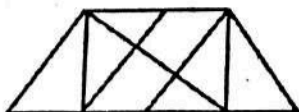


MCA 2016 – EXAMINATION PAPER

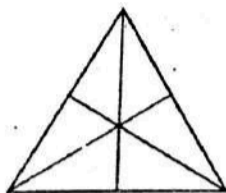
1. A train running at the speed of 60 km/hr. crosses a pole in 9 seconds. What is the length of the train?
 1) 540 metres 2) 180 metres
 3) 324 metres 4) 150 metres
2. A, B and C can do a piece of work in 20, 30 and 60 days respectively. In how many days can A do the work if it is assisted by B and C on every third day?
 1) 12 2) 15
 3) 16 4) 18
3. In a store, the profit is 320% of the cost. If the cost increases by 25% but the selling price remains constant, approximately what percentage of the selling price is the profit?
 1) 30 2) 70
 3) 100 4) 250
4. The sum of ages of 5 children born at the intervals of 3 years each is 50 years. What is the age of the youngest child?
 1) 4 years 2) 8 years
 3) 10 years 4) None of the above
5. The average of 20 numbers is zero. Of them, at the most, how many may be greater than zero?
 1) 0 2) 1
 3) 10 4) 19
6. The average age of husband, wife and their child 3 years ago was 27 years and that of wife and the child 5 years ago was 20 years. The present age of the husband is
 1) 35 years 2) 40 years
 3) 50 years 4) None of the above
7. The greatest number of four digits which is divisible by 15, 25, 40 and 75 is :
 1) 9000 2) 9400
 3) 9600 4) 9800
8. What should come in place of both X in the equation $\frac{X}{128} = \frac{162}{X}$?
 1) 12 2) 14
 3) 144 4) 196
9. Which one of the following is not a prime number?
 1) 31 2) 61
 3) 71 4) 91
10. A man complete a journey in 10 hours. He travels first half of the journey at the rate of 21 km/hr and second half at the rate of 24 km/hr. Find the total journey?
 1) 220 km 2) 224 km
 3) 230 km 4) 234 km
11. $(51+52+53+...+100) = ?$
 1) 2525 2) 2975
 3) 3225 4) 3775
12. If 20% of a=b, then b% of 20 is the same as
 1) 4% of a 2) 5% of a
 3) 20% of a 4) None of the above
13. A number consists of two digits. If the digits interchange places and the new number is added to the original number, then the resulting number will be divisible by
 1) 3 2) 5
 3) 9 4) 11
14. What is the probability of getting a sum 9 from two throws of a dice?
 1) $\frac{1}{6}$ 2) $\frac{1}{8}$
 3) $\frac{1}{9}$ 4) $\frac{1}{12}$
15. If $a-b=3$ and $a^2+b^2=29$, find the value of ab.
 1) 10 2) 12 3) 15 4) 18

16. Find the number of triangles in the given figure.



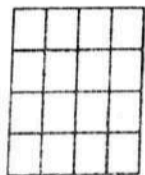
- 1) 8 2) 10 3) 12 4) 14

17. Find the number of triangles in the given figure.



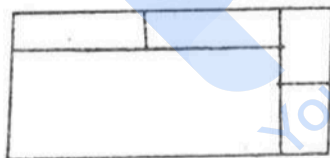
- 1) 16 2) 13 3) 9 4) 7

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



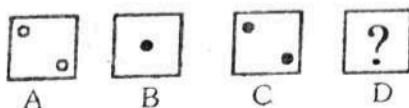
- 1) 32 2) 30 3) 29 4) 28

19. What is the number of rectangles in the following figure?



- 1) 6 2) 7 3) 9 4) 11

20. There is some relationship between diagrams A and B. The same relationship persists between C and D. Find the right diagram for D from the alternatives.



- 1) 2 2) 2 3) 3 4) 4

21. B, D, G, I, L, ?

- 1) M 2) N
3) O 4) P

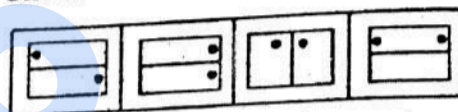
22. HI, JI, KL, ML, NO, ??

