

1. A vessel is filled with liquid, 3 parts of which are water and 5 parts syrup. How much of the mixture must be drawn off and replaced with water so that the mixture may be half water and half syrup.

- a) $\frac{1}{3}$
- b) $\frac{1}{4}$
- c) $\frac{1}{5}$
- d) $\frac{1}{7}$

2. The ratio between the length and the breadth of a rectangular park is 3:2. If a man cycling along the boundary of the park at the speed of 12 km/hr completes one round in 8 minutes, then the area of the park (in sq. m) is:

- a) 15360
- b) 153600
- c) 30720
- d) 307200
- e) none of the above

3. In the first 10 overs of a cricket game, the run rate was only 3.2. What should be the run rate in the remaining 40 overs to reach the target of 282 runs?

- a) 6.25
- b) 6.5
- c) 6.75
- d) 7
- e) None of the Above

4. The banker's discount on a bill due 4 months hence at 15% is Rs. 420. The true discount is

- a) Rs. 400
- b) Rs. 160
- c) Rs. 480
- d) Rs. 320

5. A boat can travel with a speed of 13 km/hr in still water. If the speed of the stream is 4 km/hr, find the time taken by the boat to go 68 km downstream.

- a) 2 hours
- b) 3 hours
- c) 4 hours
- d) 5 hours

6. It was Sunday on Jan 1, 2006. What was the day of the week on 17th June, 1998?

- a) Monday
- b) Tuesday
- c) Wednesday
- d) Thursday
- e) None of the Above

7. A fort had provision of food for 150 men for 45 days. After 10 days, 25 men left the fort. The number of days for which the remaining food will last, is:

- a) $29\frac{1}{5}$
- b) $374\frac{1}{5}$
- c) C. 42
- d) 54
- e) e. None of the Above

8. An accurate clock shows 8 o'clock in the morning. Through how many degrees will the hour hand rotate when the clock shows 2 o'clock in the afternoon.

- a) 144°
- b) 150°
- c) 168°
- d) 180°
- e) None of the Above

9. The difference between compound interest and simple interest on an amount of Rs. 15,000 for 2 years is Rs. 96. What is the rate of interest per annum?

- a) 0.08
- b) 0.1
- c) 0.12
- d) Cannot be determined
- e) None of the Above

10. What decimal of an hour is a second ?

- a) 0.0025
- b) 0.0256
- c) 0.00027
- d) 0.000126
- e) None of the Above

11. Find the greatest number that will divide 43, 91 and 183 so as to leave the same remainder in each case.

- a) 4
- b) 7
- c) 9
- d) 13
- e) None of the Above

12. Two ships are sailing in the sea on the two sides of a lighthouse. The angle of elevation of the top of the lighthouse is observed from the ships are 30° and 45° respectively. If the lighthouse is 100 m high, the distance between the two ships is:

- a) 173m
- b) 200m
- c) 273m
- d) 300m
- e) None of the Above

13. Which of the following statements is not correct?

- a) $\log_{10} 10=1$
- b) $\log (23) \log (23)$
- c) $\log_{10} 10=0$
- d) $\log(1 + 2 + 3)=\log 1 + \log 2 + \log 3$

14. Which one of the following is not a prime number?

- a) 61
- b) 61
- c) 71
- d) 91
- e) None of the Above

15. Find the odd man out.

3, 5, 11, 14, 17:21

- a) 21
- b) 17
- c) 14
- d) 3

16. A and B started a business in partnership investing Rs. 20,000 and Rs. 15,000 respectively. After six months, C joined them with Rs. 20,000. What will be B's share in total profit of Rs. 25,000 earned at the end of 2 years from the starting of the business?

7500

b 9000

9500

d. 10,000

e None of the Above

17. A dishonest milkman professes to sell his milk at cost price but he mixes it with water and thereby gains 25%. The percentage of water in the mixture is

- a) 0.04
- b) 61/4%

- c) 0.2
- d) 0.25
- e) None of the Above

18. From a group of 7 men and 6 women, five persons are to be selected to form a committee so that at least 3 men are there on the committee. In how many ways can it be done?

- a) 564
- b) 645
- c) 735
- d) 756
- e) None of the Above

19. Three pipes A, B and C can fill a tank from empty to full in 30 minutes, 20 minutes, and 10 minutes respectively. When the tank is empty, all the three pipes are opened. A, B and C discharge chemical solutions P, Q and R respectively. What is the proportion of the solution R in the liquid in the tank after 3 minutes?

20. Tickets numbered 1 to 20 are mixed up and then a ticket is drawn at random. What is the probability that the ticket drawn has a number which is a multiple of 3 or 5?

21. Father is aged three times more than his son Ronit. After 8 years, he would be two and a half times of Ronit's age. After further 8 years, how many times would he be of Ronit's age?

