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DIRECTIONS

- The set contains a total of 100 questions, comprising Verbal Ability in English, General Awareness, Numerical Ability and Reasoning and Military Aptitude Test.
- Each correct question carry 3 Marks and there will be negative marking of 1 Mark for each incorrect attempt.
- Total time duration will be 2 hrs (120 minutes).
- No marks will be deducted for unattempted questions.

Directions (Q. Nos. 1-3) *In these questions, choose the word similar in meaning to the word given.*

1. Affluent
(a) Prosperous (b) Self-obsessed
(c) Genuine (d) Agitation
2. Pilfer
(a) Fearless (b) Steal
(c) Unlawful (d) Subjugation
3. Debacle
(a) Victory
(b) Accomplishment
(c) Notoriety
(d) Failure

Directions (Q. Nos. 4-6) *In the following questions, choose the word opposite in meaning to the given word.*

4. Mitigate
(a) Restful (b) Exalted
(c) Aggravate (d) Enumerate
5. Luscious
(a) Unappetizing (b) Delicious
(c) Ardent (d) Twisted
6. Allure
(a) Egotistic (b) Attract
(c) Repel (d) Overcome

Directions (Q. Nos. 7-9) *You have one brief passage with two questions following the passage. Read the passage carefully and choose the best answer to*

each question out of the given four alternatives.

Some people believe that they are masters of their own fate. Other people see themselves as pawns of fate, believing that what happens to them in their lives is due to luck or chance. The first type, those who believe that they control their destinies, have been labelled internals, whereas the latter, who see their lives as being controlled by outside forces, have been called externals.

Internals search more actively for information before making a decision, are more motivated to achieve, and make a greater attempt to control their environment. Externals, however, are more compliant and willing to follow directions. Therefore, internals do well on sophisticated tasks which include most, managerial and professional jobs that require complex information processing and learning.

In addition, internals are more suited to jobs that require initiative and independence of action. Almost all successful sales people, for instance are internals. In contrast, externals should do well on jobs that are well structured and routine and in which success depends heavily on complying with the directions of others.

7. Which one of the following is not correct?

- (a) Internals have more confidence in their ability
- (b) Internals are more enterprising
- (c) Internals go in for routine jobs
- (d) Internals are more inquisitive

8. Which one of these is correct?

- (a) Internals seek jobs which call for more initiative
- (b) Internals seek jobs which are full of fun and enjoyment
- (c) Internals believe in receiving guidance and direction from superiors only
- (d) Internals believe in destiny

9. Externals perceive themselves

- (a) as having little control over organisational outcome
- (b) as critical to the success of the organisation
- (c) as those who can influence sales volumes
- (d) as those who search frantically for more information

Directions (Q. Nos. 10-12) *In these questions, four alternatives are given for the idiom / phrase. Choose the alternative, which best expresses the meaning of the idiom / phrase, given in italics in the sentence.*

10. The sight of the accident *made my flesh creep*.
 (a) worried me
 (b) frightened me
 (c) confused me
 (d) drew my attention
11. I just paid him a *left handed compliment*.
 (a) an honest
 (b) a well deserved
 (c) an insincere (d) a flattering
12. The party stalwarts have advised the President to *take it lying down* for a while.
 (a) to show no reaction
 (b) to take rest
 (c) to be on the defensive
 (d) to be cautious

Directions (Q. Nos. 13-17) *Below a passage is given, with five blanks, and four options are given for each blank. Choose the word that fits each blank most appropriately in the content of the passage.*

The much-awaited New Year is finally here. While you might have made (13) to exercise daily, read 20 books before the year ends, splurge less on clothes or learn to (14) a musical instrument, but have you spared a thought about your (15) life? In case, you are still figuring out what all you can do to climb up the corporate ladder in 2020, we have got you covered.

We have compiled a list of six small changes that can make a huge (16) in your career. Apart from increasing your daily productivity and managing the stress level at workplace, these (17) would also help you to achieve a better work-life balance.

13. (a) Plans (b) reports
 (c) expenses (d) resolutions
14. (a) play (b) make
 (c) teach (d) perform
15. (a) personal (b) professional
 (c) economical (d) social
16. (a) gap (b) difference
 (c) deviation (d) profit
17. (a) circumstances (b) habits
 (c) paths (d) goals

Directions (Q. Nos. 18-21) *Read each sentence to find out which part of the sentence has an error. If you find no error, your answer should be indicated as option (d) No error.*

18. With little imagination and enterprise, (a)/the tournament could have been transformed (b)/into a major attraction. (c)/No error(d)
19. Order has been issued (a)/for his transfer to another district (b)/but he has not received them so far. (c)/No error (d)
20. The master did not know (a)/who of the servants (b)/broke the glass. (c). No error (d)
21. Each of these players (a)/have been warned (b)/not to repeat the silly mistake. (c)/no error (d)

Directions (Q. Nos. 22-25) *Sentences are given with blanks to be filled it with an appropriate words. Four words are suggested for each question. Choose the correct alternative out of the four alternatives.*

22. The speed with which she typed the draft demonstrated that she is a secretary.
 (a) savvy
 (b) adapted
 (c) nimble
 (d) competent
23. Our latest battle plan some projects at saving the Earth's Biological diversity.
 (a) finishes, stirring
 (b) covers, aimed
 (c) enclose, looked
 (d) excludes, arriving
24. No one was allowed to use any written materials the exam.
 (a) on (b) by
 (c) over (d) during
25. If you smuggle goods into the country, they may be by the customs authority.
 (a) possessed
 (b) punished
 (c) confiscated
 (d) fined
26. Who is known as the "Napoleon of India"?
 (a) Samudragupta
 (b) Chandragupta II 'Vikramaditya'
 (c) Skandagupta
 (d) Ashoka
27. Chris Evert's name is associated with which sports?
 (a) Cricket
 (b) Football
 (c) Tennis
 (d) Badminton

