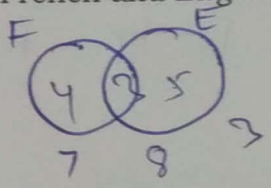
1. A shepherd had 27 sheep. All but 10 died. How many he left with?
   A. 17
   B. 27
   C. 10
   D. Zero

2. A is three times as old as B. C was twice-as old as A four years ago. In four years' time, A will be 31. What are the present ages of B and C
   A. 9, 50
   B. 9, 46
   C. 10, 46
   D. 10, 50

   B = x A = 3x C = 2(3x − 4)
   3x + 4 = 31
   3x = 27
   x = 9
   C = 2(27) = 46

3. In a group of 15 people, 7 read French, 8 read English while 3 of them read none of these two. How many of them read French and English both ?
   A. 15
   B. 12
   C. 18
   D. 20



4. Find the least number which leaves a remainder of 3 when divided by 5, 6, 7 and 8, but leaves no remainder when divided by 9 ?
   A. 1458
   B. 1683
   C. 1692
   D. 1598

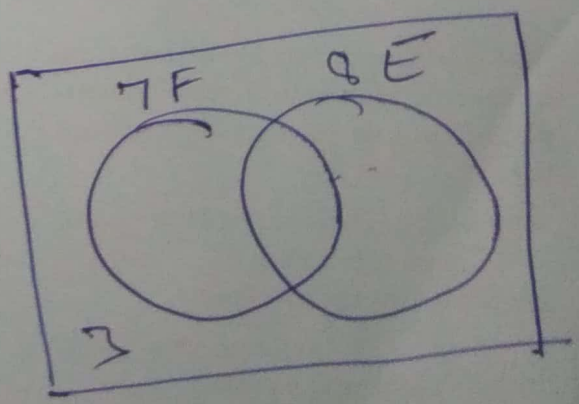
   243 1458 1598 1683 336 28 24

5. Find out the wrong number in the given sequence of numbers.
   22, 33, 66, 99, 121, 279, 594
   A. 33
   B. 121
   C. 279
   D. 594

   11, 33, 33
   2, 3, 6, 9, 11, 2

6. Find out the wrong number in the given sequence of numbers.
   6, 13, 18, 25, 30, 37, 40
   A. 37
   B. 30
   C. 40
   D. 25

   7, 5, 7,



7. Insert the missing number
   8, 7, 11, 12, 14, 17, 17, 22, (....)
   A. 24
   B. 27
   C. 20
   D. 22

   1, 4, 1, 2, 3, 0, 5,

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522

8. Insert the missing number
16, 33, 65, 131, 261, (....)
A. 523
B. 613
C. 521
D. 721

17, 32, 66

DIRECTION
RIDT OI

9. If COMPLETED is coded as MOCELPDET, then DIRECTION will be coded as :
A. RIDTCENOJ
B. SIDTCENOI
C. RIDTCENOI
D. RIETCENOI

COMPLETED
MOCELPDET

10. In a coded language COMPUTER is written as RETUPMOC. How is MACHINE written in the same code
A. DHFTCHS
B. HGTIRDM
C. ENIHCAM
D. HGRMSCH

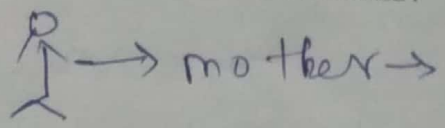
A B C D E F G H I J K L
M N O P Q R S T U V W X
Y Z

11. If COOL is coded as DQRP, then write the code for HOT
A. JQW
B. IQW
C. IQX
D. IPW

COOL
DQFP

HOT
IQW

12. Pointing to a girl in photograph. Amar said, "Her mother's brother is the only son of my mother's father." How the girl's mother related to Amar?
A. Mother
B. Sister
C. Aunt
D. Grandmother



13. A is the son of B. C, B's sister has a son D and a daughter E. F is the maternal uncle of D. How is E related to F?
A. Sister B. Mother C. Cousin D. Niece

A — son - B
F —
B - Nang D - kutty
A - Intelab E - Nadeem (F)

14. The question given below has a set of three or four statements. Each set of statements is further divided into three segments. Choose the alternative where the third segment in the statement can be logically deduced using both the preceding two, but not just from one of them.