- a) 2 times
- b) $2\frac{1}{2}$ times
- c) $2\frac{3}{4}$ times
- d) 3 times
- e) None of the Above

22. If one-third of one-fourth of a number is 15, then three-tenth of that number is:

- a) 35
- b) 36

- c) 45
- d) 54
- e) None of the Above

23. Two stations A and B are 110 km apart on a straight line. One train starts from A at 7 am, and travels towards B at 20 kmph. Another train starts from B at 8 a.m. and travels towards A at a speed of 25 kmph. At what time will they meet?

- a) 9 a.m.
- b) 10 a.m.
- c) 10:30 a.m.
- d) 11 a.m.
- e) None of the Above

24. The cost price of 20 articles is the same as the selling price of x articles. If the profit is 25%, then the value of x is:

- a) 15
- b) 16
- c) 18
- d) 25
- e) None of the Above

25. In a 100 m race, A can give B 10 m and C 28 m. in the same race B can give C

- a) 18 m
- b) 20 m
- c) 27 m
- d) 9m

26. A and B together have Rs. 1210. If $4/15$ of A's amount is equal to $2/5$ of B's amount, how much amount does B have?

- a) 460
- b) 484
- c) 550

d) 664

27. The present worth of Rs. 1404 due in two equal half-yearly installments at 8% per annum simple interest is:

- a) 1325
- b) 1300
- c) C 1350
- d) 1500
- e) None of the Above

28. A man has Rs.480 in the denominations of one-rupee notes, five-rupee notes and ten-rupee notes. The number of notes of each denomination is equal. What is the total number of notes that he has ?

- a) 45
- b) 60
- c) 75
- d) 90
- e) c. None of the Above

29. If $3:5+125 = 17.88$, then what will be the value of 80657

- a) 13.41
- b) 20.46
- c) 21.66
- d) 22.35
- e) None of the Above

30. In order to obtain an income of Rs. 650 from 10% stock at Rs. 96, one must make an investment of:

- a) Rs. 3100
- b) Rs. 6240
- c) Rs. 6500
- d) Rs. 9600

31. Given that $10x$, $10y$ and xy , then the value of z is close to:

- a) 1,45
- b) 1.88
- c) C. 2.9
- d) 3.7

e) None of the Above

32. A man covered a certain distance at some speed. Had he moved 3 kmph faster, he would have taken 40 minutes less. If he had moved 2 kmph slower, he would have taken 40 minutes more. The distance (In km) is

- a) 35
- b) 36.666666666666
- c) 37.5
- d) 40

33. A can do a work in 15 days and B in 20 days. If they work on it together for 4 days, then the fraction of the work that is left is:

- a) 45017
- a) 45200
- b) 47186
- c) 42217
- d) None of the Above

34. A man purchased a cow for Rs. 3000 and sold it the same day for Rs. 3600, allowing the buyer a credit of 2 years. If the rate of Interest be 10% per annum, then the man has a gain of:

- a) 0%
- b) 5%
- c) 7.5%
- d) 10%

35. A right triangle with sides 3 cm, 4 cm and 5 cm is rotated the side of 3 cm to form a cone. The volume of the cone so formed is:

- a. 12π
- b. 15π
- c. 16π
- d. 20π
- e. None of the Above

36. Odometer is to mileage as compass is to

- a) speed
- b) hiking
- c) needle
- d) direction

37. Read the paragraph carefully and determine the main point the author is trying to make. What conclusion can be drawn from the argument? Each paragraph is followed by five statements. One statement supports the author's argument better than the others do.

One New York publisher has estimated that 50,000 to 60,000 people in the United States want an anthology that includes the complete works of William Shakespeare. And what accounts for this renewed interest in Shakespeare? As scholars point out, his psychological Insights Into both male and female characters are amazing even today.

This paragraph best supports the statement that

- a) Shakespeare's characters are more interesting than fictional characters today.
- b) people even today are interested in Shakespeare's work because of the characters.
- c) academic scholars are putting together an anthology of Shakespeare's work.
- d) New Yorkers have a renewed interested in the work of Shakespeare.
- e) Shakespeare was a psychiatrist as well as a playwright.

38. Here are some words translated from an artificial language.

gorbifiur means fan belt

pixngorbi means ceiling fan

arththus/means tile roof

Which word could mean "ceiling tile"?

- a) flurgart
- b) gorbitust
- c) arthflur
- d) pixnarth

39. In each of the following questions, two statements numbered I and II are given.

There may be cause and effect relationship between the two statements. These two statements may be the effect of the same cause or independent causes. These statements may be independent causes without having any relationship. Read both the statements in each question and mark your answer as

Statements:

India has surpassed the value of tea exports this year over all the earlier years due to an increase in demand for quality tea in the European market. There is an increase in demand of coffee in the domestic market during the last two years.

- a) Statement I is the cause and statement II is its effect
- b) Statement II is the cause and statement 1 is its effect
- c) Both the statements I and II are independent causes
- d) Both the statements I and II are effects of independent causes
- e) Both the statements I and II are effects of some common cause

40. Each question has an underlined word followed by four answer choices. You will choose the word that is a necessary part of the underlined word.

