

MODEL PAPER

B.Sc. / B.Com. /B.A. / Specialization SEM-V (SEC)

Mental Ability and Reasoning

Quantitative Aptitude

1. The least number which when divided by 12, 16, 20 leaves the same remainder 3 is:

- A) 243
- B) 246
- C) 255
- D) 259

2. If $3x + 5 = 20$, then the value of x is:

- A) 4
- B) 5
- C) 6
- D) 3

3. Simplify: $48 \div 8 \times 4 - 6 + 2$

- A) 20
- B) 22
- C) 18
- D) 24

4. HCF of 42, 63 and 105 is:

- A) 7
- B) 14
- C) 21
- D) 35

5. The LCM of 18, 24, and 36 is:

- A) 72
- B) 108
- C) 144
- D) 216

6. If 20% of A = 50% of B, then A : B = ?

- A) 1:2
- B) 2:1
- C) 5:2
- D) 2:5

7. A's income is 25% more than B's. What percent is B's income less than A's?

- A) 15%
- B) 20%
- C) 25%
- D) 30%

8. The average of 5, 10, 15, 20, and 25 is:

- A) 12
- B) 15
- C) 16
- D) 18

9. If $3x = 2y = 6z$, then $x : y : z = ?$

- A) 3:2:1
- B) 2:3:1
- C) 1:1.5:2
- D) 1:1:1

10. A's share in profit is ₹500 when total profit is ₹2000. Find his percentage share.

- A) 10%
- B) 15%
- C) 20%
- D) 25%

11. Cost price = ₹80, Selling price = ₹100. Find profit %.

- A) 20%
- B) 22%
- C) 24%
- D) 25%

12. A and B invest ₹10,000 and ₹15,000 respectively. Find ratio of their profits.

- A) 2:3
- B) 3:2
- C) 1:1.5
- D) 4:5

13. A shopkeeper allows 10% discount on goods marked ₹500. Find selling price.

- A) ₹450
- B) ₹475
- C) ₹400
- D) ₹480

14. A gains 20% on cost price. If selling price is ₹360, find cost price.

- A) ₹280
- B) ₹300

- C) ₹320
- D) ₹340

15. A, B, and C invest in ratio 2 : 3 : 5. Total profit is ₹10,000. Find C's share.

- A) ₹2,000
- B) ₹3,000
- C) ₹5,000
- D) ₹4,000

16. A can do a piece of work in 10 days, B in 15 days. Working together, they will complete it in:

- A) 4 days
- B) 5 days
- C) 6 days
- D) 8 days

17. A train 300 m long passes a pole in 15 seconds. Find speed in km/hr.

- A) 60
- B) 72
- C) 80
- D) 90

18. If 6 men can complete a work in 12 days, then 8 men can complete it in:

- A) 9 days
- B) 10 days
- C) 8 days
- D) 7 days

19. A car travels 120 km in 3 hours. Find its speed in m/s.

- A) 10
- B) 15
- C) 20
- D) 25

20. A does a work in 5 days and B in 10 days. Together they can do the same work in:

- A) 3.33 days
- B) 5 days
- C) 6 days
- D) 7.5 days

Verbal Reasoning

21. Find the next term: 2, 6, 12, 20, 30, ?

- A) 36
- B) 40
- C) 42
- D) 48

22. AZ, BY, CX, DW, ?

- A) EV
- B) FU
- C) GV
- D) GU

23. 2, 4, 8, 16, 32, ?

- A) 48
- B) 56
- C) 64
- D) 72

24. A, C, F, J, O, ?

- A) S
- B) T
- C) U
- D) V

25. 1, 4, 9, 16, 25, ?

- A) 30
- B) 35
- C) 36
- D) 49

26. Statement: "Should students be allowed to use mobile phones in class?"

I: Yes, it helps in learning.

II: No, it distracts from studies.

- A) Only I
- B) Only II
- C) Both
- D) Neither

27. Statement: "Should there be a ban on plastic bags?"

I: Yes, it causes pollution.

II: No, it is convenient.

