

AFCAT Solved Paper-II 2025

(Held on 23 Aug 2025 Shift-1)

Verbal Ability in English

1. Select the option that can be used as a one-word substitute for the given group of words:

A person who has both introvert and extrovert qualities.

- (a) Philanthropist (b) Ambivert
(c) Altruist (d) Misanthrope

2. Choose the word which is most opposite in meaning to "Malevolent".

- (a) Vindictive (b) Benevolent
(c) Spiteful (d) Malicious

3. Choose the option that best explains the meaning of the idiom:

"To take/carry coal to Newcastle"

- (a) To engage in a profitable business
(b) To do something superfluous or unnecessary
(c) To take risk in a dangerous place
(d) To supply a scarce commodity

4. Choose the option that best explains the meaning of the idiom:

"To throw up the sponge"

- (a) To surrender or give up a contest
(b) To insult an opponent
(c) To hide one's true feelings
(d) To celebrate a victory

5. Select the option that can be used as a one-word substitute for the given group of words:

A person who is fearless and adventurous is called –

- (a) Pusillanimous (b) Intrepid
(c) Timorous (d) Diffident

6. Choose the word which is the most appropriate synonym of "Quash".

- (a) Perpetuate (b) Nullify
(c) Substantiate (d) Endorse

7. Spot the error in the following sentence:

The two (A)/ brother in laws (B)/ attended the wedding ceremony together. (C)/ No error (D)

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

8. Select the option that can be used as a one-word substitute for the given group of words:

An act of violating or showing disrespect towards something sacred or holy is called–

- (a) Heresy (b) Sacrilege
(c) Discrimination (d) Defamation

9. Choose the synonym of "Cognoscenti"

- (a) Connoisseurs (b) Novices
(c) Laymen (d) Amateurs

10. Choose the word which is the most appropriate synonym of "Reckless".

- (a) Rash (b) Prudent
(c) Circumspect (d) Wary

Directions (11-15): Read the following passage and answer the given questions.

The concept of zero, often taken for granted in modern mathematics, is a relatively recent intellectual achievement in the long history of human civilization. While ancient cultures like the Babylonians used a placeholder symbol to indicate an empty position in their sexagesimal system, this was not equivalent to our modern notion of zero as a number. The true mathematical zero, representing both "nothingness" and functioning as an independent number with arithmetic properties, was first developed in India around the 5th century CE.

The Indian scholar Brahmagupta formalized rules for arithmetic involving zero, including addition, subtraction, and multiplication, though he struggled with division by zero.

From India, the idea spread to the Islamic world, where scholars translated and expanded upon Indian texts, integrating zero into the Arabic numeral system. The Arabic term "sifr," meaning empty, eventually evolved into the word "zero" in European languages. By the 12th century, with the translation of Arabic mathematical works into Latin, zero entered European thought, profoundly transforming mathematics, commerce, and science.

Zero's adoption met resistance in Europe; it was considered mysterious and even dangerous, partly because it was linked to Arabic culture and partly because its abstraction defied common sense. Yet, once fully accepted, zero became indispensable, enabling advancements in algebra, calculus, and eventually, modern computing. Thus, what began as a humble placeholder evolved into a cornerstone of human intellectual progress.

11. The Babylonians' use of zero was primarily as:

- (a) A true number with independent value
(b) A placeholder in positional notation
(c) A symbol of infinity
(d) A representation of division by zero

12. Who is credited with formalizing the arithmetic rules of zero?

- (a) Aryabhata (b) Euclid
(c) Brahmagupta (d) Al-Khwarizmi

13. The word "zero" in European languages evolved from:

- (a) Latin "nihil"
(b) Greek "kenon"
(c) Arabic "sifr"
(d) Sanskrit "shunya"

14. Resistance to zero in medieval Europe was due to:

- (a) Lack of translation of Indian texts
(b) Its association with Arabic culture and abstract nature
(c) Its inability to be used in multiplication
(d) The prohibition of symbols in mathematics

15. According to the passage, zero's acceptance was crucial in the advancement of:

- (a) Geometry and Trigonometry
(b) Algebra, Calculus, and Computing
(c) Astronomy and Architecture
(d) Literature and Philosophy

Directions (16-18) Read the following passage and answer the given questions.

The following question consists of an incomplete sentence or a sentence which is split into four parts. All four parts are jumbled up and are named as P, Q, R and S. These four parts are not given in their proper order. Arrange the jumbled parts of the sentence and find out which of the four combinations from the given options will correctly complete the sentence.

16. India has been a land _____ than the warrior or the administrator.
P: but in the sense that learning has always been very highly valued
Q: not indeed, in the sense that education has been universal

R: and the learned man has been held in higher esteem

S: of learning throughout the ages,

- (a) SPRQ (b) RQPS
(c) RSQP (d) SQPR

17. While the recent _____.

P: century show that the June rainfall is

Q: of a drought, India's rainfall data for over a

R: rain may have soothed concerns

S: no predictor of the monsoon's outcome

- (a) PSRQ (b) RQPS
(c) PQRS (d) RSPQ

18. 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

- (a) SRQP (b) PQSR
(c) RSPQ (d) QPSR

Directions (19-21): Read the following passage and answer the given questions.

In the following question, there is a related pair of words given. Each pair is followed by four other pairs of words. Choose the pair from the given option that best expresses the relationship like the original pair.

19. Bee : Honey :: Cow : _____

- (a) Grass (b) Milk
(c) Horns (d) Farm

20. Oven : Bake :: Knife : _____

- (a) Slice (b) Cook
(c) Kitchen (d) Heat

21. Finger : Hand :: Leaf : _____

- (a) Plant (b) Branch
(c) Tree (d) Flower

Directions (22-24): Read the following passage and answer the given questions.

Each item in this section has a sentence with three parts (A), (B), and (C). Read each sentence to find out whether there is any error in any underlined part and indicate your response on the answer sheet against the corresponding letter, i.e., (A) or (B) or (C). If you find no error, your response should be indicated as (D).

22. Ten kilometers (A)/ are a long distance (B)/ to walk on foot. (C)/ No error (D)

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

23. Neither of the students (A)/ have completed (B)/ the assignment yet. (C)/ No error (D)

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

24. She did not know (A)/ to whom should she (B)/ address the letter. (C)/ No error (D)

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

Directions (25-27): Each of the following sentences in this section has a blank space and four words are given after the sentence. Select whichever word you consider most appropriate for the blank space and indicate your response on the Answer Sheet accordingly.

25. The judge remained completely _____ while giving his verdict.

- (a) impartial (b) biased
(c) emotional (d) hesitant

26. Hardly _____ the train left the platform when it began to rain heavily.

- (a) has (b) will
(c) had (d) does

27. During his visit to the museum, he _____ some rare paintings of the Mughal period.

- (a) came across (b) came by
(c) came out (d) came into

Directions (28-30): Read the following passage and answer the given questions in the blanks given in the passage with a proper words:

Most of our food comes from agriculture, so we tend to believe that it is independent of natural biota. This is not true. In nature, both plants and animals _____ (1) _____ to the rigours of natural selection. Only the fittest survive.