Statement - I. All papers are books
II. All bags are books
III. Some purses are bags

Conclusion - I. Some papers are bags
II. Some books are papers
III. Some books are purses
A. Only I follows
B. Only II follows
C. Only I and II follows
D. Both II and III follow

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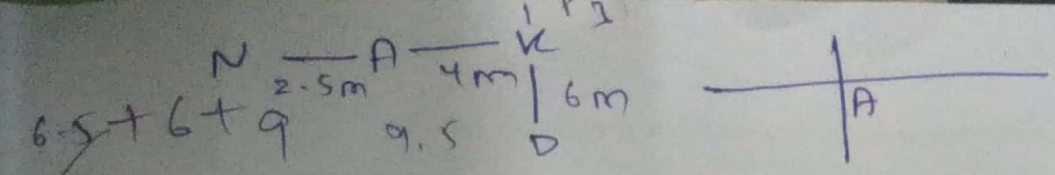

15. Study the information given below carefully, and answer the questions that follow:
On a stage, D, N, A and P are standing as described below facing North.
1) N is 2.5 m to the west of A.
2) K is 4 m to the right of A.
3) D is 6 m to the south of K.
4) P is 9 m to the north of D.

If a boy walks from N, meets A followed by K, D and then P, how many metres has he walked if he has travelled the straight distance all through?

A. 15 m
B. 18 m
C. 21.5 m
D. 22.5 m

16. Synonym of ACQUAINT
A. Withhold
B. Conceal
C. Familiarise
D. Risky

17. Synonym of AGGRAVATE
A. Decline
B. Acquire
C. Excited
D. Irritate

18. A remedy for all disease is
A. Medicine
B. Panacea
C. Medical
D. Medica

19. The mistake of placing something in the wrong period of time:
A. Misdate
B. Anachronism
C. Misplacement
D. Prolepsis

20. Find the most opposite meaning of SUBVERSION
A. Destabilisation
B. Clarity
C. Compliance
D. Sanity

21. Find the word just opposite of PROVOKE
A. Insult
B. Anger
C. Encourage
D. Soothe

22. Choose the grammatically correct sentence out of the given options
A. He parked the car in front of the bakery.
B. He parked an car in front of the bakery.
C. He park the car in front of the bakery.
D. He parked car in front of the bakery.

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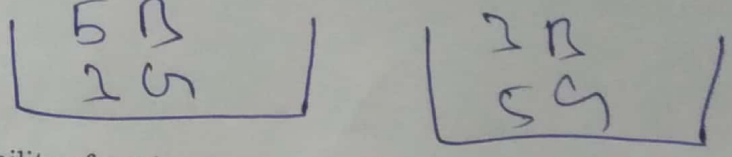
23. Which word of the following means 'extremely or unusually small'?
A. Webbed
B. Diminutive
C. Awkward
D. Farthest

24. What is the meaning of the word 'gait'?
A. Threshold
B. Entrance
C. Manner of walking
D. Speed

25. Fill in the blank with the correct prepositions. We will be staying _____ Kolkata ___ next Saturday.
A. on, from
B. for, from
C. by, by
D. in, till

26. A box has 5 black and 3 green shirts. One shirt is picked randomly and put in another box. The second box has 3 black and 5 green shirts. Now a shirt is picked from second box. What is the probability of it being a black shirt?
A. 4/9
B. 29/72
C. 8/72
D. 3/16



