at the right side?

Problem figure:



- (a)
- (b)
- (c)
- (d)



Q38. Directions: Read the following statement and the conclusions that follow. Choose the option that best represents the relationship between the statement and the conclusions.

Statement: Many schools have started incorporating yoga and meditation into their daily routines to enhance students' concentration and overall well-being.

Conclusion I: Yoga and meditation have proven benefits in improving concentration and well-being.

Conclusion II: Schools that do not incorporate yoga and meditation in their routines do not focus on improving students' concentration and overall well-being.

- (a) Only Conclusion I follows
- (b) Only Conclusion II follows
- (c) Both Conclusion I and II follow
- (d) Neither Conclusion I nor II follows

Q39. Three Statements are given followed by three conclusions numbered I, II and III. Assuming the statements to be true, even if they seem to be at variance with commonly known facts, decide which of the conclusions logically follow(s) from the statements.

Statements:

All P are M.

Some M are T.

No T is R.

Conclusions

I. Some R are not P.

II. Some M are not R.

III. Some T are P.

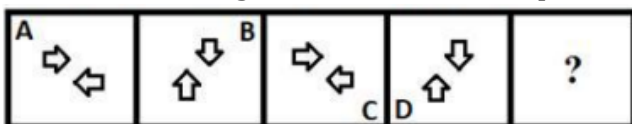
- (a) Only Conclusion II follows.
- (b) Conclusion I, II and III follow.
- (c) Both Conclusion II and III follow.
- (d) Only Conclusion I follows.

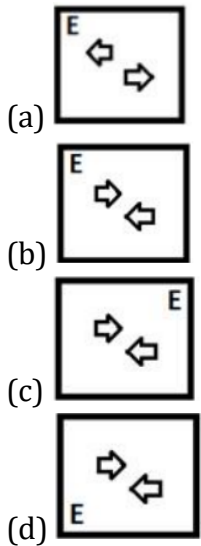
Q40. Select the correct option that indicates the arrangement of the following words in a logical and meaningful order.

- 1. Larva
- 2. Egg
- 3. Cocoon
- 4. Pupa
- 5. Butterfly

- (a) 1,3,5,4,2
- (b) 2,1,4,3,5
- (c) 1,2,3,4,5
- (d) 3,4,5,1,2

Q41. Select the figure that will come in place of the question mark (?) in the following figure series.





Q42. Arrange the following stages in the life cycle of a plant in the correct order:

1. Seedling
2. Flowering
3. Germination
4. Fruiting

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

Q43. There are five cars - Audi, BMW, Mercedes, Toyota, and Honda, each with different prices. Audi is more expensive than all the other cars. BMW is more expensive than Mercedes but cheaper than Toyota. Honda is not more expensive than Toyota. Which car has the second highest price?

- (a) Mercedes
 (b) BMW
 (c) Toyota
 (d) Honda

Q44. Five friends - Alex, Ben, Chloe, David, and Emma - attended a concert together. They each bought different merchandise items - T-shirt, Poster, Cap, Keychain, and Mug. Using the clues provided, who bought the keychain?

Alex didn't buy the T-shirt or the Poster.

Ben bought the Cap.

Chloe didn't buy the Keychain.

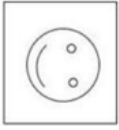
David bought the Mug.

Emma bought the Poster.

- (a) Alex
 (b) Chloe
 (c) Ben
 (d) Emma



(c)



(d)

Q49. In a certain language, 'chair' is called 'table', 'table' is called 'cupboard', 'cupboard' is called 'bed', and 'bed' is called 'sofa'. In this language, which one of the following will typically be used for sleeping?

- (a) Chair
- (b) Table
- (c) Cupboard
- (d) Sofa

Q50. Directions: Below is provided a statement followed by two assumptions numbered I and II. Evaluate the assumptions and choose the correct answer.

Statement: Encouraging reading habits among children will significantly improve their academic performance.

Assumption I: Children who read regularly exhibit better understanding and retention abilities.

Assumption II: All aspects of academic performance can be improved solely through reading.

- (a) Only Assumption I is strong
- (b) Only Assumption II is strong
- (c) Both Assumption I and II are strong
- (d) Neither Assumption I nor II is strong

Q51. The power to summon each House of Parliament is vested with the:

- (a) President
- (b) Lok Sabha Speaker
- (c) Vice President
- (d) Union Cabinet

Q52. In the context of various environment protection treaties/protocols and the places associated with them, which of the following is NOT correctly paired?

- (a) Protocol on Biosafety - Cartagena
- (b) Convention on the Prior Informed Consent Procedure for Certain Hazardous Chemicals and Pesticides in International Trade - Stockholm
- (c) Convention on the Control of Transboundary Movement of Hazardous Wastes and their Disposal - Basel
- (d) Convention on Biological Diversity - Nagoya

Q53. Which of the following may be classified as a 'Pigovian tax'?

- (a) Long term capital gain tax
- (b) Corporate tax
- (c) Carbon tax
- (d) Income tax

Q54. As per the UN criteria, a city qualifies as a mega city when its population is a minimum of:

- (a) 5 million
- (b) 10 million
- (c) 15 million
- (d) 12 million

Q55. Which of the following statements about the ionosphere is NOT correct?

- (a) Radio waves transmitted from the earth are reflected back to the earth by this layer.
- (b) It contains charged particles.
- (c) It is ionised by solar and cosmic radiation.
- (d) It is located immediately above the stratopause.

Q56. Which of the following provisions of the Indian Constitution is correctly paired with the article pertaining to it?

- (a) Protection of life and personal liberty - Article 21
- (b) Prohibition of traffic in human beings - Article 24
- (c) Right to education - Article 22A
- (d) Prohibition of employment of any child below fourteen years of age in any factory or mine - Article 23

Q57. Hiccups in humans generally occur due to the forceful downward shifting of the

- (a) diaphragm
- (b) trachea
- (c) lungs
- (d) larynx

Q58. After the death of Shri Guru Gobind Singh, the Sikhs revolted against the _____ under the leadership of Banda Bahadur.

- (a) Gurkhas
- (b) British
- (c) Mughals
- (d) Marathas

Q59. In India, the Protection of Children from Sexual Offences (POCSO) Act, _____ is a comprehensive law to provide for the protection of children from the offences of sexual assault, sexual harassment and pornography, while safeguarding the interests of the child.

- (a) 2006
- (b) 2008
- (c) 2010
- (d) 2012

Q60. Who among the following Indian musicians was a part of a band named 'Planet Drum' along with Mickey Hart, Sikiru Adepouju, and Giovanni Hidalgo, whose first album received the 1992 Grammy Award for Best World Music Album, which was the first Grammy in this category?

- (a) Zakir Hussain
- (b) Hariprasad Chaurasia
- (c) Bhimsen Joshi
- (d) Ravi Shankar

Q61. Which of the following is a mountain between India and Nepal?

- (a) Manaslu
- (b) Makalu
- (c) Dhaulagiri
- (d) Kanchenjunga

Q62. Lalita is a form of folk music from _____.

- (a) Rajasthan
- (b) Gujarat
- (c) Madhya Pradesh
- (d) Maharashtra

Q63. Who among the following is the author of the book 'The Coalition Years'?

- (a) KR Narayanan
- (b) Pranab Mukherjee
- (c) APJ Abdul Kalam
- (d) Giani Zail Singh

Q64. With which of the following organisations was Lala Har Dayal associated?

- (a) Swaraj Party
- (b) Indian Independence League
- (c) Ghadar Party
- (d) Indian Home Rule Society

Q65. Which of the following represents an alpha particle?

- (a) ${}^2_2\text{He}$
- (b) ${}^4_2\text{He}$
- (c) ${}^2_1\text{He}$
- (d) ${}^1_1\text{He}$

Q66. Who among the following had been given the title of 'Sultan Buland Iqbal' by Shah Jahan?

- (a) Shuja
- (b) Dara
- (c) Murad
- (d) Aurangzeb

Q67. The Gulf Cooperation Council (GCC) is headquartered in which city?

- (a) Dubai
- (b) Riyadh
- (c) Bahrain
- (d) Sharjah

Q68. Which of the following built the city of Hyderabad as his residential capital and called it Bhagyanagar?

- (a) Ibrahim Qutb Shah
- (b) Muhammad Quli **Qutb Shah**
- (c) Muhammad Shah
- (d) Abdullah Qutb Shah

Q69. Mirat-i-Sikandari gives details about which of the following rulers?

- (a) Feroz Shah Tughlaq
- (b) Zafar Khan
- (c) Muhammad bin Tughlaq
- (d) None of the above

Q70. As per the census 2011, which one of the following is the correct ascending sequence of States with regard to percentage of urban population?

- (a) Goa-Mizoram-Maharashtra-Kerala
- (b) Maharashtra-Kerala-Mizoram-Goa
- (c) Mizoram-Goa-Maharashtra-Kerala
- (d) Tamil Nadu-Mizoram-Goa-Maharashtra

Q71. Thumba in Kerala is famous for which of the following?

- (a) It has several industries
- (b) It is a harbour
- (c) It has an international airport
- (d) It is a rocket launching station

Q72. The Bhandar Plateau is located in which of the following states of India?

- (a) Madhya Pradesh
- (b) Jharkhand
- (c) Maharashtra
- (d) Karnataka

Q73. Washing soda can be obtained from baking soda by _____.

- (a) Heating
- (b) Mixing with Hydrochloric Acid
- (c) Heating with Slaked Lime
- (d) Making a solution in Lime water

Q74. Limestone, chalk and marble are different forms of which of the following compounds?

- (a) Calcium Chloride
- (b) Calcium Carbonate
- (c) Magnesium Carbonate
- (d) Sodium Carbonate

Q75. "Petroleum" can be categorised under which one of the following terms?

- (a) Elements
- (b) Hydrocarbons
- (c) Polymers
- (d) Salts

Q76. Which of the following Vitamins is responsible for anti-sterile activities?

- (a) Vitamin A
- (b) Vitamin B
- (c) Vitamin E
- (d) Vitamin D

Q77. Which of the following is the most common use of the reserprine derived from the plant 'Serpentina'?

- (a) Alleviate pain
- (b) Alleviate high blood pressure
- (c) Alleviate low blood pressure
- (d) Cure rickets

Q78. Consider the following statements

1. The Constituent Assembly, held its first meeting on 9th December, 1947
2. B.R Ambedkar was appointed as the constitutional advisor of the Assembly

Which of the above statement/s is/are correct?

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

Q79. Which of the following canal is the largest canal project in India?

- (a) Sirhand canal
- (b) Yamuna canal
- (c) Indira Gandhi canal
- (d) Upper Bari Doab canal

Q80. The correct sequence of eastward flowing river of the peninsular India from north to south is:

- (a) Subarnarekha, Mahanadi, Krishna, Godavari, Cauvery and Vagai
- (b) Subarnarekha, Mahanadi, Godavari, Krishna, Pennar, Cauvery and Vagai
- (c) Mahanadi, Subarnarekha, Godavari, Krishna, Cauvery, Pennar and Vagai
- (d) Mahanadi, Subarnarekha, Krishna, Godavari, Cauvery, Vagai and Pennar

Q81. When water is filled in a bottle and allowed to freeze, the bottle breaks because:

- (a) Water expands on freezing
- (b) Bottle contracts at freezing point
- (c) Temperature outside the bottle is more than inside
- (d) Water expands on heating

Q82. Which of the following statements about Bacteria is correct?

- (a) They are on the borderline of living and non-living
- (b) They are on the borderline between plants and animals
- (c) They are on the borderline between flowering and non-flowering plants
- (d) None of the above

Q83. Who wrote the book named, "Indian Economy: Gandhian Blue Print"?

- (a) Morarji Desai
- (b) Acharya Vinoba Bhave
- (c) Jai Prakash Narayan
- (d) Charan Singh

Q84. Ramsar convention often in news is related to

- (a) e waste
- (b) ozone depletion
- (c) wet lands
- (d) biodiversity

Q85. Which one of these is not a Directive Principles of State Policy

- 1) Protection and improvement of environment and safeguarding of forests and wildlife
- 2) Value and preserve the rich heritage of the country's composite culture
- 3) Promotion of international peace and security.

Which of the above statement/s is/are correct?

- (a) 1 only
- (b) 2 only
- (c) 1 & 3
- (d) None of these

Q86. Which sector of the Indian economy contributes largest to the GDP?

- (a) Primary sector
- (b) Secondary sector
- (c) Tertiary sector
- (d) Public sector

Q87. Which of following is correct statement about the Ozone?

- (a) Ozone in troposphere is good for breathing
- (b) Ozone in troposphere is not good for breathing
- (c) Ozone is present only in troposphere.
- (d) All of the above

Q88. If Parliament wants to change the name of any Indian state, then a bill can be passed by:

- (a) Simple majority of Parliament
- (b) Special majority of Parliament
- (c) Special majority of Parliament and ratification by the state legislature
- (d) Absolute majority of Parliament

Q89. Which of the following festivals is held on a new moon day?

- (a) Mahavir Jayanti
- (b) Holi
- (c) Dussehra
- (d) Kali Puja

Q90. In the context of Indian Freedom Movement, which of the following years is correctly paired with the event that took place that year?

- (a) 1936 - The First Round Table Conference
- (b) 1944 - The Cripps Mission was sent by the British government to India to obtain Indian cooperation for the British war efforts in the 2nd World War
- (c) 1945 - The All India Congress Committee met in Bombay and ratified the 'Quit India' resolution
- (d) 1915 - Mahatma Gandhi returned from South Africa

Q91. The Right of Children to Free and Compulsory Education Act or Right to Education (RTE) Act is an Act of the Parliament of India enacted in the year

- (a) 2005
- (b) 2009
- (c) 2012
- (d) 2007

Q92. Which of the following parties supported the move for partition of Bengal?

- (a) Gadar Party
- (b) All India Muslim League
- (c) Communist Party of India
- (d) Forward Bloc

Q93. What was the estimated national mortality rate of children under the age of five in the country as per Census of India 2011?

- (a) 13
- (b) 34
- (c) 76
- (d) 55

Q94. Who has been appointed as the Executive Director of the Asian Development Bank (ADB) in Manila from India?

- (a) Smita Sarangi
- (b) Kalyan Revella
- (c) Vikas Sheel
- (d) M Balaji

Q95. Who has recently been appointed as the CEO of the Indian Olympic Association (IOA)?

- (a) Kalyan Chaubey
- (b) Diwakar Tiwari
- (c) PT Usha
- (d) Raghuram Iyer

Q96. Global Family Day, celebrated annually on _____, marks a universal commitment to peace, unity, and the shared values of humanity.

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

Q97. Which film won the Best Film - Drama award at the 81st Golden Globe Awards?