Consequently, wild populations have numerous traits for competitiveness, resistance to parasites, _____ (2) _____ to adverse conditions, and other aspects of vigour. In contrast, populations grown for many generations under the pampered conditions of agriculture tend to lose these traits, because they are selected for production, not resilience. For example, a high-producing plant that lacks resistance to drought is _____ (3) _____ and the resistance to drought is ignored. Also, in the process of breeding plants for maximum production, all genetic variation is eliminated.

28. What will come in blank (1)?

- (a) had been continuously subjected
(b) will be continuously subject
(c) continuously subjected
(d) are continuously subjected

29. What will come in blank (2)?

- (a) withdrawal
(b) tolerance
(c) adaptable
(d) compliance

30. What will come in blank (3)?

- (a) heated (b) irrigated
(c) showered (d) deserted

General Awareness

31. The languages used in the inscriptions of Ashoka is:

- (a) Sanskrit (b) Prakrit
(c) Pali (d) Hindi

32. Consider the following statements regarding the Nidhi Scheme:

1. The scheme was launched in 2014 by the Ministry of Human Resource Development.
2. It aims to support higher education institutions to set up start-ups through incubation and innovation.
3. The full form of NIDHI is National Initiative for Developing and Harnessing Innovations.
4. The scheme is implemented by the Department of Science & Technology.

Which of the above statements is/are correct?

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

33. The RailOne App, launched by Indian Railways in 2025, primarily aims to:

- (a) Provide passengers with a single-window platform for integrated services.
(b) Replace the IRCTC e-ticketing website completely.
(c) Facilitate only freight and cargo tracking.
(d) Operate as an exclusive platform for railway staff communication.

34. General Bipin Rawat, the first Chief of Defence Staff (CDS) of India, was commissioned into which regiment of the Indian Army?

- (a) Rajput Regiment (b) Gorkha Rifles
(c) Sikh Regiment (d) Jat Regiment

35. Which of the following is the primary cause of acid rain formation?

- (a) Carbon monoxide emissions
(b) Deforestation
(c) Sulfur dioxide and nitrogen oxides emissions
(d) Ozone depletion

36. Which Indian writer was awarded the International Booker Prize for the year 2025?

- (a) Girish Karnad
(b) Geetanjali Sri
(c) Banu Mushtaq
(d) K. Shivaram Karanth

37. Exercise PRALAY was carried out by which armed force?

- (a) Indian Army
(b) Indian Navy
(c) Indian Air Force
(d) Indian Coast Guard

38. Project 75, under which India is constructing Scorpene-class submarines, is being executed by which company?
- Hindustan Aeronautics Limited (HAL)
 - Mazagon Dock Shipbuilders Limited (MDL)
 - Bharat Electronics Limited (BEL)
 - Garden Reach Shipbuilders & Engineers (GRSE)
39. Which rocket is used to launch the Axiom Mission 4 (Ax-4) to the International Space Station?
- PSLV
 - GSLV Mk III
 - Ariane 5
 - Falcon 9 Block 5
40. Recently launched, which among the following was the purpose of 'Operation Sindhu'?
- To send relief material to flood affected areas.
 - To protect the sea coasts.
 - To hold peace talks in Afghanistan.
 - To safely evacuate Indians stranded in Iran.
41. Who established the Archaeological Survey of India (ASI)?
- Lord Dalhousie
 - Sir Alexander Cunningham
 - Lord Curzon
 - James Prinsep
42. With reference to the "DAKSH" portal, consider the following statements:
- The portal was launched by the Reserve Bank of India.
 - 'DAKSH' stands for the Reserve Bank's Advanced Supervisory Monitoring System.
 - It is a web-based workflow application for monitoring compliance requirements of supervised entities.
- Which of the statements given above is/are correct?
- 1 and 2 only
 - 2 and 3 only
 - 1 and 3 only
 - 1, 2 and 3
43. What is the primary aim of the "100 Million for 100 Million" campaign launched in 2016?
- To provide free meals to 100 million children worldwide
 - To mobilize 100 million youth to support 100 million children denied basic rights and freedom
 - To vaccinate 100 million children against deadly diseases
 - To build schools for 100 million poor children
44. Who is known as the "Father of the Lok Sabha"?
- Ganesh Vasudev Mavalankar
 - Hukam Singh
 - Ananthasayanam Ayyangar
 - N. Sanjiva Reddy
45. The working principle of washing machine is—
- Centrifugation
 - reverse osmosis
 - dialysis
 - diffusion
46. Cumulonimbus clouds are typically associated with which type of weather?
- Fair weather
 - Thunderstorms
 - Drizzle
 - Fog
47. What was the position of the Indian football team in the 1956 Melbourne Olympics?
- 1st
 - 2nd
 - 3rd
 - 4th
48. With reference to isotopes, isobars, and isotones, consider the following statements:
- Isotopes have the same atomic number but different mass numbers.
 - Isobars have the same number of neutrons but different atomic numbers.
 - Isotones have the same number of neutrons but different atomic and mass numbers.
- Which of the statements given above is/are correct?
- 1 and 2 only
 - 1 and 3 only
 - 2 and 3 only
 - 1, 2 and 3
49. The Pechora surface-to-air missile system, currently in service with the Indian Air Force, was originally developed by which country?
- United States of America
 - Israel
 - Russia (former Soviet Union)
 - France
50. The Subroto Cup was started in which year?
- 1949
 - 1958
 - 1960
 - 1965
51. Who persuaded Mahatma Gandhi to come to Champaran to take up the cause of exploited indigo planters?
- Bal Gangadhar Tilak
 - Raj Kumar Shukla
 - Gopal Krishna Gokhale
 - Acharya J.B. Kripalani
52. Consider the following statements regarding the DIKSHA (Digital Infrastructure for Knowledge Sharing) Scheme:
- It is a national platform developed by the Ministry of Education to provide digital resources for school education.
 - It provides e-content and QR-coded Energised Textbooks (ETBs) for teachers and students across states and UTs.
- Which of the above statements is/are correct?
- 1 only
 - 2 only
 - Both 1 and 2
 - Neither 1 nor 2
53. Which of the following reactions involves a chain reaction mechanism that starts with a ketone group?
- Aldol condensation
 - Wolff-Kishner reduction
 - Base-catalyzed haloform reaction
 - Tollen's test
54. With reference to Biomagnification, consider the following statements:
- Biomagnification refers to the increase in the concentration of a toxic substance at successive trophic levels in a food chain.
 - Water-soluble pollutants are more likely to undergo biomagnification than fat-soluble pollutants.
 - Top carnivores are generally the most affected organisms in a food chain due to biomagnification.
- Which of the statements given above is/are correct?
- 1 and 2 only
 - 1 and 3 only
 - 2 and 3 only
 - 1, 2 and 3
55. Which of the following features best describes the Nirbhay missile?
- Ballistic missile
 - Cruise missile
 - Anti-tank missile
 - Surface-to-air missile

