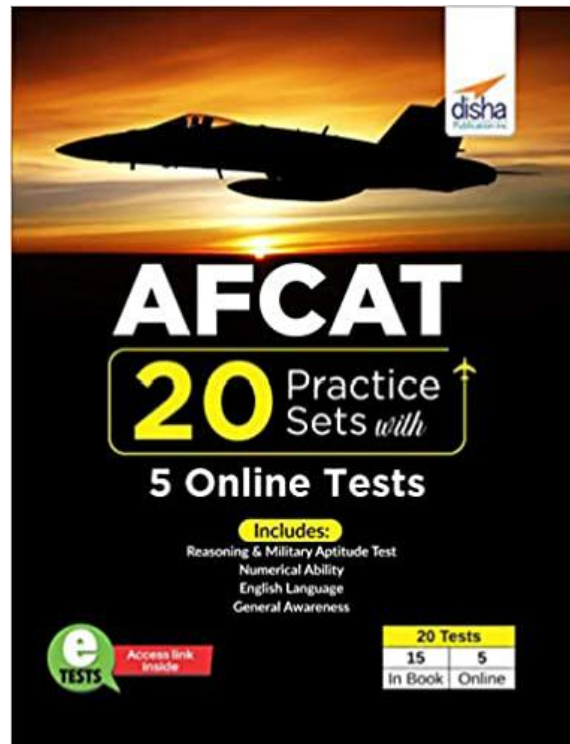


Practice Set for AFCAT Exam

This Section is taken from the Book:



ISBN : 9789389645514

This book is available at all leading physical book stores and online book stores.

To view complete books visit.



To download complete catalogue click
<https://amzn.to/2GXTMyA> or visit **QR**.

PRACTICE SET-1

REASONING & MILITARY APTITUDE TEST

DIRECTIONS (Qs. 1-2) : In questions, select the related word/ letters/number from given alternatives.

1. ACE : FHJ :: OQS : ?
 (a) TVX (b) UWY
 (c) PRT (d) RTU
2. 18 : 5 :: 12 : ?
 (a) 4 (b) 10
 (c) 3 (d) 6

DIRECTIONS (Qs. 3 - 5) : In questions, find the odd word/letters/ number pair from the given alternatives.

3. (a) Kolkata (b) Vishakhapatnam
 (c) Bengaluru (d) Haldia
4. (a) HGFE (b) PONM
 (c) DCBA (d) MSTU
5. (a) 25, 36 (b) 144, 169
 (c) 100, 121 (d) 9, 64

DIRECTIONS (Qs. 6-7) : In questions below, a series is given with one term missing. Choose the correct alternative from the given ones that will complete the series.

6. FAG, GAF, HAI, IAH, _____
 (a) JAK (b) HAK
 (c) JAI (d) HAL
7. 3, 6, 9, 15, 24, 39, 63, ?
 (a) 100 (b) 87
 (c) 102 (d) 99
8. Govind is 48 years old. He is twice as old as his son Prem is now. How old was Prem seven years before ?
 (a) 16 (b) 17
 (c) 13 (d) 18
9. Pointing to a man, a lady said "His mother is the only daughter of my mother". How is the lady related to the man?
 (a) Mother (b) Daughter
 (c) Sister (d) Aunt
10. After walking 10 m, Shankar turned left and covered a distance of 6 m, then turned right and covered a distance of 20 m. In the end, he was moving towards the south. From which direction did Shankar start his journey?
 (a) West (b) North
 (c) South (d) East
11. If '-' stands for '+', '+' stands for '×', '×' stands for '-' then which one of the following is not correct ?
 (a) $22 + 7 - 3 \times 9 = 148$ (b) $33 \times 5 - 10 + 20 = 228$
 (c) $7 + 28 - 3 \times 52 = 127$ (d) $44 - 9 + 6 \times 11 = 87$

12. Find the missing number-

$$\begin{array}{ccc} 11 & 22 & 121 \\ 3 \begin{array}{|c|} \hline 28 \\ \hline \end{array} 4 & 5 \begin{array}{|c|} \hline 57 \\ \hline \end{array} 3 & 6 \begin{array}{|c|} \hline ? \\ \hline \end{array} 5 \\ 5 & 20 & 25 \end{array}$$

(a) 176 (b) 115
(c) 157 (d) 131

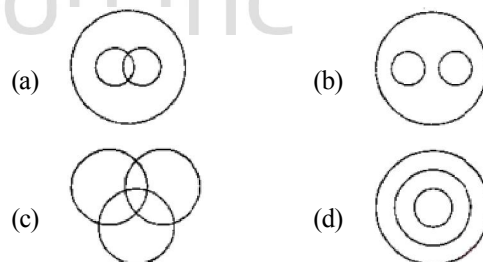
13. If HOSPITAL is written as 32574618 in a certain code, how would POSTAL be written in that code?
 (a) 752618 (b) 725618
 (c) 725168 (d) 725681

DIRECTION (Qs. 14) : In the following question, one statement is given followed by two conclusions I and II. You have to consider the 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.