- A) Only I
- B) Only II
- C) Both
- D) None

28. Pointing to a man, Seema said, "He is my mother's only son." Who is Seema to that man?

- A) Sister
- B) Mother
- C) Daughter
- D) Wife

29. A is the brother of B. B is the sister of C. C is the son of D. How is A related to D?

- A) Son
- B) Daughter
- C) Father
- D) Mother

30. Pointing to a woman, Ramesh said, "She is the wife of my uncle's son." How is that woman related to Ramesh?

- A) Sister
- B) Cousin
- C) Sister-in-law
- D) Aunt

31. If CAT = 24, BAT = 22, then HAT = ?

- A) 30
- B) 29
- C) 28
- D) 27

32. In a code, MONDAY is written as NPMEBZ. How is SUNDAY written?

- A) TVOEAZ
- B) TVOEZB
- C) TVPEBZ
- D) TVPEAY

33. If A = 1, Z = 26, then value of CAT = ?

- A) 24
- B) 27
- C) 29
- D) 31

34. Doctor : Hospital :: Teacher : ?

- A) Class
- B) School
- C) Student
- D) Book

35. Eye : Vision :: Ear : ?

- A) Sound
- B) Noise
- C) Hearing
- D) Music

36. Book : Reading :: Knife : ?

- A) Writing
- B) Cutting

- C) Drawing
- D) Hitting

37. If A ranks 9th from top and 38th from bottom, how many students are there?

- A) 46
- B) 47
- C) 48
- D) 45

38. If today is Tuesday, what will be the day after 100 days?

- A) Thursday
- B) Friday
- C) Saturday
- D) Sunday

39. In a Venn diagram, three circles represent students studying Physics, Chemistry, and Mathematics. The intersection of all three represents?

- A) Students studying one subject
- B) Students studying all three
- C) Students studying none
- D) Students studying two subjects

40. Which one is the odd one out?

- A) January
- B) March
- C) July
- D) Sunday

41. If average marks of 4 subjects are 70, total marks are:

- A) 270
- B) 280
- C) 300
- D) 350

42. Mean of 10 numbers is 25. If one number is removed, mean becomes 24. Find removed number.

- A) 35
- B) 40
- C) 45
- D) 50

43. If the sum of ages of A and B is 50 and A is 10 years older, find B's age.

- A) 15
- B) 20
- C) 25
- D) 30

44. If the letters of 'GARDEN' are reversed, which letter will be in the middle?

- A) A
- B) D
- C) R
- D) E

45. Which letter is 5th to the right of 13th from left in the alphabet?

- A) R
- B) S
- C) T
- D) U

46. If the word COMPUTER is coded as RFNQZSGS, what is the code for LAPTOP?

- A) MBSUPQ
- B) MBQUPQ
- C) MBRUPQ
- D) NBRUPQ

47. If 1st Jan 2020 was Wednesday, what was 1st Jan 2021?

- A) Thursday
- B) Friday
- C) Saturday
- D) Sunday

48. If today is Sunday, what will be the day 365 days later?

- A) Sunday
- B) Monday
- C) Tuesday
- D) Wednesday

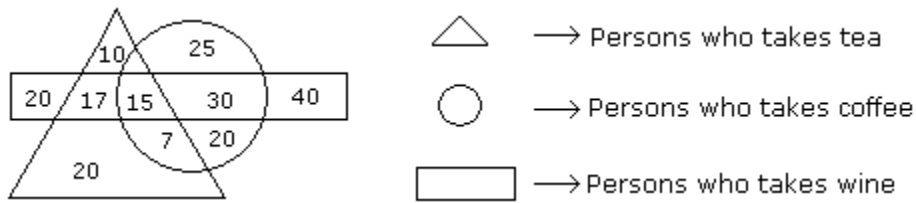
49. How many odd days are there in 400 years?

- A) 0
- B) 1
- C) 2
- D) 3

50. If 26th January 2025 is Sunday, then 26th January 2026 will be?

- A) Monday
- B) Tuesday
- C) Wednesday
- D) Thursday

Study the diagram given below and answer each of the following questions. (51-55)



51. How many persons who take tea and wine but not coffee ?

- A. 20
- B. 17
- C. 25
- D. 15

52. How many persons are there who take both tea and coffee but not wine ?

- A. 22
- B. 17
- C. 7
- D. 20

53. How many persons take wine ?

- A. 100
- B. 82
- C. 92
- D. 122

54. How many persons are there who takes only coffee ?

- A. 90
- B. 45
- C. 25
- D. 20

55. How many persons takes all the three ?

- A. 20
- B. 17
- C. 25
- D. 15

56. In which year was Rahul born ?

Statements:

1. Rahul at present is 25 years younger to his mother.
2. Rahul's brother, who was born in 1964, is 35 years younger to his mother.