- a) harvest
- b) autumn
- c) stockpile
- d) tractor
- e) crop

41. SCD, TEF, UGH, WKL

CMN

UJI

VIJ

LJT

42. In each of the following questions, two statements are given followed by three or four conclusions numbered I, II, III and IV. You have to take the given statements to be true even if they seem to be at variance from the commonly known facts and then decide which of the given conclusions logically follows from the given statements disregarding commonly known facts.

Statements: Some taxis have horns. Some taxis have lights.

Conclusions:

Every taxi has either horn or light.

Some taxis have neither light nor horn.

Some taxis have horns as well as lights.

No taxi has horn as well as light.

- a. Only I and II follow
- b. Only II and III follow
- c. Only II and IV follow
- d. Either III or IV follows
- e. All follow

43. Read the below passage carefully and answer the questions:

Five roommates Randy, Sally, Terry, Uma, and Vernon each do one housekeeping task mopping, sweeping, laundry, vacuuming, or dusting one day a week, Monday through Friday.

- Vernon does not vacuum and does not do his task on Tuesday.
- Sally does the dusting, and does not do it on Monday or Friday
- The mopping is done on Thursday
- Terry does his task, which is not vacuuming, on Wednesday.
- The laundry is done on Friday, and not by Uma.
- Randy does his task on Monday.

What day is the vacuuming done?

- a. Friday
- b. Monday
- c. Tuesday
- d. Wednesday

e. Thursday

44. Tanya is older than Eric.

Cliff is older than Tanya.

Eric is older than Cliff.

If the first two statements are true, the third statement is

- a) True
- b) False
- c) Uncertain

45. Elleen is planning a special birthday dinner for her husband's 35th birthday. She

wants the evening to be memorable, but her husband is a simple man who

would rather be in jeans at a baseball game than in a suit at a fancy restaurant.

Which restaurant below should Eileen choose?

- a. Alfredo's offers fine Italian cuisine and an elegant Tuscan decor. Patrons will feel as though they've spent the evening in a luxurious Italian villa.
- b. Pancho's Mexican Buffet is an all-you-can-eat family style smorgasbord with the best tacos in town.
- c. The Parisian Bistro is a four-star French restaurant where guests are treated like royalty. Chef Dilbert Olay is famous for his beef bourguignon.
- d. Marty's serves delicious, hearty meals in a charming setting reminiscent of a baseball clubhouse in honor of the owner, Marty Lester, a former major league baseball all-star.

46. Applying for Seasonal Employment occurs when a person requests to be considered for a job that is dependent on a particular season or time of year.

Which situation below is the best example of Applying for Seasonal Employment?

- a. The ski instructors at Top of the Peak Ski School work from December through March.
- b. Matthew prefers jobs that allow him to work outdoors.
- c. Lucinda makes an appointment with the beach resort restaurant manager to interview for the summer waitressing position that was advertised in the newspaper.

d. Doug's ice cream shop stays open until 11 p.m. during the summer months.

47. Look at this series: 2, 1, (1/2), (1/4), ... What number should come next?

- a) (1/3)
- b) (1/8)
- c) (2/8)
- d) (1/16)

48. Statement: Should Government close down loss-making public sector enterprises?

Arguments:

No. All employees will lose their jobs, security and earning, what would they do?

Yes. In a competitive world the rule is 'survival of the fittest'.

- a) Only argument I is strong
- b) Only argument II is strong
- c) Either I or II is strong
- d) Neither I nor II is strong
- e) Both I and II are strong

49. Statement: "You are hereby appointed as a programmer with a probation period of one year and your performance will be reviewed at the end of the period for confirmation." A line in an appointment letter.

Assumptions:

I. The performance of an individual generally is not known at the time of appointment offer.

II. Generally an individual tries to prove his worth in the probation period.

- a) Only assumption I is implicit
- b) Only assumption II is implicit
- c) Either I or II is implicit
- d) Neither I nor II is implicit
- e) Both I and II are implicit

50. Below is given a statement followed by two conclusions numbered I and II. You have to assume everything in the statement to be true, then consider the two

conclusions together and decide which of them logically follows beyond a reasonable doubt from the information given in the statement.

Statements: Company X has a record of manufacturing cameras of quality and the latest design so that you do not spoil even a single shot irrespective of the weather conditions.

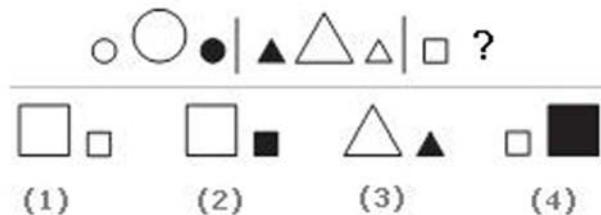
Conclusions:

No other company except X is reputed in the camera industry.

Anyone can take an acceptable shot with camera X.

- a) Only conclusion I follows
- b) Only conclusion II follows
- c) Either I or II follows
- d) Neither I nor II follows
- e) Both I and II follow

51.



