

AFCAT-I

Air Force Common Admission Test

Model Solved Paper 2017

Directions (Q.Nos. 1-3) *Read the passages carefully and choose the best answer to each question.*

In an effort to produce the largest, fastest and most luxurious ship afloat, British built the SS Titanic. It was so superior to anything else on the seas that it was dubbed 'unsinkable'. So sure of this were the owners that they provided only twenty life boats and rafts, less than one-half the number needed for the 2227 passengers on board.

Many passengers were aboard the night it rammed an iceberg only two days at sea and more than halfway between England and its New York destination. Because the luxury liner was travelling so fast, it was impossible to avoid the ghostly looking iceberg. An unextinguished fire also contributed to the ship's submersion. Panic increased number of casualties as people jumped into the icy water or fought to be among the few to board the life boats. Four hours after the mishap, another ship, the Carpathia, rescued 705 survivors.

The infamous SS Titanic had enjoyed only two days of sailing glory on its maiden voyage in 1912 before plunging into 12000 feet of water near the coast of Newfoundland where it lies today.

1. How many days was the SS Titanic at sea before sinking?
(a) 2 (b) 4 (c) 6 (d) 12
2. All of the following contributed to the large death toll except
(a) panic (b) fire
(c) speed (d) the Carpathia
3. 'Maiden voyage' is closest in meaning to
(a) inaugural (b) most elegant
(c) longest (d) final

Directions (Q.Nos. 4-8) *Read the passage carefully and fill in the blanks with the help of the alternatives given.*

Man has been tampering (4) the Ecosphere for a very long time and is forced to see that the environmental resources are (5) environmental problems are (6) social problems. They begin with people as cause and end with people as victims. Unplanned use of resource (7) resulted in the depletion of fossil fuels, pollution of air and water, deforestation which has resulted in (8) imbalance and draining away of national wealth through heavy expenditure on oil and power generation.

4. (a) to (b) in (c) with (d) for
5. (a) plenty (b) scarce (c) minute (d) enough

6. (a) really (b) coldly (c) badly (d) happily
7. (a) have (b) had (c) being (d) was
8. (a) ecological (b) biological
(c) logical (d) chronological

Directions (Q.Nos. 9-12) *Choose the one which can be substituted for the given words/ sentences.*

9. Belonging to all parts of the world
(a) Versatile (b) Universal
(c) Cosmopolitan (d) Secular
10. The study of the origin and history of words
(a) Linguistics (b) Etymology
(c) Verbose (d) Anthology
11. Tough tissues in joints
(a) Ligaments (b) Endoderm
(c) Muscles (d) Fibre
12. One who goes to settle in another country
(a) Immigrant (b) Alien (c) Citizen (d) Emigrant

Directions (Q.Nos. 13-15) *Find out which part of a sentence has an error. If there is no error, your answer is (d).*

13. We were looking forward (a)/to hear news (b)/ about the missing fishermen. (c)/ No error (d)
14. It is better (a) / to keep one's head in the face of danger than (b)/losing one's courage. (c)/ No error (d)
15. Although the police officer sympathized with the poor (a)/ he refused to (b)/ take an action against the rich man. (c)/ No error(d)

Directions (Q.Nos. 16-18) *Choose the correct alternative to make the sentence meaningful.*

16. The more electricity you use,
(a) your bill will be higher (b) will your bill be higher
(c) will be higher your bill (d) the higher your bill will be
17. Madhu has not been able to recall where
(a) does she live (b) she lived
(c) did she live (d) lived the girl
18. The teacher gives many examples to the idea contained in the poem.
(a) bring about (b) bring in
(c) bring forth (d) bring out

Directions (Q.Nos. 19 and 20) Choose the one which best expresses the same meaning of the given word.

19. Consignee
(a) Delegate (b) Representative
(c) Nominee (d) Messenger
20. Momentous
(a) Important (b) Temporary
(c) Fleeting (d) Monumental

Directions (Q.Nos. 21 and 22) Choose the word opposite in meaning to the given word.

21. Fallible
(a) Unerring (b) Reliable (c) Falsehood (d) Trustful
22. Rough
(a) Refined (b) Charming (c) Smooth (d) Polite

Directions (Q.Nos. 23-26) Choose the alternative which best expresses the meaning of the Idiom/Phrase of bold part.

23. It is evident from the minister statement that **heads will roll** in the Secretariat.
(a) transfers will take place (b) heads will be cut off
(c) people will die (d) dismissals will occur
24. Ramesh **takes after** his father.
(a) follows (b) imitates
(c) obeys (d) resembles
25. If the phone again, I am going to **give him a piece of my mind**.
(a) to be nice to him (b) to take a revenge on him
(c) to reprimand him (d) to support him
26. The poet **drew on his fancy** not his knowledge of nature, when he wrote his poem on birds.
(a) used his understanding (b) used his knowledge
(c) used his imagination (d) used his skill

Directions (Q.Nos. 27-30) Find out the misspelt word.