- A. I alone is sufficient while II alone is not sufficient
 - B. II alone is sufficient while I alone is not sufficient
 - C. Either I or II is sufficient
 - D. Neither I nor II is sufficient
 - E. Both I and II are sufficient
-

57. What will be the total weight of 10 poles, each of the same weight?

Statements:

1. One-fourth of the weight of each pole is 5 kg.
2. The total weight of three poles is 20 kilograms more than the total weight of two poles.

- A. I alone is sufficient while II alone is not sufficient
 - B. II alone is sufficient while I alone is not sufficient
 - C. Either I or II is sufficient
 - D. Neither I nor II is sufficient
 - E. Both I and II are sufficient
-

58. How many children does M have?

Statements:

1. H is the only daughter of X who is wife of M.
2. K and J are brothers of M.

- A. I alone is sufficient while II alone is not sufficient
 - B. II alone is sufficient while I alone is not sufficient
 - C. Either I or II is sufficient
 - D. Neither I nor II is sufficient
 - E. Both I and II are sufficient
-

59. How much was the total sale of the company ?

Statements:

1. The company sold 8000 units of product A each costing Rs. 25.
2. This company has no other product line.

- A. I alone is sufficient while II alone is not sufficient
- B. II alone is sufficient while I alone is not sufficient
- C. Either I or II is sufficient

- D. Neither I nor II is sufficient
- E. Both I and II are sufficient

60. Surbhi ranks 18th in a class of 49 students. What is her rank from the last?

- a) 31
- b) 28
- c) 35
- d) 32

61. Aman is 16th from the left end in a row of boys and Vivek is 18th from the right end. Gagan is 11th from Aman towards the right and 3rd from Vivek towards the right end. How many boys are there in the row?

- a) 40
- b) 42
- c) 48
- d) 41
- e) None of these

62. In a row of girls, Kamyra is fifth from the left and Preeti is sixth from the right. When they exchange their positions, then Kamyra becomes thirteenth from the left. What will be Preeti's position from the right?

- a) 7th
- b) 14th
- c) 11th
- d) 18th

63. In a row of letters, a letter is 5th from left end and 12th from the right end. How many letters are there in a row?

- a) 15
- b) 16

c) 17

d) 18

64. In a row of children facing North, Ritesh is 12th from the left end. Sudhir, who is 22nd from the right end is 4th to the right of Ritesh. Total how many children are there in the row?