28. Who is the first batsman to hit six sixes in an over in a T20 International?
 (a) Chris Gayle
 (b) Yuvraj Singh
 (c) Ben Stokes
 (d) Mathew Hayden
29. Which Indian leader was popularly known as 'Punjab Kesari' or 'Sher-e- Punjab'?
 (a) Bhagat Singh (b) Ajit Singh
 (c) Lala Hardyal (d) Lala Lajpat Rai
30. Who is called the father of Germanunity?
 (a) Helmut Kohl (b) Garybaldi
 (c) Bismark (d) Hitler
31. Vienna is the capital of which country?
 (a) Germany (b) France
 (c) Austria (d) Poland
32. In which city was the United Nation Organisation was created?
 (a) New York (b) London
 (c) Washington (d) San Francisco
33. The term 'bully' is connected with which sports?
 (a) Rugby (b) Baseball
 (c) Hockey (d) Cricket
34. Who is the author of Ain-i-Akbari?
 (a) Abu'l Fazl
 (b) Amir Khusrau
 (c) Ziauddin Barani
 (d) Shaikh Burhan
35. Who is the writer of Das Kapital?
 (a) Spencer
 (b) Jeremy Bentham
 (c) Max Weber
 (d) Karl Marx
36. Where is Hawaii located in the world?
 (a) Indian Ocean (b) Pacific Ocean
 (c) Atlantic Ocean (d) Arctic Ocean
37. Which of the following is the lightest gas?
 (a) Oxygen (b) Nitrogen
 (c) Hydrogen (d) Methane
38. The first oil well in India was dug at
 (a) Naharkatiya (b) Digboi
 (c) Akleshwar (d) Mumbai High
39. Equator doesn't pass through which continent?
 (a) Africa (b) South America
 (c) Asia (d) Australia
40. In which layer of the atmosphere do Aurora Borealis appear?
 (a) Ionosphere (b) Troposphere
 (c) Stratosphere (d) Mesosphere

41. CTPS thermal power plant is located in which city?
 (a) Jamshedpur (b) Nasik
 (c) Chandrapura (d) Ranchi
42. Separation of the Judiciary from the Executive is enjoined by
 (a) Fundamental Right
 (b) Directive Principles of State Policy
 (c) Fundamental Duty
 (d) Preamble
43. First Afro-Asian Games held in Hyderabad in which year?
 (a) 2003 (b) 2005
 (c) 2008 (d) 2010
44. The term 'Chukker' is used in which game?
 (a) Chess (b) Kho-Kho
 (c) Polo (d) Volleyball
45. First SAARC Gold Championship held in which country?
 (a) India (b) Bangladesh
 (c) Sri Lanka (d) Pakistan
46. At which place will you find maximum sunlight in December?
 (a) Kanyakumari
 (b) Kolkata
 (c) Mumbai
 (d) Hyderabad
47. AWACS warning system was equipped with which aircraft?
 (a) Mig 21 (b) Sukoi 30
 (c) IL-76 (d) TEJAS
48. Which of the following forts was not built by Akbar?
 (a) Gwalior Fort (b) Agra Fort
 (c) Lahore Fort (d) Allahabad Fort
49. Who was the author of Kitab-ul-Hind?
 (a) Minhaj Siraj
 (b) Ziauddin Barani
 (c) Badauni
 (d) AL-Biruni
50. Gondwana Hills are located where?
 (a) Uttarakhand
 (b) Madhya Pradesh
 (c) Himachal Pradesh
 (d) Maharashtra
51. Calculate compound interest on a sum of ₹ 64000 compounded quarterly for 1 year at a rate of 10%?
 (a) ₹ 7425.221 (b) ₹ 6644.025
 (c) ₹ 5602.028 (d) ₹ 6244.155
52. A car owner or a man buys petrol at ₹ 8, ₹ 9 and ₹ 11 per litres for three successive years. What approximately is the average cost per litres of petrol if he spends ₹ 4000 each year? [Numerical may differ]
 (a) ₹ 9.17 (b) ₹ 11.2
 (c) ₹ 7.12 (d) ₹ 12.6
53. In a library 5 per cent books are in English; 10 per cent of the remaining are in Hindi and 15 per cent of the remaining are in Sanskrit. The remaining 11628 books are in French. Then, find the total number of books in the library.
 (a) 15000 (b) 12000
 (c) 16000 (d) 10000
54. Two poles cast shadow 12 m and 14 m respectively. If height of one is 48 m, what can be possible height of second?
 (a) 56 m (b) 62 m
 (c) 50 m (d) 45 m
55. $(30\% \text{ of } 6500) \div 26 + 25 = ?$
 (a) 4 (b) 8
 (c) 2 (d) 3
56. CP of 30 kg of rice is same as the SP of "X" kg of wheat. If shopkeeper makes profit of 20%, find X?
 (a) 20 kg (b) 24 kg
 (c) 25 kg (d) 28 kg
57. Two guns are fired from the same place at an interval of 15 min. A person approaching the place observes that 14 min 30 sec have elapsed between the hearings of the sound of the two guns. If the velocity of the sound is 330 m/sec, the man was approaching that place at what speed (in km/h)?
 (a) 50.23
 (b) 40.9655
 (c) 45.1826
 (d) 32.2632
58. A boy starts painting a fence, 2nd day 2 boys join him, 3rd day 3 more boys joined them and so on, fence is painted in 20 days. How many days will be taken by 10 men to paint the whole fence if efficiency of 1 man is equal to efficiency of 2 boys?
 (a) 67 (b) 74
 (c) 84 (d) 77
59. Two classes X and Y have students 32 and 30. Average of X is 45 and Y is 50. Find average of both the class.
 (a) 54.32 (b) 47.42
 (c) 61.23 (d) 40.25
60. Difference between SI and CI is ₹ 604. If the sum of amount is given at the rate of 25% for 3 yr, find SI and CI.
 (a) 2230.15 and 2834.15
 (b) 2430.25 and 2622.24
 (c) 2625.25 and 2700.30
 (d) 2010.12 and 2220.27
61. Akash leaves Mumbai at 6 am and reaches Bangalore at 10 am. Prakash leaves Bangalore at 8 am and reaches Mumbai at 11:30 am. At what time do they cross each other?
 (a) 8 : 56 am (b) 9 am
 (c) 8 : 56 pm (d) 9 pm
62. Two trains traveling in opposite direction crosses a man in 17 sec and 27 sec respectively and they cross each other in 23 sec. Find the ratio of their speeds.
 (a) 1 : 2 (b) 2 : 1
 (c) 2 : 3 (d) 5 : 7
63. A seller has a 20% loss after selling an item at ₹ 1200. At what price should sell it to get 5% profit?
 (a) ₹ 1600 (b) ₹ 1440
 (c) ₹ 1550 (d) ₹ 1575
64. A sum invested at SI will be twice in 12 yr. Find the rate of interest.
 (a) 10% (b) 8.33%
 (c) 15% (d) 5%
65. A sum invested at SI gets thrice in 8 yr. Then, after 20 yr it will be?
 (a) 6 times (b) 2 times
 (c) 5 times (d) 4 times
66. Ratio of volumes of 3 containers is 3 : 4 : 5. All the three containers are full of a mixture of milk and water. Ratio of milk and water is 4 : 1, 3 : 1 and 3 : 2 in the three containers respectively. If the liquid of all the three containers is poured in the 4th container, then find the ratio of milk and water.
 (a) 1 : 2 (b) 2 : 3
 (c) 7 : 3 (d) 5 : 4
67. A boy goes from his house to school at 3 km/h and return at 2 km/h. If he takes total 5 h in the whole journey, find the distance between school and his house.
 (a) 10 km (b) 7 km
 (c) 4 km (d) 6 km
68. 60% of total donation required by school was collected when 50% of the parents donated an average of ₹ 1200. Find the average amount