27. (a) Impetuous (b) Impertinant (c) Imperial (d) Implication
28. (a) Mercenary (b) Machinery (c) Missionary (d) Visionary
29. (a) Seize (b) Decieve (c) Believe (d) Reign
30. (a) Prefer (b) Defer (c) Difer (d) Refer
31. What are 'Open Market Operations'?
(a) Activities of SEBI- registered brokers
(b) Selling of currency by the RBI
(c) Selling of gilt-edged securities by the Government
(d) Sale of shares by FIIS
32. Which of the following is a project to develop watersheds in India?
(a) DRDO (b) CARE
(c) AVARD (d) NWDPPA
33. In India, which of the following have the highest share in the disbursement of credit to agriculture and allied activities?
(a) Commercial Banks (b) Co-operative Banks
(c) Regional Rural Banks (d) Microfinance Institutions
34. The first Law Minister of Independent India was
(a) MC Sitalwar (b) BR Ambedkar
(c) Kailashnath Katju (d) Rafi Ahmad Kidwai

35. Comptroller and Auditor-General of India is a friend and guide of
(a) Select Committee (b) Estimate Committee
(c) Prime Minister (d) Public Accounts Committee
36. What can be the maximum interval between two sessions of Parliament?
(a) 3 months (b) 4 months
(c) 6 months (d) 9 months
37. Which of the following Constitutional Amendments are related to raising the number of members of Lok Sabha to be elected from the state?
(a) 6th and 22nd (b) 13th and 38th
(c) 7th and 31st (d) 11th and 42nd
38. Which one of the following was the official language of Gupta Period?
(a) Pali (b) Magadhi (c) Prakrit (d) Sanskrit
39. Who abolished Iqta system?
(a) Babur (b) Muhammad-bin-Tughlaq
(c) Iltutmish (d) Alauddin Khalji
40. During the colonial rule in India, the permanent settlement was introduced by
(a) Lord Bentick (b) Lord Cornwallis
(c) Lord Curzon (d) Lord Wellesley
41. What was the first cotton mill in India established?
(a) Surat (b) Mumbai
(c) Ahmedabad (d) Coimbatore
42. Who initiated regeneration of Indian Muslims in the 19th Century?
(a) Syed Ahmsed khan (b) Nawab Salimullah
(c) Badshah Khan (d) Abul Kalam Azad
43. Gas released during Bhopal tragedy was
(a) sodium isothiocyanate (b) ethyl isothiocyanate
(c) potassium isothiocyanate (d) methyl isothiocyanate
44. Biodegradable wastes can usually be converted into useful substances with the help of
(a) bacteria (b) nuclear proteins
(c) radioactive (d) viruses
45. Cadmium pollution is associated with
(a) minamata disease (b) black foot disease
(c) dyslexia (d) itai-itai
46. The first India to Cross seven important seas by swimming
(a) Amrendra Singh (b) Bula Chaudhary
(c) Junko Taibei (d) Yuri Gagarin
47. 15th August is the Independence Day of India and
(a) South Korea (b) Indonesia (c) China (d) Pakistan
48. Which one of the following pairs is not correctly matched?
(a) Kalinga Award—Popularization of science
(b) David Cohen Award—Literature
(c) Borlaug Award—Agriculture
(d) Pulitzer Prize—Progress in religion
49. Where is the Punjab Lalit Kala Academy located?
(a) Muktasar (b) Ludhiana (c) Patiala (d) Chandigarh
50. Who is known as 'Iron man of India'?
(a) Jawaharlal Nehru (b) Bal Gangadhar Tilak
(c) Sardar Vallabhbhai Patel (d) Mahatma Gandhi

51. For what value (s) of a is $x + \frac{1}{4}\sqrt{x} + a^2$ a perfect square?

- (a) $\pm \frac{1}{18}$ (b) $\pm \frac{1}{8}$ (c) $-\frac{1}{5}$ (d) $\frac{1}{4}$

52. The difference of squares of two consecutive numbers is 21. What are the numbers?

- (a) 10 and 11 (b) 11 and 10 (c) 12 and 9 (d) 8 and 13

53. Four prime numbers are written in ascending order of their magnitudes. The product of the first three is 385 and that of the last three is 1001. The largest given prime number is

- (a) 11 (b) 13 (c) 17 (d) 19

54. A paper is in the form of rectangle having length 28 cm and breadth 21 cm. A semicircular portion with breadth as a diameter is cut off. The area of remaining portion is

- (a) 400 cm^2 (b) 404 cm^2
(c) 410.75 cm^2 (d) 414.75 cm^2

55. If the radius of circle is increased by 75%, then the area is increased by

- (a) 150% (b) 160%
(c) 210% (d) None of these

56. A sphere, a cylinder and a cone having same radius and height of cylinder and cone are equal to diameter of sphere. Ratio of their volume are

- (a) 4 : 3 : 1 (b) 1 : 3 : 4 (c) 4 : 1 : 3 (d) 7 : 4 : 1

57. A contractor undertook to do a work in 60 days. He employed 50 workers to carry out the job, but after 40 days he found that only half work had been done. Now, how many more worker should he employ to finish the work in time?

