

Verbal Ability in English

- Select the most appropriate synonym of the given word:
Eloquent
(a) Reserved (b) Articulate
(c) Mute (d) Reticent
- Choose the correct synonym of the head word from the four options given:
Enigma
(a) Puzzle (b) Clear
(c) Obvious (d) Simple
- Select the most appropriate ANTONYM of the given word:
Candid
(a) Deceptive (b) Honest
(c) Transparent (d) Open
- Choose the word that is closest in meaning to the given word:
Ravenous
(a) Hungry (b) Satiated
(c) Starved (d) Famished
- Select the option that can be used as a one-word substitute for the given group of words:
A long and tedious speech
(a) Monologue (b) Soliloquy
(c) Oratory (d) Harangue
- Choose from the four options, the word that best defines/substitutes the given phrase:
A person who avoids work or effort
(a) Slothful (b) Indolent
(c) Diligent (d) Idle
- Select the most appropriate meaning of the given idiom:
A bitter pill to swallow
(a) A difficult task to complete
(b) An unpleasant fact that must be accepted
(c) A remedy for an ailment
(d) A sweet surprise
- In the following question, out of the four given options, select the one which best expresses the meaning of the idiom/phrase:
A drop in the ocean

- (a) A significant contribution
(b) A minor part of a much larger problem
(c) A valuable treasure
(d) A large quantity of water
- Mark the part of the given sentence in which there is an error (of adjective, adverb, clause).
This road is the most shortest of all.
(a) This road is
(b) the most shortest
(c) of all
(d) No error
- Identify the segment that contains a grammatical error.
I earn/little money/than my/younger brother.
(a) little money (b) than my
(c) I earn (d) younger brother
- Find the part of the sentence with an error.
The number of obese (A)/people is really (B)/high in United States. (C)/No error (D)
(a) A (b) B
(c) C (d) D
- Identify the segment with a grammatical error.
The manager was referring about the previous instances of loss to the employees during his address.
(a) The manager was referring about
(b) the previous instances
(c) during his address
(d) of loss to the employees
- Mr. Kalpesh Mishra and Dr. Nath were spending a weekend in a University Town. _____ It was clear that something very unusual happened.
A. One evening, they received a visit of from an acquaintance Mr. Piyush Sharma.
B. Mr. Piyush Sharma was a tall, thin man of a nervous and excitable nature.
C. On that occasion he was in a state of great agitation.
D. They were staying in furnished rooms, close to the staircase.

Options:

- (a) CBAD (b) DABC
(c) ABCD (d) BACD

- Re-arrange the jumbled parts of the sentence.
Through their work and research _____ any out-of-the-box skills.
P: over the next ten years
Q: Chetana Charitable Trust understood
R: and were not acquiring
S: that children were not getting proper guidance
Options:
(a) PQSR (b) PSQR
(c) PQRS (d) QSPR
- Rearrange the jumbled parts of the sentence.
For some people patriotism _____ as much as to any one country.
P: today man belongs to the whole world
Q: should be condemned because
R: type of patriotism is an evil and it
S: means hatred for other countries, but this
Options:
(a) SRQP (b) PQSR
(c) RSPQ (d) QPSR
- Fill up the blank with the correct option to complete the sentence:
They will not go to Japan this year for a vacation, _____?
(a) didn't they (b) wont they
(c) dont they (d) will they
- Choose the appropriate option to complete the given sentence:
_____ his parent's disapproval, he joined this university.
(a) While (b) Despite
(c) Nonetheless (d) Until
- Choose the phrasal verb that best fits the blank in the given sentence:
The Royale Gardens is a pleasant place to _____.
(a) walk away
(b) walk out
(c) walk around
(d) walk off

19. Fill in the blank with the appropriate modal in the given sentence:

The battery of your phone is dead? No problem. You _____ use my phone.

- (a) should (b) will
(c) must (d) can

20. Choose the phrasal verb that best fits the blank in the given sentence:

The sun _____ on the weary travellers, forcing them to seek the shade of a tree.

- (a) beat against (b) beat up
(c) beat down (d) beat back

Directions (Q. No. 21-25): 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.

Khartal, also referred to as Kartal, kartah, Khar taal, khartaal, and khurtal, comes under the category of ___(1)___ of the self-sounding variety, where the properties of vibrator and resonator are combined by the instrument. This wooden clapper is a Ghana Vadya, which has discs or plates that ___(2)___ a clinking sound when bought together. It is traditionally made from Sheesham wood or teak ___(3)___ this produces the required nadam or sound. It is learned that the best Sheesham comes from the villages ___(4)___ Rajasthan. It is also difficult to find the right wood and is ___(5)___ expensive.

21. Which of these should be filled at (1) as per the context of the passage?
(a) Organology (b) Colophone
(c) Idiophones (d) Doggone
22. Which of these should be filled at (2) as per the context of the passage?
(a) Produces (b) Producing
(c) Produced (d) Produce
23. Which of these should be filled at (3) as per the context of the passage?
(a) Therefore (b) Since
(c) Hence (d) But
24. Which of these should be filled at (4) as per the context of the passage?
(a) Of (b) For
(c) In (d) At
25. Which of these should be filled at (5) as per the context of the passage?
(a) Most (b) Much
(c) Very (d) More

Directions (Q. No. 26-30): Read the passage below and answer the questions that follow.

A papal decree of 1493 had assigned all land in the New World west of 50 degrees W longitude to Spain and all the land east of that line to Portugal. Magellan offered to prove that the East Indies fell under Spanish authority. On September 20, 1519, Magellan set sail from Spain with five ships. More than a year later, one

of these ships was exploring the topography of South America in search of a water route across the continent. This ship sank, but the remaining four ships searched along the southern peninsula of South America. Finally they found the passage they sought near 50 degrees S latitude. Magellan named this passage the Strait of All Saints, but today it is known as the Strait of Magellan.

One ship deserted while in this passage and returned to Spain, so fewer sailors were privileged to gaze at that first panorama of the Pacific Ocean. Those who remained crossed the meridian now known as the International Date Line in the early spring of 1521 after 98 days on the Pacific Ocean. During those long days at sea, many of Magellan's men died of starvation and disease.

Later, Magellan became involved in an insular conflict in the Philippines and was killed in a tribal battle. Only one ship and 17 sailors under the command of the Basque navigator Elcano survived to complete the westward journey to Spain and thus prove once and for all that the world is round, with no precipice at the edge.

26. When did Magellan set sail from Spain?
(a) 1493 (b) 1519
(c) 1521 (d) 1523
27. What did Magellan ultimately prove?
(a) Magellan proved that the moon moves around the Earth.
(b) Magellan ultimately proved that the Earth was round.
(c) Magellan proved that the Earth has an edge.
(d) Magellan proved that the Sun moves the Earth.
28. What did Magellan name the passage he found?
(a) Strait of Spain
(b) Saints Strait
(c) Strait of All Saints
(d) Magellan Strait
29. What magnificent sight were few sailors privileged to witness for the first time?
(a) a sunset at the ocean
(b) first panorama of the Atlantic Ocean
(c) first panorama of the Pacific Ocean
(d) newly discovered islands
30. When did Magellan's crew cross the International Date Line?
(a) early spring of 1521
(b) early spring of 1522
(c) summer of 1521
(d) summer of 1522