- 1) PO 2) PQ
3) OP 4) QO

23. If SYSTEM is written as SYSMET and NEARER is written as AENRER, then FRACTION will be coded as

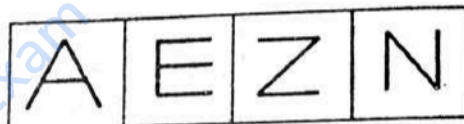
- 1) Carfnoit 2) Carftion
3) Noitfrac 4) Fracnoit

24. Choose the figure which is different



- 1) 1 2) 2 3) 3 4) 4

25. Choose the figure which is different



- 1) 1 2) 2 3) 3 4) 4

26. If BAD is written as YZW and SAME as HZNV, then LOVE will be coded as

- 1) ROWN 2) OJUC
3) OLEV 4) NOPL

27. Find the missing term of the following series: DCXW, HGTS,, POLK, TSHG

- 1) KLOP 2) LKOP
3) KLPO 4) LKPO

28. Find the odd man out :

Iron Box, Grinder, Fan, Gas stove

- 1) Iron Box 2) Grinder
3) Fan 4) Gas stove

29. 1 : 1 :: 25 : ?

- 1) 1 2) 625
3) 25 4) 15

30. Knife : Chief :: ?

- | | |
|--------------------|-----------------------|
| 1) Oxygen : Man | 2) Plough : Farmer |
| 3) Carpenter : Saw | 4) Newspaper : Editor |

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

- | | |
|------------|-------------|
| 1) $(1/3)$ | 2) $(1/8)$ |
| 3) $(2/8)$ | 4) $(1/16)$ |

32. 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

- | | |
|--------------|----------------------|
| 1) True | 2) False |
| 3) Uncertain | 4) None of the above |

33. Rahim moves 20 metres in east direction and then turns to his left and then moves 15 metres and then he turns to his right and moves 25 metres. After this he turns to his right and moves 15 metres. Now how far is he from his starting point.

- | | |
|---------------|--------------|
| 1) zero metre | 2) 40 metres |
| 3) 50 metres | 4) 45 metres |

34. Marathon is to race as hibernation is to

- | | |
|-----------|----------|
| 1) winter | 2) bear |
| 3) dream | 4) sleep |

35. Careful is to cautious as boastful is to

- | | |
|-------------|---------------|
| 1) arrogant | 2) humble |
| 3) joyful | 4) suspicious |

36. Fill in the blank :

SCD, TEF, UGH, _____, WKL

- | | | | |
|--------|--------|--------|--------|
| 1) CMN | 2) UJI | 3) VIJ | 4) IJT |
|--------|--------|--------|--------|

37. Fill in the blank :

QAR, RAS, SAT, TAU, _____

- | | |
|--------|--------|
| 1) UAV | 2) UAT |
| 3) TAS | 4) TAT |

38. Erin is twelve years old. For three years, she has been asking her parents for a dog. Her parents have told her that they believe a dog would not be happy in an apartment, but they have given her permission to have a bird. Erin has not yet decided what kind of bird she would like to have.

Which is not the correct statement?

1. Erin's parents like birds better than they like dogs
2. Erin does not like birds
3. Erin and her parents live in an apartment
4. Erin and her parents would like to move

39. Statements :

All tubes are handles.

All cups are handles.

Conclusions :

- I) All cups are tubes.
- II) Some handles are not cups.

- 1) Only conclusion I follows
- 2) Only conclusion II follows
- 3) Either I or II follows
- 4) Neither I nor II follows

40. Statements :

Some books are tables.

Some tables are mirrors.

Conclusions :

- I) Some mirrors are books.
- II) No book is mirror.

- 1) Only conclusion I follows
- 2) Only conclusion II follows
- 3) Either I or II follows
- 4) Neither I nor II follows

41. Statements:

In a one day cricket match, the total runs made by a team were 200. Out of these 160 runs were made by spinners.

Conclusions :

- I) 80% of the team consists of spinners.
- II) The opening batsmen were spinners.

- 1) Only conclusion I follows
- 2) Only conclusion II follows
- 3) Either I or II follows
- 4) Neither I nor II follows

42. Statements:

A bird in hand is worth two in the bush.