- (a) 50 (b) 100 (c) 150 (d) 200

58. Which of the following numbers is the least?

$$(0.5)^2, \sqrt{0.49}, \sqrt[3]{0.008}, 0.23$$

- (a) $(0.5)^2$ (b) $\sqrt{0.49}$ (c) $\sqrt[3]{0.008}$ (d) 0.23

59. By selling toffees at 20 for a rupee, a man loses 4%. In order to gain 20%, how many for a rupee must be sell?

- (a) 15 (b) 16 (c) 17 (d) 18

60. A and B are two alloys of gold and copper prepared by mixing metals in the proportion 7:2 and 7:11 respectively. If equal quantities of the alloy are melted to form a third alloy C, the proportion of gold and copper in C will be

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

61. A man whose bowling average is 12.4 takes 5 wickets for 26 runs and thereby decreases his average by 0.4. The number of wickets taken by him before his last match, is

- (a) 85 (b) 78 (c) 72 (d) 64

62. A tradesman gives 4% discount on the marked price and gives 1 article free for buying every 15 articles and thus gains 35%. The marked price is above the cost price by

- (a) 20% (b) 39% (c) 40% (d) 50%

63. A fruit seller buys mangoes at the rate of 15 for ₹ 12 and sells them at the rate of ₹ 15 per dozen. Find the gain percentage.

- (a) 25.65% (b) 32.25% (c) 51.35% (d) 56.25%

64. A man had ₹ 8400. He lent a part of it at 8% at SI and the remaining at $6\frac{2}{3}\%$ SI. His total annual income was ₹ 588.

Find the sum lent at different rates.

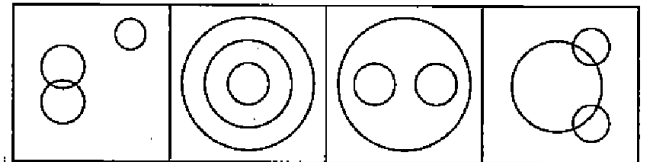
- (a) ₹ 5200 (b) ₹ 5300 (c) ₹ 6300 (d) ₹ 6400

65. A man can row 6 km/h in still water. It takes him twice as long to row up as to row down the river. Find the rate of the stream.

- (a) 2 km/h (b) 3 km/h (c) 4 km/h (d) 5 km/h

Directions (Q. Nos. 66-70) Each of these questions given below contains three elements. These elements may or may not have some inter-linkage. Each group of elements may fit into one of these diagrams at (a), (b), (c) and (d). You have to indicate the group of elements which correctly fits the diagrams.

66. Which of the following diagram correctly represents the relation between Animal, Dog and Pet?



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

67. Which one of the following diagram best depicts the relationship among Nose, Hand, Body?



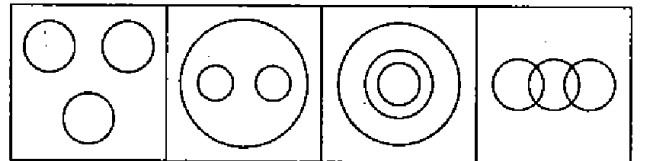
- (a) (b) (c) (d)

68. Which of the following figures best describes the relationship among Ocean, Ship and Sailor?



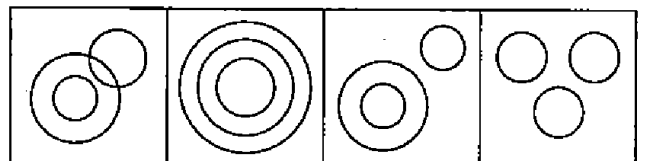
- (a) (b) (c) (d)

69. Which of the following figures represents, Degree students, BA students and BS students?



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

70. Which of the following Venn-diagram correctly represents Planet, Earth and Sun?



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

Directions (Q. Nos. 71-75) 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 of (::) while another word is to be selected from the given alternatives, having the same relationship with this word as the words of the given pair bear. Choose the correct alternative.