Numerical Ability

31. A container contains 20 litres mixture in which there is 10% sulphuric acid. How much sulphuric acid is to be added to make the solution to contain 20% sulphuric acid?
(a) 2 liter (b) 1 liter
(c) 3.5 liter (d) 2.5 liter
32. The area of the circular base of the tent house is 462 m^2 , and its height is $7\sqrt{3} \text{ m}$. Then find the area (in m^2) of cloth required to cover the curved surface area of the conical tent.
(a) $462\sqrt{3}$ (b) $308\sqrt{3}$
(c) $334\sqrt{3}$ (d) 306
33. A man purchases two chairs for ₹ 4320. By selling one chair at a profit of 20% and the other at a loss of 12% he neither gains nor losses in the whole transaction. Find the cost price of each fan.
(c) ₹ 2650 & ₹ 1670
(b) ₹ 1620 & ₹ 2700
(c) ₹ 1780 & ₹ 2540
(d) ₹ 1870 & ₹ 2450
34. A sum becomes 7 times in 6 years at compound interest. In how many years the same sum will become 10 times?
(a) 6 (b) 10
(c) 9 (d) 7
35. If the difference between C.I. and S.I. for 2 years at 10% per annum equals 50. What is the sum of money?
(a) ₹ 2000 (b) ₹ 1000
(c) ₹ 2000 (d) ₹ 5000
36. $64^{(2n-1)} = (1024)^3$, then the value of n is:
(a) 6 (b) 5
(c) 3 (d) 7
37. Two cards are drawn at random from a pack of 52 cards. The probability that either both are Red or both are King is
(a) $\frac{430}{1343}$ (b) $\frac{335}{1426}$
(c) $\frac{360}{1456}$ (d) $\frac{330}{1326}$
38. P and Q can do a piece of work in 15 days, while Q and R can do the same in 12 days and R and P in 10 days. They all work together till 6th day, then P and R leave. How many more days will it be required for B to finish the remaining work?
(a) 18 days (b) 10 days
(c) 15 days (d) 25 days
39. A student scores 30% of marks and fails by 50 marks in the examination and another student scores 50% and scores 30 more marks. Find the maximum marks for the examination.
(a) 300 (b) 500
(c) 200 (d) 400

40. The angle in your wristwatch at 9 hours, 44 minutes will be
 (a) 24° (b) 25°
 (c) 29° (d) 28°
41. A sold something to B for 360 rupees with a 40% loss. B spent 90 rupees repairing it and selling C at the rate at which A would have gained 29%. Find the profit earned by B.
 (a) 156 rupees (a) 256 rupees
 (a) 354 rupees (a) 324 rupees
42. The diameter of a pizza is 14 cm; it will cost 280 rupees, and the diameter of other pizzas is 28 cm; it will cost 860 rupees. If the size of the pizza is directly proportional to the price, then find a discount on the second pizza.
 (a) 156 rupees (b) 256 rupees
 (c) 354 rupees (d) 324 rupees
43. Subhman sold an article to Rinku for ₹ 616 at a loss of 20% Rinku spent a sum of ₹ 180 on its transportation and sold it to Kishan at a price which would have given Subhman a profit of 28.56%. The percentage of gain for Rinku is:
 (a) 4.36% (b) 6.2%
 (c) 3.47% (d) 4.04%
44. The diagonal of a square is equal to the side of an equilateral triangle. If the area of the square is $22\sqrt{3}$ sq. cm. What is the area (in cm^2) of the equilateral triangle?
 (a) $55\sqrt{2}$ (b) $23\sqrt{3}$
 (c) 53 (d) 33
45. If $\frac{\sqrt[3]{2197} + \sqrt[3]{2744}}{3} = x\%$ of 50 then $x = ?$
 (a) 20 (b) 18
 (c) 22 (d) 24
46. A person goes from home to the office at 80% of his usual speed. After a 2-hour rest, he returns with the usual speed. If he covers 2000 km of distance during the whole journey, it takes 52 hours to complete it. Find the speed at which he goes to the office.
 (a) 10 m/s (b) 11 m/s
 (c) 12 m/s (d) 13 m/s
47. A man bought a horse and a carriage for ₹ 30,000. He sold the horse at a profit of 20% and the carriage at a loss of 10%. Finally he gains 2% on the whole. The cost of the horse is
 (a) ₹ 9,000 (b) ₹ 10,000
 (c) ₹ 12,000 (d) ₹ 15,000
48. The HCF of two numbers is one-twentieth of their LCM. If one of the numbers is 96 and the difference of the LCM and the HCF is 456, then what is the other number?
 (a) 48 (b) 120
 (c) 144 (d) 72

49. Average age of 12 students of a school is 23 years. The average age of students and their mathematics and science teacher is 35 years. If the age of science teacher is 15 years more than the age of mathematics teacher, then what is the age of mathematics teacher?
 (a) 98.5 years (b) 101.5 years
 (c) 100 years (d) 99.5 years
50. 49000 is divided among A, B and C in such a way that the share of A is the sum of B and $\frac{2}{5}$ of B's share, and the share of B is $\frac{3}{7}$ of the total share of A and C. What is the share of C?
 (a) ₹ 21000 (b) ₹ 20000
 (c) ₹ 13720 (d) ₹ 14700

General Awareness

51. Who presided over 1907 Indian National Congress Session at Surat ?
 (a) Ras Behari Ghosh
 (b) Dadabai Naoroji
 (c) B.G. Tilak
 (d) LalaLajpat Rai
52. The Council of Ministers during the time of Shivaji Maharaj was known as:
 (a) Agraharam (b) Navaratnas
 (c) Ashta Pradhan (d) Ashta Diggajas
53. Match the following
- | List-I | List-II |
|---------------------|----------------------|
| A. Gulbadan Begum | 1. Sakinat-ul-Auliya |
| B. Abul Fazl | 2. Humayun Nama |
| C. Nizamuddin Ahmad | 3. Tabaqat-i-Akbari |
| D. Dara Shikoh | 4. Ain-i-Akbar |
- (a) A - 1, B - 2, C - 3, D - 4
 (b) A - 2, B - 4, C - 3, D - 1
 (c) A - 3, B - 2, C - 1, D - 4
 (d) A - 2, B - 4, C - 1, D - 3
54. The rock which is made up of molten magma is :
 (a) Sedimentary (b) Igneous
 (c) Metamorphic (d) Extrusive Igneous
55. At what temperature the density of water is maximum?
 (a) 273°C (b) 0°C
 (c) 100°C (d) 4°C
56. Which country announced the introduction of the Debbie Hockley Medal to honour the outstanding female cricketer?
 (a) England (b) West Indies
 (c) Australia (d) New Zealand

57. Consider the following statements in respect of the Olympics:
- The first modern Olympic Games were held in 1896 in Athens (Greece).
 - The games were not held during World War II considering the turmoil across the world.
 - In 1940, Japan was to be the first Asian country to host the Olympics.
- Which of the above statement is/are correct?
 (a) 1 and 2 only (b) 1, 2, and 3
 (c) 2 and 3 only (d) 1 and 3 only
58. Which sport was introduced for the first time in the Commonwealth Games of 2022?
 (a) Breaking
 (b) Rope cycling
 (c) Women's cricket
 (d) All of these
59. National Research Centre for Agro-forestry is located at _____.
 (a) Agra (b) Kanpur
 (c) Lucknow (d) Jhansi
60. Which of the following is the folk music of Rajasthan?
 (a) Pandwani (b) Lotia
 (c) Chakri (d) Tappa
61. When is 'World Earth Day' celebrated?
 (a) 28 February (b) 21 March
 (c) 3 April (d) 22 April
62. Which Article of the Constitution deals with financial emergency?
 (a) Article 356 (b) Article 358
 (c) Article 362 (d) Article 360
63. Consider the following statements:
- The term of Prime Minister is five years.
 - The constitution provides that the President has to appoint the leader of the majority party in the Lok Sabha as Prime Minister.
 - Nominated members of the Rajya Sabha cannot become the Prime Minister.
- Which of the statements given above is/are incorrect?
 (a) 1 and 3 only
 (b) 2 and 3 only
 (c) 2 only
 (d) 1, 2 and 3
64. Bolometer is used to measure _____.
 (a) Air pressure
 (b) Height of cloud base
 (c) Electromagnetic Radiation
 (d) Specific Gravity of liquids

65. Consider the following statements regarding the AI Supercomputer 'AIRAWAT' and its significance in the context of India's AI endeavors:

I. AIRAWAT's recent ranking of 75th in the Top 500 Global Supercomputing List positions India as a leading nation in the field of AI supercomputing.