- (a) Barbie
- (b) Killers of the Flower Moon
- (c) Oppenheimer
- (d) Poor Things

Q98. Which political party did Sheikh Hasina lead to victory in the recent election?

- (a) Bangladesh Nationalist Party (BNP)
- (b) Jatiya Party
- (c) Awami League
- (d) Independent Party

Q99. Which country did Tropical Cyclone Alvaro impact?

- (a) Mauritius
- (b) Madagascar
- (c) Seychelles
- (d) Comoros

Q100. Every year on _____, the world celebrates World Hindi Day, a day dedicated to recognizing the cultural significance and global influence of the Hindi language.

- (a) January 07th
- (b) January 08th
- (c) January 09th
- (d) January 10th

Q101. The average temperature of a certain town over several days is as follows: Sunday, Monday, Tuesday, and Wednesday = 46° Monday, Tuesday, Wednesday, and Thursday = 52°. What is the temperature on Thursday if the ratio of the temperature on Sunday and Thursday is 4:7?

- (a) 52°
- (b) 46°
- (c) 56°
- (d) 65°

Q102.

What is the value of $\frac{\left[\left(u - \frac{1}{u}\right)\left(u^2 + \frac{1}{u^2}\right)\left(u^4 + \frac{1}{u^4}\right)\left(u^8 + \frac{1}{u^8}\right)\left(u^{16} + \frac{1}{u^{16}}\right)\left(u^{32} + \frac{1}{u^{32}}\right)\right]}{\left(u^{64} - \frac{1}{u^{64}}\right)}$

- (a) $\frac{u}{u^2+1}$
- (b) $\frac{1}{u+\frac{1}{u}}$
- (c) Both (a) and (b)
- (d) None

Q103. G is the centroid of the triangle ABC, where AB, BC and CA are 8 cm, 15 cm and 17 cm respectively, then BG is:

- (a) $5\frac{1}{3}$ cm
- (b) $3\frac{2}{3}$ cm
- (c) $5\frac{2}{3}$ cm
- (d) $4\frac{2}{3}$ cm

Q104. What approximate value will come in the place of the question mark (?) in the following question?

$$\sqrt{288.92} \times \sqrt[3]{63.96} \div (5.01 \times 2.001) + (\sqrt{25.01} \times \sqrt[3]{8.01}) + 9.90 = ?$$

- (a) 26
- (b) 27
- (c) 25
- (d) can't determine

Q105. If $p : q = 4 : 5$, $q : r = 3 : 4$ and $r : s = 2 : 5$, then $p : s$ is:

- (a) 2 : 5
- (b) 6 : 25
- (c) 5 : 2
- (d) 25 : 6

Q106. Find the greatest number of four digits which is exactly divisible by 15, 25 and 35.

- (a) 9970
- (b) 9975
- (c) 9925
- (d) 9999

Q107. In a circle, which of the following statements is true regarding the angles subtended by the same arc at different points on the circumference?

- (a) They are all acute angles.
- (b) They are all equal.
- (c) They are all obtuse angles.
- (d) They vary depending on the length of the arc.

Q108.

When $(2^{30} - 1)$ is divided by 7, the remainder is :

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

Q109. In the following question, two statements are numbered as A and B. On solving these statements, we get quantities Y and Z respectively. Solve both quantities and choose the correct option.

Quantity Y: Find the value of y : $720 \div 24 + 169 = y + 324 \div 18$

Quantity Z: Find the value of y : $3150 - 650 + 750 = 4y + 100 \times 12$

Choose the correct option:

- (a) Quantity Y > Quantity Z
- (b) Quantity Y < Quantity Z
- (c) Quantity Y = Quantity Z
- (d) The relationship cannot be determined from the information given.

Q110. AB is a chord of a circle and AOC is its diameter such that $\angle ACB = 45^\circ$, if AM is tangent to the circle at the point A, then $\angle BAM$ is equal to

- (a) 40°
- (b) 45°
- (c) 50°
- (d) 55°

Q111. In a group of 40 dancers, one dancer, who weighs 45 kg, decides to leave the group, and a new dancer joins in their place. This change results in the average weight of the group going up by 1 kg. What is the weight of the new dancer who joined the group?

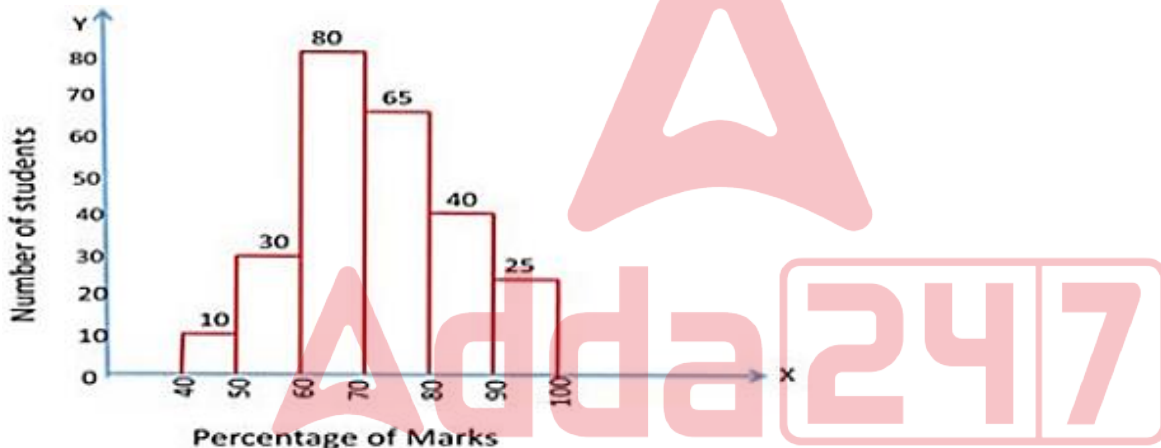
- (a) 80 kg
- (b) 85 kg
- (c) 65 kg
- (d) None of the above

Q112. A bookseller sells two rare books at a price of ₹5,000 each. On one book, he earns a 30% profit, whereas on the other, he suffers a 30% loss. Determine the overall profit or loss percentage for the bookseller in this deal.

- (a) 9% loss
- (b) 0%
- (c) 9% profit
- (d) 30% loss

Directions (113-114): Study the given histogram and answer the question that follows. The histogram represents the percentage of marks scored by a number of students in the class X Board Examination in 2018 in a school.

Total number of students = 250.



Q113. Determine the difference between the number of students who scored between 50% to less than 60% and those who scored 80% to less than 90%. What percentage of the total student count does this difference represent?

- (a) 1%
- (b) 2%
- (c) 4%
- (d) cannot determine

Q114. Calculate the ratio of the number of students who scored more than 70% to those who scored less than 50%.

- (a) 1:13
- (b) 13: 1
- (c) 13: 12
- (d) 12: 1

Q115. Let HCF of p and q be 'c', and $q=cd$, find the LCM of p & q.

- (a) pd
- (b) dq
- (c) cq
- (d) pq

Q116. What is the value of $\sin 33^\circ \cos 57^\circ + \sec 62^\circ \sin 28^\circ + \cos 33^\circ \sin 57^\circ + \csc 62^\circ \cos 28^\circ + \tan 15^\circ \tan 35^\circ \tan 60^\circ \tan 75^\circ$?

- (a) 4
- (b) 5
- (c) 3
- (d) 6

Q117. When a positive integer 'n' is divided by 13, the remainder is 5. What will be the remainder if $n^2 + 7$ is divided by 13?

- (a) 5
- (b) 6
- (c) 4
- (d) 3

Q118. Find the value of y if the number 5374y is divisible by 6, but not by 4.

- (a) 2
- (b) 4
- (c) 5
- (d) 8

Q119. In a partnership, X and Z invest money in the ratio 2:5, while X and Y put in funds at a 3:4 ratio. Given that the annual profit is Rs 87000, calculate Y's share of the profit.

- (a) Rs 15000
- (b) Rs 10000
- (c) Rs. 24000
- (d) Rs 17500

Q120. Given that $x + y = \sqrt{21}$ and $x - y = \sqrt{17}$. Find the value of $(yx^3 + xy^3)$ is:

- (a) 18
- (b) 19
- (c) 17
- (d) 21

Q121. Calculate the difference between the average of the first 998 even positive numbers and the average of the first 898 odd positive numbers.

- (a) 100
- (b) 101
- (c) 99
- (d) 98

Q122. Rohan purchased 50 meters of cloth for ₹2,000. He sold it at a profit equal to the selling price of 15 meters of it. What is the selling price (in ₹) for 70 meters of cloth at same price?

- (a) ₹6000
- (b) ₹8000
- (c) ₹4000
- (d) ₹2000

Q123. ABC is an equilateral triangle drawn inside a circle with centre O. T is a point on the arc BC. What is the value of $\frac{1}{4} \angle ATB$?

- (a) 25°
- (b) 15°
- (c) 60°
- (d) None of the above

Q124. By compounding annually, the compound interest on a sum of Rs. 64000 in 3 years is Rs. 61000. What is the rate of interest per annum?

- (a) 20%
- (b) 25%
- (c) 30%
- (d) 28%

Q125. If $\sec(5A-15^\circ) = \operatorname{cosec}(15^\circ-2A)$, then the value of $\cos 2A$

- (a) $\frac{4}{3}$
- (b) $\frac{3}{4}$
- (c) $\frac{1}{3}$
- (d) $\frac{1}{2}$

Q126. Triangle XYZ is similar to triangle DEF. The areas of triangle XYZ and triangle DEF are 49 cm^2 and 144 cm^2 , respectively. XA and DG are the medians of triangle XYZ and triangle DEF, respectively. If $DG = 12 \text{ cm}$, what is the length of XA?

- (a) 5 cm
- (b) 9 cm
- (c) 7 cm
- (d) 12 cm

Q127. Karan can finish a project in 15 days. Due to his superior skills, Arjun can work 50% faster than Karan. In how many days can Arjun finish the same project working alone?

- (a) 7.5 days
- (b) 10 days
- (c) 12 days
- (d) 15 days

Q128. CD is a chord of a circle with a length of 12 cm, and the diameter of the circle is 24 cm. What is the angle subtended by the chord at the center of the circle?

- (a) 30°
- (b) 90°
- (c) 120°
- (d) 60°

Q129. Gaurav and Harish can build a wall in 15 days and 60 days, respectively. Together with Ishaan, they managed to build it in 6 days. How long will it take Ishaan alone to build the wall?

- (a) 15 days
- (b) 10 days
- (c) 12 days
- (d) 16 days

Directions (130-132): Consider the following table, which displays the sales of books in five different genres over a six-month period at a bookstore:

Genre	January	February	March	April	May	June
Fiction	300	350	400	450	500	550
Non-Fiction	200	250	300	350	400	450
Academic	500	450	400	350	300	250
Children's	150	175	200	225	250	275
Biography	100	110	150	175	200	225

Q130. Calculate the difference between the total sales of 'Non-Fiction' books for the first three months of the year and the total sales of all book genres in June.

- (a) 1300
- (b) 1000
- (c) 1500
- (d) 1800

Q131. Among the given options, which genre does not show a constant increase in sales over the six-month period?

- (a) Fiction
- (b) Non-Fiction
- (c) Biography
- (d) Children's

Q132. What is the average monthly sale for 'Academic' books over the six-month period?

- (a) 325
- (b) 350
- (c) 375
- (d) 400

Q133. Priya and Neha can complete a project in 12 days and 24 days, respectively. Upon completing the project together, they are paid Rs. 9,600. How much of this amount should Neha receive?

- (a) Rs. 3,200
- (b) Rs. 4,800
- (c) Rs. 6,400
- (d) Rs. 3,600

Q134. What is the value of $\tan^2 60^\circ - 2 \sin^2 45^\circ + \cos 60^\circ + \sin^2 60^\circ$

- (a) 13/7
- (b) 11/4
- (c) 13/4
- (d) 14/3

Q135. In a triangle OPR, $\angle O + \angle P = 90^\circ$ then find the value of $\sin R$

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

Q136. The cost of gasoline has surged by 40%. To return the price of gasoline to its original level, by what percentage must the new price be decreased?

- (a) 25%
- (b) 28.57%
- (c) 30%
- (d) 35%

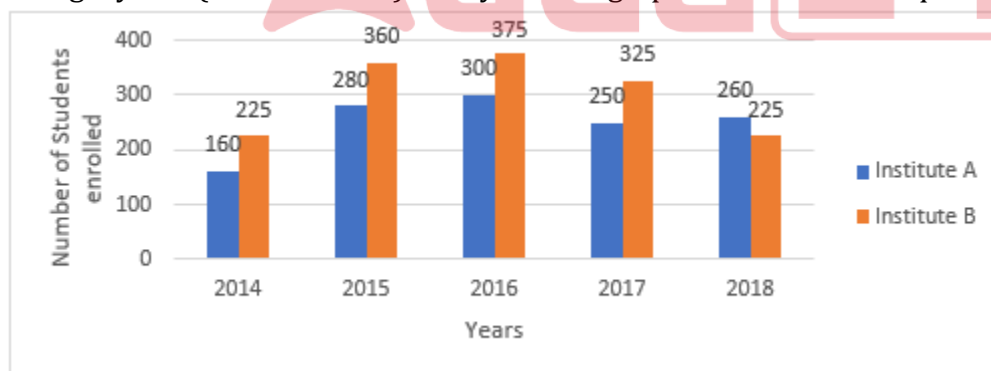
Q137. In a town, 30% of the males are married, and 20% of the females are married. Assuming that each individual is married to only one person and there are no multiple marriages, what percentage of the total population is married?

- (a) 25%
- (b) 22.5%
- (c) 24%
- (d) 26%

Q138. Suman can do 10% of a project in 2 days, while Amit can do one-fourth of the same project in 4 days. They start the project together, but Amit departs after 2 days. What is the total number of days needed to complete the project?

- (a) 17.5 days
- (b) 15.5 days
- (c) 14.5 days
- (d) 16.5 days

Directions (139-140): The given bar graph shows the number of students enrolled in institutes A and B during 5 years (2014 to 2018). Study the bar graph and answer the question that follows.



Q139. Based on the bar graph provided, in which year did Institute A see the highest growth in student enrollment compared to the previous year?

- (a) 2015
- (b) 2016
- (c) 2017
- (d) 2018

Q140. Calculate the total average number of students enrolled in Institute B from 2014 to 2018.

- (a) 301
- (b) 302
- (c) 304
- (d) 305

Q141. A solution contains 20% salt in 40 liters of water. After some of the water evaporates, only 32 liters of the solution remain. Amount of Salt is what percentage of amount of water in the final solution?

- (a) 38.33%
- (b) 39.33%
- (c) 33.33%
- (d) 37.33%

Q142. A circular park with a radius of 14 meters has a path 2 meters wide running around it on the inside. What is the area of the path?