71. Country : President :: State : ?
 (a) Chief Minister (b) Prime Minister
 (c) Speaker (d) Governor
72. Mirage : Desert :: ?
 (a) Sky : Illusion (b) Rainbow : Sky
 (c) Rain : Rainbow (d) Image : Mirror
73. Radio : Marconi :: Television : ?
 (a) Picture tube (b) Fardey
 (c) Receiver (d) JL Baird
74. Perpetual : Irregular :: Prevent : ?
 (a) Check (b) Appeal (c) Stop (d) Allow
75. South-North : West :: North : ?
 (a) North-West (b) South-East (c) West (d) East

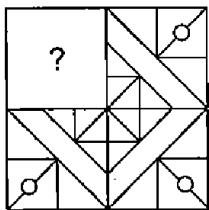
Directions (Q. Nos. 76-80) In each of the following questions, four words have been given out of which three are alike in same manner, while the fourth one is different. Choose the word which is different from the rest.

76. (a) Flute (b) Violin (c) Guitar (d) Sitar
77. (a) Prod (b) Sap (c) Jab (d) Thrust
78. (a) Trousers (b) Coats (c) Shirts (d) Jackets
79. (a) Grapes (b) Pineapple (c) Cashew (d) Apple
80. (a) Uncle (b) Nephew (c) Brother (d) Cousin

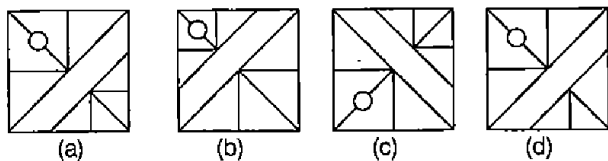
Directions (Q. Nos. 81-85) In each of the following questions, select a figure from amongst the four alternatives, which when placed in the blank space of figure (X) would complete the pattern.

81. Which one of the answer figure will complete the given question figure?

Question Figure

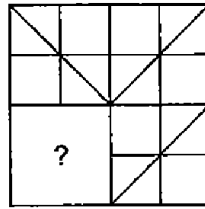


Answer Figures

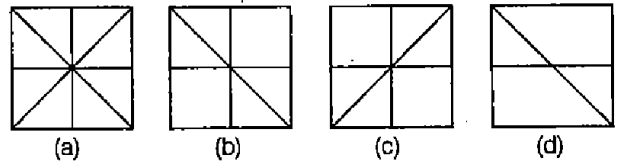


82. Which of the following alternative figure complete the given figure/pattern /design?

Question Figure

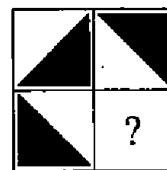


Answer Figures



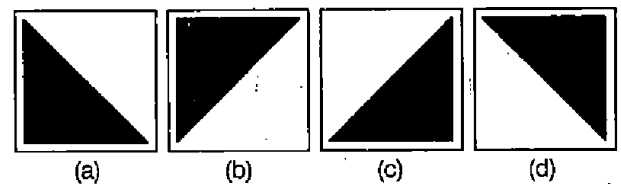
83. Which of the given answer figure will complete the pattern of question figure?

Question Figure



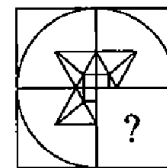
(X)

Answer Figures



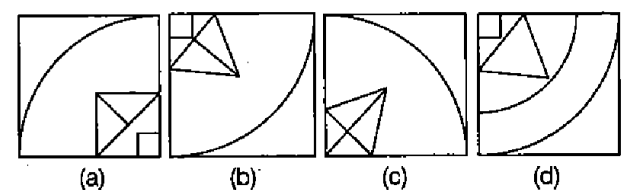
84. Which of the following answer figure will complete the pattern of question figure?

Question Figure



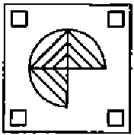
(X)

Answer Figures

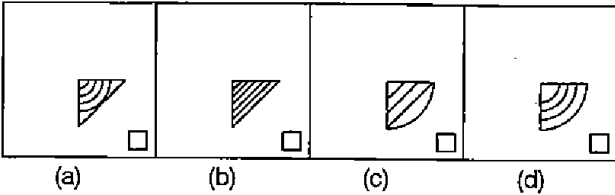


85. Which answer figure will complete the question figure?

Question Figure

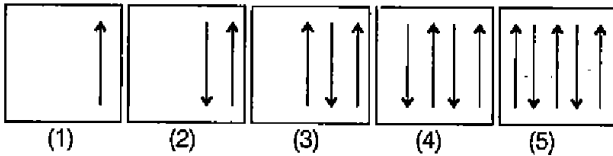


Answer Figures

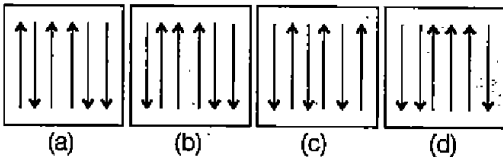


Directions (Q. Nos. 86-90) Each of the following questions, consists of five figures marked (1), (2), (3), (4) and (5) called the question followed by four other figures marked (a), (b), (c) and (d) called answer figures. Select a figure from amongst the answer figures which will continue the same series as established by the five question figures.