- a) 1
- b) 2
- c) 3
- d) 4

52. The attainment of individual and organisational goals is mutually interdependent and linked by a common denominator - employee work motivation. Organisational members are motivated to satisfy their personal goals, and they contribute their efforts to the attainment of organisational objectives as means of achieving these personal goals.
The passage best supports the statement that motivation –

- a) encourages an individual to give priority to personal goals over organisational goals.
- b) is crucial for the survival of an individual and organisation.

- c) is the product of an individual's physical and mental energy.
- d) is the external force which induces an individual to contribute his efforts.
- e) makes organisation and society inseparable.

53. Which word does NOT belong with the others?

- a) parsley
- b) basil
- c) dill
- d) mayonnaise

54. Vincent has a paper route. Each morning, he delivers 37 newspapers to customers in his neighborhood. It takes Vincent 50 minutes to deliver all the papers. If Vincent is sick or has other plans, his friend Thomas, who lives on the same street, will sometimes deliver the papers for him.

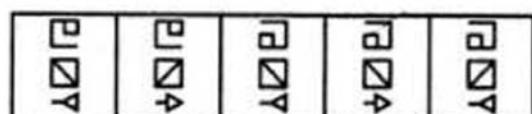
- a) Vincent and Thomas live in the same neighborhood.
- b) It takes Thomas more than 50 minutes to deliver the papers.
- c) It is dark outside when Vincent begins his deliveries.
- d) Thomas would like to have his own paper route.

55. Figures A, B, C and D constitute the Problem Set while figures 1, 2, 3, 4 and 5 constitute the Answer Set. There is a definite relationship between figures A and B. Establish a similar relationship between figures C and D by selecting a suitable figure from the Answer Set that would replace the question mark (?) in fig. (D).

Problem Figures:



Answer Figures:

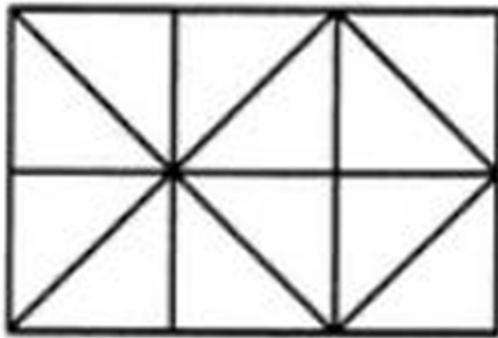


(A) (B) (C) (D)

(1) (2) (3) (4) (5)

- a) 1
- b) 2
- c) 3
- d) 4
- e) 5

56. Count the number of squares in the given figure.



- a) 6
- b) 7
- c) 9
- d) 10

57. Which signal is sounded ONLY by a vessel in sight of another?

- a) One prolonged blast on the whistle
- b) One short, one prolonged, and one short blast on the whistle
- c) Four short blasts on the whistle
- d) One short blast on the whistle

58. A power-driven vessel crossing a river on the Great Lakes or Western Rivers, must keep out of the way of which of the following power-driven vessels?

- a) ascending the river without a tow
- b) ascending the river with a tow
- c) descending the river with a tow
- d) All of the above

59. Which vessel shall avoid impeding the safe passage of a vessel constrained by her draft?

- a) A fishing vessel
- b) A vessel not under command
- c) A vessel restricted in her ability to maneuver
- d) All of the above

60. For the purpose of the Rules, except where otherwise required, the term

- a) 'vessel restricted in her ability to maneuver includes fishing vessels
- b) 'vessel engaged in fishing' includes a vessel fishing with trolling lines
- c) vessel includes seaplanes
- d) 'seaplane' includes nondisplacement craft

61. As its temperature rises, the volume of fuel oil stored in a tank will

- a) decrease
- b) increase
- c) remain the same
- d) none of the above

62. If you have a duplex single acting reciprocating pump making 190 strokes/minute, with a 5" diameter cylinder, a 7" stroke and operating with 75% volumetric efficiency, what is the capacity of this pump?

- a) 42 gpm
- b) 170 gpm
- c) 85 gpm
- d) 119 gpm

63. The purpose of an air cooler in a supercharging system is to:

- a) Reduce temperature of supercharged air in order to condense and remove maximum possible moisture from the air prior entry to the engine
- b) Reduce the temperature of the supercharged air in order to increase the density & also to cool down below dew point to remove moisture from air prior entry to the engine
- c) Cool supercharged air to increase its density such that the dew point is not reached to avoid entry of moisture into the engine
- d) Cool supercharged air to increase its density and also to keep the peak temperature and exhaust gas temperature within limits

64. What is meant by elastohydrodynamic lubrication?

- a) Formation of hydrodynamic film under high pressure with minor elastic deformation of mating surfaces, distributing load over a greater area
- b) Addition of extreme pressure additive (EP) to the lubricant

- c) Addition of Viscosity index improvement additive
- d) Addition of elastomer based additives

65. In each of the following questions find out the alternative which will replace the question mark.

CUP: LIP:: BIRD:?

- a) BUSH
- b) GRASS
- c) FOREST
- d) BEAK

66. A farmer built a fence around his square plot. He used 27 fence poles on each side of the square. How many poles did he need altogether?