14. **Statement :** Songs always have singers to sing them.

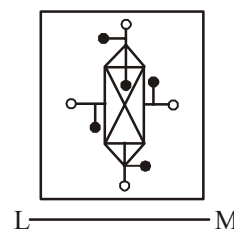
Conclusions:

- I. Singers make a song.
 - II. There is no un-sung song.
 - (a) Only conclusion II follows
 - (b) Both conclusions I and II follow
 - (c) Neither conclusion I nor II follows
 - (d) Only conclusion I follows
15. Which of the following states the relationship between Sociology, Psychology and Humanities ?

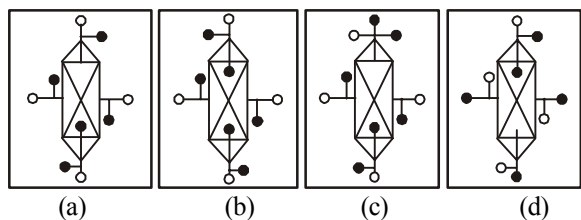


16. If the mirror is placed on the line LM, then which of the answer figures is the right image of the given question figure?

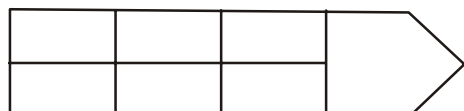
Question Figure :



Answer Figures :



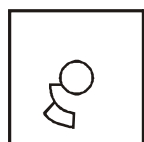
17. How many rectangles are there in the given diagram?



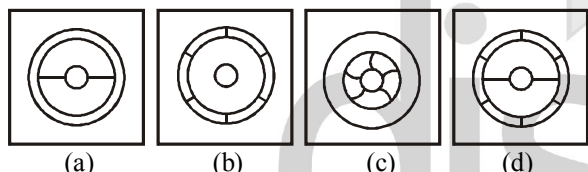
- (a) 4 (b) 7
(c) 9 (d) 18

18. In the following question, select the answer figure in which the question figure is hidden / embedded.

Question Figure :

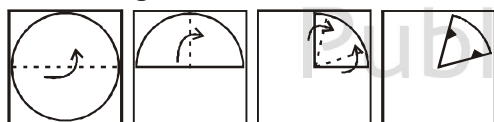


Answer Figures :

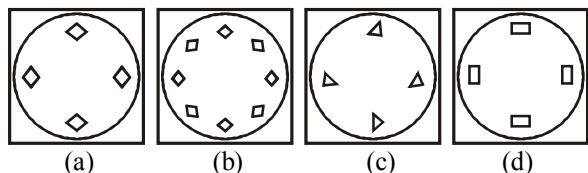


19. In the following question, a piece of paper is folded and cut as shown below in the question figures. From the given answer figures, indicate how it will appear when opened?

Question Figures :

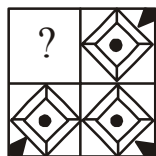


Answer Figures :

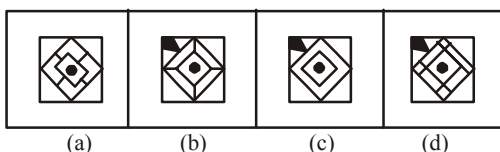


20. Which answer figure completes the form in question figure ?

Question Figure :



Answer figures :



21. In this question two statements are followed by two conclusions numbered I and II. Which one of the four alternatives is correct?

Statement:

- I. All teachers are aged.
II. Some women are teachers.

Conclusion:

- I. All aged are women
II. Some women are aged.
(a) Both conclusion I and II follow
(b) Only conclusion I follows
(c) Only conclusion II follows
(d) Neither conclusion I nor II follows

22. In the following question, which one set of letters when sequentially placed at the gaps in the given letter series shall complete it ?

$b - 0, y - 3, c - 8, x - 15, d - 24, \underline{\quad}, \underline{\quad}$

- (a) $e - 48$ (b) $w - 35$ (c) $w - 39$ (d) $v - 30$

23. In an automobile showroom, seven two-wheelers of seven different companies, viz. H, M, T, V, Y, B and S are displayed in a row, facing east such that:

- (A) The H vehicle is to the immediate right of the S vehicle.
(B) The S is fourth to the right of T.
(C) The V is between the M and the B.
(D) The T, which is third to the left of the M, is at one of the ends.

Which vehicle is second to the left of the M?

- (a) V (b) S (c) B (d) T

24. Chanda is the wife of Bharat. Mohan is the son of Chanda. Ashish is the brother of Bharat and father of Dhruv. How is Mohan related to Dhruv?

- (a) Sister (b) Cousin (c) Brother (d) Mother

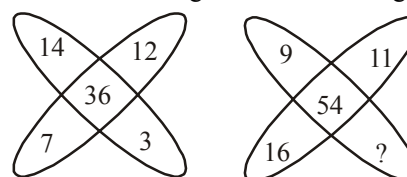
25. The digits are given as below:

562, 871, 438, 753

If the position of the first and the third digits of each of the numbers are interchanged, which of the following will be the sum of the first and the second digits of the third highest number?