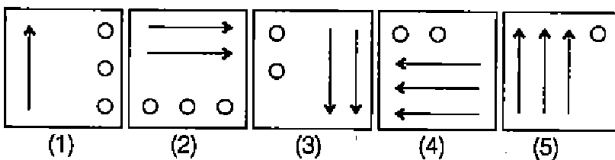
86. Problem Figures



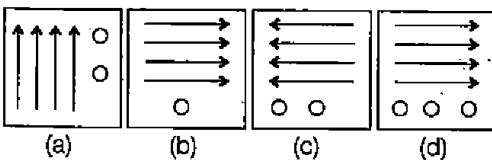
Answer Figures



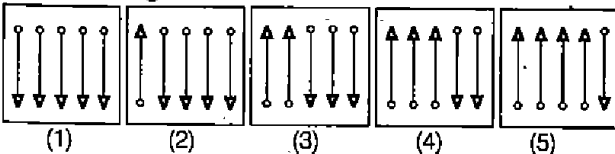
87. Problem Figures



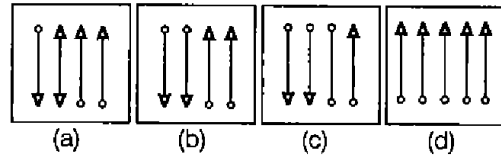
Answer Figures



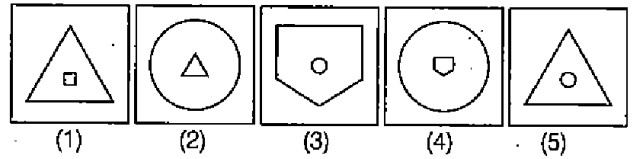
88. Problem Figures



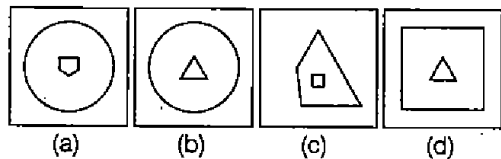
Answer Figures



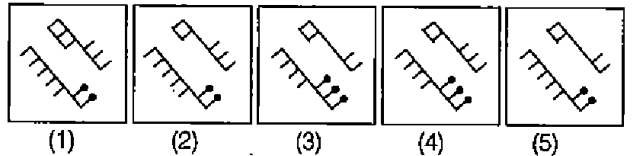
89. Problem Figures



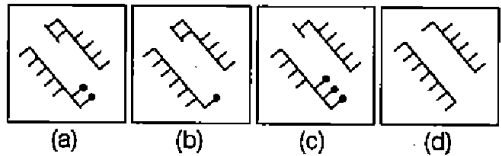
Answer Figures



90. Problem Figures

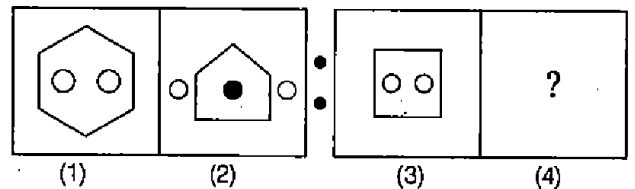


Answer Figures

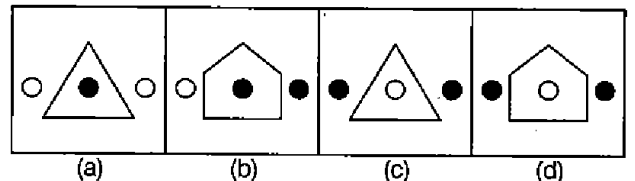


Directions (Q. Nos. 91-95) Each of the following questions, consist of two sets of figures. Figures (1), (2), (3) and (4) constitute the problem set while figures (a), (b), (c) and (d) constitute the answer set. There is a definite relationship between figures (1) and (2) establish a similar relationship between figures (3) and (4) by selecting a suitable figure from the answer set that would replace the question mark (?) is figure (4).