Numerical Ability

56. If the simple interest (SI) on a sum of money for 2 years at a rate of 5% per annum is ₹6000, what will be the compound interest (CI) on the same sum, at the same rate and time?
- ₹6150
 - ₹6000
 - ₹5250
 - ₹3150
57. 1234567891011121314151617181920 divided by 16 then remainder is?
- 4
 - 2
 - 6
 - 0
58. In a box 3 yellow balls, 5 red balls, 4 green balls are there. If 3 balls are taken out randomly then what is the probability of getting 2 green balls?
- $\frac{4}{15}$
 - $\frac{12}{55}$
 - $\frac{8}{15}$
 - $\frac{2}{7}$

59. The area of the floor of a rectangular hall of length 40 m is 960 m². Carpets of size 6 m × 4 m are available. Then, how many carpets are required to cover the hall?

(a) 20 (b) 30
(c) 40 (d) 45

60. A person travels a certain distance at 3 km/hr and reaches 15 minutes late. If he travels at 4 km/hr, he reaches 15 minutes earlier. The distance he has to travel is

(a) 4.5 km (b) 6 km
(c) 7.2 km (d) 12 km

61. A rectangular sheet has a length of 30 cm and a breadth of 15 cm. A margin of 2.5 cm from the length side and 1.5 cm from the breadth side is cut out on all sides. What percentage of the original area is left for writing?

(a) 66.66% (b) 50%
(c) 80% (d) 75%

62. Ram and Shyam weight ratio is 6 : 5. After 2 months Ram's weight increases by 20% and overall average weight increase by 15%. By what percentage is Shyam's weight increased?

(a) 12% (b) 9%
(c) 10% (d) 15%

63. 2 mixtures of milk and water are given. One is 8 litre has 2 litre water while another mixture is 14 litre with ratio of milk and water 6 : 1. After mixing both find ratio of water to milk in a new mixture.

(a) 2 : 9 (b) 2 : 7
(c) 5 : 7 (d) 7 : 5

64. P calculates his profit % on cost price while Q calculates his profit % on the selling price. They find that the difference in their profits is ₹600. If the selling price of both the men are the same, Q gets 50% profit and P gets 40% profit. Find their selling price.

(a) ₹3600 (b) ₹2500
(c) ₹2000 (d) ₹2800

65. 8 years ago a family of 5 members had an average age of 25 years. Since then, two children have been born with an age difference of 4 years. Currently, the average age of the family remains the same. What is the age of the youngest child?

(a) 6 years (b) 3 years
(c) 2 years (d) 5 years

66. A truck travelling at 70 kilometres per hour uses 30% more diesel to travel a certain distance than it does when it travels at the speed of 50 kilometres per hour. If the truck can travel 19.5 kilometres on a litre of diesel at 50 kilometres per hour, then how far can the truck travel on 10 litres of diesel at a speed of 70 kilometres per hour?

(a) 150 km (b) 200 km
(c) 250 km (d) 300 km

67. At what time between 2 and 3 o'clock will the minute hand be exactly 1 minute space ahead of the hour hand?

(a) 2:12 (b) 2:15
(c) 2:13 (d) 2:14

68. Suppose, C1, C2, C3, C4, and C5 are five companies. The profits made by C1, C2 and C3 are in the ratio 9 : 10 : 8 while the profits made by C2, C4 and C5 are in the ratio 18 : 19 : 20. If C5 has made a profit of ₹19 crore more than C1, then the total profit (in ₹.) made by all five companies is

(a) 441 cr (b) 444 cr
(c) 438 cr (d) 435 cr

69. 15 years ago the average age of a family of 4 members was 40 years, and during 15 years 2 children born but the average age remain same. If the older child is 8 years older than younger one then find the ratio of ages of both child.

(a) 7:3 (b) 8:5
(c) 5:3 (d) 3:2

70. Rakesh and Ramesh both sell an article at the same selling price. Ramesh calculates profit on cost price i.e., 25% while Rakesh calculates profit on selling price i.e., 25%. If the difference in their profit is ₹100. Find the selling price?

(a) ₹3000 (b) ₹2000
(c) ₹4000 (d) ₹1000

71. A person read 18 books in $\frac{2}{3}$ days. How many books he can read in $\frac{1}{4}$ days?

(a) 5 (b) 4
(c) $\frac{27}{4}$ (d) $\frac{15}{7}$

72. A boat goes 140 km upstream in 7 hours and a distance of 210 km downstream in 7 hours. Find the speed of the boat in still water.

(a) 30 km/h (b) 25 km/h
(c) 20 km/h (d) 24 km/h

73. A circle of radius 21 cm is converted into a rectangle. If the length and breadth are in the ratio 6 : 5, find the area of the rectangle.

(a) 1124 cm² (b) 1056 cm²
(c) 1024 cm² (d) 1080 cm²

74. What will be the value of x in the following?

$$\sqrt{1225} \div \sqrt[3]{343} \times 45\% \text{ of } 760 \\ = x \times 66.67\% \text{ of } 45$$

(a) 48 (b) 50
(c) 57 (d) 64

75. A and B undertook a work for ₹4000. A alone can do that work in 20 days and B alone can do the same work in 30 days. If they work together, then what will be the difference in the amount they receive?

(a) ₹800 (b) ₹1050
(c) ₹900 (d) ₹880

Reasoning and Military Aptitude Test

76. At what time between 3 and 4 o'clock is the minute hand 7 minute ahead the hour hand?

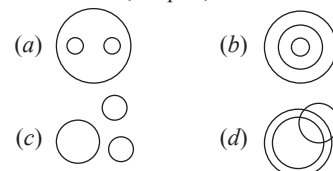
(a) 3:12 (b) 3:24
(c) 3:30 (d) 3:42

77. Find the Next Set
ST, ND, RD, TH, ?

(a) TH (b) HT
(c) TN (d) NT

78. From the following questions, choose the figure that best depicts the relationship between the three objects?

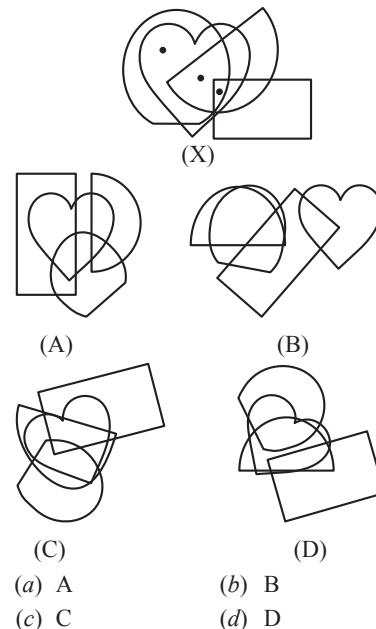
River water, Liquid, Milk



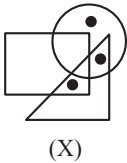
79. If the first half of the English alphabet is reversed and then the second half is reversed, which letter will be the 10th from the right?