- (a) 9 (b) 7 (c) 6 (d) 8

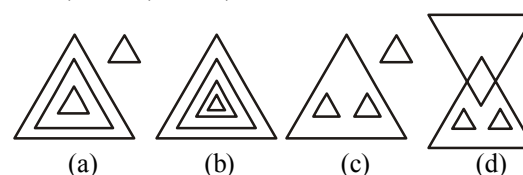
26. Select the missing number from the given responses.



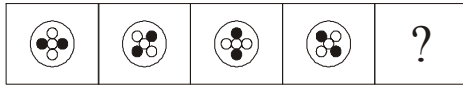
- (a) 12 (b) 17 (c) 18 (d) 16

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

Earth, Saturn, Planet, Star

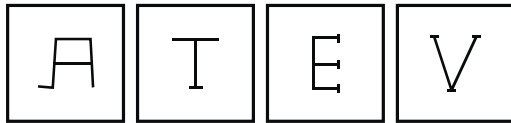


28. Choose the correct option that will replace the question mark and continue the given figure series.



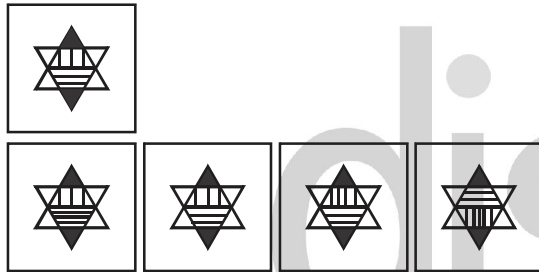
- (a) (b) (c) (d)

29. Of these four figures three figures are similar in some way and one figure is different. Select the figure which is different.



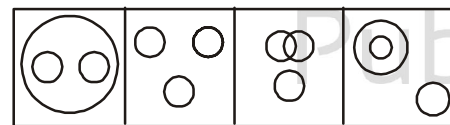
- (a) (b) (c) (d)

30. In this question a problem figure is given and four answer figures marked (a), (b), (c), (d) are given. Select the answer figure which is exactly the same as the problem figure.



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

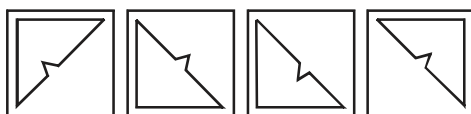
31. Which of the following diagrams represents the relationship among Sun, Moon and Star?



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

32. 'China' is related to 'Yuan' in the same way as 'Japan' is related to '_____'.
(a) Rand (b) Sushi (c) Lira (d) Yen

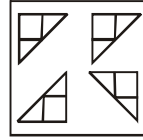
33. In this question one part of a square or circle or triangle or rectangle is in the question figure and the other one is among the four answers (a), (b), (c), (d) are given. Find out the figure that completes the square or circle or triangle or rectangle.



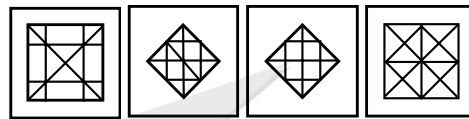
- (a) (b) (c) (d)

34. Among the four answer figures, which figure can be formed from the cut-pieces given below in the question figure?

Question Figure :



Answer Figures :



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

35. In a row of men, Manoj is 30th from the right and Kiran is 20th from the left. When they interchange their position, Manoj becomes 35th from the right. What is the total number of men in the row?
(a) 45 (b) 44 (c) 54 (d) 34

NUMERICAL ABILITY

36. The least number which when divided by 6, 9, 12, 15, 18 leaves the same remainder 2 in each case is:
(a) 178 (b) 182 (c) 176 (d) 180
37. A sum of money is divided among A, B, C and D in the ratio 3 : 5 : 8 : 9 respectively. If the share of D is ₹ 1,872 more than the share of A, then what is the total amount of money of B & C together?
(a) ₹ 4,156 (b) ₹ 4,165 (c) ₹ 4,056 (d) ₹ 4,068
38. What approximate compound interest can be obtained on an amount of ₹ 3,980 after 2 years at 8 p.c.p.a. ?
(a) 650 (b) 680 (c) 600 (d) 662
39. A man walks at the speed of 5 km/hr and runs at the speed of 10 km/hr. How much time will the man require to cover the distance of 28 km, if he covers half (first 14 km) of his journey walking and half of his journey running ?
(a) 8.4 hrs (b) 6 hrs (c) 5 hrs (d) 4.2 hrs
40. In a 30 litres mixture of water and milk, 50% is milk. How much pure milk need to be added to this mixture to make mixture 30% water?
(a) 10 litres (b) 18 litres (c) 15 litres (d) 20 litres
41. A bag contains 5 green and 7 red balls. Two balls are drawn. The probability that one is green and the other is red is
(a) $\frac{5}{132}$ (b) $\frac{7}{132}$ (c) $\frac{35}{66}$ (d) $\frac{31}{66}$
42. By selling 8 dozen pencils, a shopkeeper gains the selling price of 1 dozen pencils. What is the gain?
(a) $12\frac{1}{2}\%$ (b) $13\frac{1}{7}\%$ (c) $14\frac{2}{7}\%$ (d) $87\frac{1}{2}\%$