- (a) $17\pi\text{m}^2$
- (b) $88\pi\text{m}^2$
- (c) $52\pi\text{m}^2$
- (d) $30\pi\text{m}^2$

Q143. A cube has an edge length of 8 cm. A cylinder is inscribed in this cube such that its diameter is equal to the edge length of the cube. What is the volume of the cylinder?

- (a) 402.28cm^3
- (b) 201.28cm^3
- (c) 603.84cm^3
- (d) 804.64cm^3

Q144. A frustum of a cone has a height of 21 cm with radii of the circular ends being 8 cm and 6 cm. What is the volume of the frustum?

- (a) 4004.32cm^3
- (b) 1905.76cm^3
- (c) 3507.21cm^3
- (d) 3256.00cm^3

Q145. A car travels the first one-third of a certain distance with a speed of 30 km/h, the next one-third with a speed of 40 km/h, and the last one-third with a speed of 60 km/h. What is the average speed of the car over the entire distance?

- (a) 36 km/h
- (b) 40 km/h
- (c) 45 km/h
- (d) 48 km/h

Q146. A boatman can row his boat in still water at a speed of 10 km/h. He wishes to cross a river that flows at a speed of 3 km/h. If his destination is directly in the direction to the flow of the river, which is 6.5 km wide, how long will it take for him to reach his destination?

- (a) 0.5 hours
- (b) 0.6 hours
- (c) 0.7 hours
- (d) 0.8 hours

Q147. Ritu completes a trip in 18 hours. She drives the first half at 40 km/h and the second half at 50 km/h. The total distance of the trip is:

- (a) 600 km
- (b) 700 km
- (c) 800 km
- (d) 400 km

Directions (148-150): Study the given table and answer the question that follows.

The table shows the production of different types of cars A, B, C, D and E (in thousands) from 2012 to 2016.

Cars	Years				
	2012	2013	2014	2015	2016
A	46	53	56	58	67
B	50	65	67	66	72
C	43	54	55	47	51
D	47	52	61	65	74
E	48	58	63	64	67

Q148. In which year was the total production of all the cars the maximum?

- (a) 2015
- (b) 2016
- (c) 2014
- (d) 2013

Q149. Which car showed the highest percentage increase in production in 2016 as compared to the data of 2012 ?

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

Q150. What was the average production of all cars in 2015?

- (a) 35
- (b) 50
- (c) 55
- (d) 60

Q151. Choose the correct form of verb to fill in the blank.

Despite the evidence, he ____ to admit his mistake that day.

- (a) refuses
- (b) refused
- (c) refuse
- (d) refusing

Q152. Select the most appropriate synonym of the given word.

Iota

- (a) continue
- (b) quit
- (c) Bit
- (d) endure

Q153. Select the most appropriate synonym of the given word.

Abstruse

- (a) clear
- (b) obscure
- (c) simple
- (d) known

Q154. Correct the highlighted segment in the sentence, or choose 'No correction required'.

He has a penchant for **playing under the sun**, which is why he looks so tanned.

- (a) playing under the sunlight
- (b) playing in the sun
- (c) play in the sunlight
- (d) No correction required

Q155. Determine the meaning of the given idiom.

Let the chips fall where they may

- (a) To avoid the main topic
- (b) To start with enthusiasm
- (c) Let's get to the point quickly
- (d) Let something happen without bothering about the consequences

Q156. Identify the error in the given sentence.

Her arguments, though convincing, lacks the necessary evidence.

- (a) though convincing
- (b) lacks the necessary evidence
- (c) No error
- (d) Her arguments

Q157. Choose the most appropriate synonym for the word.

Garner

- (a) scatter
- (b) accumulate
- (c) disperse
- (d) squander

Q158. Choose the most appropriate synonym for the word.

Deplore

- (a) Harmful
- (b) Regret
- (c) Insignificant
- (d) Helpful

Q159. Determine the meaning of the given idiom.

Wet his whistle

- (a) have a drink
- (b) to give up
- (c) to start a fight
- (d) to celebrate victory

Q160. Choose the correct one-word substitution for the given phrase.

The study of ancient writing systems and the deciphering of historical records

- (a) Cryptography
- (b) Paleography
- (c) Calligraphy
- (d) Graphology

Q161. Fill in the blank with the most appropriate word.

The jury was divided, but eventually, a verdict was ____.

- (a) announced
- (b) announce
- (c) announcing
- (d) announces

Q162. Select the correct form of the verb to fill in the blank.

By the time we arrived, the play ____ already started.

- (a) has
- (b) have
- (c) had
- (d) having

Q163. Choose the correct spelling.

- (a) Accomadation
- (b) Accomodation
- (c) Accommodation
- (d) Acommodation

Q164. Choose the most appropriate one-word substitution for the given phrase.

A person who is indifferent to pleasure or pain

- (a) Stoic
- (b) Enthusiast
- (c) Cynic
- (d) Epicurean

Q165. Fill in the blank with the most appropriate option.

The CEO insisted that every employee ____ present at the meeting.

- (a) be
- (b) is
- (c) was
- (d) are

Directions (166-170): In the following passage, some words have been deleted. Fill in the blanks with the help of the alternatives given. Select the most appropriate option for each number.

National Consumer's Day is celebrated to highlight the importance of consumer rights and to ensure that consumers receive respect and (1) _____. It's a day when awareness about consumer importance is spread (2) _____ the nation, emphasizing the power of consumers in influencing the market. The day marks the enactment of the Consumer Protection Act, advocating for (3) _____ of the rights such as the right to be informed, the right to choose, and the right to redress. Events and workshops are conducted through (4) _____ country, providing valuable information on consumer rights and (5) _____ consumers to make informed decisions.

Q166. Select the most appropriate option to fill in blank no. 1.

- (a) creative
- (b) leading
- (c) original
- (d) regard

Q167. Select the most appropriate option to fill in blank no. 2.

- (a) separate
- (b) through
- (c) unique
- (d) dull

Q168. Select the most appropriate option to fill in blank no. 3.

- (a) more
- (b) much
- (c) any
- (d) some

Q169. Select the most appropriate option to fill in blank no. 4.

- (a) with
- (b) by
- (c) of
- (d) the

Q170. Select the most appropriate option to fill in blank no. 5.

- (a) determining
- (b) altered
- (c) attached
- (d) influencing

Q171. Choose the most suitable option to complete the sentence.

His remarks on the issue were so ambiguous that they ____ to multiple interpretations.

- (a) led
- (b) lead
- (c) have led
- (d) leads

Q172. Select the most appropriate meaning of the given idiom.

Wiped the nose

- (a) to avoid a difficult situation
- (b) to face a painful situation bravely
- (c) to betray someone
- (d) to give up easily

Q173. Select the most appropriate one-word substitution for the given group of words.

A person who collects or has a great love for lakes

- (a) Bibliophile
- (b) Limnophile
- (c) Numismatist
- (d) Philatelist

Q174. Identify the correct antonym of the given word.

Phlegmatic

- (a) Ardent
- (b) Lavish
- (c) Sparing
- (d) Global

Q175. Identify the segment in the sentence which contains a grammatical error.

Much of the equipments needs to be replaced.

- (a) Much of the
- (b) equipments needs
- (c) to be replaced
- (d) No error

Q176. Select the correct antonym of the given word.

Ephemeral

- (a) Transient
- (b) Fleeting
- (c) Permanent
- (d) Momentary

Q177. Select the correctly spelt word.

- (a) Harassmant
- (b) Harassment
- (c) Harrasment
- (d) Harasment

Q178. Choose the most suitable synonym for the given word.

Prolific

- (a) barren
- (b) fruitful
- (c) sparse
- (d) scant

Q179. Fill in the blank with the most appropriate option.

The crowd was ____ with anticipation before the concert began.

- (a) electric
- (b) electrified
- (c) electrifying
- (d) electricity

Q180. Identify the segment in the sentence which contains a grammatical error.

Did you ever see the Qutub Minar which is located in New Delhi?

- (a) Did you ever see
- (b) the Qutub Minar which
- (c) which is located in New Delhi
- (d) No error

Q181. Choose the most appropriate meaning of the given idiom.

Late in the day

- (a) In a state of intense disagreement
- (b) working together harmoniously
- (c) In a state of confusion
- (d) To delayed to be of any use

Q182. Select the most suitable one-word substitution for the given group of words.

A detailed plan of a journey

- (a) Itinerary
- (b) Brochure
- (c) Manifesto
- (d) Agenda

Q183. Select the correct antonym for the given word.

Fondest

- (a) wordy
- (b) Excited
- (c) loquacious
- (d) Cold

Q184. Fill in the blank with the most appropriate word.

Critics have often ____ the director for his inability to end movies conclusively.

- (a) praised
- (b) admonished
- (c) lauded
- (d) glorified

Q185. Choose the most appropriate synonym for the given word.

Volatile

- (a) stable
- (b) evaporating
- (c) explosive
- (d) fixed

Q186. Select the misspelt word.

- (a) acquiesce
- (b) beneficiary
- (c) cemetery
- (d) definitely

Q187. Fill in the blank with the most appropriate option.

The old man looked at the photographs with ____, remembering his youth.

- (a) nostalgia
- (b) happiness
- (c) sorrow
- (d) anger

Q188. Choose the most appropriate option to substitute the highlighted segment in the given sentence. If there is no need to substitute it, select 'No substitution required'.

She **could not barely** hide her disappointment.

- (a) could barely
- (b) could not bare
- (c) No substitution required
- (d) could have hardly

Q189. Select the correctly spelt word.

- (a) whispfer
- (b) whisper
- (c) whisperr
- (d) wisper

Q190. Identify the segment in the sentence which contains a grammatical error.

Verim is the animal that destroy the crops.

- (a) Verim is the animal
- (b) that destroy
- (c) the crops
- (d) No error

Q191. Choose the most appropriate synonym for the given word.

Gaunt

- (a) Indifferent
- (b) Skinny
- (c) Interested
- (d) Passionate

Q192. Fill in the blank with the most appropriate option.

Despite his initial doubts, he decided to ____ in the project.

- (a) invest
- (b) divest
- (c) interest
- (d) ingest

Q193. Select the most appropriate meaning of the given idiom.

Achilles' heel

- (a) a strong point
- (b) a minor setback
- (c) a fatal weakness
- (d) an unexpected victory

Q194. Identify the correct antonym of the given word.

Placid

- (a) serene
- (b) tumultuous
- (c) calm
- (d) peaceful

Q195. Choose the most suitable option to complete the sentence.

In an effort to streamline operations, the company ____ several redundant positions.

- (a) created
- (b) Eliminated
- (c) Moved
- (d) None of the above

Directions (196-200): Read the given passage and answer the questions that follow.

Tropical evergreen forests are vital ecosystems that cover the earth's equatorial regions. They are characterized by their dense, green foliage and a wide variety of plant and animal species. These forests receive a high amount of rainfall throughout the year, which contributes to their lush vegetation. They play a critical role in maintaining the earth's climate by absorbing carbon dioxide and producing oxygen. Furthermore, they are home to over half of the world's biodiversity, providing habitats for countless species, including many that are endangered. However, the importance of tropical evergreen forests goes beyond their environmental contributions. They are also crucial for the livelihoods of millions of people who rely on them for food, medicine, and raw materials. Despite their significance, these forests are under threat due to deforestation, agriculture expansion, and climate change. Conservation efforts are essential to preserve these ecosystems for future generations, ensuring the sustainability of the planet's biodiversity and climate.

Q196. The primary reason tropical evergreen forests are essential is because they:

- (a) provide a habitat for endangered species
- (b) contribute to the earth's climate stability
- (c) offer recreational spaces for humans
- (d) are located in equatorial regions

Q197. What makes tropical evergreen forests distinct from other forest types?

- (a) Their dense, green foliage
- (b) The high amount of rainfall they receive
- (c) Both A and B
- (d) Their location in temperate zones

Q198. The passage mentions that tropical evergreen forests are threatened by all of the following EXCEPT:

- (a) conservation efforts
- (b) deforestation
- (c) agriculture expansion
- (d) climate change

Q199. Why are tropical evergreen forests important for millions of people?

- (a) They provide essential services like water filtration
- (b) They are a source of food, medicine, and raw materials
- (c) They offer opportunities for scientific research
- (d) They contribute to the global economy by attracting tourists

Q200. What is the passage's primary call to action?

- (a) To promote agriculture in tropical evergreen forests
- (b) To initiate global warming
- (c) To engage in conservation efforts to preserve these ecosystems
- (d) To increase the exploitation of these forests for raw materials

Solutions

S1. Ans.(a)

Sol.

In fig. 1 and fig.2

A is common in both the dices

So,

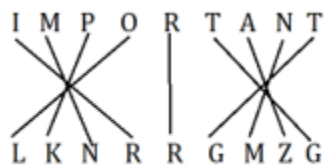
A B C

A F E

So, A is opposite to D.

S2. Ans.(d)

Sol.



Similarly, ENGLISH is coded as TMVLSHR

S3. Ans.(a)

Sol. Correct dictionary: 5, 2, 3, 1, 4

S4. Ans.(d)

Sol.

Logic : (Ist number + II number) \times 2

(18, 36, 108)

$(18 + 36) \times 2 = 108$

In option (d)

$(22, 44, 130) = (22 + 44) \times 2 = 132 \neq 130$

S5. Ans.(b)

Sol.

S S T Q K K R / S S T Q K K R / S S T Q K K R

S T K S Q R S T K is the correct answer.

S6. Ans.(d)

Sol. As Pyramid is in Egypt Similarly, Tajmahal is in India.

S7. Ans.(b)

Sol.

The correct sitting arrangement is

A E F C D B G H

By using the above sitting arrangement. Only 1 and 2 are true

S8. Ans.(d)

Sol.

$$\begin{aligned} &36 \div 6 \times 3 + 8 - 5 + 2 \\ &36 \times 6 \div 3 + 8 - 5 + 2 \\ &36 \times \frac{6}{3} + 8 - 5 + 2 \\ &72 + 8 - 3 = 77 \end{aligned}$$

S9. Ans.(a)

Sol.



S10. Ans.(b)

Sol. Logic: (I number + III number)/2

S11. Ans.(d)

Sol.

$$\begin{aligned} &36 - 6 \div 3 + 6 \times 3 + 9 \\ &\text{After interchanging the symbols,} \\ &36 \div 6 + 3 \times 6 - 3 \times 9 \\ &6 + 18 - 27 \\ &24 - 27 = -3 \end{aligned}$$

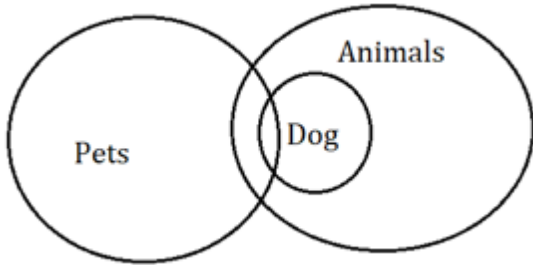
S12. Ans.(c)

S13. Ans.(b)

S14. Ans.(b)

S15. Ans.(a)

Sol.