a) 35

b) 36

c) 37

d) 34

e) None of these

65. If 25th December 1990 was a Tuesday, what day of the week would 25th December 2020 be?

(A) Friday

(B) Saturday

(C) Sunday

(D) Thursday

66. If the day before yesterday was Thursday, then what day of the week will it be after 11 days from today?

(A) Sunday

(B) Tuesday

(C) Wednesday

(D) Thursday

67. If today is Wednesday, what will be the day after 94 days?

A. Monday

B. Wednesday

C. Friday

D. Sunday

68. Moon : Satellite : : Earth

(a) Sun

(b) Planet

(c) Solar system

(d) Asteroid

69. Melt : Liquid :: Freeze : ?

(a) Ice

(b) Condense

(c) Solid

(d) Crystal

70. Baffle : Confuse :: ? : ?

(a) Innocent : Guilty

(b) Knowledge : Ignorance

(c) Timid : Bold

(d) Atrocious : Terrible

71. Teacher : School :: Postmaster : ?

(a) Students

(b) Playground

(c) Laboratory

(d) Post Office

72. Dog : Puppy :: Lion : Cub :: Sheep : ?

(a) Calf

(b) Lamb

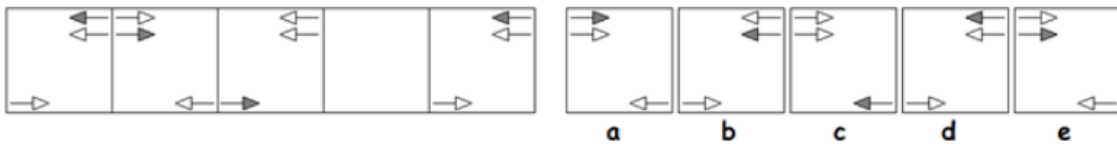
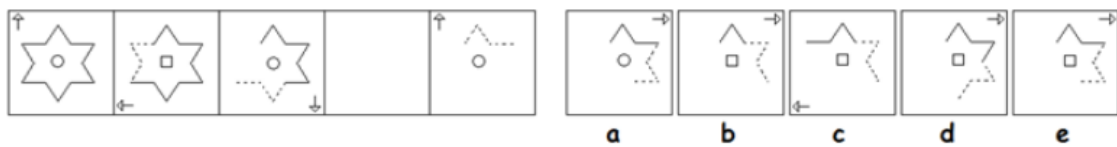