43. Two houses are collinear with the base of a tower and are at distance 3 m and 12 m from the base of the tower. The angles of elevation from these two houses of the top of the tower are complementary. What is the height of the tower?
(a) 4m (b) 6m (c) 7.5m (d) 36m
44. The average of 50 numbers is 38. If two numbers namely 45 and 55 are discarded, the average of the remaining numbers is :
(a) 36 (b) 35 (c) 32.5 (d) 37.5
45. The difference between a discount of 40% on ₹500 and two successive discounts of 36%, 4% on the same amount is
(a) ₹ 0 (b) ₹ 2 (c) ₹ 1.93 (d) ₹ 7.20
46. X and Y can do a piece of work in 30 days. They work together for 6 days and then X quits and Y finishes the work in 32 more days. In how many days can Y do the piece of work alone?
(a) 30 days (b) 32 days (c) 34 days (d) 40 days
47. If $\left(x + \frac{1}{x}\right) = 4$, then the value of $x^4 - \frac{1}{x^4}$ is :
(a) 124 (b) 64 (c) 194 (d) 81

DIRECTIONS (Q. 48 - 50): Study the following table carefully in answer the questions that follow :

Number of Executives recruited by Six different organisations over the years

Organisation	P	Q	R	S	T	U
2004	458	512	418	502	476	492
2005	522	536	472	500	482	523
2006	480	495	464	508	488	518
2007	506	505	428	444	490	534
2008	427	485	422	512	510	498
2009	492	488	444	499	512	510

48. What is the total number of Executives recruited by all the organisations together in the year 2006?
(a) 2927 (b) 3042 (c) 2864 (d) 2953
49. What is the ratio of the total number of Executives recruited by organisation U in the years 2007 and 2009 together to the total number of Executives recruited by organisation P in the same years?
(a) 436 : 517 (b) 499 : 522
(c) 517 : 436 (d) 522 : 499
50. What is the average number of Executives recruited by organisation S over all the years together? (rounded off to the nearest integer)
(a) 494 (b) 482 (c) 514 (d) 506

ENGLISH LANGUAGE

DIRECTIONS (Qs. 51-53) : Each of the question in this section has a sentence with a blank space and four words given after the sentence. Select whichever word you consider most appropriate for the blank space and indicate your choice on the Answer Sheet.

51. A person who pretends to be what he is not is called an _____.
(a) imbibor (b) impresario
(c) imitator (d) imposter
52. His _____ nature would not let him leave his office before 5 p.m.
(a) honest (b) selfish
(c) unscrupulous (d) conscientious
53. The Committee's appeal to the people for money _____ little response.
(a) evoked (b) provided
(c) provoked (d) prevented
54. Select the word or group of words that is most similar in meaning to the words in capital letters.
PHILANDERER
(a) Time waster (b) Spendthrift
(c) Male flirt (d) Wanderer
55. Select the word or group of words that is most **opposite** in meaning to the words in capital letters.
PROCLIVITY
(a) Speed (b) Weakness
(c) Disgust (d) Disinclination

DIRECTIONS (Qs. 56-57) : Read the passage and then answer the questions based on it. You are required to select your answers based on the contents of the passage and opinion of the author only.

The New Year is a time for resolutions. Mentally at least, most of us could compile formidable lists of do's and don'ts. The same old favourites recur year in and year out with monotonous regularity. Past experience has taught us that certain accomplishments are beyond attainment. If we remain inveterate smokers, it is only because we have so often experienced the frustration that results from failure. Most of us fail in our efforts at self-improvement because our schemes are too ambitious and we never have time to carry them out. We also make the fundamental error of announcing our resolutions to everybody so that we look even more foolish when we slip back into our old bad ways.

56. The author seems to think that others
(a) feel happy when we slip back to our old ways.
(b) do not really want us to improve ourselves.
(c) are ready to tease and laugh at our attempts.
(d) might embarrass us by praising our attempts.
57. The author says that most of us fail in our attempts at self-improvement because
(a) we set too high goals for ourselves.
(b) we do not have the persistence of mind.
(c) our nature is such that we cannot become perfect.
(d) certain imperfections have become a part and parcel of our lives.

DIRECTIONS (Qs. 58-61) : Each question in this section has a sentence with three underlined parts labelled (a), (b) and (c). Read each sentence to find out whether there is any error in any underlined part and indicate your response in 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).