- a) 100
- b) 104
- c) 108
- d) None of these

67. Pointing to a photograph of a boy Suresh said, "He is the son of the only son of my mother." How is Suresh related to that boy?

- a) Brother
- b) Uncle
- c) Cousin
- d) Father

68. Statements:

1. Standard of living among the middle class society is constantly going up since part of few years.

2. Indian Economy is observing remarkable growth.

- a) Statement I is the cause and statement II is its effect.
- b) Statement II is the cause and statement I is its effect.
- c) Both the statements I and II are independent causes.
- d) Both the statements I and II are effects of independent causes.

e) Both the statements I and II are effects of some common cause.

69. Choose the word which is different from the rest.

- a) Wheat
- b) Paddy
- c) Jowar
- d) Mustard

70. The following questions are based on the information given below:

A cuboid shaped wooden block has 6 cm length, 4 cm breadth and 1 cm height

- a) Two faces measuring 4 cm x 1 cm are coloured in black.
- b) Two faces measuring 6 cm x 1 cm are coloured in red.
- c) Two faces measuring 6 cm x cm are coloured in green
- d) The block is divided into 6 equal cubes of side 1 cm (from 6 cm side), 4 equal cubes of side 1 cm (from 4 cm side).

71. How many cubes having red, green and black colours on at least one side of the cube will be formed ?

- a) 16
- b) 12
- c) 10
- d) 4

72. Question: in which year was Rahul born?

Statements:

Rahul at present is 25 years younger to his mother

Ranul's brother, who was born in 1964, is 25 years younger to his mother.

- a) I alone is sufficient while it alone is not sufficient
- b) I alone is sufficient while I alone is not sufficient
- c) Either I or II is sufficient
- d) Neither I nor II sufficient
- e) Both and II are sufficient

73. From his house, Lokesh went 15 km to the North. Then he turned west and covered 10 km.

Then he turned south and covered 5 km. Finally turning to the east, he covered 10 km. In which direction is he from his house?

- a) East
- b) West
- c) North
- d) South

74. Arrange the words given below in a meaningful sequence.

Reading
Composing
Writing
Printing

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

75. A, P, R, X, S and Z are sitting in a row. S and Z are in the centre. A and P are at the ends. R is sitting to the left of A. Who is to the right of P?

- a) A
- b) X
- c) S
- d) z

76. 589654237, 89654237, 8965423, 965423,?

- a) 58965
- b) 65423
- c) 89654
- d) 96542

77. In the following question two statements are given and these statements are followed by two conclusions numbered (1) and (2). You have to take the given two statements to be true even if they seem to be at variance from commonly known facts. Read the conclusions and then decide which of the given conclusions logically follows from the two given statements, disregarding commonly known facts.

Statements: All cups are books. All books are shirts.

Conclusions:

Some cups are not shirts.

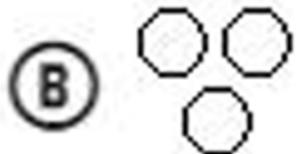
Some shirts are cups.

- a) Only (1) conclusion follows
- b) Only (2) conclusion follows
- c) Either (1) or (2) follows
- d) Neither (1) nor (2) follows
- e) Both (1) and (2) follow

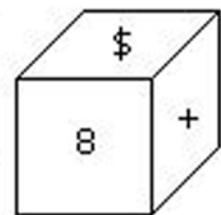
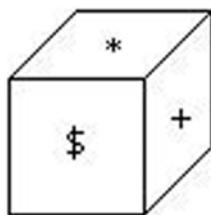
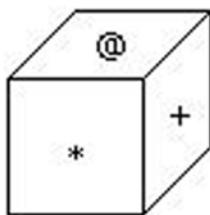
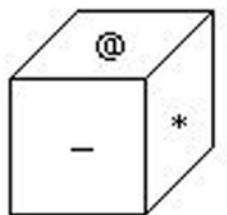
78. A train always has