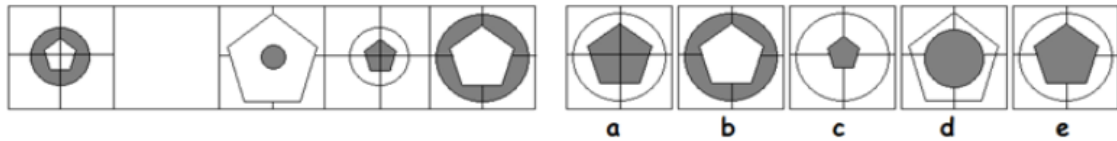
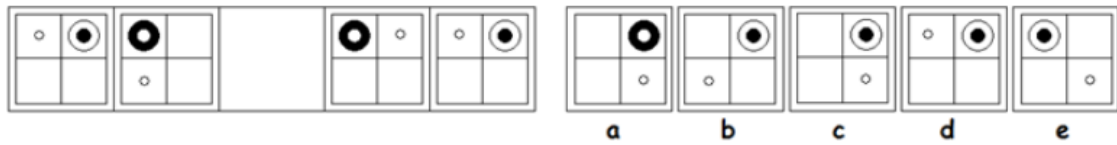
(c) Pig

(d) Farrow

Non Verbal reasoning

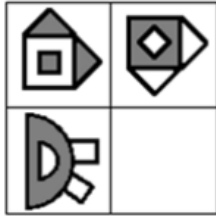
Series

The five squares on the left contain shapes arranged in order to form a sequence. One of the squares is missing. Choose which one of the five squares on the right should take the place of the empty square (73-77)



Matrices

Which shape or pattern completes the larger square? (74-75)



a



b



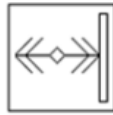
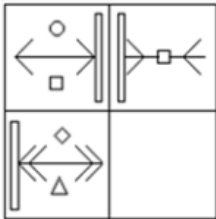
c



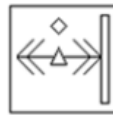
d



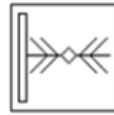
e



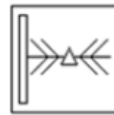
a



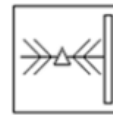
b



c



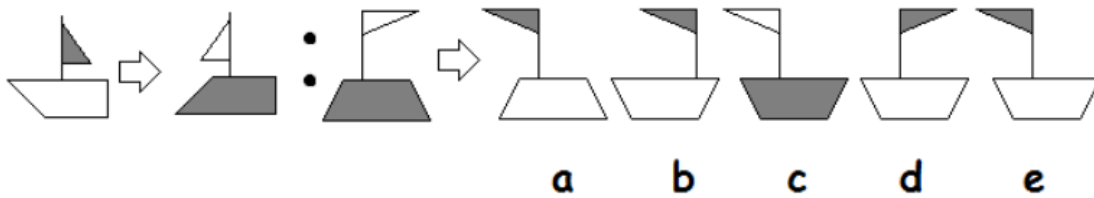
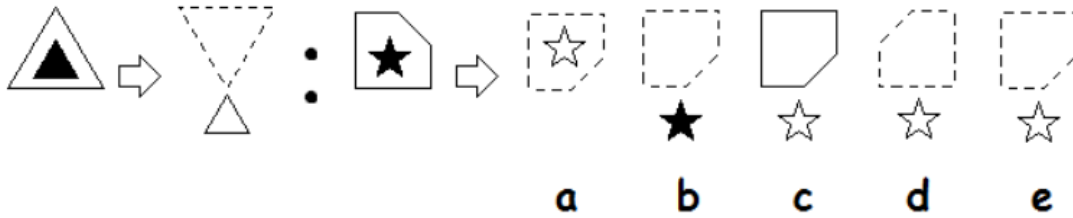
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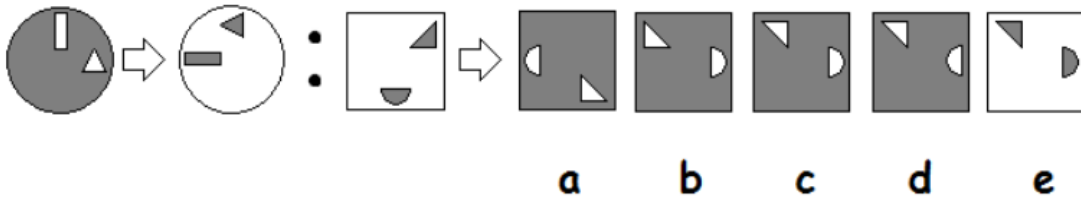
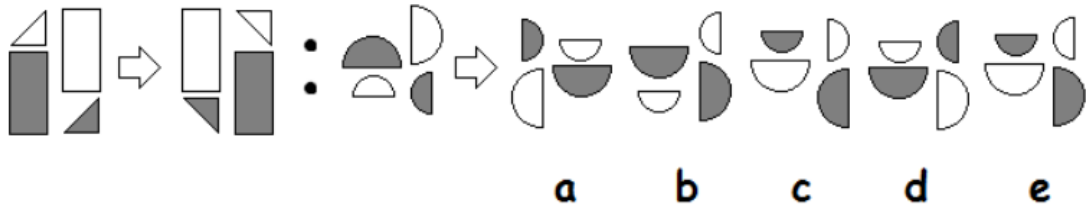
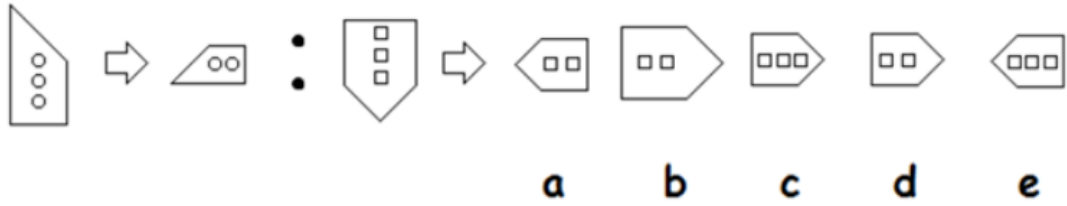