58. My detailed statement / is respectively
(a) (b)
submitted. / No error.
(c) (d)
59. I am waiting / for my friend / since this morning.
(a) (b) (c)
No error.
(d)
60. He is representing / my constituency
(a) (b)
for the last five years. / No error.
(c) (d)
61. Read the instructions with care / lest you may /
(a) (b)
misunderstand the questions. / No error.
(c) (d)

DIRECTIONS (Qs. 62-66): *In the following questions four alternatives are given for the idiom/phrase italicised and underlined in the sentence. Choose the alternative which best expresses the meaning of idiom/phrase.*

62. Sobhraj could be easily arrested because the police were tipped off in a advance.
(a) Toppled over
(b) Bribe
(c) Given advance information
(d) Threatened
63. On the issue of marriage, Sarita put her foot down.
(a) stood up (b) was firm
(c) got down (d) walked fast
64. I met him after a long time, but he gave me the cold shoulder.
(a) scolded me (b) insulted me
(c) abused me (d) ignored me
65. To move heaven and earth
(a) to cause an earthquake
(b) to try everything possible
(c) to pray to all Gods
(d) to travel in a rocket
66. To smell a rat
(a) to smell foul (b) to see a rat
(c) to chase a rat (d) to be suspicious

DIRECTIONS (Qs. 67-71): *In the following passage, some of the words have been left out. Read the passage carefully and choose the correct answer to each question out of the four alternatives and fill in the blanks.*

A team of Indian engineers 67 shown that digital photographs of the hand may 68 cholesterol levels in the body and serve as an early warning signal 69 poor lipid health without a standard blood test. Researchers believe the programme may be 70 in the future and 71 into mobile phones to enable it to analyse digital images of the hand captured in the camera on a mobile phone.

67. (a) has been (b) are
(c) have (d) has
68. (a) conceal (b) conjecture
(c) reveal (d) conduct
69. (a) of (b) before
(c) at (d) by
70. (a) resolved (b) refined
(c) retracted (d) recorded
71. (a) formulated (b) featured
(c) loaded (d) fixed

DIRECTIONS (Qs. 72-73): *In the following questions, out of the four alternatives, choose the one which best expresses the meaning of the given word.*

72. Loquacious
(a) Talkative (b) Slow
(c) Content (d) Unclear
73. Vindictive
(a) Imaginative (b) Accusative
(c) Spiteful (d) Aggressive
74. Choose the word opposite in meaning to the given word as your answer.
Impeccable
(a) Faulty (b) Tedious
(c) Flashy (d) Boring
75. Out of the four alternatives suggested, select the one which best expresses the same sentence in Indirect/Direct speech and mark.
The teacher said to the students, "March quietly to the ground."
(a) The teacher instructed the students that they should march quietly to the ground,
(b) The teacher instructed the students that they must march quietly to the ground.
(c) The teacher instructed the students to march quietly to the ground.
(d) The teacher said to the students that they should march quietly to the ground.

GENERAL AWARENESS

76. Which one of the following is not a computer language?
(a) Cobol (b) Visual Basic
(c) HTML (d) Netscape
77. Who among the following was the first Governor General of India?
(a) Wollen Hastings (b) Lord William Bentinck
(c) Sir Charles Metcalfe (d) Robert Clive
78. Which one of the following is not a constituent of biogas?
(a) Methane (b) Carbon dioxide
(c) Hydrogen (d) Nitrogen dioxide
79. In which one of the following sessions was the Indian National Congress split into moderates and extremists?
(a) Nagpur (b) Allahabad
(c) Surat (d) Calcutta