27. What is the probability of getting a sum 9 from two throws of dice?
A. 1/3
B. 1/9
C. 1/12
D. 2/9

28. The predicted rate of response of the dependent variable to changes in the independent variable is called:
A. Slope
B. Intercept
C. Error
D. Regression equation

29. If the value of any regression coefficient is zero, then two variables are:
A. Qualitative
B. Correlation
C. Dependent
D. Independent

30. If mean is 11 and median is 13 then value of mode is
A. 15
B. 13
C. 11
D. 17

31. Which term of the A.P. 92, 88, 84, 80, ... is 0?
A. 22
B. 23
C. 24
D. 32

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32. (1) + (1 + 1) + (1 + 1 + 1) + ... + (1 + 1 + 1 + ... n-1 times) = ?
A. n(n+1)/2
B. (n-1)n/2
C. n^2
D. n

33. If roots of $x^2 - 5x + a = 0$ are equal, then a =?
A. 25/5
B. ±25/4
C. 25/4
D. None of Above

34. Given that limit exists find $lt_{(x,y,z)\to(-2,-2,-2)} \frac{sin((x+2)(y+5)(z+1))}{(x+2)(y+7)}$
A. 1
B. 3/5
C. 1/2
D. 0

35. Two men on a 3-D surface want to meet each other. The surface is given by

$$f(x,y) = \frac{x^{-6}.y^7}{x+y}$$

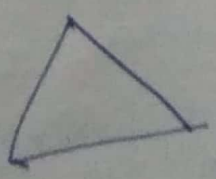
They make their move horizontally or vertically with the X-Y plane as their reference. It was observed that one man was initially at (200, 400) and the other at (100, 100). Their meet point is decided as (0, 0). Given that they travel in straight lines, will they meet?
A. They will meet
B. They Will not meet
C. They meet with probability 0.5
D. None

36. The graph of the function y=f(x) is symmetrical about the line x=2, then
A. f(x+2)=f(x-2)
B. f(2+x)=f(2-x)
C. f(x)=f(-x)
D. f(x)=-f(-x)

37. $Cos^2 2\theta$ =?
A. $1 - sin^2\theta$
B. $1 + sin^2\theta$
C. $1 - sin^2 2\theta$
D. $1 - sin\theta$

38. Considering Cosine Rule of any triangle ABC, possible measures of angle A includes
A. angle A is obtuse
B. angle A is acute
C. angle A is right-angle
D. all of above

39. For a skew symmetric even ordered matrix A of integers, which of the following will not hold true?
A. det(A) = 9
B. det(A) = 81
C. det(A) = 7
D. d) det(A) = 4



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40. Which of the following property of matrix multiplication is correct?
A. Multiplication is not commutative in general
B. Multiplication is associative
C. Multiplication is distributive over addition
D. All of the mentioned

41. The area enclosed by $3|x| + 4|y| <= 12$ is
A. 6 square units
B. 12 square units
C. 24 square units
D. 36 square units

42. Power set of empty set has exactly _____ subset.
A. One
B. Two
C. Zero
D. Three

43. Transpose of a column matrix is
A. zero matrix
B. diagonal matrix
C. column matrix
D. row matrix

44. Constant zero solution of linear ordinary differential equation is called
A. trivial equation
B. bypass equation
C. logical equation
D. singular equation

45. Dot product of two vectors a and b is termed as
A. outer product
B. inner product
C. Cartesian product
D. vector product

46. IF $f(x) = \max\{x, x^3\}$, then the number of points where f (x) is not differentiable, are
A. 1
B. 2
C. 3
D. 4

47. If $y = a \log |x| + bx^2 + x$ has its extreme values at $x = -1$ and $x = 2$, then
A. $a = 2, b = -1$
B. $a = 2, b = -1/2$
C. $a = -1/2, b = ½$
D. None

48. If A and B are coefficient of x^n in the expressions of $(1+x)^{2n}$ and $(1+x)^{2n-1}$ respectively, then A/B equals
A. 1
B. 2
C. ½
D. 1/n