- a) Rails
- b) Driver
- c) Guard
- d) Engine

79. Which of the following diagrams indicates the best relation between Travelers, Train and Bus ?



80. Which symbol will be on the face opposite to the face with symbol * ?



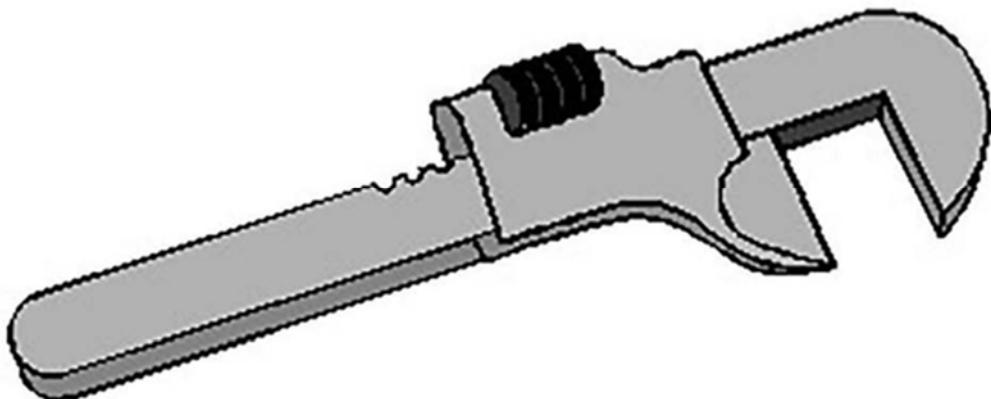
- a) @
- b) +
- c) \$
- d) 8

81. Which one will replace the question mark?

A ₂	C ₄	E ₆
G ₃	I ₅	?
M ₅	O ₉	Q ₁₄

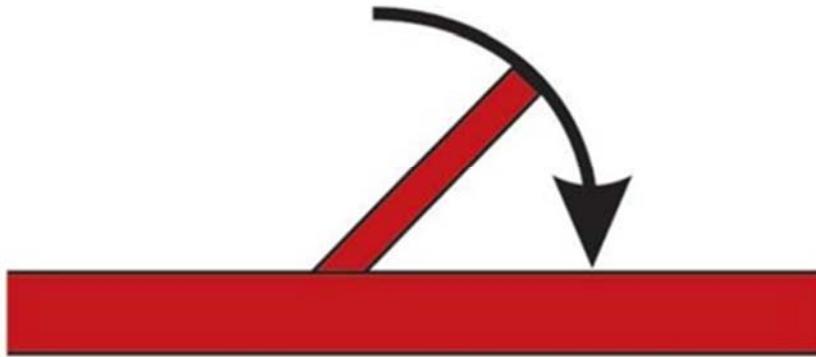
- a) L₁₀
- b) K₁₅
- c) I₁₅
- d) K₈

82. Indicate the correct name of the tool.



- a) Pilers
- b) Chisel
- c) Monkey Wrench
- d) Padlock

83. Give the meaning of the following symbol.



- a) Foam Valve
- b) Class fire Door Self Closing
- c) Closing Appliance for Exterior
- d) A Class fire door self closing

84. A MMSI Number consists of:

- a) 5 digits
- b) 7 digits
- c) 9 digits
- d) Call sign followed by four digits

85. While on boiler watch on an automatically controlled steam boiler the rating notices that the burner has failed to light following a drop in steam pressure. What action should be taken?

- a) Shut the steam stop valve to stop the steam pressure falling further.
- b) Stop the feed water pump immediately in case the boiler overfills.
- c) Try and light the boiler burner manually.
- d) Call the duty engineer immediately using the engineers call alarm.

86. After smoking cigarettes they should be disposed of as follows:

- a) Dropped into a waste bin.

- b) Dropped over the lee side only so that it cannot blow back on board
- c) Dropped over the side only if you are certain they are extinguished.
- d) Disposed of in an ashtray and ensuring that it is extinguished.

87. Choose the water image of the Fig.(X) from amongst the four alternatives (1), (2), (3) and (4) given along with it.



(X)



(1)



(2)



(3)



(4)

- a) 1
- b) 2
- c) 3
- d) 4
- e) 5

88. Select a figure from the given four alternatives which fits exactly into Figure-X to from a complete square.



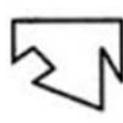
(X)



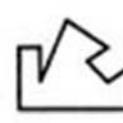
(1)



(2)



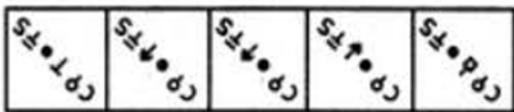
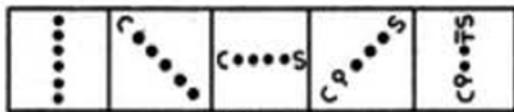
(3)



(4)

- a) 1
- b) 2
- c) 3
- d) 4

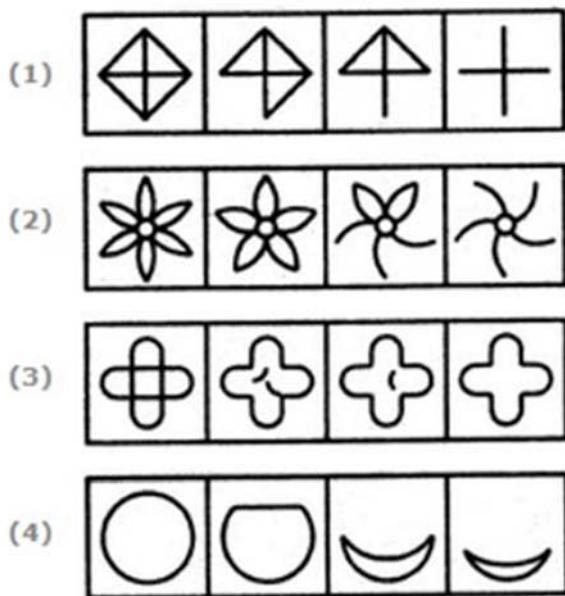
89. Select a figure from amongst the Answer Figures which will continue the same series as established by the five Problem Figures.