S16. Ans.(b)

Sol.

B L O O D
B L O O E
B L O P E
B L P P E
B M P P E
C M P P E

Diagram showing letter sequences with vertical arrows and '+1' indicating a shift in the letter value:

- Arrow from O to O (+1)
- Arrow from O to P (+1)
- Arrow from P to P (+1)
- Arrow from P to M (+1)



S17. Ans.(c)

Sol.

$$(348 * 5) * (17 * 7) * 46 * 4 * 32$$

By using option (c)

$$(348 * 5) \div (17 - 7) = 46 + 4 * 32$$

$$1740 \div 10 = 46 + 128$$

$$174 = 174$$

S18. Ans.(c)

Sol. Correct Sitting Arrangement:

Ojaswi Kannu Monti Himesh Pappu Lalit Nipa

S19. Ans.(a)

Sol.

$$89 C 15 B 12 A 36 D 6$$

$$89 - 15 * 12 + 36 \div 6$$

$$89 - 180 + 6$$

$$95 - 180 = -85$$

S20. Ans.(c)

Sol.

Logic : Number: Cube of that Number

15: 3375 = 3375 is the cube of 15.

21-9261 = 9261 is the cube of 21

31-29792 = 29791 ≠ 29792 is the cube of 31

50-125000 = 125000 is the cube of 50.

S21. Ans.(c)

Sol.

B	F	D	H
+2	+3	+2	+2
D	I	F	J
+2	+3	+2	+2
F	L	H	L
+2	+3	+2	+2
H	O	J	N

S22. Ans.(c)

Sol.

Logic: Alphabetical place value + 2

C	R	E	A	T	I	O	N
3+2	18+2	5+2	1+2	20+2	9+2	15+2	14+2
5	20	7	3	22	11	17	16

HARMONIC is coded as 10320151716115

S23. Ans.(d)

Sol.

Logic : Sum of Cube root of 1st and cube root of second

(27, 64, 7) =

$27 = 3^3$ and $64 = 4^3$

$3 + 4 = 7$

By using option (d)

(64, 121, 13)

$64 = \text{Cube of } 4$ and $729 = \text{Cube of } 9$

So, $4 + 9 = 13$

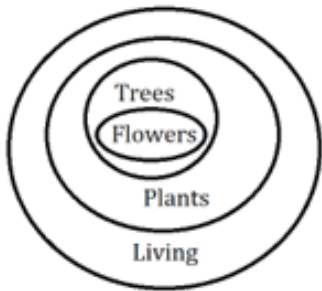
S24. Ans.(d)

Sol.

148,	294,	592,	1182,	2368
_____	_____	_____	_____	
$x^2 - 2$	$x^2 + 4$	$x^2 - 2$	$x^2 + 4$	

S25. Ans.(a)

Sol.



Conclusions I, II and III follow

S26. Ans.(a)

Sol.

Taj Mahal, Agra, Uttar Pradesh



S27. Ans.(a)

S28. Ans.(d)

Sol.

$$3 \div 6 + 2 \times 5 - 4 = 2$$

By using option (d)

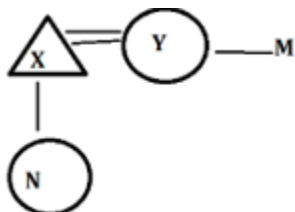
$$3 \div 6 \times 2 + 5 - 4 = 2$$

$$\frac{3}{6} \times 2 + 5 - 4 = 2$$

$$1 + 1 = 2$$

S29. Ans.(c)

Sol.



As N is the sister of M. Therefore the daughter of sister is niece of M.

S30. Ans.(b)

Sol.

$$24 : 36$$

$$24 + \frac{24}{2} = 24 + 12 = 36$$

$$16 : 24$$

$$16 + \frac{16}{2} = 16 + 8 = 24$$

$$10 : ?$$

$$10 + \frac{10}{2} = 10 + 5 = 15$$

S31. Ans.(b)

Sol.

$$\text{TMAC} = 20 + 13 + 1 + 3 = 37$$

$$\text{QUTS} = 17 + 21 + 20 + 19 = 77 \text{ (not a prime number)}$$

$$\text{ECJS} = 5 + 3 + 10 + 19 = 37$$

$$\text{ABPR} = 1 + 2 + 16 + 18 = 37$$

S32. Ans.(a)

Sol. AS, we can see that there is red colour in both the dices, So moving in clockwise direction to the red colour.

RED	BLACK	BROWN
RED	YELLOW	GREY

So, among the given options, Green is left, Hence Green is opposite to Red.

S33. Ans.(a)

Sol.

$$12 \text{ D } 6 \text{ A } 4 \text{ B } 2 \text{ C } 3$$

Applying the given operations,

$$12 \div 6 + 4 \times 2 - 3$$

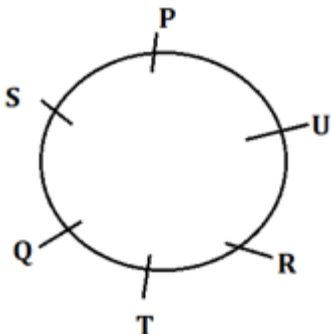
$$2 + 4 \times 2 - 3$$

$$2 + 8 - 3$$

$$2 + 5 = 7$$

S34. Ans.(d)

Sol.



Q is sitting to the immediate right of S.

S35. Ans.(d)

Sol.

E L E P H A N T
T E L H P N A E

RHINOCEROS is coded as SIHONECORR

S36. Ans.(c)

Sol.

$$1728 \text{ N } 6 \text{ M } \sqrt[3]{2197} \text{ O } 5 \text{ P } 125 = ?$$

$$1728 \div 6 - \sqrt[3]{2197} \times 5 + 125$$

$$288 - 13 \times 5 + 125$$

$$288 + 125 - 65$$

$$413 - 65 = 348$$

S37. Ans.(b)

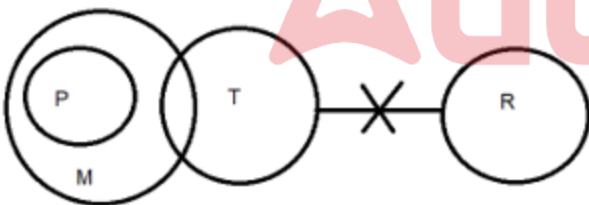
S38. Ans.(a)

Sol. Conclusion I directly aligns with this rationale, stating that yoga and meditation have proven benefits in improving concentration and well-being, which is a reasonable inference from the statement and therefore follows.

Conclusion II, on the other hand, makes a broad generalization that schools not incorporating yoga and meditation do not focus on students' concentration and well-being and therefore it doesn't follow.

S39. Ans.(a)

Sol.



Only conclusion II follows

S40. Ans.(b)

Sol. The logical and meaningful order for the arrangement of these words is related to the life cycle of a butterfly. The correct sequence is:

2. Egg - The starting point of a butterfly's life cycle.

1. Larva - The stage following the egg, where it is commonly known as a caterpillar.

4. Pupa - After the larva stage, it turns into a pupa, undergoing transformation.

3. Cocoon - This is essentially part of the pupal stage, where the pupa is encased, but often listed separately to highlight the protective casing.

5. Butterfly - The final stage, where the butterfly emerges from the cocoon/pupa.

S41. Ans.(b)

S42. Ans.(a)

Sol. The chronological order of a plant's life cycle starts with Germination, where the seed begins to grow. After germination, the plant becomes a Seedling, which is the young plant stage. Following the seedling stage, the plant enters Flowering, where it develops flowers. Finally, the plant reaches the Fruiting stage, where the flowers produce fruits. Thus, the correct sequence is Germination (3), Seedling (1), Flowering (2), and Fruiting (4).

S43. Ans.(c)

Sol. Audi is the most expensive

Toyota>BMW> Mercedes

Honda< Toyota

So, above the three statements, Toyota is the second highest price.

S44. Ans.(a)

Sol. Alex bought the Keychain.

Ben bought the Cap.

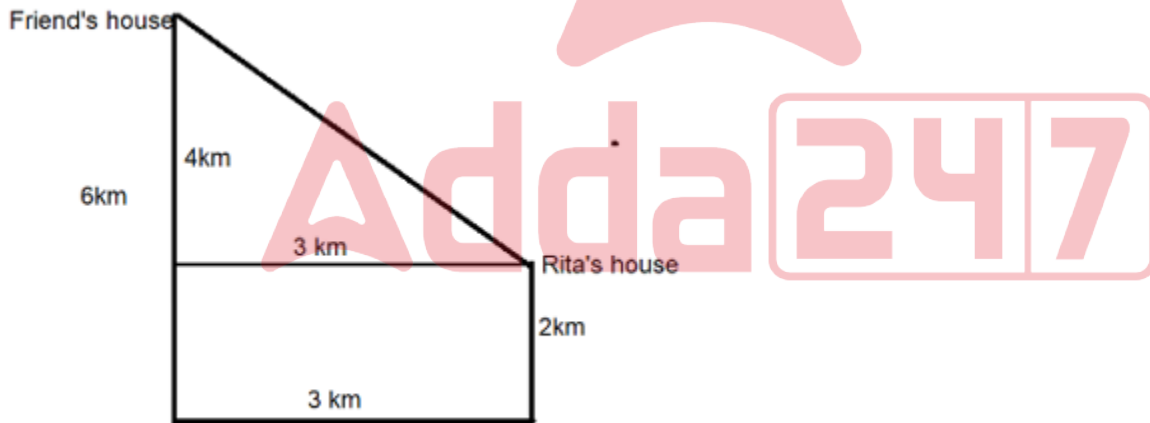
Chloe bought the T-shirt.

David bought the Mug.

Emma bought the Poster.

S45. Ans.(b)

Sol.



$$\text{Shortest distance} = \sqrt{4^2 + 3^2} = 5 \text{ km}$$

S46. Ans.(d)

S47. Ans.(d)

Sol.

Firoz, Babu, Esha, Arun, Chetan, Gopal, Deepa

Left Side

S48. Ans.(c)

S49. Ans.(c)

Sol. In standard usage, a "bed" is typically used for sleeping. According to the language code provided, a 'cupboard' is called 'bed'. Therefore, in this language, what we normally refer to as a "bed" (used for sleeping) is called a "cupboard".

Thus, the answer is (c) Cupboard.

S50. Ans.(a)

Sol. Assumption I is strong because it directly supports the statement that encouraging reading habits among children will improve their academic performance, based on the idea that reading regularly enhances understanding and retention abilities, which are critical for academic success. This assumption logically follows from the statement and aligns with common educational theories that link reading habits with improved cognitive skills.

Assumption II, however, is weaker because it overgeneralizes the impact of reading on all aspects of academic performance. While reading can significantly contribute to language arts and possibly enhance general knowledge and critical thinking skills, it is not the sole factor that can improve all areas of academic performance, such as mathematical skills, physical education, or artistic abilities. Therefore, this assumption does not strongly support the statement since it ignores other essential components of academic success and learning processes.

S51. Ans.(a)

Sol. The power to summon each House of Parliament is vested with the **President** of India.

The President is the head of state of India and the supreme commander of the armed forces.

Article 85 of the Constitution of India states that the President has the power to summon each House of Parliament to meet at such time and place as he thinks fit. However, the President can only summon the Houses of Parliament on the recommendation of the Prime Minister or the Cabinet.

The President also has the power to prorogue (end) a session of Parliament or to dissolve the Lok Sabha.

So, the answer is (a).

S52. Ans.(b)

Sol. From the given options, option (b), Convention on the Prior Informed Consent Procedure for Certain Hazardous Chemicals and Pesticides in International Trade – Stockholm is not matched correctly.

The Rotterdam Convention (formally, the Rotterdam Convention on the Prior Informed Consent Procedure for Certain Hazardous Chemicals and Pesticides in International Trade) is a multilateral treaty to promote shared responsibilities in relation to the importation of hazardous chemicals.

Location: Rotterdam, the Netherlands, not Stockholm.

S53. Ans.(c)

Sol. A Pigovian tax is a tax on an activity that generates negative externalities. Negative externalities are costs that are imposed on others but are not reflected in the price of the good or service.

A carbon tax is a tax on the emission of carbon dioxide, a greenhouse gas that contributes to climate change. It is an example of a Pigovian tax because it internalizes the external cost of carbon emissions.

So, the answer is (c).

S54. Ans.(b)

Sol. As per the UN criteria, a city qualifies as a mega city when its population is a minimum of **10 million**. A megacity is a very large city, typically with a population of more than 10 million people.

The total number of megacities in the world varies between different sources: The world had 33 according to the UN (in 2018), 45 according to CityPopulation.de (in 2023), and 44 according to Demographia (in 2022). About half of these urban agglomerations are in China and India.

India is currently home to six megacities: Delhi, the capital city; Mumbai, the financial hub; Bengaluru, the IT epicenter; Chennai, home to the Indian motor industry; Kolkata, a significant trading hub, and the latest addition to the list, Hyderabad.

S55. Ans.(d)

Sol. The statement that is NOT correct about the ionosphere is:(d) It is located immediately above the stratopause.

The ionosphere is located above the mesosphere and extends into the thermosphere. It starts above the mesopause and goes up to about 1,000 kilometers (620 miles) above the Earth's surface. The stratopause, on the other hand, is a boundary between the mesosphere and the stratosphere, which is below the ionosphere. So, the ionosphere is not located immediately above the stratopause.

S56. Ans.(a)

Sol. The correct pairing of the provision of the Indian Constitution with the corresponding article is:(a) Protection of life and personal liberty - Article 21

Article 21 of the Indian Constitution deals with the protection of life and personal liberty. It states that "No person shall be deprived of his life or personal liberty except according to a procedure established by law." Prohibition of traffic in human beings is covered under Article 23.

Right to education is covered under Article 21A.

Prohibition of employment of any child below fourteen years of age in any factory or mine is covered under Article 24.

So, the correct answer is (a).

S57. Ans.(a)

Sol. Hiccups are caused by the **forceful contraction of the diaphragm**, a muscle that separates the chest from the abdomen. This contraction causes the vocal cords to snap shut, creating the characteristic "hic" sound.

So, the answer is (a).

S58. Ans.(c)

Sol. After the death of Shri Guru Gobind Singh, the Sikhs revolted against the Mughals under the leadership of Banda Bahadur.

- Banda Singh Bahadur was given a new name, Gurbaksh Singh.
- He was a Sikh warrior and a commander of Khalsa army.

S59. Ans.(d)

Sol. In India, the Protection of Children from Sexual Offences (POCSO) Act, 2012 is a comprehensive law to provide for the protection of children from the offences of sexual assault, sexual harassment and pornography, while safeguarding the interests of the child.