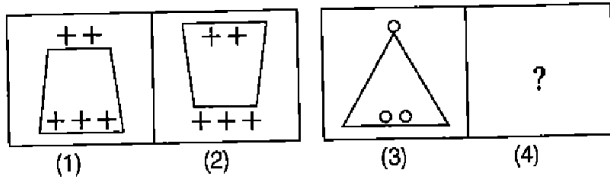
91. Problem Figures



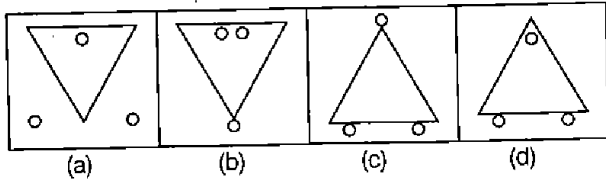
Answer Figures



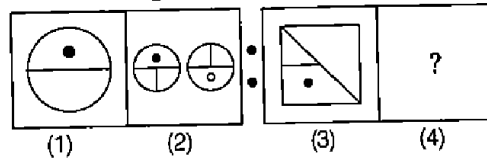
92. Problem Figures



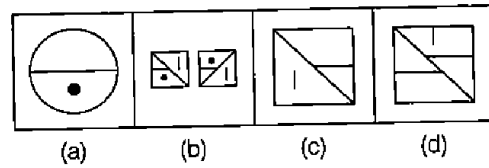
Answer Figures



95. Problem Figures

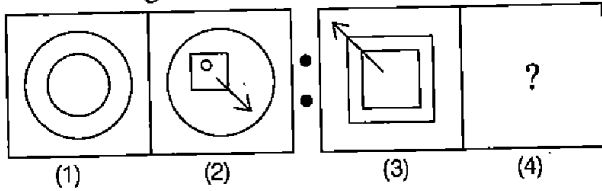


Answer Figures

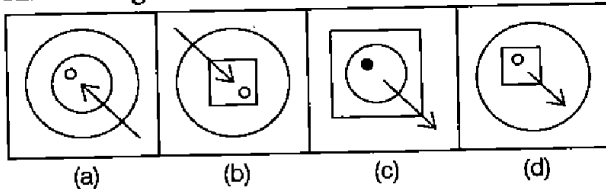


Directions (Q. Nos. 96-100) In each problem, out of the four figures marked (a), (b), (c) and (d), there are similar in a certain manner. However, our figure is not like the other three. Choose the figure which is different from the rest.

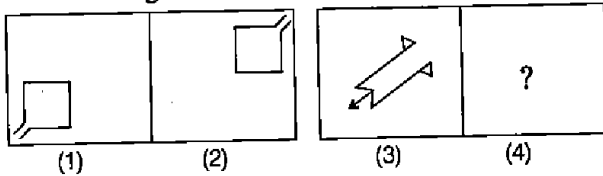
93. Problem Figures



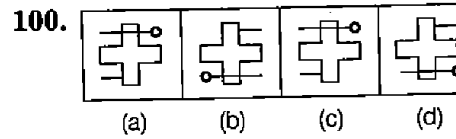
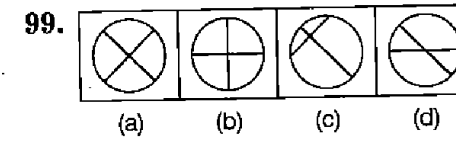
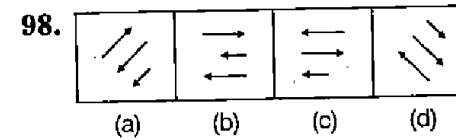
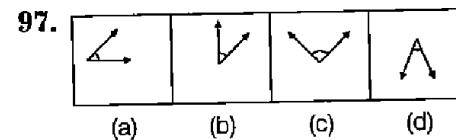
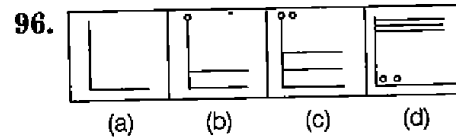
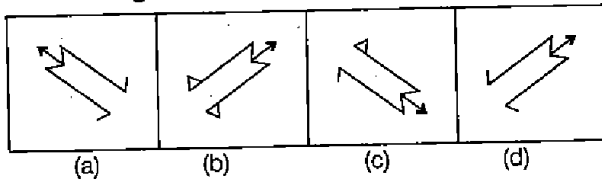
Answer Figures



94. Problem Figures



Answer Figures



Answers

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

Hints and Solutions

13. Use 'hearing' in place of 'hear'. Always use verb + ing form after the expression look forward to. Here 'to' is used as a preposition and it takes particle form of the verb.

14. Use 'to lose' in place of losing here.

15. Use 'yet' before he because 'yet' is used with although.

19. Consignee means 'collector', similar to this meaning the correct word is 'nominee'. [Consignee - Beneficiary, Casher]

20. Momentous means 'crucial', similar to this meaning the correct word is 'important'. [Momentous - Consequential, Far-reaching]

21. Fallible means 'faulty', opposite to this word is 'unerring'. [Fallible - Careless, Imperfect Unerring - Certain, True]

22. Rough means 'coarse', opposite to this word is 'Smooth'. [Rough - Chapped, Bumpy]

23. Heads will roll (Dismissal will occur) Use Undoubtly, heads will roll in some companies due to their financial problem and poor infrastructure.