that should be donated by rest 50% parents so that school has the whole amount that was required.

- (a) 1000 (b) 2000
(c) 800 (d) 500

Directions (Q. Nos. 69-72) *In each of the following questions, there is a certain relationship between two given words on one side of (::) and one word is given on another side (::) while another word is to be found from the given alternatives, having the same relation with this word as the words of the given pair bear. Choose the correct alternative.*

69. House : Door :: Compound : ?
(a) Gate (b) Fence
(c) Foundation (d) Wall
70. Hongkong : China :: Vatican : ?
(a) France (b) Mexico
(c) Canada (d) Rome
71. Giant : Dwarf :: Genius : ?
(a) Wicked (b) Gentle
(c) Idiot (d) Tiny
72. Aryabhata : Mathematician :: Varahamihira : ?
(a) Physician
(b) Astronomer
(c) Scientist
(d) Architect

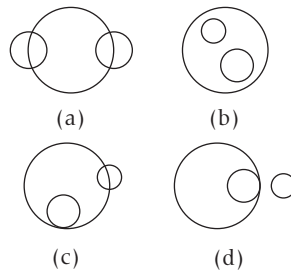
Directions (Q. Nos. 73-77) *In the following questions, three alternatives are same in a certain way out of four and so form a group. Find the odd word that does not belong to the group.*

73. (a) Father (b) Mother
(c) Friend (d) Brother
74. (a) Red (b) Blue
(c) Yellow (d) Black
75. (a) Kanpur (b) Lucknow
(c) Lahore (d) Patna
76. (a) Ample (b) Copious
(c) Plentiful (d) Abundance
77. (a) Rifle (b) Cannon
(c) Sword (d) Pistol
78. If in a certain code language 'NAME' is written as 'OYPA', then how will 'TEAM' be coded in that language?
(a) UCDI (b) UCID
(c) UICD (d) UDCI

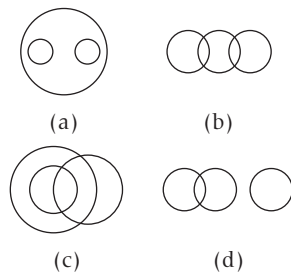
Directions (Q. Nos. 79 and 80) *What comes in place of question mark in the following letter series?*

79. ABC, PQR, DEF, STU, ?
(a) GKL (b) VWX
(c) GHI (d) IJK
80. XWA, VTC, SPF, OKJ, ?
(a) JDN
(b) JEO
(c) LPN
(d) JDP

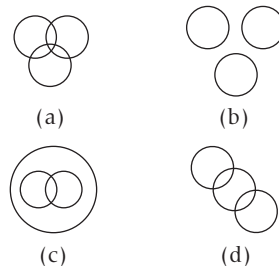
81. Which of the following diagrams represents the relation among Currency, Rupee and Dollar?



82. Which one of the following diagrams best depicts the relationship among Elephants, Wolves and Animals?



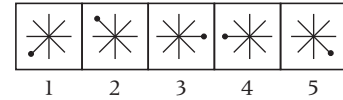
83. Which diagram correctly represents the relationship among Politicians, Poets and Women?



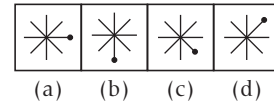
Directions (Q. Nos. 84-86) *In each of the following questions, find out the*

figure from the answer figures which when placed next to the problem figures will continue the sequence of problem figures.

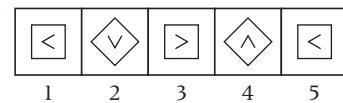
84. **Problem Figures**



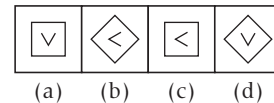
Answer Figures



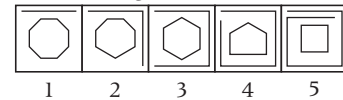
85. **Problem Figures**



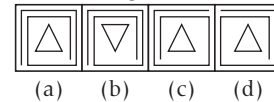
Answer Figures



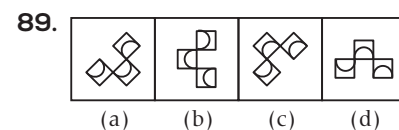
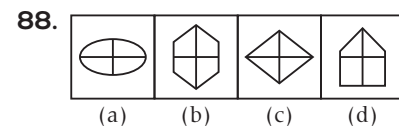
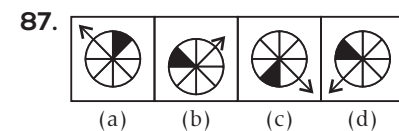
86. **Problem Figures**

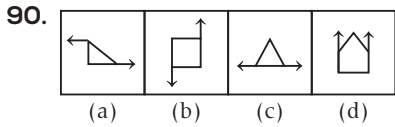


Answer Figures



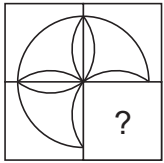
Directions (Q. Nos. 87-90) *In the following questions a group of four figures are given. Out of which three figures are similar to each other in a certain pattern. Find the figure which does not belong to the group.*



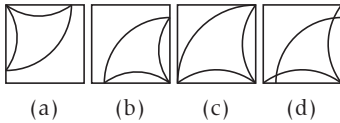


Directions (Q. Nos. 91-95) In each of the following questions, a part of question figure is missing. Find out from the given answer figures (a), (b), (c) and (d), that can replace the '?' to complete the question figure.