(a) Z (b) D
(c) Q (d) W

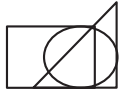
80. From the given options, select the option in which the dot can be placed in exactly the same way as shown in the figure (X) below.



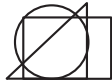
81. Select the figure which satisfies the same condition of placement of the dots as figure-X.



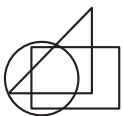
(X)



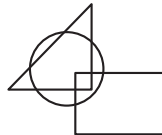
(A)



(B)



(C)



(D)

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

82. P and Q are brothers. P is the father of S. R is the only son of Q and is married to U. How is U related to S?

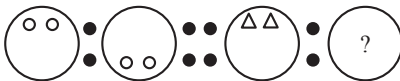
- (a) Sister-in-law (b) Mother-in-law
(c) Sister (d) Mother

83. In the same manner that the second term is connected to the first term, pick the option that is associated with the third phrase.

$$\frac{FNB}{V} : \frac{EMA}{S} :: \frac{GPC}{Z} : ?$$

- (a) $\frac{EOB}{V}$ (b) $\frac{FOB}{W}$
(c) $\frac{GOB}{W}$ (d) $\frac{FOB}{V}$

84. In the question figure given below, two pairs of figures are given. Find the shape of the second pair based on the same relation as the shapes of the first pair are related to each other.



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

85. Three of the following four words are alike in a certain way and one is different. Pick the odd word out.

- (a) Political Science
(b) Biology
(c) History
(d) Sociology

86. Select the odd number from the given alternatives.

- (a) 10 (b) 20
(c) 15 (d) 30

87. In a certain code language, 'MOBILE' is coded as BJFZLK and 'TABLET' is coded as QCIZXR. How will 'KINDLE' be coded in the same language?

- (a) BJALFI (b) BJBKFI
(c) CIBKGC (d) CJBLGI

88. 'A + B' means 'A is the brother of B'

'A - B' means 'A is the wife of B'

'A × B' means 'A is the son of B'

'A ÷ B' means 'A is the husband of B'

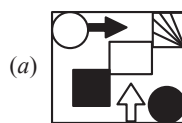
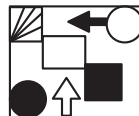
If $P + Q - S + R \times L \div M$, then which of the following statements is correct?

- (a) Q is the sister of M.
(b) P is S's wife's brother.
(c) L is the father of P.
(d) P is the brother of S.

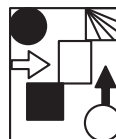
89. Shilpa goes to a park every day for walking. One morning, she started walking from her home and walked 40 km towards the north. Then she turned to the right and walked 60 km. Again, she turned right and walked 40 km. Lastly, she took a left turn and walked 30 km. How far is she from her home?

- (a) 140 km (b) 90 km
(c) 100 km (d) 60 km

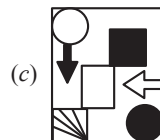
90. The water image of the given below figure is:



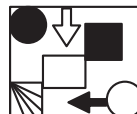
(a)



(b)

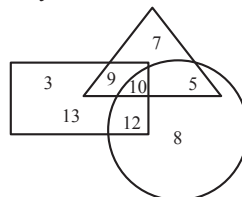


(c)



(d)

91. In the following figure, the triangle represents 'football players', the circle represents 'kho-kho players', and the rectangle represents 'kabaddi players'. How many players play both kabaddi and football only?



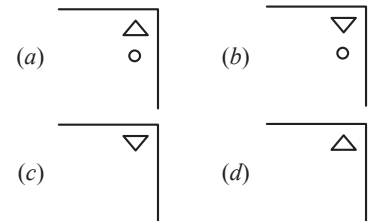
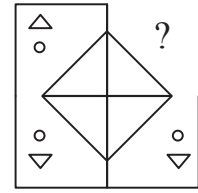
- (a) 9 (b) 26
(c) 13 (d) 19

92. Select the number from among the given options that can replace the question mark (?) in the following series.

39, 53, ?, 108, 149, 199

- (a) 81 (b) 72
(c) 79 (d) 76

93. Select the figure from the given options that will replace the question mark (?) in the figure given below and complete the pattern.

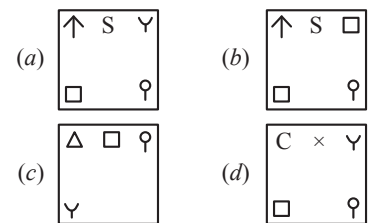
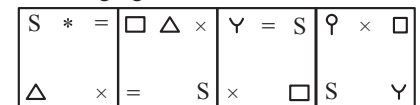


94. What will come in the place of the question mark (?) in the following equation, if '+' and '×' are interchanged and '-' and '÷' are interchanged?

$$105 - 15 \div 13 + 3 \times 27 = ?$$

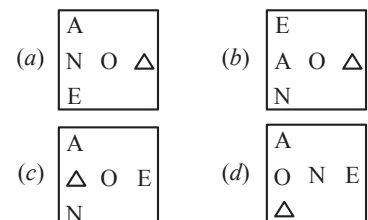
- (a) 58 (b) -5
(c) 16 (d) 23

95. Select the option that will come next in the following figure series.



96. Which figure should replace the question mark (?) if the series were to be continued?

T	N	△	N	
A	O	△	O	△
Z	A	O	A	△
N	O	N	A	△



97. Five girls, Amita, Fauzia, Gargi, Ranjita and Sucheta, are sitting in a straight line. All are facing the north direction. Sucheta sits second to the left of Gargi. Fauzia sits third to the right of Sucheta. Only one girl is sitting between Amita and Ranjita. Amita is not sitting at any of the extreme ends. Which two girls are sitting at the extreme ends?

- (a) Ranjita and Fauzia
(b) Gargi and Sucheta
(c) Sucheta and Fauzia
(d) Ranjita and Gargi

98. In the following question, three statements are given followed by two conclusions (I) and (II). You have to consider the three statements to be true even if they seem to be at variance from commonly known facts. You have to decide which of the given conclusions, if any, follow from the given statements.

Statements:

50% windows are benches.

Some benches are walls.

50% walls are bus.