24. Take after (Resembles), Use Sushila took after her mother.

25. To give him a piece of mind (To reprimand him)

26. Drew on his fancy (Using imagination)

51. $x + \frac{1}{4}\sqrt{x} + a^2 = (\sqrt{x})^2 + 2 \cdot \sqrt{x} \cdot \frac{1}{8} + (a^2)$

Clearly $a = \frac{1}{8}$ Then, expression = $(\sqrt{x} + \frac{1}{8})^2$

52. Let two consecutive numbers are $x, (x + 1)$.

According to problem, $(x + 1)^2 - (x)^2 = 21$

$\Rightarrow x^2 + 2x + 1 - x^2 = 21 \Rightarrow 2x + 1 = 21 \Rightarrow 2x = 21 - 1 = 20$

$\Rightarrow x = \frac{20}{2} = 10$

\therefore Numbers are 10 and 11.

53. $385 \mid 1001 \mid 2$

$\frac{770}{231} \mid 385 \mid 1$

$\frac{231}{154} \mid 231 \mid 1$

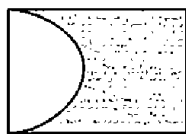
$\frac{154}{77} \mid 154 \mid 2$

$\frac{154}{x}$

\therefore Product of the middle two numbers = 77.

\therefore The largest prime number = $1001 + 77 = 13$

54. Area of remaining portion = $(28 \times 21) - \frac{1}{2} \times \frac{22}{7} \times (\frac{21}{2})^2$



$= 588 - \frac{11}{7} \times \frac{21}{2} \times \frac{21}{2} = 414.75 \text{ cm}^2$

55. Radius after increase = $r + \frac{3}{4}r = \frac{7}{4}r$

Area after increase = $\pi(\frac{7}{4}r)^2 = \frac{49}{16}\pi r^2$

Increase in area = $\frac{49\pi r^2}{16} - \pi r^2 = \frac{33}{16}\pi r^2$

Per cent increase = $\frac{\frac{33}{16}\pi r^2}{\pi r^2} \times 100 = \frac{3300}{16} = 206.25\%$

56. Volume of sphere : Volume of cylinder : Volume of cone

$\frac{4}{3}\pi r^3 : \pi r^2(r) : \frac{\pi}{3}r^2(2r) = 4 : 3 : 1$

58. $(0.5)^2 = 0.25, \sqrt{0.49} = 0.7, \sqrt[3]{0.008} = 0.2, 0.23 = 0.23$

$\therefore \sqrt{0.49} > (0.5)^2 > 0.23 > \sqrt[3]{0.008}$

59. Suppose he sells 20 toffees. Then,

SP = ₹ 1, Loss = 4% \Rightarrow CP = ₹ $\left[\frac{100}{96} \times 1\right] = ₹ \frac{25}{24}$

Now, CP = ₹ $\frac{25}{24}$, Gain = 20%, SP = ₹ $\left[\frac{120}{100} \times \frac{25}{24}\right] = ₹ \frac{5}{4}$

For ₹ $\frac{5}{4}$, toffees sold = 20 For ₹ 1, toffees sold = $\left[20 \times \frac{4}{5}\right] = 16$

\therefore He must sell 16 for a rupee.

60. Gold in C = $\left[\frac{7}{9} + \frac{7}{18}\right] = \frac{21}{18} = \frac{7}{6}$ Copper in C = $\left[\frac{2}{9} + \frac{11}{18}\right] = \frac{15}{18} = \frac{5}{6}$

\therefore Gold : Copper = $\frac{7}{6} : \frac{5}{6} = 7 : 5$

61. Let the number of wickets taken before the last match = x

Then, $\frac{(12.4x + 26)}{(x + 5)} = 12 \Rightarrow 12.4x + 26 = 12x + 60$

$\Rightarrow 0.4x = 34 \Rightarrow x = \frac{34}{0.4} = \frac{340}{4} = 85$ Required wickets = 85

62. Let the CP each article be ₹ 100.

Then, CP of 16 articles = ₹ $(100 \times 16) = ₹ 1600$

SP of 15 articles = ₹ $\left(1600 \times \frac{135}{100}\right) = ₹ 2160$

SP of each article = ₹ $\frac{2160}{15} = ₹ 144$

If SP is ₹ 96, marked price = ₹ 100

If SP is ₹ 144, marked price = ₹ $\left(\frac{100}{96} \times 144\right) = ₹ 150$

\therefore Marked price = 50% above CP

63. A seller buys 15 mangoes = ₹ 12 \therefore 1 mango buy = ₹ $\frac{12}{15} = ₹ 0.8$

and seller sells 12 mangoes = ₹ 15

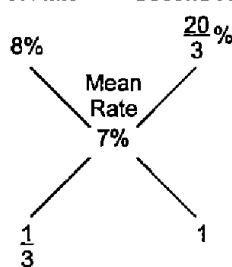
\therefore The sells of mango = ₹ $\frac{15}{12} = ₹ 1.25$