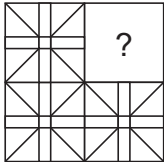
91. Question Figure



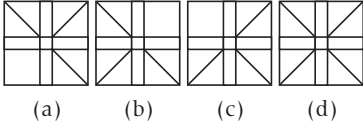
Answer Figures



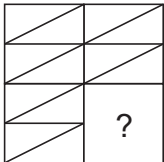
92. Question Figure



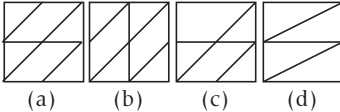
Answer Figures



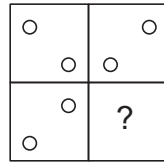
93. Question Figure



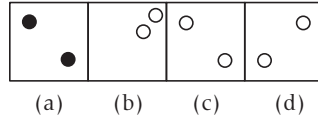
Answer Figures



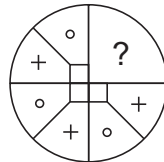
94. Question Figure



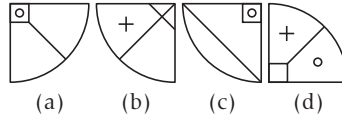
Answer Figures



95. Question Figure



Answer Figures

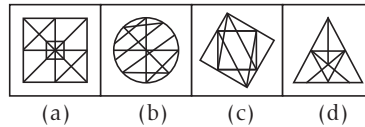


Directions (Q. Nos. 96-98) In the following questions, a question figure and a set of four answer figures (a), (b), (c) and (d) are given. Find out that answer figure in which the question figure is embedded.

96. Question Figure



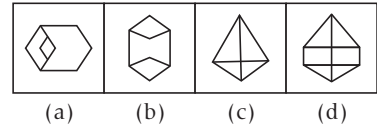
Answer Figures



97. Question Figure



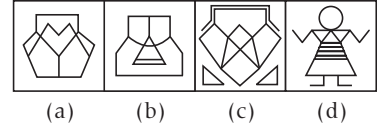
Answer Figures



98. Question Figure



Answer Figures



Direction (Q. No. 99) In the question below is given a statement followed by assumptions numbered I and II. Consider the statement and decide which of the given assumptions is implicit.

99. **Statement** Get your child examined by a specialist doctor, X tells Y.

Assumptions I. Y will not listen what X tells to him.

II. Y will hear X's advice.

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

Direction (Q. No. 100) In the question below are given two statements followed by two conclusions. You have to take the two given statements to be true even if they seem to be at variance from commonly known facts and decide which of the conclusion(s) logically follow(s) from the two given statements.

100. **Statements** Some dogs are cats.
All cats are pigs.

Conclusions I. Some cats are dogs.

II. Some dogs are pigs.

- (a) Only Conclusion I follows
- (b) Only Conclusion II follows
- (c) Either Conclusion I or II follows
- (d) Both Conclusions I and II follow

Answers

1. (a)	2. (b)	3. (d)	4. (c)	5. (a)	6. (c)	7. (c)	8. (a)	9. (a)	10. (b)
11. (c)	12. (b)	13. (d)	14. (a)	15. (b)	16. (b)	17. (b)	18. (a)	19. (a)	20. (b)
21. (b)	22. (d)	23. (b)	24. (d)	25. (c)	26. (a)	27. (c)	28. (b)	29. (d)	30. (a)
31. (c)	32. (d)	33. (c)	34. (a)	35. (d)	36. (b)	37. (c)	38. (b)	39. (d)	40. (a)
41. (c)	42. (b)	43. (a)	44. (c)	45. (d)	46. (a)	47. (c)	48. (a)	49. (d)	50. (b)
51. (b)	52. (a)	53. (c)	54. (a)	55. (d)	56. (c)	57. (b)	58. (d)	59. (b)	60. (a)
61. (a)	62. (c)	63. (d)	64. (b)	65. (a)	66. (c)	67. (d)	68. (c)	69. (a)	70. (d)
71. (c)	72. (b)	73. (c)	74. (d)	75. (c)	76. (d)	77. (c)	78. (a)	79. (c)	80. (b)
81. (b)	82. (a)	83. (a)	84. (d)	85. (d)	86. (d)	87. (b)	88. (d)	89. (b)	90. (d)
91. (a)	92. (d)	93. (d)	94. (c)	95. (d)	96. (a)	97. (b)	98. (d)	99. (b)	100. (d)