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49. What is the Cardinality of the Power set of the set {0, 1, 2}.
A. 8
B. 6
C. 7
D. 9

50. Consider a line passing through (1, 2) and (4, 8), gradient of this line is equal to:
A. 1/2
B. -1/2
C. 2
D. -2

51. If w is an imaginary cube root of unity, then $(1 + w - w^2)^7$ is equal to
A. 128w
B. – 128w
C. $128w^2$
D. $-128w^2$

52. The complex numbers (sin x + i cos 2x) and (cos x – i sin 2x) are conjugate to each other, for
A. $x = n\pi$
B. x = 0
C. $x = (n + 1/2)\pi$
D. No value of x

53. The points z1, z2, z3, z4 in the complex plane are the vertices of a parallelogram taken in order, if and only if
A. z1 + z4 = z2 + z3
B. z1 + z3 = z2 + z4
C. z1 + z2 = z3 + z4
D. None of these

54. Linear programming model which involves funds allocation of limited investment is classified as
A. ordination budgeting model
B. capital budgeting models
C. funds investment models
D. funds origin models

55. According to system of constraints, solution set graphical representation is classified as
A. region of ordinate solutions
B. region of intercept solutions
C. region of vertex solutions
D. region of feasible solutions

56. Points within set are connected by line segment must follows condition that points must be
A. included in set
B. not included in set
C. included in function
D. included in objective

57. In mathematical programming, goals represented by objective functions include.
A. profit level
B. total cost and revenue
C. percent rate on investment
D. all of above

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58. Coordinates of midpoint of line joining two points (16, 4) and (36, 6) are:
A. (26, 5)
B. (5, 26)
C. (10, 1)
D. (1, 10)

59. In how many ways can a group of 5 men and 2 women be made out of a total of 7 men and 3 women?
A. 63
B. 90
C. 126
D. None

60. For individual observations, reciprocal of arithmetic mean is called
A. geometric mean
B. harmonic mean
C. deviation square mean
D. paired mean

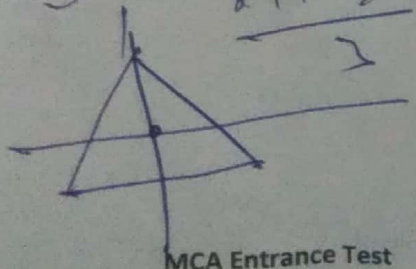
61. A.P whose nth term is 2n-1 is
A. 1,3,6,...
B. 2,3,5,...
C. 1,3,5,...
D. 5,3,1,...

62. The equation of the straight line passing through the point (3, 2) and perpendicular to the line y=x is
A. X-Y=5
B. X+Y=5
C. X+Y=1
D. X-Y=1

63. Specifying a straight line, how many geometrical parameters should be known?
A. 1
B. 2
C. 3
D. 4

64. A point equidistant from the lines 4x+3y+10=0, 5x-12y+26=0 and 7x+24y-50=0 is
A. (1,-1)
B. (1,1)
C. (0,0)
D. (0,1)

65. One vertex of the equilateral triangle with centroid at origin and one side as x + y -2 =0 is
A. (-1,-1)
B. (2,2)
C. (-2,-2)
D. (2,-2)



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66. Two bus tickets from city A to B and three tickets from city A to C cost Rs. 77 but three tickets from city A to B and two tickets from city A to C cost Rs.73. What are the fares for cities B and C from A?
A. Rs. 17, Rs. 13
B. Rs. 4, Rs. 23
C. Rs. 13, Rs. 17
D. Rs. 15, Rs. 14

67. In the group G = {2, 4, 6, 8) under multiplication modulo 10, the identity element is
A. 6
B. 8
C. 4
D. 2

68. A partition of {1, 2, 3, 4, 5} is the family
A. {(1, 2),(3, 4),(3, 5)}
B. {φ(1, 2),(3, 4),(5)}
C. {(1, 2, 3),(5)}
D. {(1, 2,), (3, 4, 5)}