So, his gain per cent = $\frac{1.25 - 0.8}{0.8} \times 100 = 56.25\%$

64. Total SI on ₹ 8400 for 1 yr = ₹ 588

\therefore Rate of interest = $\frac{100 \times 588}{8400 \times 1} = 7\%$ per annum

First Rate Second Rate



(Money at 8%) : [Money at $6\frac{2}{3}\%$] = $\frac{1}{3} : 1 = 1 : 3$

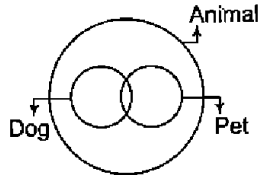
Money lent at 8% = ₹ $\left[8400 \times \frac{1}{4}\right] = ₹ 2100$

Money lent at $6\frac{2}{3}\%$ = ₹ $\left[8400 \times \frac{3}{4}\right] = ₹ 6300$

65. Let man's rate upstream be x km/h.
Then, man's rate downstream = $2x$ km/h
Man's rate in still water = $\frac{1}{2}(2x + x)$ km/h = $\frac{3x}{2}$ km/h
 $\therefore \frac{3x}{2} = 6 \Rightarrow x = \frac{(2 \times 6)}{3} = 4$

\therefore Rate upstream = 4 km/h,
Rate downstream = (2×4) km/h = 8 km/h
Rate of stream = $\frac{1}{2}(8 - 4)$ km/h = 2 km/h

66. The relation can be shown through the diagram
Clearly all the dogs are animal and some dogs are pet animal and some pet animal may be dog and vice-versa.



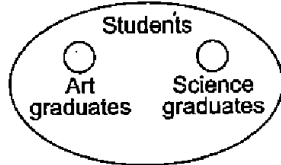
- 67.

Nose and Hand are two entirely different parts of body.

- 68.

Sailor is a part of ship and ship is a part of ocean.

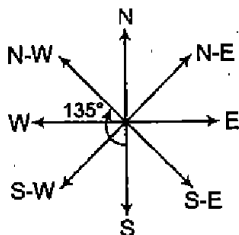
69. Both Art graduates and Science graduates belong to the category of degree student but both are different to each other.



- 70.

Earth is a planet. But, Sun is entirely different.

71. President is the head of union executive of India. Similarly, governor is the head of state executive.
72. Mirage is an illusion caused by hot air conditions making one see something that is not there especially the appearance of a sheet of water on a hot road or in a desert. Rainbow is an arch of seven colours formed in the sky when the sun shines through rain.
73. Radio was invented by Marconi in 1901. Similarly, Television was invented by JL Baird in 1926.
74. Perpetual and irregular are antonymous to each other. Similarly, prevent and allow are antonymous to each other.
75. If we rotate direction indicator through 135° in clockwise direction the pointer indicating South would show North-West direction.



Similarly, if we rotate the direction indicator through 135° in clockwise direction North will become South-East.

76. Except flute, all others are stringed musical instruments.
77. Except 'sap' all are related to 'pushing something' while 'sap' is related to 'weaken something'.
78. Trousers are lower garments. Which other are upper garments.
79. All except cashew are fruits.
80. All except brother are relations based on parents' brothers and sisters.
81. Answer figure will complete the question figure.
83.
- 84.
85. Answer figure will complete the question figure.
86. In each subsequent figure, one arrow is added and the pre-existing arrow(s) is/are reversed.
87. In one step, the number of arrows increases by one and in the second step, the number of circle decrease by one. These two processes are repeated alternately while in each step the entire figure rotates 90° clockwise.
88. In each subsequent figure, the design attached to line segment is changed in a set pattern starting from left. The designs are changed into the order : one, two, three, four and five designs, respectively—the triangle is changed into small circle and vice-versa.
89. In every alternate figure, the outer design is circle. Thus, in the answer figure, the outer design would be circle. Therefore, answer figure (c) and (d) can be ruled out. Again, in each subsequent figure, the outer design of the previous figure is reduced and becomes the inner figure.
90. One of the line segments from the lower and upper bars reverse its direction alternately and it changes into T-shaped design on the lower bar and into pin-head on the upper bar.
91. From figures I to II, the outer figure gets replaced by a figure with one lesser number of sides. The circles present inside it comes out and new black circle is introduced inside.
92. Inner items and outer item(s) get exchanged.
93. From figures I to II, the inner circle changes to square and vice-versa. The arrow rotates by 180° . A dot appears inside.
94. Figure get reverted diagonally.
95. From figures I to II, the number of circles increases from 1 to 2 and one of the circle is inverted. An additional line appears in each.
96. Figure (d) is different from others.
97. In figure (c), angle is 90° .
98. In figure (c), directions of alternative arrows are different.
99. In figure (c), one line cannot pass through the centre of circle.
100. In figure (d), small line (\rightarrow) and \rightarrow g have same direction.