1. (a) 'Affluent' means rich/wealthy. So, 'prosperous' would be its most similar meaning word.
2. (b) 'Pilfer' means to steal or to rob. Hence, 'steal' would be its correct similar meaning word.
3. (d) 'Debacle' means a sudden and ignominious failure. Hence, failure would be its correct similar meaning word.
4. (c) 'Mitigate' means make (something bad) less severe, serious or painful. So, among the given options, aggravate would be its correct antonym as it means make (a problem, injury or offense) worse or more serious.
5. (a) 'Luscious' means delicious or tasty (of food or drink). Among the given options 'unappetizing' would be its correct antonym as it means flavourless, uneatable.
6. (c) 'Allure' means powerfully attract or charm. So, among the given options, repel would be its correct antonym as it means disgust.
7. (c) Internals are not go for routine jobs. Externals should do well on jobs that are well-structured and routine. Hence, option (c) is the correct answer.
8. (a) Internal seek jobs which call for more initiative, is the correct one.
9. (a) Externals perceive themselves as having the little control over organisational outcome.
10. (b) Make one's flesh creep means to cause one to feel disgusted, frightened or unnerved.
11. (c) A left-handed compliment is one that sounds like praise but has an insulting meaning. So, 'insincere' would be its correct answer.
12. (b) According to the given sentence, 'to take rest' is the correct answer of the given idiom.
13. (d) resolutions
14. (a) play
15. (b) professional
16. (b) difference
17. (b) habits
18. (a) Little means none or negligible. Thus, we use article 'a' before little as 'a little' means 'some'.
19. (a) When a person is assigned to a new station, he receives his 'orders'. This is a set of instructions, including where to be, when to be there etc. So, the correct sentence would be 'orders have been issued
20. (b) As the sentence refers to a choice among more than two persons (servants), 'which' will be used in place of 'who'.
21. (b) The phrase 'Each of ' takes a singular verb. So, 'have' would be replaced by 'has'.
22. (d) 'Competent' means having the necessary ability, knowledge or skill to do something successfully. So, option (d) 'competent' is a suitable choice to fill the given blank.
23. (b) The suitable choice to fill the given blanks is option (b) covers, aimed. Other choices are irrelevant in the context of the sentence.
24. (d) Preposition 'during' will be used to fill the given blank. 'During' is used in the expressions of time.
25. (c) In the context of the sentence, option (c) confiscated is the correct choice to fill the given blank. Confiscated means taken or seized (possession) with authority.
26. (a) Samudragupta of the Gupta dynasty is known as the Napoleon of India. Historian AV Smith called him Napoleon of India because of his great military conquests known from the 'Prayag Prashati' written by his courtier and poet Harisena, who also describes him as the hero of hundred battles. He succeeded his father around 335 or 350 CE and ruled until c375 CE. He was also a great player of Veena.
27. (c) Chris Evert is associated with Tennis. She won 18 Grand Slam singles championships and three doubles titles. She was the year-ending world No.1 singles player in 1974, 1975, 1976, 1977, 1978, 1980 and 1981. Overall, Evert won 157 singles championships and 32 doubles titles. She took retirement in 1987.
28. (b) Yuvraj Singh is the first batsman to hit six sixes in an over in a T20 International. He punched six sixes in an over on 19th September, 2007 against Stuart Broad (England) in a league stage match of the inaugural T20 World Cup.
29. (d) Lala Lajpat Rai is popularly known as 'Punjab Kesari' or 'Sher-e-Punjab'. He was prominent freedom fighter. In 1881, he joined the Indian National Congress at the age of 16. In 1885, he established the Dayanand Anglo-Vedic School in

Lahore. He was among the leaders of the movement opposing the Simon Commission and was severely lathi-charged during a protest in Lahore on 30th October, 1928.

- 30.** (a) Helmut Kohl was served as Chancellor of Germany from 1982 to 1998 (of West Germany 1982-1990 and of reunified Germany 1990-1998). He played key role in unification of East and West Germany, he is referred as father of Germanunity. He was also the architect of the Maastricht Treaty, which established the European Union (EU) and the Euro currency.
- 31.** (c) Vienna is the capital of Austria. It is Austria's most-populous city. Austria is a landlocked East Alpine country in the southern part of Central Europe. It is composed of nine federated states one of which is Vienna. Austria is a parliamentary representative democracy with a directly elected Federal President as head of state and a Chancellor as head of the federal government.
- 32.** (d) The United Nation Organisation (UNO) was established after World War II with the aim of preventing future wars, succeeding the ineffective League of Nations. On 25th April, 1945, 50 governments met in San Francisco for a conference and started drafting the UN Charter, which was adopted on 25th June, 1945 and took effect on 24th October, 1945. The UN is headquartered on international territory in New York City and it consists of 193 member states and 2 observer states.
- 33.** (c) The term 'bully' is connected with Hockey. It refers to the set play that is used to restart the game, from where the infringement took place. Two opposing players stand facing each other and tap each other's sticks and the ground three times.
- 34.** (a) Abu'l Fazl is the author of Ain-i-Akbari (Administration of Akbar). He was court historian of Emperor Akbar and had written it in the Persian language. In this book, he described various aspects of the administration of the Mughal Empire under Emperor Akbar. The Akbarnama (Account of Akbar) is also authored by Abu'l-Fazl.
- 35.** (d) Das Kapital was written by Karl Marx. In this book, Marx aimed to reveal the economic patterns underpinning the capitalist mode of production in contrast

to classical political economists such as Adam Smith, Jean-Baptiste Say, David Ricardo and John Stuart Mill. He was German philosopher and socialist revolutionary.

- 36.** (b) Hawaii is located in the Pacific Ocean. It is one of the states of the United States. And, it only state located outside North America, the only island state, and the only state in the tropics. It consists of 137 volcanic islands spanning 1,500 miles (2400 km), which are physiographically and ethnologically part of the Polynesian subregion of Oceania.
- 37.** (c) Hydrogen is the lightest gas. It is also is a colorless and odorless gas. It is represented by symbol H and atomic number 1. It has a standard atomic weight of 1.008. Henry Cavendish was the first to recognise that hydrogen gas was a discrete substance, and that it produces water when burned. It can be found anywhere throughout the human cell, such as in lysosome, endoplasmic reticulum, golgi and peroxisome.
- 38.** (b) The first oil well in India was dug at Digboi in Tinsukia district in the north-eastern part of the state of Assam. Oil was discovered in the year 1889. Assam Oil Company was formed in 1899 to look after the running of the oil business in this area. India (and Asia) established its first refinery in Digboi in the year 1901. It is also known as Oil City of Assam.
- 39.** (d) Among the given options, Equator doesn't pass through Australia. Equator passes through 13 countries, 3 continents and 3 water bodies.

Continent	Country
South America	Ecuador, Colombia, Brazil
Africa	Gabon, Congo, Democratic Republic of Congo, Uganda, Kenya, Sao Tome and Principe, Somalia
Asia	Maldives, Indonesia, Kiribati (Oceania)

- 40.** (a) Aurora Borealis appear in the layer of Ionosphere. It is a beautiful light show that happens in the sky of North Pole. It is also known as northern lights. Auroras are the result of disturbances in the magnetosphere caused by solar wind. These disturbances are sometimes strong enough to alter the trajectories of charged

particles in both solar wind and magnetospheric plasma.