II. The AI Research Analytics and Knowledge Dissemination Platform (AIRAWAT) is a Proof of Concept (PoC) with a peak compute capacity of 410 AI Petaflops Mixed Precision, integrated with PARAM Siddhi-AI, contributing to India's ambitious National Program on AI (NPAI).

III. Meity has outlined plans to scale AIRAWAT to a compute capacity of 1,000 AI Petaflops Mixed Precision, aligning with Prime Minister Shri Narendra Modi's vision of leveraging technology and AI for the welfare of citizens and socio-economic growth.

Select the correct statement(s) from the options below:

- (a) I and II only
- (b) II and III only
- (c) I and III only
- (d) I, II, and III

66. Barak - 8 Missile (next generation) has been developed by India in collaboration with which of the following countries?

- (a) Israel
- (b) Russia
- (c) U.S.A
- (d) France

67. "Kavach" system introduced by Indian Railways is a/an _____.

- (a) Insurance scheme for passengers
- (b) Automatic crossing system
- (c) System to increase the speed of the trains
- (d) Automatic Train Protection System

68. Which of the following is the capital of Bulgaria?

- (a) Minsk
- (b) Sofia
- (c) Bridgetown
- (d) Zagreb

69. What is the country of origin of the winner of the 2023 International Booker Prize?

- (a) France
- (b) Sweden
- (c) Bulgaria
- (d) Denmark

70. Identify the airline that is a joint venture between Tata Sons and Singapore Airlines?

- (a) Air Pegasus
- (b) Air Asia India
- (c) Vistara Airlines
- (d) Turbojet Airways

71. Which is the highest peace time gallantry award in India?

- (a) Kirti Chakra
- (b) Mahavir Chakra
- (c) Param Vir Chakra
- (d) Ashok Chakra

72. From which country has India purchased Airborne Warning and Control System (AWACS)?

- (a) Russia
- (b) France
- (c) Israel
- (d) America

73. Which of the following pairs is not correctly matched?

- (a) Barak missile - ship-to-air, ship-to-surface
- (b) Nirbhay Missile - Naval, Land, Air
- (c) Nag Missile - Surface-to-surface and air-to-surface
- (d) None of the above

74. Match List-I with the correct options of List-II.

List-I (Name of Operation) **List-II (Related to)**

- | | |
|---------------------------|-------------------------------------------------------|
| I. Operation Nistar | A. Rescue operation in Yemen |
| II. Operation Pawan | B. Control of Jaffna peninsula |
| III. Operation Karuna | C. To provide help to cyclone-hit Myanmar |
| IV. Operation Devi Shakti | D. India evacuates citizens from war-torn Afghanistan |

- (a) I-B, II-A, III-C, IV-D
- (b) I-A, II-B, III-C, IV-D
- (c) I-B, II-A, III-D, IV-C
- (d) I-D, II-C, III-B, IV-A

75. High Altitude Warfare School of Indian Army is located at?

- (a) Siachen
- (b) Leh
- (c) Gulmarg
- (d) Manali

Reasoning and Military Aptitude Test

76. In the following question, five words have been given out of which three are alike in some manner, while the fourth one is different. Choose out the odd one.

- (a) Saxophone
- (b) Clarinet
- (c) Trumpet
- (d) Drum

77. Select the option related to the third term in the same way as the second term is related to the first term.

Train : Station : Car : ?

- (a) Driveway
- (b) Garage
- (c) Traffic light
- (d) Highway

78. In each of the following questions, a series is given. Find the term that will replace the question mark.

10, 13, 19, ?, 40, 55

- (a) 28
- (b) 26
- (c) 25
- (d) 31

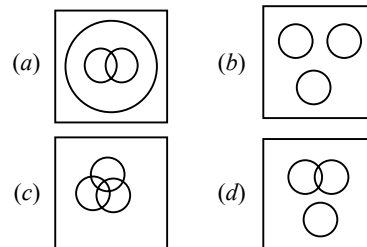
79. Select the option that is related to the third word in the same way as the second word is related to the first word.

Basketball : Court :: Boxing : ?

- (a) Field
- (b) Ring
- (c) Course
- (d) Court

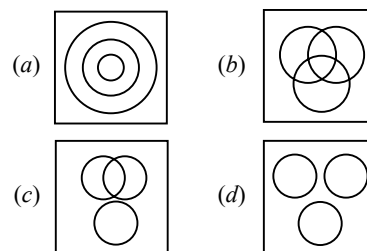
80. Identify the diagram that best represents the relationship among the given classes.

Mother, aunty, women



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

Rural residents, Learned individuals, Intellectuals



82. Select the odd number pair from the given alternatives.

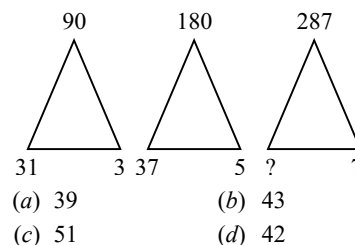
- (a) 23 - 529
- (b) 29 - 831
- (c) 27 - 729
- (d) 31 - 961

83. Find the missing number from the below options.

7	8	?
9	4	169
11	10	441

- (a) 321
- (b) 200
- (c) 225
- (d) 113

84. Study the given pattern carefully and select the number that can replace the question mark (?) in it.



- (a) 39
- (b) 43
- (c) 51
- (d) 42

85. Which number will complete the series?

15, 17, 21, 23, 27, _____

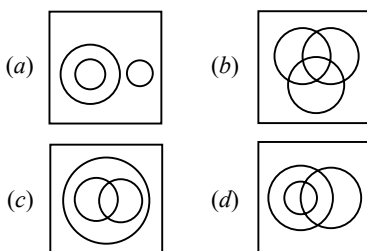
- (a) 29 (b) 31
(c) 30 (d) 33

86. Find the missing number from the options below.

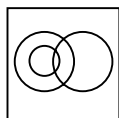
7	23	119
11	35	?
15	47	239

- (a) 169 (b) 289
(c) 159 (d) 179

87. Identify the diagram that best represents the relationship among classes given below
Travel, ship, trampoline



88. Which of the following options best suits the Venn diagram given in the figure?



- (a) Men, Male, Footballer
(b) Car, Engineer, Male
(c) Table, Furniture, Chair
(d) Animals, Birds, Tree

89. Find the odd one out:

- (a) 3375 (b) 2197
(c) 1331 (d) 4913

90. Pointing towards a person, Aman said to Rishita, "His mother is the only daughter of your father." How is the Rishita related to that person?

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

91. What is the angle degree between the hands of the clock at 02: 09 am?

- (a) 13.5 (b) 15.5
(c) 10.5 (d) None of these

92. What is the angle made by the minute and hour hand of a clock at 9. 40 pm?

- (a) 50° (b) 60°
(c) 40° (d) 20°

93. A number has been denoted to each of the given letters. Select the option from the following four possible arrangements of these numbers that form a meaningful word.