Conclusions:

- I) We should be content with what we have.
- II) We should not crave for what is not.

- 1) Only conclusion I follows
- 2) Only conclusion II follows
- 3) Either I or II follows
- 4) Both I and II follow

43. Which word does NOT belong with the others?
1) inch 2) ounce
3) centimeter 4) yard
44. Which word does NOT belong with the others?
1) leopard 2) cougar
3) elephant 4) lion
45. When they heard news of the hurricane, Maya and Julian decided to change their vacation plans. Instead of travelling to the island beach resort, they booked a room at a fancy new spa in the mountains. Their plans were a bit more expensive, but they'd heard wonderful things about the spa and they were relieved to find availability on such short notice.
1) Maya and Julian take beach vacations every year
2) The spa is overpriced
3) It is usually necessary to book at least six months in advance at the spa
4) Maya and Julian decided to change their vacation plans because of the hurricane
46. The time required for the fetching and execution of one simple machine instruction is
1) Delay time 2) CPU cycle
3) Real time 4) Seek time
47. Which access method is used for obtaining a record from a cassette tape?
1) Direct 2) Sequential
3) Random 4) All of the above
48. Which type of system puts the user into direct conversation with the computer through a keyboard?
1) Real time processing 2) Interactive computer
3) Batch processing 4) Time sharing
49. A hybrid computer uses a _____ to convert digital signals from a computer into analog signals.
1) Modulator 2) Demodulator
3) Modem 4) Decoder
50. A medium for transferring data between two locations is called
1) Network 2) Communication channel
3) Modem 4) Bus
51. Conversion of an octal number 142s to binary number is
1) 1100010₂ 2) 110110₂
3) 1100011₂ 4) 1101101₂
52. Primary storage is _____ as compared to secondary storage.
1) Slow and inexpensive 2) Fast and inexpensive
3) Fast and expensive 4) Slow and expensive
53. What is the term which represents the use of links between information of all sorts whether text, graphics, video or audio-based?
1) Hypertext 2) Hypermedia
3) Hyper Card 4) Wildcard
54. A sizeable geographical area with communication based on the telephone system is thought as
1) Local area network
2) Wide area network
3) Modulator-Demodulator
4) All of the above
55. One nibble is equal to
1) 4 bits 2) 8 bits 3) 6 bits 4) 16 bits
56. Which of the following is NOT a primary storage device?
1) Magnetic tape 2) Magnetic disk
3) Optical disk 4) All of the above
57. How long is an IPv6 address?
1) 32 bits 2) 128 bytes
3) 64 bits 4) 128 bits
58. Which protocol does Ping use?
1) TCP 2) ARP 3) ICMP 4) BootP
59. What is Hypertext Transfer Protocol (HTTP)?
1) The protocol to copy files between computers
2) The transfer protocol to transfer Web pages to a browser
3) The database access protocol for SQL statements
4) The hardware/software protocol that limits access to company data

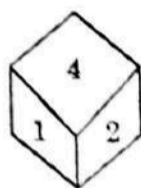
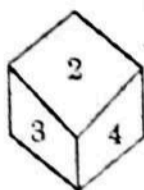
60. A proxy server is used for which of the following?

- 1) To provide security against unauthorized users
- 2) To process client requests for Web pages
- 3) To process client requests for database access
- 4) To provide TCP/IP

61. If + means $\times$, - means + and $\times$ means $\div$, find the value of $5 + 4 - 18 \times 3$?

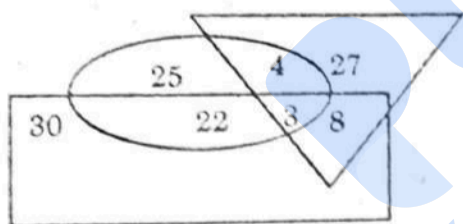
- 1) -34
- 2) 6
- 3) 26
- 4) 15

62. Two positions of a dice are shown below, find out which number is opposite to face 4?



- 1) 3
- 2) 6
- 3) 5
- 4) 1

Direction : In the following diagram the rectangle represents artists, Circle — players, triangle — doctors, then answer the following questions (63–66)