- 41.** (c) Chandrapura Super Thermal Power Station (CTPS) is a thermal power plant located in Chandrapura city of Jharkhand. The coal for the power plant is sourced from Durgapur and Padmapur Collieries of Western Coalfields limited. It was inaugurated in 1984.
- 42.** (b) The separation of the Judiciary from the Executive is enjoined by Article 50 of the Directive Principles of State Policy (DPSP). The separation of the Judiciary from the Executive is important to ensure balance of power in the system. DPSP are ideals which are meant to be kept in mind by the state when it formulates policies and enacts laws. Articles 36-51 under Part-IV of Constitution deals with DPSP.
- 43.** (a) The first Afro-Asian Games were held in 2003 at Hyderabad (Telangana). China topped the medal tally. They are jointly supervised by the Olympic Council of Asia (OCA), and the Association of National Olympic Committees of Africa (ANOCA). These Games are supposed to be held once every four years. Till now, only one edition of these games has been organised.
- 44.** (c) The term 'Chukker' is used in Polo. In Polo, each team has four mounted riders, and the game usually lasts one to two hours, divided into periods called chukkas (or "chukkers").
- 45.** (d) The first South Asian Association for Regional Co-operation Gold Cup was held in Lahore, Pakistan between 16th July, 1993 and 23rd July, 1993. The countries that competed in this tournament were India, Nepal, Pakistan and Sri Lanka. Title was clinched by India after defeating Sri Lanka.
- 46.** (a) During the month of December Sun shifts toward Tropic of Capricorn from Tropic of Cancer. As a result of which Sun's rays falls vertically over Tropic of Capricorn. Among the given options Kanyakumari is located nearest to Tropic of Capricorn, hence, it receives maximum sunlight in December.
- 47.** (c) AWACS warning system was equipped with IL-76. It is a multi-purpose four-engine turbofan strategic airlifter designed by the Soviet Union's Ilyushin design bureau. It was

designed to deliver heavy machinery to remote, poorly served areas.

48. (a) Except Gwalior Fort all the other given forts were built by Akbar. Gwalior Fort is a hill fort near Gwalior, Madhya Pradesh. It was built by Man Singh Tomar (reigned 1486-1516 CE). It consisted of two main palaces, Gujari Mahal and Man Mandir. The Gujari Mahal palace was built for Queen Mrignayani.

49. (d) Kitab-ul-Hind was authored by AL-Biruni in Arabic language. It was divided into subjects such as religion and philosophy, festivals, astronomy, alchemy, manners and customs, social life, weights and measures, iconography, laws and metrology. He was also familiar with translations and adaptations of Sanskrit, Pali and Prakrit texts into Arabic which ranged from fables to works on astronomy and medicine.

50. (b) Gondwana Hills are located in Madhya Pradesh. Gondwana hills are not just limited in the Madhya Pradesh, rather they spread over some regions of Telangana, Andhra Pradesh and Maharashtra. Gondwana hills are named after Gond dynasty by which it was ruled during the era of Mughals. Gonds were the tribal community more often found in the Gond forest in central India and spoke the Dravidian language.

51. (b) Given, $P = ₹ 64000$, $R = 10\%$, $n = 1$ yr

We know that, if the interest is compounded quarterly, then

$$CI = P \left[\left(1 + \frac{R}{4 \times 100} \right)^{4n} - 1 \right]$$

$$= 64000 \left[\left(1 + \frac{10}{400} \right)^{4 \times 1} - 1 \right]$$

$$= 64000 \left[\left(\frac{41}{40} \right)^4 - 1 \right]$$

$$= 64000 \left[\frac{2825761 - 2560000}{2560000} \right]$$

$$= \frac{265761}{40} = ₹ 6644.025$$

52. (a) Total cost = $3 \times 4000 = 12000$

$$\text{Total quantity} = \frac{4000}{8} + \frac{4000}{9} + \frac{4000}{11}$$

$$\therefore \text{Required average} = \frac{\text{Total Cost}}{\text{Total quantity}}$$

$$= \frac{12000}{\frac{4000}{8} + \frac{4000}{9} + \frac{4000}{11}}$$

$$= \frac{12000}{4000 \left[\frac{1}{8} + \frac{1}{9} + \frac{1}{11} \right]}$$

$$= \frac{3}{99 + 88 + 72}$$

$$= \frac{3 \times 8 \times 9 \times 11}{8 \times 9 \times 11} = ₹ 9.17 \text{ per liters}$$

53. (c) Let the total number of books in the library = x

According to the question,

$$x \times \left(\frac{100-5}{100} \right) \times \left(\frac{100-10}{100} \right) \times \left(\frac{100-15}{100} \right)$$

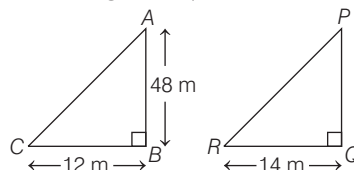
$$= 11628$$

$$\Rightarrow x \times \frac{95}{100} \times \frac{90}{100} \times \frac{85}{100} = 11628$$

$$\Rightarrow x = \frac{11628 \times 1000000}{95 \times 90 \times 85}$$

$$\therefore x = 16000$$

54. (a) According to the question,



$$\therefore \triangle ABC \sim \triangle PQR$$

$$\therefore \frac{AB}{BC} = \frac{PQ}{RQ}$$

$$\Rightarrow \frac{48}{12} = \frac{PQ}{14} \Rightarrow PQ = 4 \times 14$$

$$\therefore PQ = 56 \text{ m}$$

Hence, the possible height of second pole can be 56 m.

55. (d) $? = (30\% \text{ of } 6500) \div 26 \div 25$

$$= \left(\frac{30}{100} \times 6500 \right) \div 26 \div 25$$

$$= 1950 \div 26 \div 25 = 75 \div 25 = 3$$

56. (c) Let CP of 1 kg rice = ₹ 1

$$\text{CP of 30 kg rice} = ₹ 30$$

$$\text{CP of } x \text{ kg wheat} = ₹ x$$

$$\text{SP of } x \text{ kg wheat} = \text{CP of 30 kg rice}$$

$$= ₹ 30$$

$$\therefore \text{Profit percentage} = \frac{\text{SP} - \text{CP}}{\text{CP}} \times 100$$

$$\Rightarrow 20 = \frac{30 - x}{x} \times 100$$

$$\Rightarrow x = (30 - x) \times 5$$

$$\Rightarrow x + 5x = 150 \Rightarrow 6x = 150$$

$$\therefore x = 25 \text{ kg}$$

57. (b) Difference of time

$$= 15 \text{ min} - 14 \text{ min } 30 \text{ sec} = 30 \text{ sec}$$

Distance covered by man in 14 min 30 sec

= Distance covered by sound in 30 sec

$$= \text{Speed} \times \text{Time} = 330 \times 30 = 9900 \text{ m}$$

$$\therefore \text{Speed of man} = \frac{\text{Distance}}{\text{Time}}$$

$$= \frac{9900}{14 \times 60 + 30} \text{ m/s}$$

$$= \frac{9900}{870} \times \frac{18}{5} \left[\because 1 \text{ m/s} = \frac{18}{5} \text{ km/h} \right]$$

$$= 40.9655 \text{ km/h}$$

58. (d) Let us first consider a general series.