- a) 1
- b) 2
- c) 3

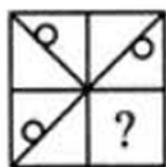
- d) 4
e) 5

90. Choose the set of figures which follows the the given rule.



- a) 1
b) 2
c) 3
d) 4

91. Select a figure from amongst the four alternatives, which when placed in the blank space of figure (X) would complete the pattern.



(X)

(1)

(2)

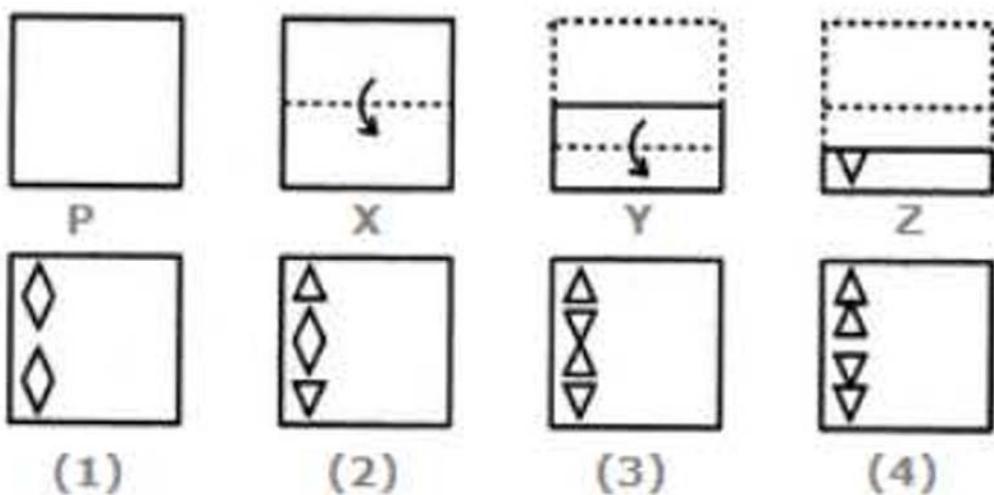
(3)

(4)

- a) 1
b) 2

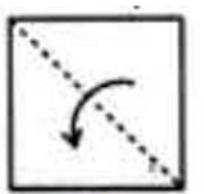
- c) 3
- d) 4

92. The Question consists of a set of three figures X, Y and Z showing a sequence of folding of a piece of paper. Figure (Z) shows the manner in which the folded paper has been cut. These three figures are followed by four answer figures from which you have to choose a figure which would most closely resemble the unfolded form of figure (Z). alternatives as to how the pattern would appear when the transparent sheet is folded at the dotted line.

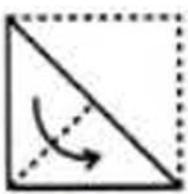


- a) 1
- b) 2
- c) 3
- d) 4

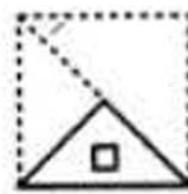
93. The Question consists of a set of three figures X, Y and Z showing a sequence of folding of a piece of paper. Figure (Z) shows the manner in which the folded paper has been cut. These three figures are followed by four answer figures from which you have to choose a figure which would most closely resemble the unfolded form of figure (Z), alternatives as to how the pattern would appear when the transparent sheet is folded at the dotted line.



X



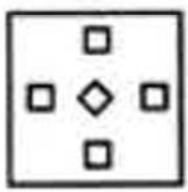
Y



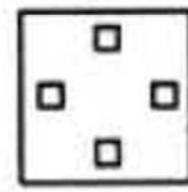
Z



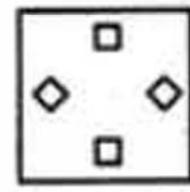
(1)



(2)



(3)



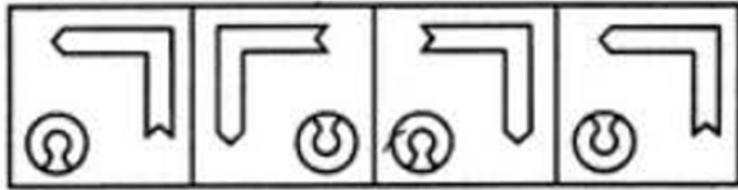
(4)

- a) 1
- b) 2
- c) 3
- d) 4

94. Choose the correct mirror image of the given image of the Fig.(X) from amongst the four alternatives (1)(2)(3) & (4) given along with it.