- The act is gender-neutral for both children and for the accused.
- The Protection of Children from Sexual Offences Act was passed to strengthen legal provisions for the protection of children below 18 years of age from sexual abuse and exploitation.

S60. Ans.(a)

Sol. Indian musician Zakir Hussain was a part of a band named 'Planet Drum' along with Mickey Hart, Sikiru Adepoju, and Giovanni Hidalgo, whose first album received the 1992 Grammy Award for Best World Music Album category.

- Ustad Zakir Hussain is an Indian tabla player, composer, percussionist, music producer and film actor.

S61. Ans.(d)

Sol. The correct answer is **Kanchenjunga**.

Kanchenjunga is the third highest mountain in the world, after Mount Everest and K2. It is located in the Himalayas, on the border between Nepal and Sikkim, India. The mountain is 8,586 meters (28,169 feet) tall.

S62. Ans.(d)

Sol. Lalita is a form of folk music from Maharashtra.

- Lalitha is often used In Tamil film songs.
- The various other forms of folk music in Maharashtra are Tamasha, Pvadas, Gondhal, and Lavani etc.

S63. Ans.(b)

Sol. Former President of India and Bharat Ratna Pranab Mukherjee is the author of the book 'The Coalition Years'.

- He served as the 13th president of India from 2012 until 2017.
- He was awarded India's highest civilian honour, the Bharat Ratna, in 2019, by his successor as president, Ram Nath Kovind.

S64. Ans.(c)

Sol. Lala Har Dayal was associated with Ghadar Party.

- The Ghadar Movement was an early 20th century, international political movement, against British rule in India during the First World War.
- Lala Har Dayal was an Indian nationalist revolutionary and freedom fighter.

S65. Ans.(b)

Sol. Alpha particles consist of two protons and two neutrons bound together into a particle identical to a helium-4 nucleus.

- The symbol for the alpha particle is α or α^{2+} .
- They are also written as He^{2+} or ${}^4_2\text{He}^{2+}$.

S66. Ans.(b)

Sol. Dara Shikoh had been given the title of 'Sultan Buland Iqbal' by Shah Jahan.

- On 10 September 1642, Shah Jahan formally confirmed Dara Shikoh as his heir, granting him the title of Shahzada-e-Buland Iqbal ("Prince of High Fortune").
- Dara Shikoh was the eldest son and heir-apparent of the Mughal emperor Shah Jahan.
- He was executed in 1659 on Aurangzeb's orders in a bitter struggle for the imperial throne.

S67. Ans.(b)

Sol. The Gulf Cooperation Council (GCC) is headquartered in **Riyadh, Saudi Arabia**.

The GCC is an intergovernmental organization of six Arab states in Western Asia: Bahrain, Kuwait, Oman, Qatar, Saudi Arabia, and the United Arab Emirates. It was established in 1981 to promote economic, social, and cultural cooperation among its members.

S68. Ans.(b)

Sol. The city of Hyderabad was founded by **Muhammad Quli Qutb Shah** in 1591 CE. He was the sixth Sultan of the Qutb Shahi dynasty of Golconda. He built the city as his residential capital and called it Bhagyanagar, which means "fortunate city" in Telugu.

So, the correct answer is: (b) Muhammad Quli.

S69. Ans.(b)

Sol. Mirat-i-Sikandari gives details about the sultan of Gujarat, Zafar Khan.

Zafar Khan, was the founder of the Muzaffarid dynasty in Medieval India, reigning over the Gujarat Sultanate from 1391 to 1403 and again from 1404 to 1411.

The Mirat-i-Sikandari gives detail history of Gujarat from the inception of the dynasty of the sultans of Gujarat to the conquest of Gujarat by Akbar

S70. Ans.(b)

Sol. According to the Census of India 2011, the correct ascending sequence of states in terms of the percentage of urban population is: (b) Maharashtra-Kerala-Mizoram-Goa

So, the correct answer is (b).

The urban population comprises residents living in cities, towns, and urbanized areas. These regions are characterized by higher population density and various urban amenities.

As per Census data, 2011 - The urban population in India living in towns are 31.15% of the population. The urban population is 37,71,06,125.

According to the data released by Census India, these are some of the trends of Urban and Rural Population of India -

- For the first time since Independence, the absolute increase in population is more in urban areas than in rural areas
- Rural Population in India: 68.84%
- Urban Population in India :31.16%
- Level of urbanization increased from 27.81% in 2001 Census to 31.16% in 2011 Census
- The proportion of rural population declined from 72.19% to 68.84%

S71. Ans.(d)

Sol. Thumba in Kerala is famous for being a rocket launching station. It is home to the Thumba Equatorial Rocket Launching Station (TERLS), which is operated by the Indian Space Research Organisation (ISRO) and is used for launching sounding rockets for atmospheric research.

So, the correct answer is: (d) It is a rocket launching station

S72. Ans.(a)

Sol. The Bhandar Plateau is located in the state of Madhya Pradesh, India.

So, the correct answer is: (a) Madhya Pradesh.

It has an area of 10,000 square kilometers (3,900 sq mi). It links the Deccan Plateau to the south with the Indo-Gangetic Plains and the Chota Nagpur Plateau to the north and east respectively. The plateau is part of the Vindhya Range in central India.

S73. Ans.(a)

Sol. Washing soda, also known as sodium carbonate (Na_2CO_3), can be obtained from baking soda, also known as sodium bicarbonate (NaHCO_3), by heating it.

When baking soda is heated, it undergoes a chemical reaction and forms washing soda along with the release of carbon dioxide and water.

So, the correct answer is: (a) Heating

S74. Ans.(b)

Sol. The correct answer is (b). Limestone, chalk, and marble are different forms of calcium carbonate. Calcium carbonate is a chemical compound with the chemical formula CaCO_3 . It is a common substance found in rocks as the mineral's calcite and aragonite, most notably in chalk and limestone, eggshells, gastropod shells, shellfish skeletons and pearls.

S75. Ans.(b)

Sol. "Petroleum" can be categorized under the term (b) Hydrocarbons. Petroleum is a complex mixture of hydrocarbons, which are compounds made up of hydrogen and carbon atoms.

Petroleum, a complex mixture of hydrocarbons that occur in Earth in liquid, gaseous, or solid form. The term is often restricted to the liquid form, commonly called crude oil, but, as a technical term, petroleum also includes natural gas and the viscous or solid form known as bitumen, which is found in tar sands.

The liquid and gaseous phases of petroleum constitute the most important of the primary fossil fuels. Liquid and gaseous hydrocarbons are so intimately associated in nature that it has become customary to shorten the expression "petroleum and natural gas" to "petroleum" when referring to both.

S76. Ans.(c)

Sol. The answer is (c). Vitamin E is responsible for anti-sterile activities.

Vitamin E is known for its antioxidant properties and is often associated with its anti-sterility or anti-infertility activities. It helps protect cells from damage caused by free radicals, which can affect fertility.

Vitamin A is important for vision, growth, and development. Vitamin B is a group of vitamins that are essential for energy metabolism, cell function, and the nervous system. Vitamin D is important for bone health and calcium absorption.

So, the correct answer is: (c) Vitamin E.

S77. Ans.(b)

Sol. The correct answer is (b). Reserpine is a drug derived from the plant *Rauwolfia serpentina*. It is most commonly used to alleviate high blood pressure. It works by depleting the body of certain neurotransmitters, including norepinephrine and dopamine. This causes the heart to beat more slowly and the blood vessels to dilate, which lowers blood pressure.

So, the answer is (b).

S78. Ans.(d)

Sol. The correct answer is (d). None of the statements is correct.

The Constituent Assembly of India met for the first time on 9 December 1946, not 1947. B.R. Ambedkar was appointed as the Chairman of the Drafting Committee of the Constituent Assembly, not as its constitutional advisor. Sir BN Rau was appointed as the constitutional advisor of the Assembly.

The Constituent Assembly was a body of elected representatives who were tasked with drafting the Constitution of India. It was constituted in November 1946 and its first meeting was held on 9 December 1946. The Assembly was dissolved on 24 January 1950, after the Constitution of India came into force.

So, the answer is (d).

S79. Ans.(c)

Sol. The correct answer is (c). Indira Gandhi Canal is the largest canal project in India. It is also known as the Rajasthan Canal. It is the lifeline of the Thar Desert and has helped to transform the region into a prosperous agricultural area.

Previously known as the Rajasthan Canal, it was renamed the Indira Gandhi Canal on 2 November 1984 following the assassination of Prime Minister Indira Gandhi.

The canal enters Haryana from Punjab near Lohgarh and runs through the western part of the Sirsa district before entering Rajasthan near Kharakhera village in the Tibbi tehsil of the Hanumangarh district.

S80. Ans.(b)

Sol. The correct sequence of eastward flowing rivers of peninsular India from north to south is: (b) Subarnarekha, Mahanadi, Godavari, Krishna, Pennar, Cauvery, and Vagai.

Some facts:

Godavari river, also called the Dakshin Ganga, is the longest river present in Peninsular India

The length of the river is, 1500 km.

The Krishna River is the second-largest East-flowing Peninsular River. The Krishna River is approximately 1400 km long.

The East-flowing peninsular rivers have a lot of tributaries, which flow to the Bay of Bengal. The formation of deltas is one of the characteristics of these rivers flowing towards the East, as they bring large sediments to the flowing basin. Almost all the east-flowing rivers in India originate from the Western Ghats. These rivers mostly have a large volume of water, especially during monsoon time.

S81. Ans.(a)

Sol. The answer is (a). Water expands on freezing. This is because the hydrogen bonds in ice form a more open structure than the hydrogen bonds in liquid water. This causes the water molecules to be further apart in ice than in liquid water, which makes ice less dense than liquid water.

When water is filled in a bottle and allowed to freeze, the water expands and puts pressure on the walls of the bottle. If the bottle is not strong enough, it will break.

So, the answer is (a).

S82. Ans.(d)

Sol. The correct answer is (a). Bacteria are on the border-line of living and non-living. They share some characteristics of living things, such as the ability to reproduce and grow, but they also have some characteristics of non-living things, such as the ability to survive in extreme environments.

Bacteria are single-celled organisms that can be found in all parts of the world. They are essential for many biological processes, such as decomposition and nutrient cycling. However, some bacteria can also cause diseases in humans and animals.

So, the answer is (a).

S83. Ans.(d)

Sol. The book named, "Indian Economy: Gandhian Blue Print" was written by Chaudhary Charan Singh. He was an Indian politician who served as the 5th Prime Minister of India from 1979 to 1980. He was a strong advocate of Gandhian economics, which is an economic system based on the principles of non-violence, self-reliance, and decentralization.

The book was published in 1978 and it outlines Singh's vision for an economic system that would be based on the principles of Gandhian economics. He argued that India's economic problems could be solved by adopting a system that would promote small-scale agriculture, cottage industries, and self-employment.

So, the answer is (d).

S84. Ans.(c)

Sol. The Ramsar Convention, often in the news, is related to: (c) Wetlands

The Ramsar Convention is an international treaty for the conservation and sustainable use of wetlands, recognizing the ecological significance of wetlands and promoting their conservation on a global scale.

The Convention was named after the Iranian city of Ramsar where this intergovernmental treaty was adopted in 1971. The treaty came into force in 1975.

S85. Ans.(b)

Sol. The Directive Principles of State Policy (DPSP) are a set of guidelines that the government of India is supposed to follow in its policies and actions. They are not enforceable by the courts, but they are considered to be important in shaping the government's policies.

Part IV of the Indian Constitution deals with the Directive Principles of our State Policy (DPSP).

ARTICLE 48A: PROTECTION AND IMPROVEMENT OF ENVIRONMENT AND SAFEGUARDING OF FORESTS AND WILDLIFE

ARTICLE 51: PROMOTION OF INTERNATIONAL PEACE AND SECURITY

Article 48A and 51 are DPSPs.

Value and preserve the rich heritage of the country's composite culture is not a DPSP but a Fundamental duty. Hence only Statement 2 will be correct.

S86. Ans.(c)

Sol. The answer is (c). The tertiary sector, also known as the services sector, contributes the largest to the GDP of India. In 2021, the tertiary sector accounted for 53.89% of India's GDP, followed by the secondary sector (25.92%) and the primary sector (20.19%).

The tertiary sector includes activities such as trade, transport, communication, financial services, and government services. It is the fastest growing sector of the Indian economy and is expected to continue to grow in the coming years.

The secondary sector includes activities such as manufacturing, construction, and mining. It is the second largest sector of the Indian economy and is also growing rapidly.

The primary sector includes activities such as agriculture, forestry, and fishing. It is the smallest sector of the Indian economy and is also the slowest growing sector.

S87. Ans.(b)

Sol. The correct statement about ozone is: (b) Ozone in the troposphere is not good for breathing.

Ozone in the troposphere, at ground level, is considered a pollutant and can be harmful to human health when present in high concentrations. It is a major component of smog and can cause respiratory problems. In contrast, ozone in the stratosphere, also known as the ozone layer, is beneficial as it protects the Earth from harmful ultraviolet (UV) radiation from the sun.

S88. Ans.(a)

Sol. A bill contemplating the changes under Article 3 has to satisfy two conditions:

1. such a bill can be introduced in the Parliament only with the prior recommendation of the President;
2. before recommending the bill, the President has to refer the same to the state legislature concerned for expressing its views within a specified period.

• The President is not bound by the views of the state legislature and may either accept or reject them, even if the views are received in time.

Moreover, the Constitution (Article 4) itself declares that laws made for admission or establishment of new states (under Article 2) and formation of new states and alteration of areas, boundaries, or names of existing states (under Articles 3) are not to be considered as amendments of the Constitution under Article 368. This means that such laws can be passed by a simple majority and by the ordinary legislative process.

S89. Ans.(d)

Sol. Kali Puja, also known as Shyama Puja or Mahanisha Puja is a festival, celebrated on the new moon day of the Hindu month Kartik.

- It coincides with the Lakshmi 11 day of Diwali.
- On this day, the rest of India and Nepal worships goddess Lakshmi on Diwali.

S90. Ans.(d)

Sol. From the given statements, Statement (d) is correctly marched.

- At the request of Gopal Krishna Gokhale, conveyed to him by C. F. Andrews, Gandhi returned to India from South Africa in 1915.
- In April 1893, at the age of 23, Gandhi went to South Africa.
- He spent 21 years in South Africa, and returned to India in 1915.

S91. Ans.(b)

Sol. The Right of Children to Free and Compulsory Education Act or Right to Education (RTE) Act is an Act of the Parliament of India enacted on 04 August 2009.

- It provides free and compulsory education for children between the age of 6 to 14 years in India under Article 21A of the Indian Constitution.
- The act came into force on 1 April 2010.