F = 1, E = 2, D = 3, M = 4, O = 5,

E = 6, R = 7

- (a) 2, 7, 1, 6, 4, 5, 3
(b) 1, 7, 4, 6, 3, 5, 2
(c) 4, 3, 7, 1, 6, 5, 2
(d) 1, 7, 2, 6, 3, 5, 4

94. In a certain code language, "SAND" is written as "SBPG" and "BEAN" is written as "BFCQ". How will "ROME" be written in that language?

- (a) RQNH (b) RPOH
(c) RQOG (d) RPNG

95. Shivam said pointing to a photograph of a boy, 'he is the only son of my father's brother's son, if so how is the boy related to Shivam?

- (a) Cousin (b) Father
(c) Nephew (d) Son

96. Rearrange the jumbled-up letters in a meaningful sequence and find the odd one out.

- (a) LPTOAP (b) TBAETL
(c) CIPREOMUT (d) ESPHONP

97. Which of the mathematical signs should be interchanged in the below equation to make it mathematically correct?

$$6 \div 42 + 7 \times 5 - 3 = 31$$

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

98. P, Q, R, S and T sit around a table. P sits in the second seat to the left of R, and Q sits in the second seat to the right of R. If S sits between Q and R, who is sitting to the immediate right of P?

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

99. If WATER is coded as YYVCT in a certain code language, how will FLOOR be coded?

- (a) HJQMS (b) HJQMT
(c) IJQMT (d) HJQMU

100. If '@' denotes ' \times ', '#' denotes ' $-$ ', '\$' denotes ' $+$ ' and '%' denotes ' \div ', then, what will come in place of the question mark (?) in the following equation?

$$5 \$ 13 @ 7 \# 36 \% 6 = ?$$

- (a) 60 (b) 90
(c) 80 (d) 70

Answer Key and Solutions



- (b) "Eloquent" means fluent or persuasive in speaking or writing. A synonym for this would be "articulate," which means expressing oneself clearly and effectively.
- (a) An "enigma" is something mysterious or puzzling. The word "puzzle" is the closest synonym, representing something that is difficult to understand or solve.
- (a) "Candid" means truthful and straightforward. The opposite of this would be "deceptive," meaning intending to mislead or conceal the truth.
- (d) "Ravenous" means extremely hungry. Among the options, "famished" is the closest synonym, indicating extreme hunger.

- (d) "Harangue" refers to a lengthy and aggressive speech, often considered tedious. It fits the given description of a long and tedious speech.
- (b) An "indolent" person is someone who avoids work or effort, often being lazy or slothful.
- (b) "A bitter pill to swallow" refers to something unpleasant or difficult that one must accept, similar to swallowing a bitter-tasting pill.
- (b) The correct answer is (b) A minor part of a much larger problem as "A drop in the ocean" means something very small or insignificant in comparison to the whole.
- (b) 'Most' should be removed from the sentence. 'Shortest' is already in the

superlative form of the adjective 'short'. Adding 'most' creates a double superlative, which is grammatically incorrect. The correct sentence is: "This road is the shortest of all."

- (a) The adjective 'little' is wrongly used to describe money. 'Little' means small and is a positive degree adjective. Here we need a comparative degree adjective to compare the earning of the younger brother and elder brother. Hence, we should use 'less money' instead of 'little money'. Thus option 1 i.e. 'little money' contains a grammatical error. Correct Sentence: I earn less money than my younger brother.
- (c) The error is in the third part of the sentence, and thus, the correct solution is

- option 3. The third part of the sentence is incorrect because it is missing an article. Correct sentence: 'The number of obese people is really high in the United States.'
12. (a) 'The manager was referring about'. The preposition 'about' should be replaced by the preposition 'to'. Correct Sentence: The manager was referring to the previous instances of loss to the employees during his address.
13. (b) The correct order is DABC. They were staying in furnished rooms, close to the staircase. A. One evening, they received a visit of from an acquaintance Mr. Piyush Sharma. B. Mr. Piyush Sharma was a tall, thin man of a nervous and excitable nature. C. On that occasion he was in a state of great agitation.
14. (a) The correct order is PQSR. Through their work and research over the next ten years, Q. Chetana Charitable Trust understood, S. that children were not getting proper guidance, R. and were not acquiring any out-of-the-box skills.
15. (a) The correct order is SRQP. means hatred for other countries, but this, R. type of patriotism is an evil and it, Q. should be condemned because, P. today man belongs to the whole world.
16. (d) The main sentence is a future negative sentence with "will", so the question tag should be "will they". Complete Sentence: They will not go to Japan this year for a vacation, will they?
17. (b) "Despite". It denotes that he joined the university even though his parents disapproved. Complete Sentence: Despite his parent's disapproval, he joined this university.
18. (c) The sentence suggests leisurely moving from one place to another for exploration or observation, which fits with "walk around". Complete Sentence: The Royale Gardens is a pleasant place to walk around.
19. (d) It expresses permission. Complete Sentence: The battery of your phone is dead? No problem. You can use my phone.
20. (c) Beat down means to shine with great intensity. Complete Sentence: The sun beat down on the weary travellers, forcing them to seek the shade of a tree.
21. (c) Khartal is a musical instrument that produces sound by its own vibration. This characteristic aligns with the definition of idiophones.
22. (d) The passage describes how Khartal produces a clinking sound when played, requiring the verb "produce" in the present tense to match the context.
23. (b) "Since" is used to indicate the reason or cause for using Sheesham wood or teak, which produces the required sound.
24. (a) The phrase "best Sheesham comes from the villages of Rajasthan" indicates possession or association, hence "of" is correct.
25. (a) The passage states that finding the right wood is difficult, implying that it is also the most expensive.
26. (b) Magellan set sail from Spain on September 20, 1519.
27. (b) Magellan ultimately proved that the Earth was round. Magellan's voyage proved that the Earth was round.
28. (c) Magellan named the passage the Strait of All Saints.
29. (c) Few sailors were privileged to gaze at the first panorama of the Pacific Ocean.
30. (a) Magellan's crew crossed the International Date Line in early spring of 1521.
31. (d) Quantity of sulfuric acid = 10% of 10 = 1 litres
Let After adding x litres of sulfuric acid, the percentage of sulfuric acid becomes 20%.

$$\Rightarrow \frac{2+x}{20+x} = \frac{20}{100}$$

$$\Rightarrow 10 + 5x = 20 + x$$

$$\Rightarrow 4x = 10$$

$$\Rightarrow x = 2.5 \text{ litres}$$
32. (b) According to question,
Area of base = 462 m^2

$$\pi \times r^2 = 462 \text{ m}^2$$

$$\Rightarrow \frac{22}{7} \times r^2 = 462 \text{ m}^2$$

$$\Rightarrow r^2 = 462 \times \frac{7}{22}$$

$$\Rightarrow r^2 = 147$$

$$\Rightarrow r = 7\sqrt{3} \text{ m}$$

The slant height (L)

$$= \sqrt{7(\sqrt{3})^2 + (7\sqrt{3})^2}$$

$$= \sqrt{147 + 147} = 7\sqrt{6}$$

The curved surface area of the conical tent

$$= \pi \times r \times l = \pi \times 7\sqrt{3} \times 7\sqrt{6}$$

$$= \frac{22}{7} \times 7\sqrt{3} \times 7\sqrt{6}$$

$$= 308\sqrt{3} \text{ m}^2$$
33. (b) Let cost price of the first chair = ₹ 100x
Cost price of the second chair = ₹ 4320 - 100x
According to the question,
The gain on selling the first fan is 20% of its cost price = 20x
The loss on selling the second fan is 12% of its cost price = $\frac{12}{100} \times (4320 - 100x)$
There is no gain and no loss.
- So, $20x = \frac{12}{100} \times (4320 - 100x)$

$$\Rightarrow 2000x = 51840 - 1200x$$

$$\Rightarrow 3200x = 51840$$

$$\Rightarrow 100x = \frac{51840}{32} = 1620$$

Cost price of first chair = ₹ 1620
Cost price of the second chair

$$= 4320 - 1620 = ₹ 2700$$
34. (c) The amount after 6 years is 7 times.
So, interest in 6 years = $(7 - 1) \times 100\%$

$$= 600\%$$

$$\Rightarrow \text{Interest in 1 year} = 100\%$$

To become 10 times, interest should be $(10 - 1) \times 100\% = 900\%$
So, the time required to have 900% interest

$$= \frac{900\%}{100\%} = 9 \text{ years}$$

So, the sum will become 10 times itself in 9 years.
35. (d) Difference between C.I. and S.I.