$$1 + (1 + 2) + (1 + 2 + 3) + \dots + (1 + 2 + 3 \dots n)$$

The sum of above series for n terms

$$= \frac{n(n+1)(n+2)}{6}$$

The number of boys for 20 days

$$= \frac{20(20+1)(20+2)}{6}$$

$$= \frac{20 \times 21 \times 22}{6} = 1540$$

But efficiency of 1 man = efficiency of 2 boys

$$\therefore 10 \text{ men will take} = \frac{1540}{2 \times 10} = 77 \text{ days}$$

59. (b) Required average = $\frac{\text{Sum of terms}}{\text{Number of terms}}$

$$= \frac{32 \times 45 + 30 \times 50}{32 + 30} = \frac{1440 + 1500}{62}$$

$$= \frac{2940}{62} = 47.42$$

60. (a) Given, $D = ₹ 604$, $R = 25\%$, $t = 3$ yr

$$\text{We know that, } D = \frac{PR^2(300 + R)}{(100)^3}$$

$$\Rightarrow 604 = \frac{P(25)^2(300 + 25)}{1000000}$$

$$\Rightarrow P = \frac{604 \times 1000000}{625 \times 325} = 2973.54$$

$$\text{Then, SI} = \frac{P \times R \times T}{100}$$

$$= \frac{2973.54 \times 25 \times 3}{100} = ₹ 2230.15$$

$$\text{and CI} = P \left[\left(1 + \frac{R}{100} \right)^T - 1 \right]$$

$$= 2973.54 \left[\left(1 + \frac{25}{100} \right)^3 - 1 \right]$$

$$= 2973.54 \times \left[\frac{125 - 64}{64} \right]$$

$$= ₹ 2834.15$$

61. (a) Mumbai $\xleftrightarrow{d \text{ km}}$ Bangalore

Let the distance between Mumbai and Bangalore = d km

Time taken by Akash = 4 h

$$\therefore \text{Speed of Akash} = \frac{\text{Distance}}{\text{Time}} = \frac{d}{4} \text{ km/h}$$

Time taken by Prakash = 3.5 h = $\frac{7}{2}$ h

$$\therefore \text{Speed of Prakash} = \frac{d}{\frac{7}{2}} = \frac{2d}{7} \text{ km/h}$$

\therefore Akash leaves 2 h earlier than Prakash

\therefore Distance covered by Akash in 2 h

$$= \text{Speed} \times \text{Time} = 2 \times \frac{d}{4} = \frac{d}{2} \text{ km}$$

\therefore Remaining distance = $d - \frac{d}{2} = \frac{d}{2}$ km

$$\therefore \text{Required time} = \frac{\text{Distance}}{\text{Speed}}$$

$$= \frac{\frac{d}{2}}{\frac{d}{4} + \frac{2d}{7}} = \frac{1}{2} \times \frac{28}{15} = \frac{14}{15} \text{ h}$$

$$= \frac{14}{15} \times 60 = 56 \text{ min}$$

Hence, they cross each other at
= 8:56 am

62. (c) Let the speeds of two train are a and b respectively. Length of first train = $17a$

[\therefore distance = speed \times time]

Length of second train = $27b$

Time taken to cross each other

$$= \frac{\text{Distance}}{\text{Time}} = \frac{17a + 27b}{a + b}$$

$$\Rightarrow 23 = \frac{17a + 27b}{a + b}$$

$$\Rightarrow 23a + 23b = 17a + 27b$$

$$\Rightarrow 6a = 4b$$

$$\therefore \frac{a}{b} = \frac{4}{6} = \frac{2}{3}$$

\therefore Required ratio = 2 : 3

63. (d) Given, SP of the item = ₹ 1200,

Loss = 20%

\therefore CP of the item

$$= \text{SP} \left[\frac{100}{100 - \text{loss} \%} \right]$$

$$= 1200 \left[\frac{100}{100 - 20} \right]$$

$$= \frac{1200 \times 100}{80} = ₹ 1500$$

Now, profit = 5%

$$\therefore \text{Required SP} = \text{CP} \left[\frac{100 + \text{Profit} \%}{100} \right]$$

$$= 1500 \left[\frac{100 + 5}{100} \right]$$

$$= 15 \times 105$$

$$= ₹ 1575$$

64. (b) Let the Principal be x . Then

$$\text{Amount} = 2 \times x = 2x$$

So, SI = Amount – Principal

$$= 2x - x = x$$

We know that,

$$\text{SI} = \frac{\text{Principal} \times \text{Rate} \times \text{Time}}{100}$$

$$\Rightarrow x = \frac{x \times \text{Rate} \times 12}{100}$$

$$\Rightarrow \text{Rate} = \frac{100}{12}$$

\therefore Rate = 8.33%

65. (a) Given, $T_1 = 8$ yr, $N_1 = 3$, $T_2 = 20$ yr,

$N_2 = ?$

We know that,

$$\frac{T_1}{T_2} = \frac{N_1 - 1}{N_2 - 1}$$

$$\Rightarrow \frac{8}{20} = \frac{3 - 1}{N_2 - 1}$$

$$\Rightarrow N_2 - 1 = \frac{2 \times 20}{8} = 5$$

$\therefore N_2 = 5 + 1 = 6$ times

66. (c) Let the volumes of 3 containers are 30 L, 40 L and 50 L.