S92. Ans.(b)

Sol. All India Muslim league supported the move for partition of Bengal.

- The All-India Muslim League (AIML) was a political party established in 1906 in British India.
- The party was formed for the political representation of Muslims in British India, especially in the event of the Indian National Congress-sponsored massive Hindu opposition to the 1905 partition of Bengal.

S93. Ans.(d)

Sol. As per Census of India 2011, the estimated national mortality rate of children under the age of five in the country is 55.

- Child mortality or Under-five Mortality Rate is the mortality of children under the age of five.
- It refers to the probability of dying between birth and exactly five years of age expressed per 1,000 live births.

S94. Ans.(c)

Sol. The correct answer is (c) Vikas Sheel.

He was appointed as the Executive Director of the Asian Development Bank (ADB) in Manila from India on January 5, 2024. Vikas Sheel is a senior bureaucrat and a 1994-batch Indian Administrative Service (IAS) officer of the Chhattisgarh cadre. Prior to this appointment, he served as the Additional Secretary and Mission Director of the Jal Jeevan Mission under the Ministry of Jal Shakti. His tenure as the Executive Director at the ADB is set for a period of three years from the date of assumption of the charge.

About Asian Development Bank (ADB):

The Asian Development Bank (ADB) is a regional development bank established on 19 December 1966, which is headquartered in the Ortigas Center located in the city of Mandaluyong, Metro Manila, Philippines. The ADB was conceived as a financial institution that would be Asian in character and foster economic growth and cooperation in one of the poorest regions in the world.

Initially, the ADB had 31 member countries, but its membership has since expanded. As of now, it includes 68 members, of which 49 are from within Asia and the Pacific and 19 outside.

S95. Ans.(d)

Sol. The answer is (d) Raghuram Iyer.

- Raghuram Iyer was appointed as the CEO of the Indian Olympic Association (IOA) on August 27, 2022.
- Raghuram Iyer, the former CEO of Rajasthan Royals, brings a diverse and rich professional background to his new role. His experience extends to prominent positions with IPL teams such as Lucknow Super Giants and Rising Supergiants. Additionally, he has made contributions to ATK Mohun Bagan in the Indian Super League and served as the CEO of RPSG Mavericks, a table tennis team.

About Indian Olympic Association (IOA):

- The Indian Olympic Association or Indian Olympic Committee is responsible for selecting athletes to represent India at the Olympic Games, Asian Games and other international sports competitions, and managing Indian teams at these events.
- Founded - 1927
- Headquarters - New Delhi

S96. Ans.(a)

Sol. The answer is (a) January 1.

- Global Family Day is celebrated annually on January 1. It was established by the United Nations in 2001 as a day to promote peace, unity, and the shared values of humanity.
- The United Nations General Assembly declared January 1 as Global Family Day in 2001.
- The day is rooted in the UN's International Decade for the Culture of Peace and Non-Violence for the Children of the World (1994-2004).
- Global Family Day is an opportunity to reflect on the common bonds that unite us as human beings, regardless of our differences.

S97. Ans.(c)

Sol. The answer is (c) Oppenheimer.

- Oppenheimer is a biographical drama film directed by Christopher Nolan and starring Cillian Murphy as J. Robert Oppenheimer, the "father of the atomic bomb."
- The film received several other awards at the 81st Golden Globe Awards, including Best Director for Nolan, Best Actor - Drama for Murphy, and Best Original Score for Ludwig Göransson

S98. Ans.(c)

Sol. The correct answer is (c) Awami League

Sheikh Hasina led the Awami League to victory in the recent election in Bangladesh. This marks her fifth term overall as the Prime Minister and the fourth consecutive term for her in this position.

About Bangladesh:

- Bangladesh, to the east of India on the Bay of Bengal, is a South Asian country.
- Capital: Dhaka
- Currency: Bangladeshi Taka
- Prime minister: Sheikh Hasina
- President: Mohammed Shahabuddin

S99. Ans.(b)

Sol. Correct answer is (b)

Tropical Cyclone Alvaro made landfall in southwest Madagascar on January 1st, 2024, marking the first significant cyclone impact on the island nation in the ongoing 2023-2024 cyclone season for the southwest Indian Ocean region.

S100. Ans.(d)

Sol. The answer is (d) January 10th.

World Hindi Day is celebrated annually on January 10th to commemorate the first time Hindi was spoken at the United Nations General Assembly in 1949. It is a day to recognize the cultural significance and global influence of the Hindi language.

- It was first celebrated in 2006.
- It is organized by the Ministry of External Affairs of the Government of India.
- It is celebrated in India and in countries around the world with Hindi-speaking communities.

S101. Ans.(c)**Sol.**Sum of temperature from Sunday to Wednesday = $46^\circ \times 4 = 184^\circ$ Sum of temperature from Monday to Thursday = $52^\circ \times 4 = 208^\circ$ Difference in temperature on Sunday and Thursday = $208 - 184 = 24^\circ$

As, ratio of the temperature on Sunday and Thursday is 4:7

So, temperature on Sunday is $4x$ and on Thursday is $7x$ Difference in temperature, $3x = 24^\circ \rightarrow x = 8^\circ$ So, Temperature on Thursday = $7x = 56^\circ$ **S102. Ans.(c)****Sol.**

$$\frac{\left[\left(u - \frac{1}{u}\right)\left(u^2 + \frac{1}{u^2}\right)\left(u^4 + \frac{1}{u^4}\right)\left(u^8 + \frac{1}{u^8}\right)\left(u^{16} + \frac{1}{u^{16}}\right)\left(u^{32} + \frac{1}{u^{32}}\right)\right]}{\left(u^{64} - \frac{1}{u^{64}}\right)}$$

Multiply and divide by $\left(u + \frac{1}{u}\right)$

$$\frac{\left[\left(u + \frac{1}{u}\right)\left(u - \frac{1}{u}\right)\left(u^2 + \frac{1}{u^2}\right)\left(u^4 + \frac{1}{u^4}\right)\left(u^8 + \frac{1}{u^8}\right)\left(u^{16} + \frac{1}{u^{16}}\right)\left(u^{32} + \frac{1}{u^{32}}\right)\right]}{\left(u + \frac{1}{u}\right)\left(u^{64} - \frac{1}{u^{64}}\right)}$$

By using this identity = $(a + b)(a - b) = (a^2 - b^2)$

$$\frac{\left[\left(u^2 - \frac{1}{u^2}\right)\left(u^2 + \frac{1}{u^2}\right)\left(u^4 + \frac{1}{u^4}\right)\left(u^8 + \frac{1}{u^8}\right)\left(u^{16} + \frac{1}{u^{16}}\right)\left(u^{32} + \frac{1}{u^{32}}\right)\right]}{\left(u + \frac{1}{u}\right)\left(u^{64} - \frac{1}{u^{64}}\right)}$$

$$\frac{\left[\left(u^4 - \frac{1}{u^4}\right)\left(u^4 + \frac{1}{u^4}\right)\left(u^8 + \frac{1}{u^8}\right)\left(u^{16} + \frac{1}{u^{16}}\right)\left(u^{32} + \frac{1}{u^{32}}\right)\right]}{\left(u + \frac{1}{u}\right)\left(u^{64} - \frac{1}{u^{64}}\right)}$$

$$\frac{\left[\left(u^8 - \frac{1}{u^8}\right)\left(u^8 + \frac{1}{u^8}\right)\left(u^{16} + \frac{1}{u^{16}}\right)\left(u^{32} + \frac{1}{u^{32}}\right)\right]}{\left(u + \frac{1}{u}\right)\left(u^{64} - \frac{1}{u^{64}}\right)}$$

$$\frac{\left[\left(u^{16} - \frac{1}{u^{16}}\right)\left(u^{16} + \frac{1}{u^{16}}\right)\left(u^{32} + \frac{1}{u^{32}}\right)\right]}{\left(u + \frac{1}{u}\right)\left(u^{64} - \frac{1}{u^{64}}\right)}$$

$$\frac{\left[\left(u^{32} - \frac{1}{u^{32}}\right)\left(u^{32} + \frac{1}{u^{32}}\right)\right]}{\left(u + \frac{1}{u}\right)\left(u^{64} - \frac{1}{u^{64}}\right)}$$

$$\frac{\left[\left(u^{64} - \frac{1}{u^{64}}\right)\right]}{\left(u + \frac{1}{u}\right)\left(u^{64} - \frac{1}{u^{64}}\right)}$$

$$\frac{\left[\left(u^{64} - \frac{1}{u^{64}}\right)\right]}{\left(u + \frac{1}{u}\right)\left(u^{64} - \frac{1}{u^{64}}\right)} = \frac{1}{u + \frac{1}{u}} = \frac{u}{u^2 + 1}$$

S103. Ans.(c)**Sol.**

Point G is on BD, So, BD is circum – radius

$$\text{Circum radius} = \frac{\text{Hypotenuse}}{2} = \frac{17}{2} \text{ cm}$$

And we know that centroid divides the line in the ratio of 2: 1

$$BG = \left(\frac{17}{2}\right) \times \left(\frac{2}{3}\right) = \frac{17}{3} \text{ cm} = 5\frac{2}{3} \text{ cm}$$

S104. Ans.(b)**Sol.**

$$\sqrt{288.92} \times \sqrt[3]{63.96} \div (5.01 \times 2.001) + (\sqrt{25.01} \times \sqrt[3]{8.01}) + 9.90$$

First Step: Write the value in nearest integers.

$$\sqrt{289} \times \sqrt[3]{64} \div (5 \times 2) + (\sqrt{25} \times \sqrt[3]{8}) + 10$$

$$17 \times \frac{4}{10} + 5 \times 2 + 10 = 6.8 + 10 + 10 = 26.8 \sim 27$$

S105. Ans.(b)**Sol.**

	p	:	q	:	r	:	s
	4	:	5	:	5	:	5
	3	:	3	:	4	:	4
After	2	:	2	:	2	:	5
Multiply all	24 : 30 : 40 : 100						

Required ratio – 24 : 100 = 6 : 25

S106. Ans.(b)**Sol.**

Factor of 15 = 5 × 3

Factor of 25 = 5 × 5

Factor of 35 = 5 × 7

LCM of 15, 25 and 35 = 5 × 5 × 3 × 7 = 525

We need to divide $\frac{9999}{525}$ then remainder is 24

So, Greatest number of four digits which is exactly divisible by 15, 25 and 35 = 9999-24= 9975

S107. Ans.(b)

Sol. The angles subtended by the same arc at different points on the circumference of a circle are always equal. This is known as the Angle Subtended by the Same Arc Theorem. The angles will be equal regardless of where they are positioned on the circumference, as long as they are subtended by the same arc.

S108. Ans.(d)**Sol.**

$$(2)^{3 \times 10} - 1 = 8^{10} - 1$$

$$8^{10} - 1 \text{ is divisible by } 7 \text{ then remainder } (1)^{10} - 1 = 0$$

S109. Ans.(b)

Sol.

Quantity Y

$$720 \div 24 + 169 = y + 324 \div 18$$

$$30 + 169 = y + 324 \div 18$$

$$199 = y + 18$$

$$y = 181$$

Quantity Z:

$$3150 - 650 + 750 = 4y + 100 \times 12$$

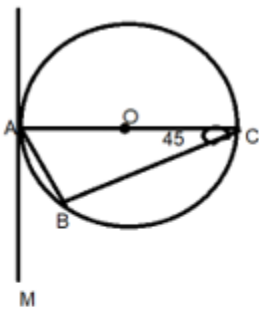
$$3250 = 4y + 1200$$

$$y = 512.5$$

So, Quantity Z > Quantity Y

S110. Ans.(b)

Sol.



$\angle ABC = 90^\circ$ (Angle made by diameter on the arc of the circle)

In triangle ABC

$$\angle ABC + \angle ACB + \angle BAC = 180^\circ$$

$$90^\circ + 45^\circ + \angle BAC = 180^\circ$$

$$\angle BAC = 45^\circ$$

$$\angle CAM = 90^\circ$$

$$\angle BAC + \angle BAM = 90^\circ$$

$$45^\circ + \angle BAM = 90^\circ$$

$$\angle BAM = 45^\circ$$

S111. Ans.(b)

Sol.

Let the average weight of 40 dancers be x.

Let weight of new dancer be y,

ATQ,

$$40x - 45 + y = 40(x + 1)$$

$$40x - 45 + y = 40x + 40$$

$$y = 40 + 45 = 85 \text{ kg}$$

S112. Ans.(a)

Sol.

When two items at same SP but one at a profit of x% and

other at a loss of x%, then always loss = $\frac{x^2}{100}$

By using the same in the above question,

$$\text{Overall loss} = \frac{30 \times 30}{100} = 9\% \text{ loss}$$

S113. Ans.(c)**Sol.**

The number of students who scored between 50% to less than 60% = 30

The number of students who scored between 80% to less than 90% = 40

Difference = 40-30 = 10

Required % = $\frac{10}{250} \times 100 = 4\%$ **S114. Ans.(b)****Sol.**

Number of students who scored more than 70% = 65 + 40 + 25 = 130

Number of students who scored less than 50% = 10

Required Ratio = 130: 10 = 13: 1

S115. Ans.(a)**Sol.**Product of two number = l. c. m \times h. c. f $p \times q = \text{l. c. m} \times c$ $p \times cd = \text{l. c. m} \times c$

l.c.m = pd

S116. Ans.(b)**Sol.**If $\sin A \cos B = 1$ then $A + B = 90$ degree and Similarly, $\tan A \tan B = 1$ then $A + B = 90$ degree $\sin 33^\circ \cos 57^\circ + \sec 62^\circ \sin 28^\circ + \cos 33^\circ \sin 57^\circ + \cos \text{ec} 62^\circ \cos 28^\circ$ $+ \tan 15^\circ \tan 35^\circ \tan 45^\circ \tan 55^\circ \tan 75^\circ$ $1 + 1 + 1 + 1 + 1 = 5$ **S117. Ans.(b)****Sol.**

Let the value of n be 18, when it is divided by 13, it gives remainder 5.

When $n^2 + 7 = 324 + 7 = 331$ is divided by 13, then remainder 6**S118. Ans.(a)****Sol.** Divisibility rule of 6 = If a number is divisible by 2 and 3 the number is divisible by 6.

Divisibility rule of 4 = If the last two digits of a number are divisible by 4, then that number is a multiple of 4 and is divisible by 4 completely.

So, by using option (b) and (d) the given number is divisible by 4. Hence, option (b and d) are wrong.

Now, by using option (a), 53742 is divisible by 6 but not by 4. Because the sum of the digits of the 53742 is divisible by 3.