e

Analogies(76-80)

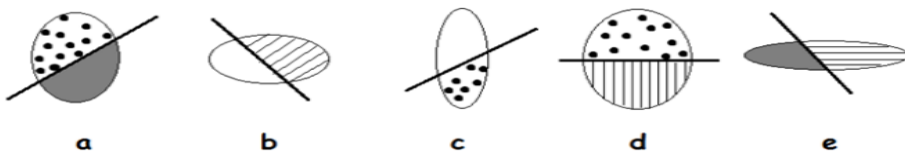
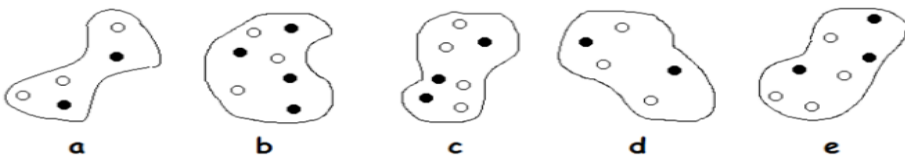
Which shape or pattern on the right completes the second pair in the same way as the first pair?

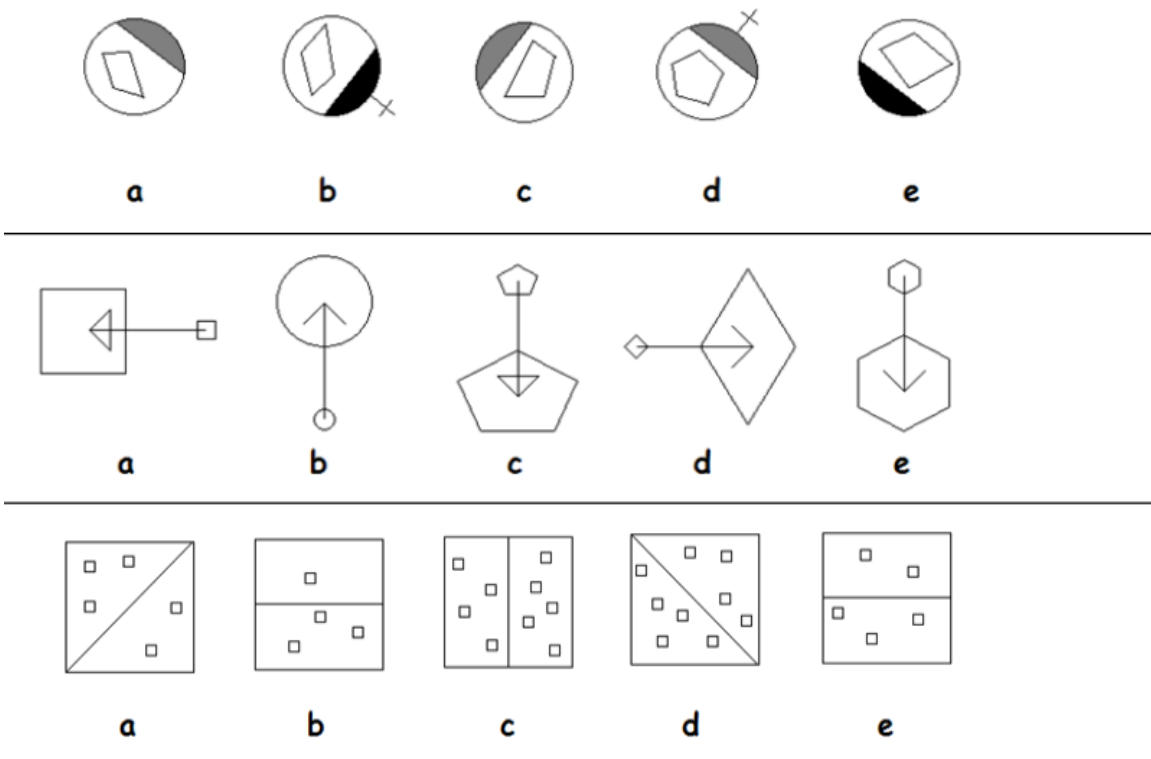




Odd One Out (81-85)

Choose which one of the pictures is most unlike the other four.





MIRROR IMAGES (86-90)

86. What will be the mirror image of the word MATH?

- A. HTAM
- B. TAMH
- C. HTAM
- D. HTMA.

87. Identify the mirror image of the letter R.

- A. R



- C.

- D. None of these

Q.88. Which of the following letters do not change in mirror image?

- A. A
- B. H

C. M

D. J.

89. What is the mirror image of the number 246?

A.642

B. 642(INVERTED)

C. 642 (MIRRORED)

D. None of these

Q90. What is the mirror image of B2D5?

A) 5D2B

B) S2D5

C) 5D2E

D) 5D2E

Classification (91-94)

91. In each problem, out of the five figures marked (a), (b), (c), (d) and (e) 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.

MeritNotes



MeritNotes

(A) a

(B) b

(C) c

(D) d

(E) e.

92. In each problem, out of the five figures marked (a), (b), (c), (d) and (e) 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.

MeritNotes



MeritNotes

(A) a

(B) b

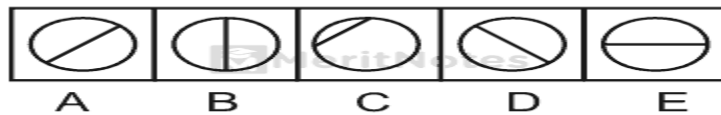
(C) c

(D) d

(E) e

93. Out of the five figures (a), (b), (c), (d) and (e) given in each problem, four are similar in a certain way. However, one figure is not like the other four. Choose the figure which is different from the rest.

MeritNotes



MeritNotes

(A) a

(B) b

(C) c

(D) d

(E) e

94. Out of the five figures (a), (b), (c), (d) and (e) given in each problem, four are similar in a certain way. However, one figure is not like the other four. Choose the figure which is different from the rest.

 MeritNotes



 MeritNotes

(A) a

(B) b

(C) c

(D) d

(E) e

95. A B C D E F G H I J K L M N O P Q R S T U V W X Y Z

If the second half of the English alphabet is reversed then which letter will be 4th to the right of 20th letter from the right?

A. U

B. K

C. E

D. F

96. What should come next in the following letter sequence?

A A B A B C A B C D A B C D E A B C D

A. A

B. E

C. C

D. B

97. Arrange these words in alphabetical order and tick the one that comes last

1. Abandon 2. Actuate 3. Accumulate 4. Acquit 5. Achieve

A) Actuate

B) Accumulate

C) Acquit

D) Achieve

98. In a certain code language,

'134' means 'good and tasty';

'478' means 'see good pictures' and

'729' means 'pictures are faint'.

Which of the following digits stands for 'see'?

A. 9

B. 2

C. 1

D. 8

99. Choose the Antonym of the given word from the following options

'Jettison'

- A) Salvage
- B) Submerge
- C) Repent
- D) Descend

100. How many pairs of letters are there in the word "CASTRAPHONE" which have as many letters between them in the word as in the alphabet?

- A. 3
- B. 4
- C.5
- D.6

Answer Key:

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