69. Let P(S) denote the power set of set S. Which of the following is always TRUE?
A. P(P(S)) = P(S)
B. P(S) ∩ S = P (S)
C. P(S) ∩ P(P(S)) = [φ]
D. S ∉ P(S)

70. Find the remainder when 67^{99} is divided by 7.
A. 4
B. 6
C. 1
D. 2

71. G(e, a, b, c} is an abelian group with 'e' as identity element. The order of the other elements is
A. 2,2,3
B. 3,3,3
C. 2,2,4
D. 2,3,4

72. Period of 3secx/3 is
A. π
B. 2π
C. 3π
D. 6π

73. The principal value of $\cos^{-1}(\cos 5)$ is
A. 5
B. π – 5
C. 5 – π
D. 2π – 5

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74. If sin t = 1/5 and 0 < t < π / 2, then cos (4 t) =?

A. 0.3464
B. 0.8
C. 0.6928
D. - 0.6928

75. Find the value of $\int \frac{1}{4x^2+4x+5} dx$

A. ⅛ $\sin^{(-1)}$ (x + ½)
B. ¼ $\tan^{(-1)}$ (x + ½)
C. ⅛ $\sec^{(-1)}$ (x + ½)
D. ¼ $\cos^{(-1)}$ (x + ½)

76. A computer-controlled device for training exercises that duplicates the work environment is a;

A. Simulator
B. Duplicator
C. Trainer
D. None.

77. Multi user systems provided cost savings for small business because they use a single processing unit to link several

A. Personal computers
B. Workstations
C. Dumb terminals
D. Mainframes

78. Which part of the computer is used for calculating and comparing?

A. Disk unit
B. Control unit
C. ALU
D. Modem

79. Which of the following memories need refresh?

A. SRAM
B. DRAM
C. ROM
D. All of the above

80. The ALU of a computer normally contains a number of high speed storage element called

A. Semiconductor memory
B. Registers
C. Hard disks
D. Magnetic disk

81. The representation of decimal number 532.86 in the form of decimal is

A. 532.65
B. 532.68
C. 531.67
D. 531.68

82. The quantity of double word is

A. 8 bits
B. 16 bits
C. 32 bits
D. 64 bits

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83. Which protocol provides e-mail facility among different hosts?
A. FTP
B. SMTP
C. TELNET
D. SNMP

84. COBOL is an acronym for
A. Common Basic Oriented Language
B. Common Oriented Business Language
C. Common Business Oriented Language
D. None

85. Which of the following are real time systems?
A. an on-line real reservation system
B. a process control system
C. Aircraft control system
D. Payroll processing system

86. Which one of the following input device is user-programmable?
A. Dumb terminal
B. Smart terminal
C. VDT
D. Intelligent terminal

87. A name or number used to identify a storage location is called
A. A byte
B. A record
C. An address
D. All of above

88. Full form of URL is?
A. Uniform Resource Locator
B. Uniform Resource Link
C. Uniform Registered Link
D. Unified Resource Link

89. Second generation of computers consist of which of following?
A. Vacuum Tubes
B. Diodes
C. VLSI Microprocessor
D. Transistors

90. MPG is an extension of which type of files?
A. Audio
B. Image
C. Video
D. Flash

91. Which is odd one?
A. Inkjet Printers
B. CRT
C. Laser Printers
D. Dot Matrix Printers

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92. Which type of switching is used in Internet?
A. Packet
B. Telephone
C. Circuit
D. Telex

93. What is the meaning of OSI, in terms of computers ?
A. Open Software Interrelation
B. Open System Interrelation
C. Open Software Interconnection
D. Open System Interconnection