S119. Ans.(c)**Sol.**

Z	X	Y
5	2	
	3	4

Investment Ratio 15 : 6 : 8

Total Profit = 29 unit

29 unit = 87000

1 unit = 3000

Y's profit = Rs. 24000

S120. Ans.(b)

Sol.

$$x + y = \sqrt{21} \text{ and } x - y = \sqrt{17}$$

Squaring both sides

$$x^2 + y^2 + 2xy = 21 \dots\dots\dots (1)$$

$$x^2 + y^2 - 2xy = 17 \dots\dots\dots (2)$$

On adding equation (1 and 2), we get

$$x^2 + y^2 = 19$$

On subtracting equation (1 and 2), we get

$$xy = 1$$

$$\text{value of } (yx^3 + xy^3) = xy(x^2 + y^2) = 1 \times 19 = 19$$

S121. Ans.(b)

Sol.

Average of first n even positive number = $n+1$

So, Average of first 998 even positive number = $998+1 = 999$

Average of first n odd positive number = n

So, Average of first 898 odd positive number = 898

Required Difference = $999 - 898 = 101$

S122. Ans.(c)

Sol.

Profit = S.P. - C.P.

$$15S.P. = 50 \text{ S.P.} - 50 \text{ C.P.}$$

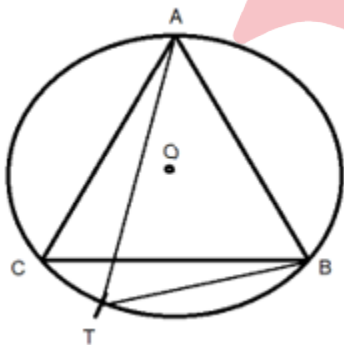
$$35S.P. = 2000$$

$$\text{S.P. of 1 metre cloth} = \frac{2000}{35}$$

$$\text{S.P. of 70 metre cloth} = \frac{2000}{35} \times 70 = 4000$$

S123. Ans.(b)

Sol.



All the three angles in an triangle are 60°

So, $\angle ACB = 60^\circ$

Angle made by the same arc on the circumference of the circle are equal.

In the given figure $\angle ACB$ and $\angle ATB$ are made by the same arc AB.

So, $\angle ACB = \angle ATB = 60^\circ$

$$\frac{1}{4} \angle ATB = \frac{1}{4} \times 60^\circ = 15^\circ$$

S124. Ans.(b)

Sol.

Total Amount = 64000 + 61000 = Rs. 125000

$$\text{Amount} = \text{Principal} \left(1 + \frac{\text{rate}}{100}\right)^{\text{time}}$$

$$125000 = 64000 \left(1 + \frac{\text{rate}}{100}\right)^3$$

$$\frac{125000}{64000} = \left(1 + \frac{\text{rate}}{100}\right)^3$$

$$\frac{5}{4} = 1 + \frac{\text{rate}}{100}$$

$$\text{Rate} = 25\%$$

S125. Ans.(d)

Sol.

If $\sec A = \text{cosec } B$, then $A+B = 90$ degree

$$\sec(5A-15^\circ) = \text{cosec}(15^\circ-2A)$$

$$5A-15+15^\circ-2A = 90^\circ$$

$$3A = 90^\circ$$

$$A = 30^\circ$$

$$\text{Value of } \cos 2A = \cos 60^\circ = \frac{1}{2}$$

S126. Ans.(c)

Sol.

When two triangles are similar to each other, then

$$\frac{\text{Area of Triangle XYZ}}{\text{Area of Triangle DEF}} = \left(\frac{XA}{DG}\right)^2$$

$$\frac{49}{144} = \left(\frac{XA}{12}\right)^2$$

$$XA = 7 \text{ cm}$$

S127. Ans.(b)

Sol.

Let the efficiency of Karan = 2 unit per day

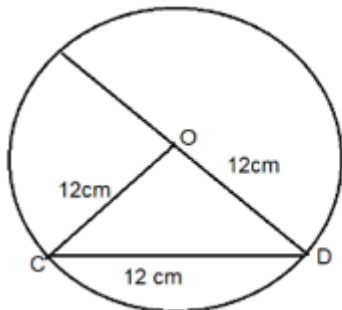
$$\text{Then, the efficiency of Arjun} = 2 \times \frac{150}{100} = 3 \text{ unit per day}$$

$$\text{Total Work} = 15 \times 2 = 30 \text{ unit}$$

$$\text{Time taken by Arjun to finish the same work} = \frac{30}{3} = 10 \text{ days}$$

S128. Ans.(d)

Sol.



Since OD is the radius of the circle.

$$\text{Radius} = \frac{\text{Diameter}}{2} = \frac{24}{2} = 12 \text{ cm}$$

$$\text{OC} = \text{OD} = \text{CD} = 12 \text{ cm}$$

Hence, it is an equilateral triangle, So the angle subtended by the chord at the center of the circle = 60°

S129. Ans.(c)

Sol.

Total Work = LCM of 15, 60 and 6 = : 60 unit

Efficiency of Gaurav = 4 unit per day

Efficiency of Harish = 1 unit per day

Efficiency of Gaurav, Harish and Ishaan = 10 unit per day

Efficiency of Ishaan = $10 - (4 + 1) = 5$ unit per day

Time taken by Ishaan to complete the same work = $\frac{60}{5} = 12$ days

S130. Ans.(b)

Sol.

Total sales of 'Non-Fiction' books for the first half of the year = $200 + 250 + 300 = 750$

Total sales of all book genres in June = $550 + 450 + 250 + 275 + 225 = 1750$

Difference = $1750 - 750 = 1000$

S131. Ans.(c)

Sol. In biography, there is no constant increase in the sale.

S132. Ans.(c)

Sol.

The average monthly sale for 'Academic' books

$$= \frac{(500 + 450 + 400 + 350 + 300 + 250)}{6} = \frac{2250}{6} = 375 \text{ books per month.}$$

S133. Ans.(a)

Sol.

Total Work = LCM of 12 and 24 = 24 unit

Efficiency of Priya = $\frac{24}{12} = 2$ unit per day

Efficiency of Neha = $\frac{24}{24} = 1$ unit per day

Amount of Neha = $\frac{1}{3} \times 9600 = \text{Rs. } 3200$

S134. Ans.(c)

Sol.

$$\tan^2 60^\circ - 2 \sin^2 45^\circ + \cos 60^\circ + \sin^2 60^\circ$$

$$(\sqrt{3})^2 - 2 \times \left(\frac{1}{\sqrt{2}}\right)^2 + \frac{1}{2} + \left(\frac{\sqrt{3}}{2}\right)^2 = 3 - 1 + \frac{1}{2} + \frac{3}{4} = \frac{13}{4}$$

S135. Ans.(c)

Sol.

$$\angle R = 180^\circ - (\angle O + \angle P) = 180^\circ - 90^\circ = 90^\circ$$

$$\sin R = \sin 90^\circ = 1$$

S136. Ans.(b)

Sol.

Let the original price of gasoline be $100x$

New Price of gasoline be $=100x + 40\% \text{ of } 100x = 140x$

Percentage reduced by $= \frac{40x}{140x} \times 100 = 28.57\%$

S137. Ans.(c)

Sol. As one male is married to one female, so the married population of both the male and female are equal. Then,

$30\% \text{ of } M = 20\% \text{ of } F$

$$\frac{M}{F} = \frac{20}{30}$$

Let the total population of male be $20x$ and female be $30x$

Percentage of the total population is married

$$= \frac{30\% \text{ of } 20x + 20\% \text{ of } 30x}{20x + 30x} = \frac{12}{50} \times 100 = 24\%$$

S138. Ans.(a)

Sol.

If Suman do 10% of project = 2 days

Then Suman can do 100% of the project = 20 days

If Amit can do one-fourth of the same project = 4 days

Then Amit can complete the whole project = 16 days

Total Work = LCM of 20 and 16 = 80 unit

Efficiency of Amit $= \frac{80}{15} = 5 \text{ unit per day}$ and Suman $= \frac{80}{20} = 4 \text{ unit per day}$

Work done by Amit and Suman in 2 days $= (5 + 4) \times 2 = 18 \text{ unit}$

Remaining work $= 80 - 18 = 62 \text{ unit}$

Time taken by Suman to complete the 62 unit of work $= \frac{62}{4} = \frac{31}{2} = 15.5 \text{ days}$

So total time to complete the work project $= 15.5 + 2 = 17.5 \text{ days}$

S139. Ans.(a)

Sol. In 2015 $= 280 - 160 = 60$ is the highest growth in student enrollment compared to the previous year.

S140. Ans.(b)

Sol.

Average number of students enrolled in Institute B from 2014 to 2018

$$= \frac{225 + 360 + 375 + 325 + 225}{5} = 302$$

S141. Ans.(c)

Sol.

Amount of salt in the solution $= \frac{20}{100} \times 40 = 8 \text{ litres}$

Amount of water in the solution $= 40 - 8 = 32 \text{ litres}$

As, after evaporating water, the amount of solution left = 32 litres

So the amount of salt before and after remains same = 8 litres

Amount of water in the final solution $= 32 - 8 = 24 \text{ litres}$

Required % $= \frac{8}{24} \times 100 = \frac{1}{3} \times 100 = 33.33\%$

S142. Ans.(c)

Sol.

Outer radius(R) = 14 metres

So, inner radius (r) = 14-2 = 12 metres

Area of the path = $\pi(R^2 - r^2) = \pi(196 - 144) = 52\pi$

S143. Ans.(a)

Sol.

Maximum Height of the cylinder = Edge of cube = 8 cm

Diameter of cylinder = 8 cm

Radius of the cylinder = $\frac{8}{2} = 4$ cm

Volume of cylinder = $\pi R^2 H = \frac{22}{7} \times 4^2 \times 8 = 402.28 \text{ cm}^3$

S144. Ans.(d)

Sol.

Volume of a frustum of a cone = $\frac{1}{3}\pi h(r_1^2 + r_2^2 + r_1.r_2)$

Volume of a frustum of a cone = $\frac{1}{3} \times \frac{22}{7} \times 21(8^2 + 6^2 + 8 \times 6) = 22 \times 148 = 3256 \text{ cm}^3$

S145. Ans.(b)

Sol.

Let the total distance be 3D km.

Average Speed = $\frac{\text{Total distance}}{\text{Total time}}$

$$\frac{3D}{\frac{D}{30} + \frac{D}{40} + \frac{D}{60}} = \frac{3D}{\frac{4D + 3D + 2D}{120}} = \frac{3D}{\frac{9D}{120}} = 40 \text{ km/hr}$$

S146. Ans.(a)

Sol. As the boatman moves in the direction of water, So it means it is the case of downstream

Downstream Speed = 10+3=13 km/hr

Time taken to cover the river = $\frac{6.5}{13} = 0.5 \text{ hr}$

S147. Ans.(c)

Sol.

Let the total distance = 2x km

$$\frac{x}{40} + \frac{x}{50} = 18$$

$$\frac{9x}{200} = 18$$

$$x = 400 \text{ km}$$

Total distance = 2x = 800 km

S148. Ans.(b)

Sol.

For 2012, the total production = 46+50+43+47+48=234 thousand cars.

For 2013, the total production = 53+65+54+52+58=282 thousand cars.

For 2014, the total production = 56+67+55+61+63=302 thousand cars.

For 2015, the total production = 58+66+47+65+64=300 thousand cars.

For 2016, the total production = 67+72+51+74+67=331 thousand cars.

S149. Ans.(b)**Sol.**

$$\text{For Car A, percentage increase} = \frac{67 - 46}{46} \times 100\% \approx 45.65\%$$

$$\text{For Car B, percentage increase} = \frac{72 - 50}{50} \times 100\% = 44\%$$

$$\text{For Car C, percentage increase} = \frac{51 - 43}{43} \times 100\% \approx 18.60\%$$

$$\text{For Car D, percentage increase} = \frac{74 - 47}{47} \times 100\% \approx 57.45\%$$

$$\text{For Car E, percentage increase} = \frac{67 - 48}{48} \times 100\% \approx 39.58\%$$

S150. Ans.(d)**Sol.**

For 2015, the total production = 58+66+47+65+64=300 thousand cars.

$$\text{Average} = \frac{300}{5} = 60$$

S151. Ans.(b)

Sol. The correct form of the verb is "refused" because the action happened in the past. The sentence describes an action that took place in the past, thus "refused" is appropriate.

Meanings of other options:

- **Refuses:** Present tense form indicating denial or refusal.
- **Refuse:** Base form of the verb indicating denial or refusal.
- **Refusing:** Present participle form of the verb used for continuous tenses.

S152. Ans.(c)

Sol. The correct synonym of the given word "Iota" is "Bit".

Iota: A very small amount.

Synonyms: **Bit**, Speck, Atom, Particle.

Antonyms: Lot, Whole, Totality, Bulk.

Meanings of all options:

- **Continue:** To carry on or proceed.
- **Quit:** To stop or cease.
- **Bit:** A small piece or amount.
- **Endure:** To suffer patiently.

S153. Ans.(b)

Sol. The correct synonym of the given word "Abstruse" is "Obscure".

Abstruse: Difficult to understand; obscure.

Synonyms: **Obscure**, Complex, Complicated, Enigmatic.

Antonyms: Clear, Simple, Understandable, Obvious.

Meanings of all options:

- **Clear:** Easy to understand.
- **Obscure:** Not clear or distinct; hidden.
- **Simple:** Easily understood; not complicated.
- **Known:** Recognized or understood.

S154. Ans.(d)

Sol. No correction required.

The original sentence "He has a penchant for playing under the sun, which is why he looks so tanned" is grammatically correct and conveys the intended meaning effectively.

S155. Ans.(d)

Sol. Option (d) is the correct meaning of the given idiom "Let the chips fall where they may".

Given Idiom: Let the chips fall where they may.

Meaning: Let something happen without worrying about the consequences.

Example: I've done my best to prepare for the exam, now I'll just let the chips fall where they may.

S156. Ans.(b)

Sol. Option (b) contains an error.

The verb "lacks" should be "lack" to agree with the plural subject "arguments".

S157. Ans.(b)

Sol. The correct synonym of the given word "Garner" is "accumulate".

Garner: To gather or collect.

Synonyms: **Accumulate**, Collect, Amass, Gather.

Antonyms: Scatter, Disperse, Dissipate, Squander.

Meanings of all options:

- **Scatter:** To throw or spread things over an area.
- **Accumulate:** To gather or pile up.
- **Disperse:** To distribute or spread over a wide area.
- **Squander:** To waste something in a reckless and foolish manner.

S158. Ans.(b)

Sol. The correct synonym of the given word "Deplore" is "Regret".

Deplore: To express strong disapproval of.

Synonyms: **Regret**, Condemn, Denounce, Lament.

Antonyms: Approve, Praise, Celebrate, Welcome.

Meanings of all options:

- **Harmful:** Causing or likely to cause harm.
- **Regret:** To feel sorry about a situation, especially something sad or wrong.
- **Insignificant:** Not important or noteworthy.
- **Helpful:** Providing assistance or serving a useful function.