80. Which of the following metals are present in haemoglobin and chlorophyll, respectively?
(a) Fe and Mg (b) Fe and Zn
(c) Mg and Zn (d) Zn and Mg
81. A mother of blood group O has a group O child. What could be the blood group of father of the child?
(a) Only O (b) A or B or O
(c) A or B (d) Only AB
82. Who among the following was the founder of the Muslim League?
(a) Muhammad Ali Jinnah
(b) Shaukat Ali
(c) Nawab Salimullah
(d) Aga Khan
83. Which of the following does **not** form part of current account of Balance of Payments?
(a) Export and import of goods
(b) Export and import of services
(c) Income receipts and payments
(d) Capital receipts and payments
84. Which one of the following Schedules of the Constitution of India includes the disqualification of a Legislator on grounds of defection?
(a) 8th Schedule (b) 7th Schedule
(c) 9th Schedule (d) 10th Schedule
85. Which one of the following causes the chikungunia disease?
(a) Bacteria
(b) Helminthic worm
(c) Protozoan
(d) Virus
86. Who among the following recommends to the Parliament for the abolition of the Legislative Council in a State?
(a) The President of India
(b) The Governor of the concerned State
(c) The Legislative Council of the concerned State
(d) The Legislative Assembly of the concerned State
87. Which one of the following vitamins helps in clotting of blood?
(a) Vitamin-A (b) Vitamin-B₆
(c) Vitamin-D (d) Vitamin-K
88. The 'Thomas Cup' is associated with
(a) Table Tennis (b) Lawn Tennis
(c) Badminton (d) Billiards
89. Which one among the following pairs is correctly matched?
(a) The Second Battle : Defeat of Jaichand of Taran of Kannauj by Muhammad of Ghori
(b) The First Battle of Panipat : Defeat of Sikander Lodhi by Babur
(c) The Battle of Chausa : Defeat of Humayun by Sher Shah
(d) The Battle of Khanwa : Defeat of Rana Pratap by Akbar
90. The 'Arthashastra' is a treatise on which one of the following?
(a) Economics
(b) Environment
(c) Political Philosophy
(d) Religion in Administration
91. Which one of the following glands in the human body stores iodine?
(a) Parathyroid (b) Thyroid
(c) Pituitary (d) Adrenal
92. India's first integrated Defense Communication Network (DCN) has been launched in which of the following cities?
(a) New Delhi (b) Lucknow
(c) Ahmedabad (d) Kochi
93. The book "The mind of the terrorist: the Psychology of terrorism from the IRA to al-Qaeda" has been authored by whom?
(a) Amitav Ghosh (b) Ashwin Sanghi
(c) Kunal Basu (d) Jerrold M. Post
94. Frontal cyclones occur characteristically in
(a) Equatorial region
(b) Tropical region
(c) Mid-latitudinal region
(d) Polar region
95. As of now, how many countries are members of Nuclear Suppliers Group (NSG)?
(a) 48 (b) 56
(c) 64 (d) 96
96. The device used for measuring the wavelength of X-rays is
(a) Bragg Spectrometer (b) Mass Spectrometer
(c) G. M. Counter (d) Cyclotron
97. Recently, which mobile app has been launched by the Ministry of Housing & Urban Affairs for 'Environment Protection'?
(a) uGreen (b) mSanrakshan
(c) uEnvironment (d) mHariyali
98. Who is going to become the new BCCI president?
(a) Rahul Dravid (c) Ravi Shastri
(d) Sourav Ganguly (d) Jai Shah
99. What is the rank of India in the 2019 Global Hunger Index?
(a) 95 (b) 117
(c) 102 (d) 99
100. What is the theme of this year's World Food Day?
(a) Our Actions Are Our Future
(b) Change the future of migration
(c) Ending Hunger by 2025
(d) Food: A life

Hints & Explanations

1. (a) A C E
+5 ↓ +5 ↓ +5 ↓
F H J

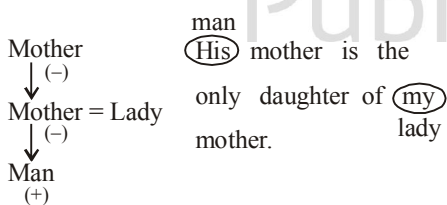
Similarly, O Q S
+5 ↓ +5 ↓ +5 ↓
T V X

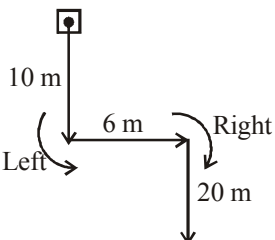
2. (c) $18/3 - 1 = 5$
 $12/3 - 1 = 3$

3. (c)
4. (d) M S T U is odd word

5. (d)
6. (a)
7. (c) $3+3=6$
 $6+3=9$
 $9+6=15$
 $15+9=24$
 $24+15=39$
 $39+24=63$
 $63+39=102$

8. (b) Govind's age = 48 years
According to question
Prem's age = $48/2 = 24$ years
Prem's age seven years before = $24 - 7$
= 17 years.

9. (a) 

10. (b) 

From the diagram, it is clear that Shankar started his journey from North to South.

11. (c) $7 \times 28 + 3 - 52 = 127$
 $196 + 3 - 52$
 $199 - 52 = 127$ (Incorrect)

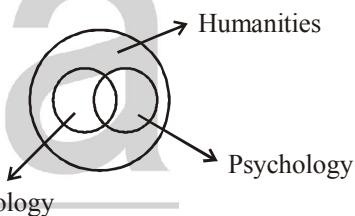
12. (a) $3 \left[\begin{array}{c} 11 \\ 11 + 5 + 4 \times 3 \\ = 16 + 12 = 28 \end{array} \right] 4 \left[\begin{array}{c} 22 \\ 22 + 20 + 5 \times 3 \\ = 42 + 15 = 57 \end{array} \right] 5 \left[\begin{array}{c} 121 \\ 121 + 25 + 6 \times 5 \\ = 146 + 30 = 176 \end{array} \right] 6$

13. (b) A s, H O S P I T A L
↓ ↓ ↓ ↓ ↓ ↓ ↓ ↓
3 2 5 7 4 6 1 8

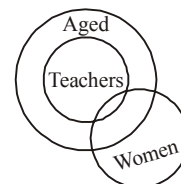
Therefore,

P O S T A L
↓ ↓ ↓ ↓ ↓ ↓
7 2 5 6 1 8

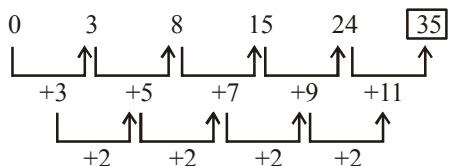
14. (d) Any written piece is recognised as song when it is sung by a singer. Therefore, only Conclusion I follows.