Quantity of milk in container 1

$$= 30 \times \frac{4}{5} = 24 \text{ L}$$

Quantity of water in container 1

$$= 30 \times \frac{1}{5} = 6 \text{ L}$$

Quantity of milk in container 2

$$= 40 \times \frac{3}{4} = 30 \text{ L}$$

Quantity of water in container 2

$$= 40 \times \frac{1}{4} = 10 \text{ L}$$

Quantity of milk in container 3

$$= 50 \times \frac{3}{5} = 30 \text{ L}$$

Quantity of water in container 3

$$= 50 \times \frac{2}{5} = 20 \text{ L}$$

If the liquid of all three containers is poured in the 4th container, then

Quantity of milk in container 4

$$= 24 + 30 + 30 = 84 \text{ L}$$

Quantity of water in container 4

$$= 6 + 10 + 20 = 36 \text{ L}$$

\therefore Required ratio = 84 : 36

$$= 7 : 3$$

67. (d) Let the distance between school and house = d km

According to the question,

$$\frac{d}{3} + \frac{d}{2} = 5 \quad \left\{ \therefore \text{time} = \frac{\text{distance}}{\text{speed}} \right\}$$

$$\Rightarrow \frac{2d + 3d}{6} = 5 \Rightarrow 5d = 5 \times 6$$

$\therefore d = 6$ km

68. (c) Let total number of parents = 100

Total amount donated by 50% of parents

$$= 100 \times \frac{50}{100} \times 1200$$

$$= ₹ 60000$$

Total donated amounts

$$= \frac{60000 \times 100}{60} = ₹ 100000$$

Remaining donated amount

$$= 100000 - 60000$$

$$= ₹ 40000$$

\therefore Required average amount that should

be donated by rest 50% parents

$$= \frac{\text{Total amount}}{\text{Total parents}}$$

$$= \frac{40000}{50} = ₹ 800$$

69. (a) 'Doors' are entry to a 'House' or we can get into the house through door.

In the same way, gates are entry to a

Compound or we can get into a compound through 'Gate'.

70. (d) As, 'Hongkong' is in 'China', in the same way 'Vatican' is situated in Rome.

71. (c) 'Dwarf' is the antonym of 'Giant', in the same way 'Genius' is the antonym of 'Idiot'.

72. (b) 'Aryabhata' was the famous 'Mathematician' of the ancient period, in the same way 'Varahamihira' was a famous 'Astronomer' of ancient period.

73. (c) Except friend, all others are family members.

74. (d) Except Black, all others are primary colours.

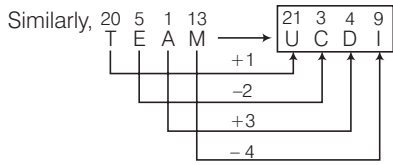
75. (c) Except Lahore, all others are Indian cities.

76. (d) Except 'Abundance' all mean sufficient amount but abundance is used for more than sufficient amount.

77. (c) Except sword, all others are fire arms.

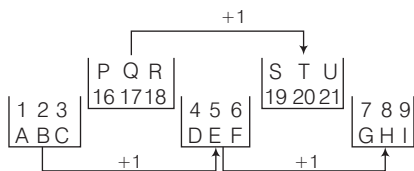
78. (a) As,

14	1	13	5	15	25	16	1
N	A	M	E	O	Y	P	A
				+1			
					-2		
						+3	
							-4



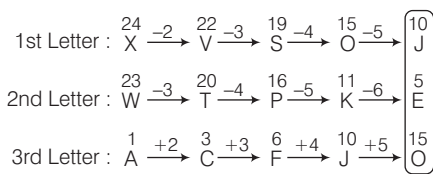
$\therefore TEAM = UC DI$

79. (c) The pattern is as follows



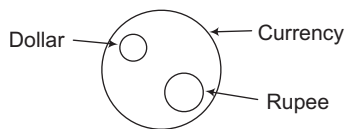
$\therefore ? = GHI$

80. (b) The pattern is as follows

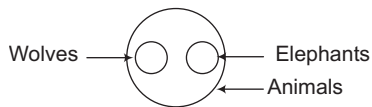


$\therefore ? = JEO$

81. (b) Rupee and dollar are entirely different from each other but both come under the category of currency. This can be expressed as given in option (b).

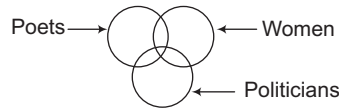


82. (a) Wolves and elephants both are animals but are different from each other. This can be expressed as given in option (a).



83. (a) Some women are poets. Some women are politicians. Some women

politicians are poets. This can be expressed as given in option (a).



84. (d) It is clear from the pattern of series that the figure rotates 90° , 135° , 180° , 225° and finally 270° , respectively in the clockwise direction.

85. (d) It is clear from the pattern of series that the outer figure rotates through an angle of 45° in each subsequent block whereas the inner figure rotates through an angle of 90° in anti-clockwise direction in each subsequent block.

86. (d) The number of sides in the outer figure is increased by one and number of sides in the inner figure is decreased by one side successively in each block.

87. (b) In all the figures, except figure (b), arrow is one step away from the shaded sector of the circle in anti-clockwise direction.

88. (d) All the figures, except figure (d) are divided into four equal parts.

89. (b) Except figure (b), all others are rotated forms of the same figure.

90. (d) In all the figures, except figure (d), arrows are facing in opposite direction.

91. (a) Answer figure (a) will complete the question figure.

92. (d) Answer figure (d) will complete the question figure.

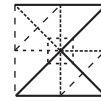
93. (d) Answer figure (d) will complete the question figure.

94. (c) Answer figure (c) will complete the question figure.

95. (d) Answer figure (d) will complete the question figure.

96. (a) Clearly, the question figure is embedded in answer figure (a). The portion which question figure occupies in

the alternative figure has been shown in the below figure.



97. (b) Clearly, the question figure is embedded in answer figure (b).

The portion which question figure occupies in the alternative figure has been shown in the below figure.

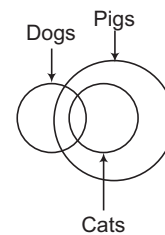


98. (d) Clearly, the question figure is embedded in figure (d) only.



99. (b) We advise anybody with the assumption that our advice will be listened to. Why will we advise someone with a thinking that our advice will not be heard? While saying something, we go with a positive frame of mind that the targeted people will hear and pay attention towards our point of view. Hence, II is a valid assumption but I is not.

100. (d) According to the question,



Conclusions

- I. Some cats are dogs. (✓)
- II. Some dogs are pigs. (✓)