S159. Ans.(a)

Sol. Option (a) is the correct meaning of the given idiom "Wet his whistle".

Given Idiom: Wet his whistle.

Meaning: To take a drink, especially of alcohol.

Example: After a long day of work, he went to the bar to wet his whistle.

S160. Ans.(b)

Sol. The correct one-word for the given group of words is Paleography.

Paleography: The study of ancient writing systems and the deciphering of historical records.

Meanings of other options:

- **Cryptography:** The art of writing or solving codes.
- **Calligraphy:** The art of producing decorative handwriting or lettering with a pen or brush.
- **Graphology:** The study of handwriting, especially when regarded as an expression of the writer's character, personality, and abilities.

S161. Ans.(a)

Sol. The correct word to fill in the blank is "announced".

"Announced" is the correct past participle form to use in the passive voice, indicating that the action (announcing a verdict) was completed by someone else (the jury).

Meanings of all options:

- **Announced** - Past participle of announce, used here to indicate the completion of the action in passive voice.
- **Announce** - Base form of the verb, used for present simple or imperative.
- **Announcing** - Present participle of announce, used for continuous tenses.
- **Announces** - Third person singular present tense of announce.

S162. Ans.(c)

Sol. The correct form of the verb to fill in the blank is "had".

"Had" is appropriate as it indicates that the action (the start of the play) was completed before another past action (our arrival). This use of the past perfect tense properly sequences the events.

Meanings of all options:

- **Has** - Present perfect tense, used for actions completed at the moment of speaking or continued to the present.
- **Have** - Base form of the auxiliary verb, used with plural subjects in the present tense.
- **Had** - Past perfect tense, used to denote that an action was completed before another in the past.
- **Having** - Present participle, used in continuous tenses and after verbs of perception.

S163. Ans.(c)

Sol. The correct spelling is "Accommodation".

"Accommodation" is spelled with two 'c's and two 'm's.

Accommodation - Correct spelling for a room, group of rooms, or building in which someone may live or stay.

S164. Ans.(a)

Sol. The correct one-word substitution for the given phrase is "Stoic".

A "**Stoic**" is someone who endures pain or hardship without showing their feelings or complaining, fitting the description of being indifferent to pleasure or pain.

Meanings of other options:

- **Enthusiast** - A person who is very interested in a particular activity or subject.
- **Cynic** - A person who believes that people are motivated purely by self-interest rather than acting for honorable or unselfish reasons.
- **Epicurean** - A person devoted to sensual enjoyment, especially that derived from fine food and drink.

S165. Ans.(a)

Sol. The correct option to fill in the blank is "be".

The use of "be" in the subjunctive mood is appropriate here, as it expresses a demand or a necessity in a formal or authoritative statement made by the CEO.

Meanings of all options:

- **Be** - Base form of the verb used in imperative and subjunctive moods.
- **Is** - Present tense third person singular form of 'be'.
- **Was** - Simple past tense of 'be', used for singular subjects.
- **Are** - Present tense plural form of 'be'.

S166. Ans.(d)

Sol. The correct option to fill in blank no. 1 is "clever". The context of the sentence implies acknowledging consumer intelligence and insight.

Meanings of all options:

- **Creative:** Having the ability to create, characterized by originality of thought.
- **Leading:** Foremost, in a leading position.
- **Original:** Present or existing from the beginning; first or earliest.
- **Regard:** attention to or concern for something.

S167. Ans.(b)

Sol. The correct option to fill in blank no. 2 is "through".

It indicates the method or process by which awareness is spread nationwide.

Meanings of all options:

- **Separate:** To set or keep apart.
- **Unique:** Being the only one of its kind; unlike anything else.
- **Dull:** Lacking interest or excitement.

S168. Ans.(d)

Sol. The correct option to fill in blank no. 3 is "some". It refers to a certain amount or number of rights being advocated for without specifying exactly how many.

Meanings of all options:

- **More:** A greater or additional amount or degree of.
- **Much:** A large amount of.
- **Any:** Used to refer to one or some of a thing or number of things, no matter how much or many.
- **Some:** An unspecified amount or number of.

S169. Ans.(d)

Sol. The correct option to fill in blank no. 4 is "the". It suggests that events and workshops are conducted throughout the country, indicating coverage or duration.

Meanings of all options:

- **With:** Accompanied by (another person or thing).
- **By:** Identifying the agent performing an action.
- **Of:** Expressing the relationship between a part and a whole.

S170. Ans.(d)

Sol. The correct option to fill in blank no. 5 is "influencing". It indicates that the goal is to affect consumers' decision-making processes positively.

Meanings of all options:

- **Determining:** Having made a firm decision and being resolved not to change it.
- **Altered:** Changed in character or composition, typically in a comparatively small but significant way.
- **Attached:** Joined, fastened, or connected to something.
- **Influencing:** Having an effect on the character, development, or behavior of someone or something.

S171. Ans.(a)

Sol. The correct option to complete the sentence is "led" as it correctly matches the tense and context, indicating past actions leading to multiple interpretations.

Meanings of other options:

- **Lead:** To guide or direct in a course.
- **Have led:** Past perfect tense form of "lead", not fitting the sentence structure here.
- **Leads:** Present tense form of "lead", not suitable due to the past context of "were".

S172. Ans.(b)

Sol. Option (b) is the correct meaning of the given idiom "Wiped the nose".

Given Idiom: Wiped the nose.

Meaning: To face a painful situation bravely.

Example: He wiped his nose and dealt with the difficulties without complaining.

S173. Ans.(b)

Sol. The correct one-word for the given group of words is Limnophile.

A Limnophile is someone who loves lakes and is drawn to them.

Meanings of other options:

- **Bibliophile:** A person who collects or has a great love for books.
- **Numismatist:** A person who collects or studies coins, banknotes, and medals.
- **Philatelist:** A person who collects or studies stamps.

S174. Ans.(a)

Sol. The correct antonym of the given word "Phlegmatic" is "Ardent".

Phlegmatic: Calm, unemotional.

Synonyms: Unflappable, Imperturbable, Stoic, Unexcitable.

Antonyms: **Ardent**, Enthusiastic, Excitable, Passionate.

Meanings of all options:

- **Ardent:** Very enthusiastic or passionate.
- **Lavish:** Sumptuously rich, elaborate, or luxurious.
- **Sparing:** Moderate; economical.
- **Global:** Relating to the whole world; worldwide.

S175. Ans.(b)

Sol. Option (b) contains an error.

"Equipments" is incorrect because "equipment" is uncountable and does not have a plural form. The correct phrase is "equipment needs".

S176. Ans.(c)

Sol. The correct antonym of the given word "Ephemeral" is "Permanent".

Ephemeral: Lasting for a very short time.

Synonyms: Transient, Fleeting, Momentary, Short-lived.

Antonyms: **Permanent**, Everlasting, Enduring, Eternal.

Meanings of all options:

- **Transient:** Lasting only for a short time; impermanent.
- **Fleeting:** Lasting for a very short time.
- **Permanent:** Lasting or intended to last or remain unchanged indefinitely.
- **Momentary:** Lasting for a very short time.

S177. Ans.(b)

Sol. Option (b) is correctly spelt word.

Correct spelling is: "Harassment".

- **Harassment:** Aggressive pressure or intimidation.

S178. Ans.(b)

Sol. The correct synonym of the given word "Prolific" is "fruitful".

Prolific: Producing much fruit or foliage or many offspring.

Synonyms: **Fruitful**, Productive, Creative, Fertile.

Antonyms: Barren, Unproductive, Infertile, Sterile.

Meanings of all options:

- **Barren:** Not producing anything such as crops or offspring.
- **Fruitful:** Producing good or helpful results; productive.
- **Sparse:** Thinly dispersed or scattered.
- **Scant:** Barely sufficient or adequate.

S179. Ans.(c)

Sol. The correct option to fill in the blank is "electrifying", indicating that the crowd was excited and full of energy.

Meanings of other options:

- **Electric:** Relating to electricity; exciting.
- **Electrified:** Made to feel thrilled or exhilarated.
- **Electricity:** A form of energy resulting from the existence of charged particles.

S180. Ans.(a)

Sol. Option (a) contains an error.

The use of "Did you ever see" is not standard English for asking about someone's past experiences in a general sense.

It should be "Have you ever seen" to correctly use the present perfect tense, which is appropriate for experiences at an unspecified time before now.

S181. Ans.(d)

Sol. Option (d) is the correct meaning of the given idiom "Late in the day".

Given Idiom: Late in the day.

Meaning: Too late to be of any use or to matter.

Example: He tried to change his decision, but it was late in the day to alter the outcome.

S182. Ans.(a)

Sol. The correct one-word for the given group of words is "Itinerary".

An **itinerary** is a detailed plan for a journey, especially a list of places to visit; plan of travel.

Meanings of other options:

- **Brochure:** A small book or magazine containing pictures and information about a product or service.
- **Manifesto:** A public declaration of policy and aims, especially one issued before an election by a political party or candidate.
- **Agenda:** A list of items to be discussed at a formal meeting.

S183. Ans.(d)

Sol. The correct antonym of the given word "Fondest" is "Cold".

Fondest: Having a great affection or liking for.

Synonyms: Affectionate, Loving, Warm, Tender.

Antonyms: **Cold**, Indifferent, Unfriendly, Aloof.

Meanings of all options:

- **Wordy:** Using or expressed in too many words.
- **Excited:** Very enthusiastic and eager.
- **Loquacious:** Tending to talk a great deal; talkative.
- **Cold:** Lacking affection or warmth of feeling; unemotional.

S184. Ans.(b)

Sol. The correct word to fill in the blank is "admonished".

Critics have often admonished the director for his inability to end movies conclusively.

Meanings of other options:

- **Praised:** Expressed warm approval or admiration of.
- **Lauded:** Praised (a person or their achievements) highly.
- **Glorified:** Describe or represent as admirable, especially unjustifiably.

S185. Ans.(c)

Sol. The correct synonym of the given word "Volatile" is "explosive".

Volatile: Liable to change rapidly and unpredictably, especially for the worse.

Synonyms: **Explosive**, Unpredictable, Changeable, Unstable.

Antonyms: Stable, Constant, Steady, Unchanging.

Meanings of all options:

- **Stable:** Not likely to give way or overturn; firmly fixed.
- **Evaporating:** Turning from liquid into vapor.
- **Fixed:** Fastened securely in position.
- ☑ **Explosive:** able or likely to shatter violently or burst apart.

S186. Ans.(b)

Sol. Option (b) "beneficiary" is incorrectly spelt word.

Correct spelling is: "beneficiary".

Meanings of all options:

- **Acquiesce:** Accept something reluctantly but without protest.
- **Beneficiary:** A person who derives advantage from something, especially a trust, will, or life insurance policy.
- **Cemetery:** A burial ground, especially one not in a churchyard.
- **Definitely:** Without doubt (used for emphasis).

S187. Ans.(a)

Sol. The correct option to fill in the blank is (a) "nostalgia".

The old man looked at the photographs with nostalgia, remembering his youth.

Meanings of other options:

- **Happiness:** The state of being happy.
- **Sorrow:** A feeling of deep distress caused by loss, disappointment, or other misfortune suffered by oneself or others.
- **Anger:** A strong feeling of annoyance, displeasure, or hostility.

S188. Ans.(a)

Sol. The correct substitution of the highlighted words is "could barely".

The correct formation is "She could barely hide her disappointment," indicating she could hardly keep it concealed.

S189. Ans.(b)

Sol. Option (b) "whisper" is correctly spelt word.

S190. Ans.(b)

Sol. Option (b) contains an error.

The correct phrase is "that destroys" to agree with the singular noun "Verim".

S191. Ans.(b)

Sol. The correct synonym of the given word "Gaunt" is "Skinny".

Gaunt: (of a person) lean and haggard, especially because of suffering, hunger, or age.

Synonyms: **Skinny**, Emaciated, Bony, Skeletal.

Antonyms: Plump, Fat, Overweight, Healthy.

Meanings of all options:

- **Indifferent:** Having no particular interest or sympathy; unconcerned.
- **Skinny:** Very thin.
- **Interested:** Showing curiosity or concern about something or someone; having an interest in something.
- **Passionate:** Showing or caused by strong feelings or a strong belief.

S192. Ans.(a)

Sol. The correct option to fill in the blank is (a) "invest".

Despite his initial doubts, he decided to invest in the project.

Meanings of other options:

- **Divest:** Deprive (someone) of power, rights, or possessions.
- **Interest:** The feeling of wanting to know or learn about something or someone.
- **Ingest:** Take (food, drink, or another substance) into the body by swallowing or absorbing it.

S193. Ans.(c)

Sol. Option (c) is the correct meaning of the given idiom "Achilles' heel".

Given Idiom: Achilles' heel

Meaning: A fatal weakness in spite of overall strength, which can lead to downfall.

Example: Despite being an excellent programmer, his inability to work in a team was his Achilles' heel.

S194. Ans.(b)

Sol. The correct antonym of the given word "Placid" is (b) "tumultuous".

Placid: meaning of the given word is calm and peaceful.

Synonyms: serene, calm, peaceful, tranquil.

Antonyms: **tumultuous**, agitated, disturbed, turbulent.

Meanings of all options:

- **Serene:** calm, peaceful, and untroubled.
- **Tumultuous:** making a loud, confused noise; uproarious.
- **Calm:** not showing or feeling nervousness, anger, or other emotions.
- **Peaceful:** free from disturbance; tranquil.

S195. Ans.(b)

Sol. The correct option to fill in the blank is (b) "Eliminated".

In the context of streamlining operations, "eliminated" suggests that the company reduced the number of redundant positions to improve efficiency.

Meanings of other options:

- **Created:** Brought something into existence.
- **Moved:** Changed the place or position of something.
- **None of the above:** Indicates that none of the options listed is correct.

S196. Ans.(b)

Sol. The primary reason tropical evergreen forests are essential is because they contribute to the earth's climate stability by absorbing carbon dioxide and producing oxygen.

S197. Ans.(c)

Sol. What makes tropical evergreen forests distinct from other forest types is both their dense, green foliage and the high amount of rainfall they receive.

S198. Ans.(a)

Sol. The passage mentions that tropical evergreen forests are threatened by deforestation, agriculture expansion, and climate change, but not by conservation efforts. Therefore, (a) conservation efforts is the correct answer as it is not a threat to these forests.

S199. Ans.(b)

Sol. Tropical evergreen forests are important for millions of people because they are a source of food, medicine, and raw materials, crucial for their livelihoods.

S200. Ans.(c)

Sol. The passage's primary call to action is to engage in conservation efforts to preserve these ecosystems for future generations, ensuring the sustainability of the planet's biodiversity and climate.