(X)



(1)

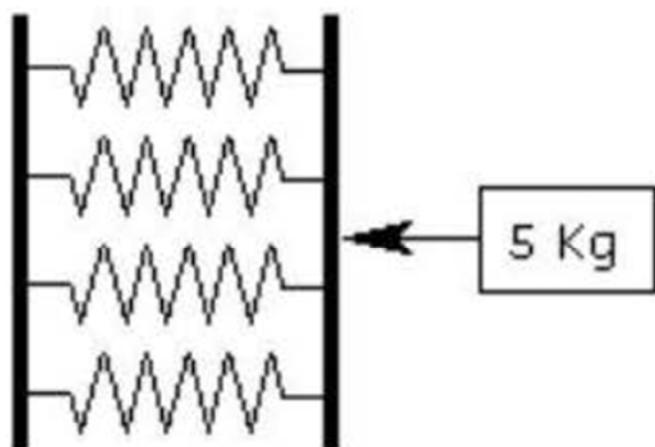
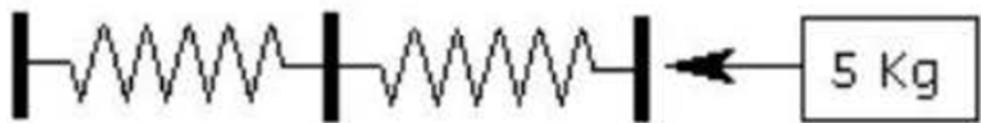
(2)

(3)

(4)

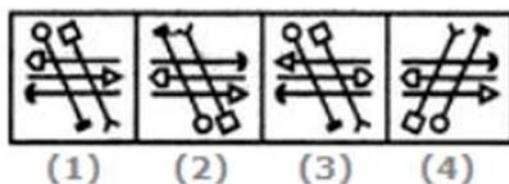
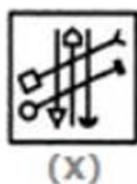
- a) 1
- b) 2
- c) 3
- d) 4

95. A force of 5 kg compresses the springs in series by 10 cm. What will be the total distance that the springs in parallel are compressed?



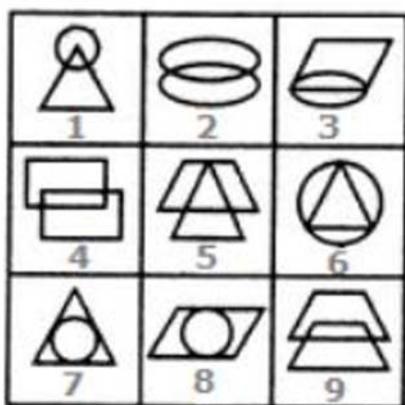
- a) 2.5cm
- b) 5cm
- c) 7.5
- d) 10cm

96. Find out how will the key figure (x) look like after rotation.



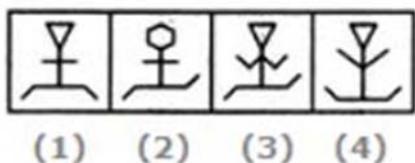
- a) 1
- b) 2
- c) 3
- d) 4

97. Group the given figures into three classes using each figure only once.



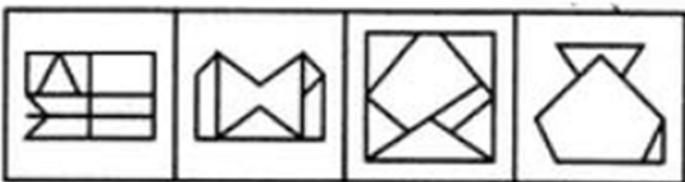
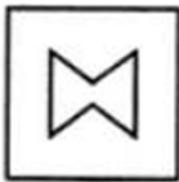
- a) 1,5,9; 2,7,8; 3,4,6
- b) b. 1,5,6; 4,7,8; 2,3,9
- c) C. 2,4,9; 6,7,8; 1,3,5
- d) 3,7,8; 4,5,9; 1,2,6

98. Select a suitable figure from the four alternatives that would complete the figure matrix.



- a) 1
- b) 2
- c) 3
- d) 4

99. Find out the alternative figure which contains figure (X) as its part.



- a) 1
- b) 2
- c) 3
- d) 4

100. From amongst the figures marked (1), (2), (3) and (4), select the figure which satisfies the same conditions of placement of the dots as in figure (X). Select the figure which satisfies the same conditions of placement of the dots as in Figure-X.



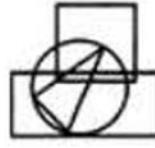
(X)



(1)



(2)



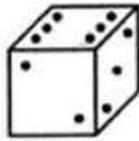
(3)



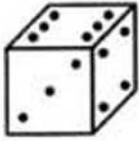
(4)

- a) 1
- b) 2
- c) 3
- d) 4

101. Two positions of a dice with 1 to 6 dots on its sides are shown below. If the dice is resting on the side with three dots, what will be number of dots on the side at the top?



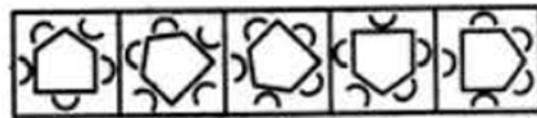
(i)



(ii)

- a) 1 or 5
- b) 2
- c) 3
- d) 5

102. Out of the five figures marked (1), (2), (3), (4) and (5), four are similar in a certain manner. However, one figure is not like the other four. Choose the figure which is different from the rest.



- a) 1
- b) 2
- c) 3
- d) 4
- e) 5