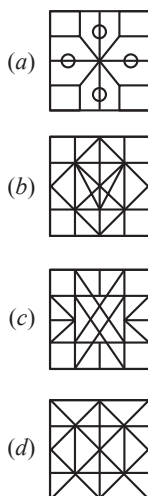
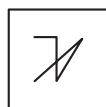
Conclusions:

I. All bus are benches.

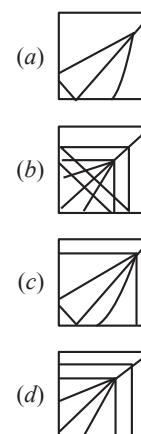
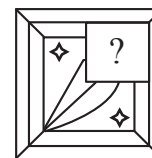
II. At least some buses are bench is possibility.

- (a) Only I follows.
(b) Only II follows.
(c) Both I and II follow.
(d) None of these follows.

99. Select the option figure in which the given figure is embedded (rotation is NOT allowed).



100. Select the option figure that can replace the “?” to complete the pattern in the question figure.



Answer Key and Solutions



1. (b) Ambivert → A person who possesses traits of both introversion (reserved, inward-looking) and extroversion (outgoing, sociable).

Philanthropist → One who loves and helps mankind.

Altruist → A selfless person concerned about others' welfare.

Misanthrope → One who hates mankind.

2. (b) Malevolent → Having ill will or wishing harm to others.

Benevolent → Kind, charitable, wishing good for others (opposite).

Vindictive → Revengeful (similar, not opposite).

Spiteful / Malicious → Cruel, harmful (similar, not opposite).

3. (b) Newcastle is a coal-rich city; carrying coal there is pointless.

Hence, this idiom means doing something redundant or needless.

4. (a) In boxing, throwing in the sponge/towel signals defeat.

Therefore, it means to quit or give up a struggle.

5. (b) Intrepid → Bold, fearless, adventurous.

Pusillanimous → Cowardly.

Timorous → Fearful.

Diffident → Shy, lacking confidence.

6. (b) Quash → to reject, annul, or declare invalid.

Nullify → to make legally invalid or cancel.

Perpetuate → to make something continue indefinitely.

Substantiate → to support with evidence.

Endorse → to approve or support

7. (b) The word should be “**brothers-in-law**” (plural form of brother-in-law).

8. (b) Sacrilege → violation of or disrespect to something sacred.

Heresy → belief contrary to established religious doctrine.

Discrimination → unfair treatment based on bias.

Defamation → damaging someone's reputation.

9. (a) Cognoscenti → people who are experts in a particular field.

Connoisseurs → experts with refined knowledge (especially in arts/food).

Novices → beginners.

Laymen → non-experts.

Amateurs → non-professionals.

10. (a) Reckless → careless, without thinking of the consequences.

Rash → hasty, impulsive, showing lack of caution.

Prudent → wise, cautious.

Circumspect → careful, cautious.

Wary → cautious, alert.

11. (b) They used a symbol to indicate an empty position in their base-60 system, but it wasn't treated as a number with arithmetic properties.

12. (c) In the 5th century CE, Brahmagupta introduced rules for addition, subtraction, and multiplication with zero, though division by zero remained unresolved.

13. (c) “Sifr” meaning “empty” in Arabic → became “zephirum” in Latin → later shortened to “zero” in European languages.

14. (b) Europeans considered it suspicious because of its foreign origin and its abstract idea of “nothingness,” which defied common sense.

15. (b) Once accepted, zero became a foundation for higher mathematics and modern technology.
16. (d) SQPR
S: of learning throughout the ages,
Q: not indeed, in the sense that education has been universal
P: but in the sense that learning has always been very highly valued
R: and the learned man has been held in higher esteem than the warrior or the administrator.
Sentence: *India has been a land of learning throughout the ages, not indeed in the sense that education has been universal, but in the sense that learning has always been very highly valued, and the learned man has been held in higher esteem than the warrior or the administrator.*
17. (a) PSRQ
P: century show that the June rainfall is
S: no predictor of the monsoon's outcome
R: rain may have soothed concerns
Q: of a drought, India's rainfall data for over a
Sentence: *While the recent rain may have soothed concerns of a drought, India's rainfall data for over a century show that the June rainfall is no predictor of the monsoon's outcome.*
18. (a) SRQP
S: 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 as much as to any one country.
Sentence: *For some people patriotism means hatred for other countries, but this type of patriotism is an evil and it should be condemned because today man belongs to the whole world as much as to any one country.*
19. (b) Bee produces honey; Cow produces milk.
20. (a) Oven is used to bake; Knife is used to slice.
21. (c) Finger is a part of a hand; Leaf is a part of a tree.
22. (b) Rule: When we refer to a distance, period of time, or amount, it is considered singular.
23. (b) Rule: *Neither / Either / Each* are **singular**.
Incorrect: *Neither of the students have completed...*
Correct: *Neither of the students has completed...*
24. (b) Rule: In indirect sentences after "know," the structure should be **to whom she should** (not "to whom should she").
25. (a) Impartial → fair, unbiased → correct word for a judge.
Biased, emotional, hesitant → inappropriate.
26. (c) Rule: *Hardly / Scarcely* ... when → always takes **past perfect tense**.
27. (a) *Came across* → to find by chance (correct usage).
Came by → to obtain something (less suitable here).
Came out → to be published / revealed.
Came into → to inherit.
28. (d) Present tense is required here because it's a general fact.
29. (b) The word "tolerance" fits well with "adverse conditions."
Other options don't suit the meaning.
30. (b) If a plant lacks drought resistance, it is artificially **irrigated** (given water).
Other options (heated, showered, deserted) do not fit the context.
31. (b) The language used in the most inscriptions of Ashoka is Prakrit.
Some inscriptions in the northwestern regions were also in **Greek** and **Aramaic**.
Prakrit was usually in the **Brahmi script** in most of India and the **Kharosthi script** in the northwest.
Ashoka wanted his messages of **dhamma** to reach the **common people**, so he used **Prakrit**, not Sanskrit or Pali.
32. (c) The 'NIDHI' scheme was launched by department of Science and Technology in 2016.
NIDHI is designed to nurture technology-driven ideas into startups and encourages incubation, and supports academic and R&D institutions in fostering innovation through incubation infrastructure.
The acronym NIDHI stands for **National Initiative for Developing and Harnessing Innovations**.
NIDHI is **implemented by the Department of Science & Technology (DST)** via its Technology Translation and Innovation Division and the National Science & Technology Entrepreneurship Development Board (NSTEDB). So, statements 2, 3, 4 are correct.
33. (a) The RailOne App, launched by Indian Railways in 2025, primarily aims to provide passengers with a single-window platform for integrated services.
It brings together age-old features like reserved and unreserved ticket booking, PNR status, live train tracking, food ordering, grievance redressal, and more—all under one roof.
It also allows single-sign-on login using mPIN or biometric methods.
34. (b) General Bipin Rawat, the first Chief of Defence Staff (CDS) of India, was commissioned into Gorkha Rifles.
He Held **counter-insurgency** commands in Jammu & Kashmir and the Northeast.
He is known for modernization efforts, jointness among services, and strong stance on national security.
35. (c) The primary cause of acid rain formation is sulfur dioxide and nitrogen oxides emissions.
The gases are released into the atmosphere mainly from burning coal, oil, vehicle exhausts, and industrial processes.
These gases react with **water vapour, oxygen, and other chemicals** in the atmosphere to form **sulfuric acid** and **nitric acid**.
When this acidic mixture falls as rain, snow, or fog, it is called **acid rain**.
36. (c) Banu Mushtaq was awarded the International Booker Prize for the year 2025.
She is a distinguished Kannada-language writer, who was awarded the prize for her short story collection "Heart Lamp".
'Heart Lamp' made history as both the **first short story collection** and the **first work translated from Kannada** to win the International Booker Prize.
37. (c) Exercise PRALAY was carried out by Indian Air Force.
It was a **command-level exercise** aimed at testing combat readiness and jointness with the Indian Army.
The drill involved **fighter aircraft, transport aircraft, helicopters, and missile systems** operating from forward bases near the Line of Actual Control (LAC).
Its focus was on **high-intensity combat operations, rapid deployment, and operational preparedness** in sensitive border areas.
38. (b) Project 75, under which India is constructing Scorpene-class submarines, is being executed by Mazagon Dock Shipbuilders Limited.
Project 75 is a program to build **six Scorpene-class diesel-electric submarines** in India.
These submarines are being constructed in collaboration with **Naval Group of France**.
So far, submarines like **INS Kalvari, INS Khanderi, INS Karanj, INS Vela, and INS Vagir** have already been commissioned into the Indian Navy.