$$\frac{PR^2}{10000}$$

$$= 10000$$

$$\Rightarrow 50 = P \times \frac{100}{10000}$$

$$\Rightarrow P = ₹ 5000$$
36. (c) $64^{2n-1} = (1024)^3$

$$\Rightarrow (4^3)^{2n-1} = (4^5)^3$$

$$\Rightarrow (4)^{6n-3} = (4)^{15}$$

$$\Rightarrow 6n - 3 = 15$$

$$\Rightarrow 6n = 18 \Rightarrow n = 3$$
37. (d) Since there are 26 cards in a pack, which are Red
The probability of getting both black

$$= \frac{26}{52} \times \frac{25}{51}$$

Also, there are 4 kings in a pack
The probability of getting both kings

$$= \frac{4}{52} \times \frac{3}{51}$$

The probability of getting a king of red colour is $\frac{2}{52} \times \frac{1}{51}$
The probability that either both are black or both are queens

$$= \frac{26}{52} \times \frac{25}{51} + \frac{4}{52} \times \frac{3}{51} - \frac{2}{52} \times \frac{1}{51}$$

$$= \frac{330}{1326}$$
38. (b) Let total work L.C.M. (15, 12, 10) = 60 units

Person	Time (in days)	Total work (in units)	Efficiency (in units/day)
A + B	15	60	$\frac{60}{15} = 4$
B + C	12	60	$\frac{60}{12} = 5$
C + A	10	60	$\frac{60}{10} = 6$

$$\Rightarrow 2 \times (A + B + C) = (4 + 5 + 6)$$

$$\Rightarrow (A + B + C) = 7.5$$

$$\begin{aligned} \text{Efficiency of B} &= (A + B + C) - (C + A) \\ &= (7.5) - (6) = 1.5 \end{aligned}$$

According to question,

(A + B + C) work for 6 days and completed (6 × 7.5) units work.

$$\begin{aligned} &= \text{Remaining work} = (60 - 45) \\ &= 15 \text{ units} \end{aligned}$$

Time taken by B to complete the remaining work = $15/1.5 = 10$ days

39. (d) The maximum marks for examination = x

According to question

$$(x \times 30\%) + 50 = (x \times 50\%) - 30$$

$$\text{Now, } x \times 30\% - x \times 50\% = -30 - 50$$

$$\Rightarrow 20x\% = 80 \Rightarrow x = 400$$

40. (d) Here, $M = 44$, $H = 9$

Therefore required angle,

$$\theta = \left(30H - \frac{11}{2}M^\circ \right)$$

$$= \left| 30 \times 9 - \left(\frac{11}{2} \right) \times 44 \right|^\circ$$

$$= |270 - 242|^\circ = 28^\circ$$

41. (d) CP for A = $360 \times \frac{100}{60} = ₹ 600$.

The price at which B sold to C = $600 + 29\%$ of 600 = 774

The total cost price for B = $360 + 90 = ₹ 450$.

Profit for B = Selling price for B - Cost price for B = $774 - 450 = 324$

42. (d) Diameter of First Pizza = 14 cm; Radius = 7 cm

$$\text{Area of the first pizza} = \pi \times (7)^2 = 49\pi \text{ cm}^2.$$

Price for first pizza of $49\pi \text{ cm}^2 = ₹ 280$

Diameter of Second Pizza = 28 cm; Radius = 14 cm

$$\text{Area of the second pizza} = \pi \times (14)^2 = 196\pi \text{ cm}^2.$$

So, the of 2nd pizza

$$= \frac{280}{49\pi} \times 196\pi = ₹ 1120$$

So, the required discount = $1120 - 860 = 260$

43. (d) Subhman sold an article to Rinku for = ₹ 616

Cost price of the article for Subhman

$$= ₹ 616 \times \frac{100}{80} = ₹ 770$$

Final cost price of the article for Rinku

$$= 770 + 180 = ₹ 950$$

Selling price of the article for Rinku

$$= ₹ 770 + 28.56\% \text{ of } 770 = 770 + \frac{2}{7} \times 770 = 990$$

Profit of Rinku = $990 - 950 = 40$

Profit percentage on the article for Rinku = $\frac{40}{990} \times 100\% = 4.04\%$

44. (d) Area of the square = a^2

$$\Rightarrow a^2 = 22\sqrt{3}$$

$$\Rightarrow a = \sqrt{22\sqrt{3}}$$

Diagonal of a square = $\sqrt{2} a$

Diagonal of the square = $\sqrt{2} \times \sqrt{22\sqrt{3}}$

Side of the equilateral triangle

$$= \sqrt{2} \times \sqrt{22\sqrt{3}} \text{ [Diagonal of the square]}$$

Area of the equilateral triangle

$$= \left[\sqrt{\frac{3}{4}} \right] \left[\sqrt{2} \times (22\sqrt{3})^2 \right]$$

$$= \left[\sqrt{\frac{3}{4}} \right] \times 2 \times 22\sqrt{3} = 33$$

45. (b) $\frac{\sqrt[3]{13^3} + \sqrt[3]{14^3}}{3} = x\% \text{ of } 50$

$$\frac{13+14}{3} = x\% \text{ of } 50$$

$$\Rightarrow \frac{27}{3} = x\% \text{ of } 50$$

$$\Rightarrow 9 = \frac{x}{100} \times 50$$

$$\Rightarrow x = 18$$

46. (a) Given: The new speed is 80% of the usual speed

Total distance cover 2000 km in 52 hours

Take 2 hour's rest then return

Formula used:

$$\text{Average speed} = \frac{2ab}{a+b}$$

a = new speed, b = usual speed

Calculation:

$$\text{New speed} = \frac{80}{100} \text{ (usual speed)}$$

$$\Rightarrow \frac{\text{New speed}}{\text{Usual speed}} = \frac{4}{5}$$

New speed = $4u$, usual speed = $5u$

Time excluding the rest hour

$$= 52 - 2 = 50 \text{ h}$$

$$\text{Average speed} = \frac{2000}{50}$$

Average speed = 40 km/h

$$\Rightarrow 2 \frac{4u \times 5u}{4u + 5u} = 40$$

$$\Rightarrow \frac{40u^2}{9u} = 40 \Rightarrow u = 9$$

$$\text{Since, km/h} \times \frac{5}{18} = \text{m/s}$$

New speed = $4u$

$$\text{New speed} = 9 \times 4 = 36 \times \frac{5}{18} = 10 \text{ m/s}$$

47. (c) Let the cost of the Horse be ₹ x
Then the cost of the Carriage will be ₹ $(30,000 - x)$

According to the question,

$$\Rightarrow 120\% \text{ of } x + 90\% \text{ of } (30,000 - x) = 102\% \text{ of } 30,000$$

$$\Rightarrow \frac{6}{5}x + \frac{9}{10}(30,000 - x) = 102 \times 300$$

$$\Rightarrow \frac{12x + 270000 - 9x}{10} = 30,600$$

$$\Rightarrow 3x + 2,70,000 = 3,06,000$$

$$\Rightarrow 3x = 3,06,000 - 2,70,000$$

$$\Rightarrow 3x = 36,000$$

$$\Rightarrow x = 12,000$$

\Rightarrow The cost of Horse is ₹ 12,000.