63. How many doctors are both players and artists?

- 1) 4
- 2) 8
- 3) 3
- 4) 11

64. How many artists are players?

- 1) 22
- 2) 25
- 3) 30
- 4) 29

65. How many artists are neither players nor doctors?

- 1) 22
- 2) 29
- 3) 25
- 4) None

66. How many doctors are neither players nor artists?

- 1) 22
- 2) 25
- 3) 27
- 4) 29

67. Pointing to a boy, Ramesh said, "His only brother's mother is my father's wife". How is Ramesh related to that boy?

- 1) Uncle
- 2) Father
- 3) Nephew
- 4) Brother

68. Introducing a woman, a man said, "Her mother's husband's sister is my aunt". How is the man related to the woman?

- 1) Nephew
- 2) Brother
- 3) Uncle
- 4) Cousin

69. If the day two days after tomorrow be Thursday, what day would have been two days before yesterday?

- 1) Friday
- 2) Tuesday
- 3) Monday
- 4) Sunday

70. In a certain code BODY is written as APCZ. How would DELHI be written in that code?

- 1) CFRGI
- 2) BFKGI
- 3) CFKIH
- 4) CFKHI

71. A man sees a train passing over a bridge 1 km long. The length of the train is half that of the bridge. If the train clears the bridge in 2 minutes, the speed of the train is

- 1) 30 km/hr.
- 2) 45 km/hr.
- 3) 50 km/hr.
- 4) 60 km/hr.

72. The least number of complete years in which a sum of money put out at 20% compound interest will be more than doubled is

- 1) 3
- 2) 4
- 3) 5
- 4) 6

73. If the diagonal of a square is doubled to make the diagonal of another square, the area of the new square will become

- 1) two-fold
- 2) three-fold
- 3) four-fold
- 4) remain the same

74. A toothed wheel of diameter 50 cm is attached to a smaller wheel of diameter 30 cm. How many revolutions will the smaller wheel make when the larger one makes 15 revolutions?

- 1) 18
- 2) 20
- 3) 25
- 4) 30

75. The number of rounds that a wheel of diameter 7/11 m will make in going 4 km is

- 1) 1000
- 2) 1500
- 3) 1700
- 4) 2000

76. Four circular cardboard pieces, each of radius 7 cm are placed in such a way that each piece touches two other pieces. The area of the space enclosed by the four pieces is

- 1) 21 cm^2 2) 42 cm^2
 3) 84 cm^2 4) 168 cm^2

77. Four horses are tethered at four corners of a square plot of side 63 metres so that they just cannot reach one another. The area left ungrazed is

- 1) 675.5 m^2 2) 780.6 m^2
 3) 785.8 m^2 4) 850.5 m^2

78. The length of the longest rod that can be placed in a room 30 m long, 24 m broad and 18 m high, is

- 1) 30 m 2) $15\sqrt{2} \text{ m}$
 3) $30\sqrt{2} \text{ m}$ 4) 60 m

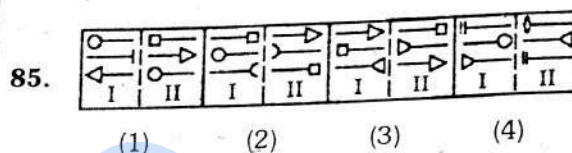
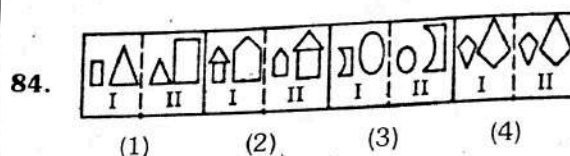
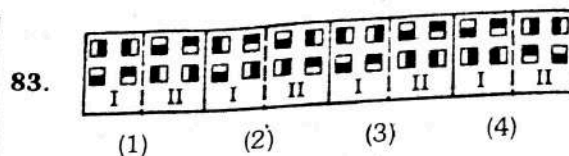
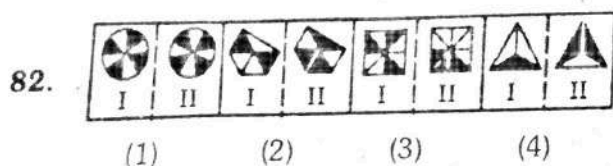
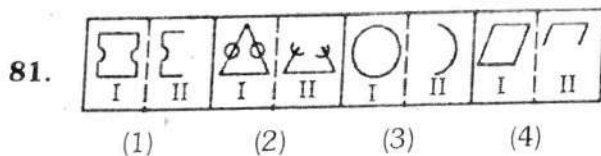
79. A well with 14m inside diameter is dug 10 m deep. Earth taken out of it has been spread evenly all around it to a width of 21 m to form an embankment. The height of the embankment is