39. (d) Falcon 9 Block 5 is used to launch the Axiom Mission 4 (Ax-4) to the International Space Station.

Axiom Mission 4 (Ax-4) was launched on June 25, 2025 from Launch Complex 39A at NASA's Kennedy Space Center.

The mission carried a **SpaceX Crew Dragon capsule named "Grace"** and transported four astronauts to the International Space Station.

40. (d) The purpose of 'Operation Sindhu' was to safely evacuate Indians stranded in Iran.

Operation Sindhu was launched on **18 June 2025** by the Government of as a **humanitarian evacuation mission**.

Its primary purpose was to **evacuate Indian nationals—especially students—stranded in Iran amidst the escalating Iran–Israel conflict**.

The operation has successfully evacuated thousands through multiple phases, including routes via Armenia.

41. (b) Sir Alexander Cunningham established the Archaeological Survey of India (ASI).

Cunningham was appointed as the first **Director-General of ASI**.

His work included surveying ancient monuments, excavating historical sites, and preserving India's cultural heritage.

42. (d) The **Reserve Bank of India (RBI)** launched the **DAKSH portal** in **November 2022**.

The RBI supervises thousands of **banks, NBFCs, payment system operators, etc.**, and these entities must regularly **report compliance, respond to inspections, and submit regulatory data**.

DAKSH streamlines this by acting as a **single, online workflow platform**.

Thus, The correct statements are 1, 2, and 3.

43. (b) The primary aim of the "100 Million for 100 Million" campaign launched in 2016 is to mobilize 100 million youth to support 100 million children denied basic rights and freedom.

The focus was on **ending child labour, child slavery, violence, and exploitation**, while ensuring access to education and dignity.

This was a **global youth-led movement** under the **Kailash Satyarthi Children's Foundation**.

44. (a) Ganesh Vasudev Mavalankar is known as the "Father of the Lok Sabha".

He was the **first Speaker of the Lok Sabha**, serving from **1952 to 1956**.

Earlier, he was also the **Speaker of the Central Legislative Assembly** and the **Constituent**

Assembly (Legislative) before becoming Speaker of the independent India's **first Lok Sabha**.

45. (a) The working principle of washing machine is centrifugation.

When the drum rotates at high speed, **centrifugal force** pushes water and dirt outward through the holes of the drum, while clothes remain inside.

This process helps in **separating water from wet clothes**.

46. (b) Cumulonimbus clouds are typically associated with Thunderstorms.

They form due to strong **upward convection currents** in the atmosphere.

Weather associated with cumulonimbus clouds includes **Thunderstorms, heavy rain, and lightning**.

47. (d) The position of the Indian football team in the 1956 Melbourne Olympics was 4th.

India reached the **semi-finals** after defeating **Australia 4–2**.

In the **semi-final**, India lost to **Yugoslavia (1–4)**.

In the **bronze medal match**, India lost to **Bulgaria (0–3)**.

48. (b) Statements 1 and 3 are correct.

Isotopes have the same **proton number**, but different **neutron numbers**.

In **isotones**, **number of protons** is different, while **neutrons** are same.

Unlike isotopes, isotones belong to **different elements**.

49. (c) The Pechora surface-to-air missile system currently in service with the Indian Air Force, was originally developed by Russia (former Soviet Union) in the 1960s.

The **Pechora system** is a **medium-range surface-to-air missile (SAM)**.

India inducted it in the **1970s**, and it still serves in the **Indian Air Force (IAF)** for **air defence of strategic assets**.

50. (c) The Subroto Cup was started in 1960.

It was started in memory of **Air Marshal Subroto Mukerjee**, who was the first Indian Chief of Air Staff.

Organized annually by the **Indian Air Force**, it encourages football at the grassroots level among school children.

Teams from **all over India and even abroad** have participated in this tournament.

51. (b) Raj Kumar Shukla, an indigo cultivator from Champaran, persuaded Mahatma Gandhi to come to Champaran to take up the cause of exploited indigo planters.

This eventually led to the **Champaran Satyagraha of 1917**, Gandhi's first satyagraha movement in India.

Indigo farmers in Champaran, Bihar, were forced to grow indigo on a portion of their land under the **Tinkathia system**.

52. (c) Statements 1 and 2 are correct.

DIKSHA, launched in **2017** is a **national platform developed by the Ministry of Education**.

It supports **school education** for teachers, students, and parents and hosts **e-content in multiple languages**.

It provides **QR-coded textbooks**, called **Energised Textbooks (ETBs)**, that link physical books with digital resources. Teachers and students across **states and UTs** can access them.

53. (c) Base-catalyzed haloform reaction involves a chain reaction mechanism that starts with a ketone group.

The haloform reaction specifically targets **methyl ketones**.

In base, the ketone forms an **enolate**, which undergoes **sequential α -halogenations** to give $R-CO-CBr_3/Cl_3$.

It's the classic test for methyl ketones.

54. (b) Statements 1 and 3 are correct.

Biomagnification is the progressive increase in the concentration of a toxic substance as it moves up successive trophic levels in a food chain.