15. (a) 

16. (a)
17. (d)
18. (d)
19. (b)
20. (b)

21. (c) 

Case I : False Case II : True

22. (b) 

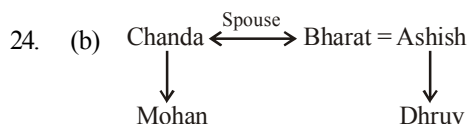
The two consecutive letters are pairs of opposite letters.

$b \leftrightarrow y$; $c \leftrightarrow x$; $d \leftrightarrow w$

Therefore, ? = w - 35.



So, vehicle B is second to the left of the M.



Hence, Mohan is cousin of Dhruv.

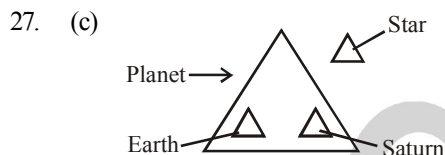
25. (d) Arranging digits according to question.

265, 178, 834, 357

Hence, third highest would be 265 and 8 be the sum of first and second digits of the number.

26. (c) $(36) - (14 + 12 + 7) = 3$

$(54) - (9 + 11 + 16) = 18$

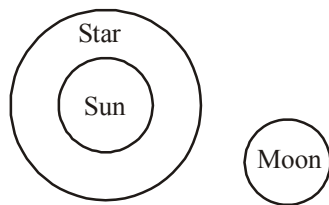


28. (d) Each black spot is rotate 45° in anti clockwise direction. So, option (d) is correct answer.

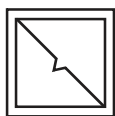
29. (a) Each element except in option (a) have exactly one line of symmetry.

30. (b)

31. (d) Sun is a star. Moon is a satellite.

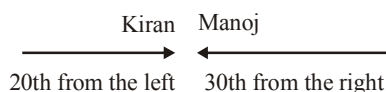


32. (d) China currency is 'Yuan' like that Japan currency is 'Yen'.

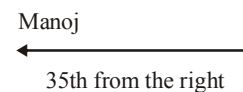


34. (c)

35. (c) Original Position:



Position after Interchange:



Total Number of Students = $35 + 20 - 1$
 $= 55 - 1 = 54$

36. (b) LCM of 6, 9, 12, 15 and 18

2	6, 9, 12, 15, 18
3	3, 9, 6, 15, 9
3	1, 3, 2, 5, 3
	1, 1, 2, 5, 1

LCM = $2 \times 3 \times 3 \times 2 \times 5 = 180$

Least number = $180 + 2 = 182$

37. (c) Share of B + C = $\frac{1872}{9-3} \times (5+8) = ₹ 4056$

38. (d) Equivalent % interest for compound rate of interest of 8% for 2 years

$$= 8 + 8 + \frac{8 \times 8}{100} = 16.64\%$$

So, interest = 16.64% of 3980 $\approx$ 662

39. (d) Total time required = $\frac{14}{5} \frac{14}{10}$
 $= \frac{28}{10} \frac{14}{10} = 4.2 \text{ hrs}$

40. (d) 30 litres mixture contains 15 litres of water. When milk added to this, quantity of water will same in sance (*i.e.* 15l).

Let x of pure milk to be added, then 30% of $(30 + x) = 15$ solve, $x = 20$

41. (c) There are $5 + 7 = 12$ balls in the bag and out of these two balls can be drawn in ${}^{12}C_2$ ways. There are 5 green balls, therefore, one green ball can be drawn in 5C_1 ways; similarly, one red ball can be drawn in 7C_1 ways so that the number of ways in which we can draw one green ball and the other red is ${}^5C_1 \times {}^7C_1$. Hence, P (one green and the other red)

$$= \frac{{}^5C_1 \times {}^7C_1}{{}^{12}C_2} = \frac{5}{1} \times \frac{7}{1} \times \frac{1 \times 2}{12 \times 11} = \frac{35}{66}$$

42. (c) Let the cost price = ₹ x

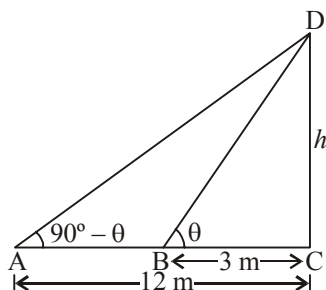
Profit = ₹ x

Cost price of 8 dozen pencil = ₹ 7x

$$\text{Gain per cent} = \frac{x}{7x} \times 100$$

$$= \frac{100}{7} = 14\frac{2}{7}\%$$

43. (b) Let the height of the tower be h m and $\angle CBD = \theta$ then $\angle DAC = 90^\circ - \theta$
(Because both angles are complementary)



$\therefore$ In $\triangle BCD$,

$$\tan \theta = \frac{CD}{BC} \Rightarrow \tan \theta = \frac{h}{3}$$

Now, in $\triangle ACD$

$$\tan (90^\circ - \theta) = \frac{CD}{AC} \Rightarrow \cot \theta = \frac{h}{12}$$

$$\frac{1}{\tan \theta} = \frac{h}{12}$$

$$h \tan \theta = 12$$

Put the value of $\tan \theta$

$$h \times \frac{h}{3} = 12$$

$$h^2 = 36 \therefore h = 6$$

Then, height of tower = 6 m.