48. (b) Concept used:

LCM × HCF = Product of the two numbers

Calculation:

According to the question,

$$\text{HCF} = \frac{1}{20} \times \text{LCM} \quad \dots(i)$$

$$\text{LCM} - \text{HCF} = 456$$

$$\Rightarrow \text{LCM} - \left(\frac{1}{20} \times \text{LCM} \right) = 456$$

[from equation (i)]

$$\Rightarrow \frac{1}{20} \times \text{LCM} = 456$$

$$\Rightarrow \text{LCM} = \frac{456 \times 20}{19}$$

$$\Rightarrow \text{LCM} = 480$$

$$\text{Then HCF} = (480 - 456) = 24$$

Let's assume that the other number be k , then

$$k \times 96 = 24 \times 480$$

$$\Rightarrow k = \frac{11520}{96}$$

$$\Rightarrow k = 120$$

\Rightarrow The correct answer is 120

49. (d) Given: Average age of 12 students = 23 years

Average age of students including two teachers = 35 years

Age of science teacher

= (Age of mathematics teacher + 15) years

Formula:

Sum of total observation = Total number of observations \times Average

Calculation:

Let, Age of mathematics teacher = x years

Age of science teacher = $(x + 15)$ years

Total age of 12 students

$\Rightarrow 23 \times 12 = 276$ years

Total age of students including two teachers

$\Rightarrow 35 \times 14 = 490$ years

According to the question,

$\Rightarrow 276 + x + (x + 15) = 490$

$\Rightarrow 276 + 2x + 15 = 490$

$\Rightarrow 2x + 291 = 490$

$\Rightarrow 2x = 490 - 291$

$\Rightarrow x = \frac{199}{2} = 99.5$ years

\Rightarrow The age of mathematics teacher is 99.5 years.

50. (c) Calculation:

According to the question,

$$A = \frac{2}{5}B + B = \frac{7B}{5}$$

$$5A = 7B$$

$$10A = 14B \quad \dots(1)$$

Again,

$$B = \frac{3}{7}(A + C)$$

$$7B = 3A + 3C$$

$$5A = 3A + 3C \quad (\because 7B = 5A)$$

$$2A = 3C$$

$$10A = 15C \quad \dots(2)$$

From (1) & (2)

$$10A = 14B = 15C$$

$$A : B : C = \frac{1}{10} : \frac{1}{14} : \frac{1}{15}$$

Multiply with 210 (LCM of 10, 14 & 15)

$$A : B : C = \frac{210}{10} : \frac{210}{14} : \frac{210}{15}$$

$$A : B : C = 21 : 15 : 14$$

Therefore,

$$\text{Share of C} = 49000 \times \frac{14}{21+15+14}$$

$$= 49000 \times \frac{14}{50}$$

$$\Rightarrow \text{Share of C} = 13720/-$$

51. (a) The 1907 Indian National Congress Session at Surat was presided over by Ras Behari Ghosh. This session is historically significant because it marked the split between the Moderates and the Extremists within the Congress.

The Extremists, led by Bal Gangadhar Tilak, Lala Lajpat Rai, and Bipin Chandra Pal, advocated for immediate and direct action against British rule, including the use of boycotts and swadeshi (indigenous) goods.

In contrast, the Moderates, led by figures like Gopal Krishna Gokhale and Ras Behari Ghosh, pushed for gradual reform and more diplomatic approaches through petitions and discussions with the British authorities.

52. (c) The group of ministers during Shivaji Maharaj's time was called the Ashta Pradhan.

Ashta Pradhan translates to "Council of Eight" in English.

It was an administrative and advisory council. It is said that this council contributed to the military attacks on the Muslim Mughal Empire by Chhatrapati Shivaji Maharaj.

Shivaji Maharaj founded the Maratha Empire in India.

He found the harsh treatment and religious persecution of Hindus by Muslims completely unacceptable and unjust.

In 1674 AD, he was officially crowned as Chhatrapati at Raigarh.

53. (b) Gulbadan Begum wrote Humayun Nama, which is a biography of her brother, Emperor Humayun.

Abul Fazl is famous for writing the Ain-i-Akbari, a part of the Akbarnama which documents the administrative system of the Empire under Akbar.

Nizamuddin Ahmad authored the Tabaqat-i-Akbari, a detailed history of Akbar's reign.

Dara Shikoh translated the Upanishads into Persian, known as Sakinat-ul-Auliya, but this work is better known as Sirr-i-Akbar.

54. (b) The rock that is made up of molten magma is Igneous rock. Igneous rocks form from the solidification of molten magma.

If the magma cools and solidifies beneath the Earth's surface, it forms intrusive igneous rocks. If it cools and solidifies on the surface, it forms extrusive igneous rocks.

Granite, gabbro, basalt, are some of the examples of igneous rocks.

Intrusive igneous rocks form when magma cools and solidifies beneath the Earth's surface. Examples include diorite, gabbro, and granite.

Conversely, extrusive igneous rocks occur when magma crystallizes on the Earth's surface, resulting in smaller crystals. Common examples of these rocks are basalt, andesite, and dacite.

55. (d) The density of water is maximum at 4°C . At this temperature, water is at its densest and most compact form before it begins to expand slightly as it cools further towards freezing or heats up.

As water cools down to 4°C , it contracts like most substances, increasing in density. However, as it cools from 4°C to 0°C , it starts to expand.

This behaviour of water is called its anomalous Expansion of water.

This anomalous expansion is due to the hydrogen bonds between water molecules, which cause the molecules to arrange in a structured, less dense form as ice. This is why ice floats on liquid water.

56. (d) New Zealand announced the introduction of the Debbie Hockley Medal to honour the outstanding female cricketer.

The medal is named after Debbie Hockley, a legendary New Zealand cricketer who was the first woman to play 100 One Day Internationals and has made significant contributions to women's cricket both on and off the field.

57. (b) The first modern Olympic Games were indeed held in 1896 in Athens, Greece. This marked the revival of the Olympic Games, inspired by the ancient games held in Olympia, Greece.

The Olympic Games were not held during World War II due to the global turmoil. Specifically, the Games were cancelled in 1940 and 1944.

In 1940, Japan was originally selected to be the first Asian country to host the Olympics, which were supposed to be held in Tokyo. However, these Games were cancelled due to the outbreak of World War II.

58. (c) Women's cricket was introduced at the 2022 Commonwealth Games, starting on July 29 and ending with the final on August 7, 2022. These games took place in Birmingham, England.

The first match saw India competing against Australia.

The last time cricket was included in a multi-sport event was at the 1998 games in Kuala Lumpur.

The teams for the games were finalized by the end of January 2022.

The Commonwealth Games is an international multi-sport event featuring athletes from the Commonwealth of Nations. The first event took place in 1930. Except for 1942 and 1946, the games have been held every four years since their inception.

59. (d) The National Research Centre for Agroforestry (NRCAF), as a unit of ICAR was established on 8 May 1988.

The National Research Centre for Agroforestry (NRCAF), which was renamed the Central Agroforestry Research Institute) on 1 December 2014, is located in Jhansi.

This institute was established under the Indian Council of Agricultural Research (ICAR) to conduct research and development in agroforestry.

60. (b) Lotia is a type of regional music from Rajasthan, typically sung by farmers while they work in the fields.

It is especially popular during the Lotia festival, which takes place in the month of Chaitra according to the Hindi calendar.

This festival and the singing occur in early spring in Rajasthan.