Fat-soluble pollutants (lipophilic) are more likely to undergo biomagnification because they are stored in fatty tissues and not easily excreted. Water-soluble pollutants are excreted more easily.

Top carnivores (like birds of prey, humans, polar bears) are most affected since they are at the top of the food chain and accumulate the highest concentration of toxins.

55. (b) Cruise missile features best describes the Nirbhay missile.

Nirbhay is India's **long-range, all-weather, subsonic cruise missile** developed by **DRDO**.

Its range is around 1,000 km and is capable of carrying **nuclear or conventional warheads**.

It is **not** a ballistic missile, anti-tank missile, or surface-to-air missile.

56. (a) According to question,

$$6000 = \frac{P \times 5 \times 2}{100} \Rightarrow P = ₹60000$$

$$CI = 60000 \times \left[\left(1 + \frac{5}{100} \right)^2 - 1 \right]$$

$$= 60000 \times \left(\frac{441}{400} - 1 \right) = 60000 \times \frac{41}{400} = ₹6150$$

57. (d) A number is divisible by 16 if the number formed by its last 4 digits is divisible by 16.

∴ Required remainder

$$= \text{Rem.} \left(\frac{1920}{16} \right) = 0$$

58. (b) Required probability = $\frac{{}^4C_2 \times {}^8C_1}{{}^{12}C_3}$

$$= \frac{6 \times 8}{220} = \frac{12}{55}$$

59. (c) Required number of carpets

$$= \frac{960}{6 \times 4} = 40$$

60. (b) Let the distance by d km.

$$\text{Then, } \frac{d}{3} - \frac{d}{4} = \frac{15+15}{60}$$

$$\Rightarrow \frac{d}{12} = \frac{1}{2} \Rightarrow d = 6$$

61. (a) Area left for writing = $(30 - 2 \times 2.5) \times (15 - 2 \times 1.5) = 25 \times 12 \text{ cm}^2$

Required percentage

$$= \frac{25 \times 12}{30 \times 15} \times 100 = 66.66\%$$

62. (b) Let the weight of Ram and Shyam be 6 kg and 5 kg respectively.

$$\text{Increased weight of Shyam} = (6 + 5) \times 1.15 - 6 \times 1.2$$

$$= 12.65 - 7.2 = 5.45 \text{ kg}$$

$$\text{Required percentage} = \frac{5.45 - 5}{5} \times 100 = 9\%$$

63. (a) Total quantity of water in new mixture

$$= 2 + \frac{1}{7} \times 14 = 4 \text{ litres}$$

Total quantity of milk in new mixture

$$= (8 + 14) - 4 = 18 \text{ litres}$$

$$\text{Required ratio} = 4 : 18 = 2 : 9$$

64. (d) $P \rightarrow CP = x$, Profit = $0.4x$, SP = $1.4x$

$$Q \rightarrow SP = 1.4x$$

$$\text{Profit} = 0.5 \times 1.4x = 0.7x$$

$$\text{Now, } 0.7x - 0.4x = 600$$

$$\Rightarrow 0.3x = 600 \Rightarrow x = 2000$$

$$\therefore SP = 1.4 \times 2000 = 2800$$

65. (b) Let the age of the youngest child be x years.

According to the question,

$$25 \times 5 + 8 \times 5 + x + x + 4 = 25 \times 7$$

$$\Rightarrow x + x = 175 - 169$$

$$\Rightarrow 2x = 6 \Rightarrow x = 3$$

66. (a) Distance travelled by the truck in 10 litres of diesel at the speed of 50 km/h

$$= 10 \times 19.5 = 195 \text{ km}$$

$$\therefore \text{Required distance} = \frac{195}{1.3} = 150 \text{ km}$$

67. (a) At 't' minutes after 2:00,

$$\text{Hour hand angle} = 60 + 0.5t \text{ degrees}$$

$$\text{Minute hand angle} = 6t \text{ degrees}$$

$$\text{As, 1 minute space} = 6 \text{ degrees,}$$

$$\text{So, } 6t - (60 + 0.5t) = 6$$

$$\Rightarrow 5.5t = 66 \Rightarrow t = 12$$

Hence, at 2:12 the minute hand is exactly 1 minute space ahead of hour hand.

C1 C2 C3

68. (c) Profit $\rightarrow 9 : 10 : 8$

$$81 : 90 : 72$$

C2 C4 C5

$$\text{Profit} \rightarrow 18 : 19 : 20$$

$$90 : 95 : 100$$

∴ Profit ratio of C1, C2, C3, C4 and C5

$$= 81 : 90 : 72 : 95 : 100$$

$$\therefore \text{Total profit} = \frac{19}{100 - 81} \times (81 + 90 + 72$$

$$+ 95 + 100) = ₹ 438 \text{ Cr}$$

69. (a) Let the age of younger child be x years.

According to question,

$$4 \times 40 + 4 \times 15 + x + x + 8 = 6 \times 40$$

$$\Rightarrow 228 + 2x = 240 \Rightarrow x = \frac{12}{2} = 6$$

$$\text{Required ratio} = (6 + 8) : 6 = 7 : 3$$

70. (b)

Ramesh

Rakesh

$$\text{CP} \rightarrow x$$

$$\text{Profit} \rightarrow \frac{x}{4}$$

$$\frac{1}{4} \times \frac{5}{4} x = \frac{5}{16} x$$

$$\text{SP} \rightarrow x + \frac{x}{4} = \frac{5}{4} x$$

$$\frac{5}{4} x$$

Now,

$$\frac{5x}{16} - \frac{x}{4} = 100 \Rightarrow \frac{x}{16} = 100 \Rightarrow x = 1600$$

$$\text{SP} = \frac{5}{4} \times 1600 = ₹ 2000$$

71. (c) $\frac{2}{3}$ day $\rightarrow 18$ books

$$1 \text{ days} \rightarrow 18 \times \frac{3}{2} = 27 \text{ books}$$

$$\frac{1}{4} \text{ day} \rightarrow \frac{27}{4} \text{ books}$$

72. (b) Upstream speed = $\frac{140}{7} = 20 \text{ km/h}$

$$\text{Downstream speed} = \frac{210}{7} = 30 \text{ km/h}$$

∴ Speed in still water

$$= \frac{20 + 30}{2} = 25 \text{ km/h}$$

73. (d) Perimeter of rectangle = Circumference of circle

$$= 2 \times \frac{22}{7} \times 21 = 132 \text{ cm}$$

$$\therefore 2(6x + 5x) = 132 \Rightarrow 22x = 132 \Rightarrow x = 6$$

$$\text{Area of rectangle} = 6x \times 5x = 30x^2$$

$$= 30 \times 6^2 = 1080 \text{ cm}^2$$

74. (c) $\sqrt{1225} \div \sqrt[3]{343} \times 45$ % of 760

$$= x \times 66.67\% \text{ of } 45$$

$$\Rightarrow 35 \div 7 \times \frac{45}{100} \times 760 = x \times \frac{2}{3} \times 45$$

$$\Rightarrow 5 \times 342 = x \times 30 \Rightarrow x = \frac{342}{6} = 57$$

75. (a)

A B

$$\text{Time} \rightarrow 20 : 30$$

$$2 : 3$$

$$\text{Efficiency} \rightarrow 3 : 2$$

Required difference

$$= \frac{3-2}{3+2} \times 4000 = ₹ 800$$

76. (b) 1 minute-space = 6° .