94. What is meaning of EEPROM?
A. Electronically Erasable Programmable Read only Memory
B. Electrically Erasable Programmable Read only Memory
C. Electronically Erasable Programmable Reach only Memory
D. Electrically Erasable Practical Reach only Memory

95. Which among following is responsible for finding and loading operating system into RAM?
A. Bootstrap Loader
B. CMOS
C. BIOS
D. DMOS

96. Three persons A, B and C are standing in a queue. There are five persons between A and B and eight persons between B and C. If there be three persons ahead of C and 21 persons behind A, what could be the minimum number of persons in the queue?
A. 40
B. 27
C. 41
D. 28

97. A class of boys stands in a single line; one boy is 19th in order from both the ends, How many boys are there in the class?
A. 39
B. 37
C. 27
D. 38

98. 517 325 639 841 792
What will be the first digit of the second highest number after the positions of only the 2nd, 3rd digits within each number are interchanged?
A. 7
B. 8
C. 9
D. 2

99. What should come next in the following number series?
9 8 7 6 5 4 3 2 1 8 7 6 5 4 3 2 1 7 6 5 4 3 2 1
A. 9
B. 8
C. 6
D. 7

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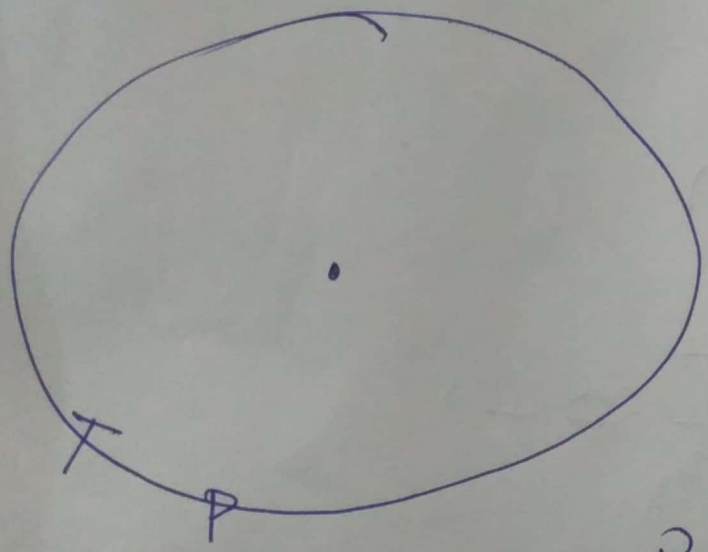
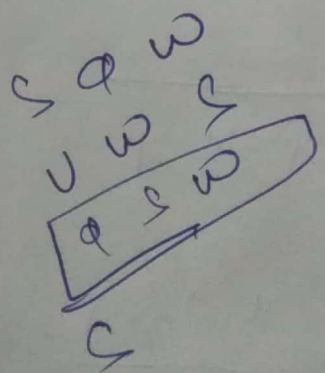
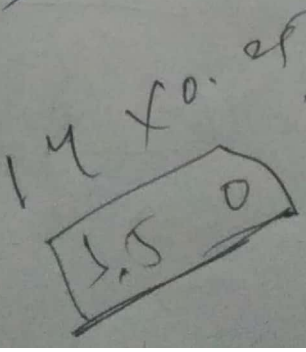
100. P, Q, R, S, T, U, V and W are sitting round the circle and are facing the centre:
P is second to the right of T who is the neighbour of R and V.
S is not the neighbour of P.
V is the neighbour of U.
Q is not between S and W. W is not between U and S.
Then who is sitting opposite to U?