61. (d) World Earth Day, celebrated on April 22nd each year, is a global event dedicated to environmental protection.

First observed in 1970, it now involves activities and events coordinated worldwide by EarthDay.org, including 1 billion people in more than 193 countries.

The official theme for 2024 is "Planet vs. Plastics."

The concept of Earth Day was first introduced at a UNESCO Conference in San Francisco. Additionally, the well-known Paris Agreement, which focuses on climate change, was signed by the United States, China, and around 120 other countries on Earth Day in 2016.

62. (d) Article 360 of the Indian Constitution provides the provision for declaring a financial emergency.

This article allows the President of India to declare a financial emergency if he/she believes that the financial stability or credit of India or any part of its territory is threatened.

A declaration of financial emergency must be confirmed by both the Lok Sabha and the Rajya Sabha within two months from the date it is issued.

63. (d) The term of the Prime Minister is not fixed and depends on the pleasure of the President, which means that the Prime Minister holds office as long as he has the confidence of the Lok Sabha.

The constitution mandates that the President should appoint as Prime Minister the leader of the majority party in the Lok Sabha or a person who can win the confidence of the Lok Sabha by gaining the support of other political parties.

The Constitution allows the Prime Minister to be a member (either elected or

nominated) of either house of Parliament, which includes nominated members of the Rajya Sabha. Therefore, a nominated member of the Rajya Sabha can become the Prime Minister.

Hence, statement 1, 2 and 3 are incorrect.

64. (c) A bolometer is a device used to measure the power of incoming electromagnetic radiation, especially in the infrared spectrum.

It works by utilizing the principle that the electrical resistance of certain materials changes when they absorb radiation.

Bolometers are often used in astronomy to detect and measure weak radiation from space objects.

The term "bolometer" comes from the Greek words "bolos," meaning beam or ray, and "meter," meaning to measure.

65. (d) AIRAWAT, an AI supercomputer, ranked 75th in the Top 500 Global Supercomputing List, affirming India's strong position in AI supercomputing globally. Therefore, statement I is correct.

AIRAWAT is part of India's National Program on AI and has a peak compute capacity of 410 AI Petaflops Mixed Precision, verifying statement II as correct. The Ministry of Electronics and Information Technology (MeitY) plans to enhance AIRAWAT's capabilities to 1,000 AI Petaflops Mixed Precision to support India's growing AI needs, making statement III correct.

In summary, all three statements regarding AIRAWAT's ranking, capabilities, and future plans are correct.

66. (a) The Barak 8 is a long-range surface-to-air missile created by Israel Aerospace Industries and India's DRDO.

It was first successfully tested in Israel on November 10, 2014.

The Indian Navy also conducted successful tests of the missile from the INS Kolkata on December 29 and 30, 2015.

Israel successfully tested an extended-range version of the Barak 8 missile on March 22, 2021.

67. (d) The "Kavach" system introduced by Indian Railways is an Automatic Train Protection System.

The KAVACH is an indigenously developed Automatic Train Protection (ATP) system by the Research Design and Standards Organisation (RDSO) in collaboration with the Indian industry.

The Union Railway Minister Ashwini Vaishnaw inspected the trial of the Kavach working system between Gullaguda-Chitgidda Railway stations on Lingampalli-Vikarabad section in the Secunderabad

Division of South Central Railway in March 2023.

68. (b) The capital of Bulgaria is Sofia.

Located in the western part of Bulgaria, at the foot of the Vitosha mountain, Sofia is one of the oldest cities in Europe with a history that stretches over 7,000 years.

It's known for its unique blend of Eastern and Western cultures, evident in its architecture which includes a mix of Ottoman, Soviet, and modern European influences.

69. (c) The winner of the 2023 International Booker Prize is from Bulgaria.

Georgi Gospodinov, a Bulgarian writer, won the prize for his novel "Time Shelter," marking a significant achievement as this was the first time a Bulgarian novel had won this prestigious award.

70. (c) Vistara Airlines is a joint venture between Tata Sons and Singapore Airlines, based in Gurgaon, India. It was established in 2013 in New Delhi. Vistara operates within India.

Air Pegasus was a regional airline based in Bangalore, India, founded in 2014. It primarily served domestic routes.

Air Asia India, headquartered in Bangalore, Karnataka, was founded by Tony Fernandez. This airline is known for offering an advanced food ordering service to make in-flight meals more affordable compared to typical airport prices.

Turbo Aviation Private Limited, founded in November 2003, started Turbojet Airways, a regional airline based in Hyderabad, on March 4, 2013. This airline serves regional destinations within India.

71. (d) The Ashok Chakra is India's highest peacetime gallantry award, ranking above the Kirti Chakra and Shaurya Chakra.

It is given for acts of bravery and self-sacrifice away from the battlefield.

The first recipient of the Ashok Chakra was Flight Lieutenant Suhas Biswas in 1952.

On the other hand, the Vir Chakra is a wartime gallantry award in India, third in order of precedence after the Param Vir Chakra and the Maha Vir Chakra.

It is awarded for acts of bravery in the presence of the enemy, whether on land, at sea, or in the air. The first recipient of the Vir Chakra was Brigadier Harbaksh Singh in 1948.

72. (c) India bought two Phalcon Airborne Warning and Control Systems (AWACS) from Israel for approximately USD 1 billion.

AWACS are advanced mobile radar systems that provide long-range air defense surveillance.

They are often referred to as an “eye in the sky” because of their extensive surveillance capabilities.

73. (c) Nag Missile- It is primarily an anti-tank guided missile, which means it is designed for surface-to-surface engagements, specifically targeting armored vehicles like tanks. It is not used for air-to-surface purposes.

Barak missile - ship-to-air, ship-to-surface: This is correctly matched as the Barak missile family includes variants capable of engaging targets in both air and surface scenarios from ships.

Nirbhay Missile - Naval, Land, Air: This is also correct as the Nirbhay is a long-range, all-weather, subsonic cruise missile that can be launched from multiple platforms including naval ships, land vehicles, and aircraft.

74. (b) Operation Nistar was a humanitarian and disaster relief operation where the Indian Naval Ship (INS) Sunayana evacuated 38 Indian nationals from cyclone-hit Socotra Island in Yemen.

Operation Pawan refers to the Indian Peace Keeping Force's efforts in 1987 to disarm the LTTE and gain control of the Jaffna Peninsula in Northern Sri Lanka.

Operation Karuna was an aid operation by India to help Myanmar after Cyclone Mocha, where Indian Navy ships delivered over 40 tonnes of relief materials.

Operation Devi Shakti involved the evacuation of people, including Indians, from Taliban-controlled Kabul to Dushanbe.

Therefore, the correct matches for List I to List II based on the detailed descriptions are:

I-A, II-B, III-C, IV-D.

75. (c) The High Altitude Warfare School (HAWS) of the Indian Army, located in Gulmarg, Jammu and Kashmir, is a premier training institute specializing in mountain warfare and high altitude operations.

Established initially at Sonamarg in 1948, it was later moved to Gulmarg in 1962.

On April 8, 1962, the school was classified as a Category A Training Establishment and was renamed the High Altitude Warfare School (HAWS).

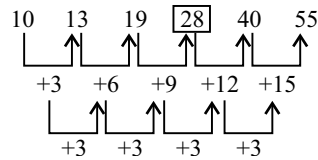
Soldiers who are posted to the Siachen Glacier and other high-altitude areas receive their training at the High Altitude Warfare School (HAWS).

76. (d) Saxophone, Clarinet, and Trumpet are all wind instruments that produce sound

from the vibration of air. Drum, however, is a percussion instrument that produces sound from being struck.