At 't' minutes past 3:00

$$\text{Minute hand angle} = 6t^\circ$$

$$\text{Hour hand angle} = 90^\circ + 0.5t^\circ \text{ (since at 3:00 it's at } 90^\circ \text{ and moves } 0.5^\circ/\text{min)}$$

Minute hand ahead by 7 spaces

$$\Rightarrow \text{minute} - \text{hour} = 7 \times 6 = 42^\circ$$

$$\Rightarrow 6t - (90 + 0.5t) = 42$$

$$\Rightarrow 5.5t - 90 = 42$$

$$\Rightarrow 5.5t = 132$$

$$\Rightarrow t = 24 \text{ minutes}$$

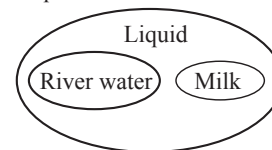
So, the time is 3:24.

77. (a) Logic: They're the two-letter suffixes we add to numbers when writing ordinal numbers in English.

As, 1 \rightarrow st (1st), 2 \rightarrow nd (2nd), 3 \rightarrow rd (3rd), 4 \rightarrow th (4th)

Similarly, Continuing the sequence (1st, 2nd, 3rd, 4th), the next is 5th, whose suffix is TH.

78. (a) Logic: "River water" and "Milk" are Liquid.

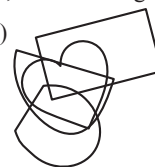


79. (d) After reversing each half:

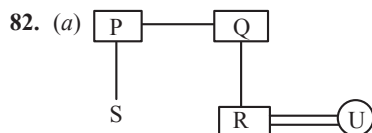
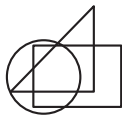
MLKJIHGFEDCBZYXWVUTSRQPON

So, 10th from right is W.

80. (c)



81. (c)



Here, U is the Sister in law of S.

83. (b) Logic: In Numerator each letter is decreased by 1 and denominator decreased by 3.

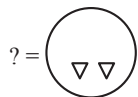
As,

F N B and V
 $\downarrow -1$ $\downarrow -1$ $\downarrow -1$ $\downarrow -3$
 E M A S

Similarly,

G P C and Z
 $\downarrow -1$ $\downarrow -1$ $\downarrow -1$ $\downarrow -3$
 F O B W

84. (a) Logic : Second image is the water image of the first image in each pair.



85. (b) Political Science, History and Sociology are the parts of social sciences. But, Biology is natural science.

86. (c) Except number 15, all other numbers are even number.

87. (a) Logic : First reverse the word and then subtract 3, 2 alternatively.

As,

MOBILE in reverse order ELIBOM,

then,

E L I B O M
 $\downarrow -3$ $\downarrow -2$ $\downarrow -3$ $\downarrow -2$ $\downarrow -3$ $\downarrow -2$
 B J F Z L K

and,

TABLET in reverse order TELBAT,

then,

T E L B A T
 $\downarrow -3$ $\downarrow -2$ $\downarrow -3$ $\downarrow -2$ $\downarrow -3$ $\downarrow -2$
 Q C I Z X R

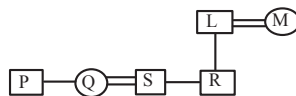
Similarly,

KINDLE in reverse order ELDNIK,

then,

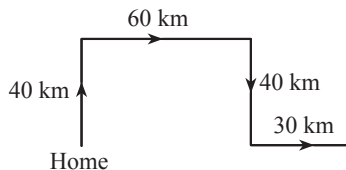
E L D N I K
 $\downarrow -3$ $\downarrow -2$ $\downarrow -3$ $\downarrow -2$ $\downarrow -3$ $\downarrow -2$
 B J A L F I

88. (b)



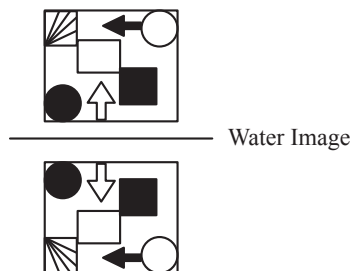
Here, P is S's wife's brother.

89. (b)

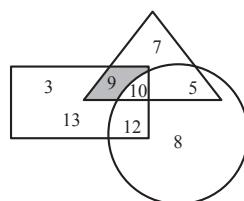


Shilpa is 90 km far from her home.

90. (d)

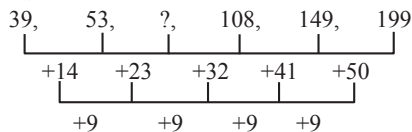


91. (a)



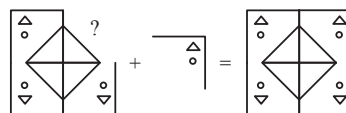
Here, 9 players play both kabaddi and football only.

92. (d)



$$? = 53 + 23 = 76$$

93. (a)



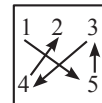
94. (b) Given : $105 - 15 \div 13 + 3 \times 27 = ?$

After interchanging '+' with ' \times '; and '-' with ' \div ',

$$= 105 \div 15 - 13 \times 3 + 27$$

$$= 7 - 39 + 27 = -5$$

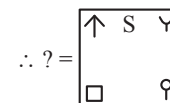
95. (a)



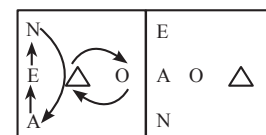
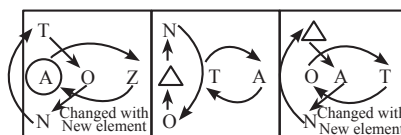
Logic :-

I. Letters or symbols changes its position in $1 \rightarrow 5, 5 \rightarrow 3, 3 \rightarrow 4$, and $4 \rightarrow 2$ sequence.

II. In the next series new symbols comes in position 1.



96. (b)

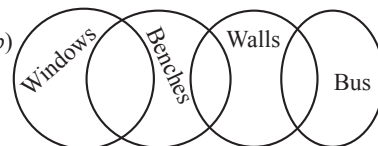


97. (a)

Ranjita Sucheta Amita Gargi Fauzia

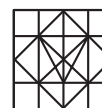
Ranjita and Fauzia sitting at the extreme ends.

98. (b)



Only Conclusion II follows.

99. (b)



100. (c)