44. (d) New average

$$= \frac{38 \times 50 - 45 - 55}{48}$$

$$= \frac{1800}{48} = 37.5$$
45. (d) Single equivalent discount for 36% and 4%

$$= \left(36 + 4 - \frac{36 \times 4}{100} \right)$$

$$= (40 - 1.44)\% = 38.56\%$$

$$\therefore \text{Required difference} = 1.44\% \text{ of } 500$$

$$= \frac{500 \times 1.44}{100} = ₹7.20$$
46. (d) $(x + y)$'s 6 days' work = $\left(\frac{1}{30} \times 6 \right) = \frac{1}{5}$.

$$\text{Remaining work} = \left(1 - \frac{1}{5} \right) = \frac{4}{5}$$

Now, $\frac{4}{5}$ work is done by y in 32 days.

Whole work will be done by y in $\left(32 \times \frac{5}{4} \right) = 40$ days.

47. (c) $\left(x - \frac{1}{x} \right) = 4$

On squaring both sides

$$x^2 - \frac{1}{x^2} = 16$$

$$\Rightarrow x^2 + \frac{1}{x^2} = 14$$

On squaring again

$$x^4 - \frac{1}{x^4} = 196$$

$$\Rightarrow x^4 + \frac{1}{x^4} = 194$$

48. (d) Total executives recruited were 2953.
49. (d) Required ratio equals 1044 : 998
 $= 522 : 499$
50. (a) Required average number of executives
 $= \frac{\text{sum of no. of all executives}}{6}$
 $= \frac{2965}{6} \approx 494$

51. (d) Imbiber means one who absorbs something. Impresario means a person who organizes concert and plays. Imitator is the one who copies another person. Imposter is the pretender, so correct answer is option (d).
52. (d) Honest means truthful. Selfish is a person who just thinks about himself. Unscrupulous means dishonest. Conscientious means diligent or hardworking. Looking at the sentence, it is understood that the person is very hardworking. Thus option (d) is the best answer.
53. (a) Evoke means bring to mind and when a response is needed. Thus clearly option (a) is the answer. Provoked means to incite. Prevent means to stop. Thus these meanings do not fit here.
54. (c) 'Philanderer' means 'a man who has sexual relations with different women.'
55. (d) 'Proclivity' means a natural tendency (or inclination) to do something.
56. (c) The author says that we look even more foolish when we slip back into our old bad ways.

57. (b) The author says we fail in our attempts because we never have time to carry them out.
58. (b) My detailed statement is respectfully submitted.
59. (a) I have been waiting for my friend since morning.
60. (a) He has been representing my constituency for the past five years.
61. (d) No error
62. (c)
63. (b) Idiom **put your foot down** means : to be very strict in opposing what somebody wishes to do; to drive faster.
64. (d)
65. (b) Idiom 'To move heaven and earth' means: to try everything possible, to exert the utmost effort.
66. (d) Idiom 'To smell a rat' means: to believe that something is wrong in a particular situation, to be suspicious.
67. (d) 68. (c) 69. (a) 70. (b) 71. (c)
72. (a) The word **Loquacious (Adjective)** means : talking a lot; talkative. Option (a) is the right synonym while others have different meanings.
73. (c) The word **Vindictive (Adjective)** means : trying to harm or upset somebody or showing that you want to, because you think that they have harmed you; spiteful; revengeful. Option (c) **spiteful** is the correct synonym as it means-having or showing a desire to harm, anger or defeat someone.
74. (a) The word **Impeccable (Adjective)** means : without mistakes or fault; perfect. Hence, its antonym should be **faulty**.
75. (c) 76. (d) 77. (a) 78. (d) 79. (c)
80. (a) 81. (b) 82. (c) 83. (d) 84. (d)
85. (d) 86. (d) 87. (d) 88. (c) 89. (b)
90. (c) 91. (b) 92. (a) 93. (d) 94. (c)
95. (a) 96. (a)
97. (d) Ministry of Housing and Urban Affairs has launched mHariyali app to encourage public engagement in planting trees and Green drives.
98. (d) Former Indian captain Sourav Ganguly is all set to become the new president of Board of Control for Cricket in India (BCCI). He has filed his nomination for the post of BCCI president, unopposed.
99. (c) India has slipped to 102 position in the Global Hunger Index 2019 of 117 countries, slipping from its 2018 position of 95.
100. (a) World Food Day is celebrated every year around the world on 16 October in honor of the date of the founding of the Food and Agriculture Organization (FAO) of the United Nations in 1945. This year's theme is "Our Actions Are Our Future".