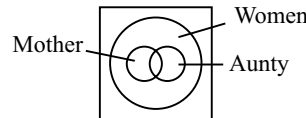
77. (b) A Station is a place where trains regularly stop to load or unload passengers and goods. Similarly, A Garage is a building or indoor area commonly used to store a car safely when not in use.

78. (a) The pattern followed is:

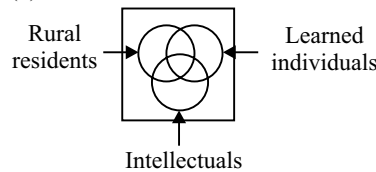


79. (b) Basketball is played on a court. Similarly, Boxing is conducted in a ring.

80. (a)



81. (b)



82. (b) Logic: format ' $x - x^2$ '

$$23 - 23^2 = 529$$

$$29 - 29^2 = 841 \neq 831$$

$$27 - 27^2 = 729$$

$$31 - 31^2 = 961$$

83. (c) Second row $\rightarrow (9 + 4)^2 = 13^2 = 169$

$$\text{Third row} \rightarrow (11 + 10)^2 = 21^2 = 441$$

$$\text{Therefore, First row} \rightarrow (7 + 8)^2 = 15^2 = 225$$

84. (d) The logic is:

$$31 \times 3 - 3 = 90$$

$$37 \times 5 - 5 = 180$$

Similarly,

$$? \times 7 - 7 = 287$$

$$\Rightarrow ? \times 7 = 287 + 7$$

$$\Rightarrow ? = 42$$

85. (a) $15 + 2 = 17$,

$$17 + 4 = 21,$$

$$21 + 2 = 23,$$

$$23 + 4 = 27,$$

$$27 + 2 = 29,$$

86. (d) The logic followed here is: In a row:

$$2\text{nd number} = (\text{First Number} \times 3) + 2,$$

$$3\text{rd number} = (\text{First Number} \times 5) + 4$$

$$\text{For Row 1} \rightarrow 7, 23, 119$$

$$(7 \times 3) + 2 = 23, (23 \times 5) + 4 = 119$$

$$\text{For Row 3} \rightarrow 15, 47, 239$$

$$(15 \times 3) + 2 = 47, (47 \times 5) + 4 = 239$$

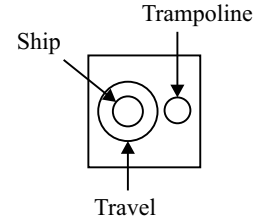
Similarly,

$$\text{For Row 2} \rightarrow 11, 35, ?$$

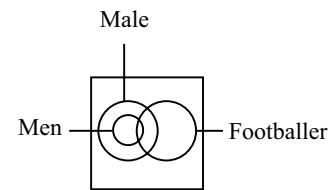
$$2\text{nd number} = (11 \times 3) + 2 = 35$$

$$3\text{rd number} = (35 \times 5) + 4 = 179$$

87. (a)



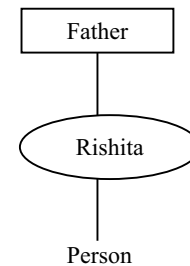
88. (a)



89. (a) 2197, 1331 and 4913 are cubes of 13, 11 and 17, which are prime numbers. Whereas, 3375 is the cube of 15, which is a composite number.

90. (c)

Symbol in Diagram	Meaning
○	Female
□	Male
==	Married couple
—	Siblings
	Difference of a generation



91. (c) Time = 02: 09 = Hours : Minutes

Formula used:

$$\text{Angle} = [(30 \times \text{Hours}) - \{(11 \div 2) \times \text{Minutes}\}]$$

$$\Rightarrow [(30 \times 2) - \{(11 \div 2) \times 9\}]$$

$$\Rightarrow 60 - 49.5 = 10.5$$

92. (a) Time = 02: 09 = Hours : Minutes

$$\text{Angle} = [(30 \times \text{Hours}) - \{(11 \div 2) \times \text{Minutes}\}]$$

$$\Rightarrow [30 \times 9 - \{(11 \div 2) \times 40\}]$$

$$\Rightarrow 270 - 220 = 50$$

93. (d) Option (a): 2, 7, 1, 6, 4, 5, 3

⇒ ERFEMOD

Option (b): 1, 7, 4, 6, 3, 5, 2

⇒ FRMEDOE

Option (c): 4, 3, 7, 1, 6, 5, 2

⇒ MDRFEOE

Option (d): 2, 1, 4, 6, 3, 5, 7

⇒ FREEDOM

94. (b) As,

S(19) A(1) N(14) D(4)

+0	+1	+2	+3
↓	↓	↓	↓
S(19)	B(2)	P(16)	G(7)

And,

B(2) E(5) A(1) N(14)

+0	+1	+2	+3
↓	↓	↓	↓
B(2)	F(6)	C(3)	Q(17)

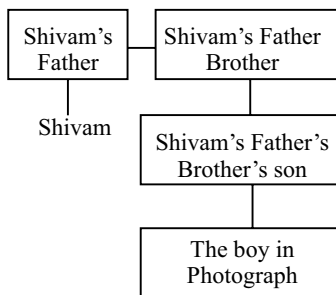
Similarly,

R(18) O(15) M(13) E(5)

+0	+1	+2	+3
↓	↓	↓	↓
R(18)	P(16)	O(15)	H(8)

95. (c)

Symbol in Diagram	Meaning
○	Female
□	Male
==	Married couple
—	Siblings
	Difference of a generation



So, the boy in the photograph is Shivam's nephew.

96. (d) LPTOAP = LAPTOP.

TBAETL = TABLET.

CIPREOMUT = COMPUTER.

ESPHONP = PHONES.

“L A P T O P,” “T A B L E T,” and “C O M P U T E R” are all primarily computing devices, whereas “P H O N E S,” while technically capable of computing functions, are primarily used for communication.

97. (a) Option 1): × and –

After inserting the mathematical operators in given equation, the equation is as follows:

$$6 \div 42 + 7 - 5 \times 3 = 31$$

$$\frac{1}{7} + 7 - 15 = -7.86 \neq 31$$

LHS ≠ RHS

(b) Option 2): ÷ and +

After inserting the mathematical operators in given equation, the equation is as follows :

$$6 + 42 \div 7 \times 5 - 3 = 31$$

$$\Rightarrow 6 + 30 - 5 = 31 = 31$$

(c) Option 3): ÷ and ×

After inserting the mathematical operators in given equation, the equation is as follows:

$$6 \times 42 + 7 \div 5 - 3 = 31$$

$$\Rightarrow 252 + 1.4 - 3 = 250.4 \neq 31$$

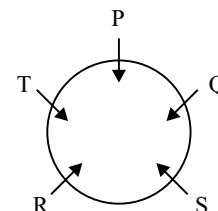
(d) Option 4): × and +

After inserting the mathematical operators in the given equation the equation is as follows:

$$6 \div 42 \times 7 + 5 - 3 = 31$$

$$\Rightarrow \frac{1}{7} \times 7 + 5 - 3 = 3 \neq 31$$

98. (c)



“T” is sitting to the immediate right of “P”.

99. (b) As,

W	A	T	E	R
+2	-2	+2	-2	+2
↓	↓	↓	↓	↓
Y	Y	V	C	T

Similarly,

F	L	O	O	R
+2	-2	+2	-2	+2
↓	↓	↓	↓	↓
H	J	Q	M	T

100. (b) 5 \$ 13 @ 7 # 36 % 6 = ?

Code	@	#	\$	%
Mathematical Symbol	×	–	+	÷

Replacing the codes with mathematical symbols, we get,

$$5 + 13 \times 7 - 36 \div 6 = ?$$

$$\Rightarrow 5 + 91 - 6 = 90$$