A. Q
B. R
C. P
D. W







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Code No- DM54/4

Question Booklet No: 654164

ENTRANCE EXAMINATION-2018

MASTER OF COMPUTER APPLICATION (M.C.A)

SET D

ROLL NO. | M | 5 | 4 | 1 | 6 | 2 | 8 | 0 |

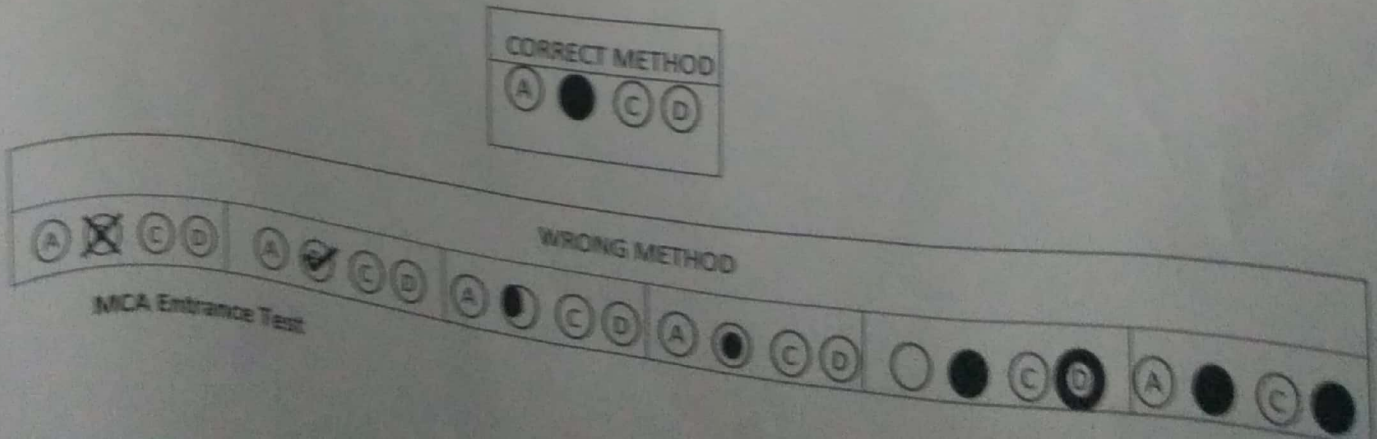
Signature of Invigilator

Time: 1 Hours 45 Minute

Total Marks: 100

Instructions to Candidates

1. Do not write your name or put any other mark of identification anywhere in the OMR Response Sheet. **IF ANY MARK OF IDENTIFICATIONS IS DISCOVERED ANYWHERE IN OMR RESPONSE SHEET, the OMR sheet will be cancelled, and will not be evaluated.**
2. This Question Booklet contains the cover page and a total of **100 Multiple Choice Questions of 1mark each.**
3. Space for rough work has been provided at the beginning and end. Available space on each page may also be used for rough work.
4. Th... arking in Multiple Choice Questions. For each wrong answer, 0.25 marks will be deducted.
5. ...OR IS NOT PERMITTED.
6. ...N OF ELECTRONIC GADGETS LIKE MOBILE PHONE, iPhone, iPad, pager ETC. are strictly **PROHIBITED.**
7. ...ould check the serial order of questions at the beginning of the test. If any question is found missing in the ...der, it should be immediately brought to the notice of the Invigilator. No pages should be torn out from this ...tion booklet.
8. Answers must be marked in the OMR response sheet which is provided separately. OMR Response sheet must be handed over to the invigilator before you leave the seat.
9. The OMR response sheet should not be folded or wrinkled. The folded or wrinkled OMR/response Sheet will not be evaluated.
10. Write your Roll Number in the appropriate space (above) and on the OMR Response Sheet. Any other details, if asked for, should be written only in the space provided.
11. There are four options to each question marked A, B, C and D. Select one of the most appropriate option and fill up the corresponding oval/circle in the OMR Response Sheet provided to you. The correct procedure for filling up the OMR Response Sheet is mentioned below.
12. **Use Black or Blue Ball Pen** only for filling the ovals/circles in OMR Response Sheet. Darken the selected oval/circle completely. If the correct answer is 'B', the corresponding oval/circle should be completely filled and darkened as shown below.



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