- 1) $1/2 \text{ m}$ 2) $2/3 \text{ m}$
 3) $3/4 \text{ m}$ 4) $3/5 \text{ m}$

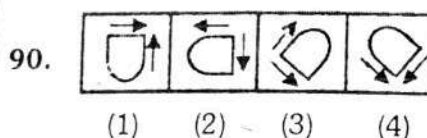
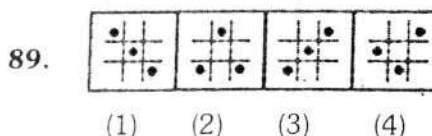
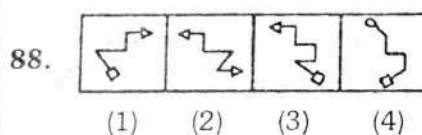
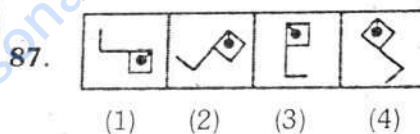
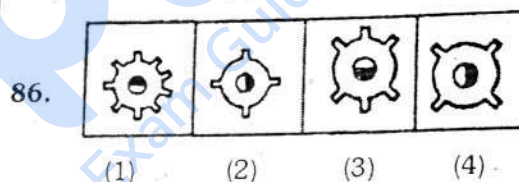
80. Find the day of the week on 25th December, 1995.

- 1) Monday 2) Friday
 3) Saturday 4) Tuesday

Direction : In each of the following figures (81–85) in three out of the given four pairs of figures, the first element is related to the second element in the same particular manner. Spot out the pair in which this relationship does not exist between the figures.



Directions : Out of four-figure in question (86–90) (1), (2), (3) and (4) given in each problem, three are similar in a certain way. However, one figure is not like the other three. Choose the figure, which is different from the rest.



91. The output of a 2 input OR gate is 0 only when its
- 1) both inputs are 0
 - 2) either input is 1
 - 3) both inputs are 1
 - 4) either input is 0
92. In a disk pack containing 6 disks there are 200 tracks on each disk surface, each track is divided into 50 sectors and each sector contains 512 characters of one byte each. What is the total storage capacity of disk pack in bytes?
- 1) $512 \times 50 \times 200 \times 12$
 - 2) $512 \times 50 \times 200 \times 10$
 - 3) $512 \times 50 \times 200 \times 6$
 - 4) $512 \times 50 \times 200 / 10$
93. A microchip is usually put into a plastic case which protects it and makes it easier to handle. Next, the chip is connected to the pins in the case with the help of tiny wires. What are these wires made of?
- 1) Silver
 - 2) Copper
 - 3) Aluminium
 - 4) Gold
94. Ethernet uses
- 1) Bus topology
 - 2) Ring topology
 - 3) Star topology
 - 4) Tree topology
95. A family of polynomial block codes designed to correct burst errors is known as
- 1) Bar codes
 - 2) Gray codes
 - 3) Fire codes
 - 4) Mnemonics codes
96. A method of implementing a memory management is
- 1) Buddy system
 - 2) Bridgware
 - 3) Broadband coaxial system
 - 4) All of the above
97. A language based on graphics for use in education is
- 1) PROLOG
 - 2) LOGO
 - 3) COBOL
 - 4) BASIC
98. Which is the test of a program, usually in a high level language?
- 1) Bard code
 - 2) Gray code
 - 3) Source code
 - 4) Object code
99. Which is a term peculiar to direct access storage?
- 1) Blocking
 - 2) Bucket
 - 3) Chaining
 - 4) Channel
100. Which is a programming language for military applications?
- 1) COBOL
 - 2) CORAL
 - 3) C
 - 4) FORTRAN