

MANU VATIKA SCHOOL, BUDHLADA
MCQ TEST CLASS 10TH SUBJECT: MATHS

NAME _____ **ROLL NO** _____ **SECTION** _____

PART A

1. For two numbers 18 and 720 the HCF x LCM is
a. 720 b. 90 c. 18 d. 12960
2. Every positive even integer is of the form:
a. Q b. 2q c. 2q+1 d. 2q-1
3. If d is the HCF of 48 and 72, then the value of d is
a. 24 b. 48 c. 12 d. 72
4. If HCF (a, b)=12 and $a * b = 1800$, then LCM(a, b) is
a. 1800 b. 900 c. 150 d. 90
5. The representation of 0.9 as a rational number is
a. 1 b. 9/10 c. 9/100 d. 1/10
6. How many prime Factors are there in prime factorization of 5005?
a. 2 b. 4 c. 6 d. 7
7. The ration between LCM and HCF of 15,20 and 5 is
a. 1:9 b. 1:11 c. 1:12 d. 3:4
8. The product of HCF and LCM of the smallest prime number and the smallest composite number is
a. 2 b. 4 c. 6 d. 8
9. If p ,q are co-prime number, then HCF(p, q) is
a. P b. q c. p q d. 1
10. The least number that is divisible by all the numbers from 1 to 10 (both inclusive) is
a. 10 b. 100 c. 504 d. 2520
11. The sum of exponents of prime factors in the prime factorization of 196 is
a. 3 b. 4 c. 5 d. 2
12. If p, q are the roots of $ax^2-bx+c=0$ ($a \neq c$) then $p + q$ is
a. $-b/a$ b. b/a c. c/a d. $-c/a$
13. If α , β are zeros of polynomial p(x), then p (x)
a. $(x - \alpha) (x- \beta)$ c. $(x - \alpha) (x+ \beta)$
b. $(x + \alpha) (x+\beta)$ d. $(x + \alpha) (x- \beta)$
14. If α and β are the zeros of polynomial $2x^2+5x+1$, then value of $\alpha +\beta+\alpha\beta$ is
a. -2 b. -1 c. 1 d. 3
15. If α, β are then zeros of $2-3x-x^2$, then product of Zeros i.e. $\alpha\beta$ is
a. -3 b. 1 c. -2 d. 3
16. If α, β are the zeros $3-2x- x^2$ then sum of the zeros, $\alpha +\beta$ is
a. -3 b. -2 c. 1 d. 2
17. The quadratic polynomial having zeros 3 and -2 is

- a. x^2-x-6 b. x^2+x-6 c. x^2+x+6 d. x^2-x+6
18. If α, β are zeros of x^2-6x-k . What is the value of K, if $3\alpha+2\beta=20$?
- a. -16 b. 8 c. -2 d. -8
19. If α, β are zeros of $p(x) = 2x^2+6x-6$ are
- a. $\alpha + \beta = -\alpha\beta$ b. $\alpha + \beta = \alpha\beta$ c. $\alpha + \beta < \alpha\beta$ d. $\alpha + \beta > \alpha\beta$
20. If two zero of the polynomial x^2+2x+1 are
- a. -1,-1 b. 1,1 c. 2,-1 d. -2,1
21. If nth term of an A.P is $7-4n$, then its common difference is
- a. 4 b. -4 c. 3 d. 11
22. All the three digit numbers divisible by 7 are
- a. 100 b. 128 c. 127 d. 125
23. If the sum three numbers in A.P. is 36, then middle term is
- a. 12 b. 15 c. 18 d. 9
24. The sum of first 20 odd natural numbers is
- a. 100 b. 210 c. 400 d. 420
25. If $p-1, p+3, 3p-1$ are in A.P. then p is equal to
- a. 4 b. -4 c. 2 d. -2
26. Which term of A.P. 100, 90, 80..... is Zero?
- a. 5th b. 6th c. 10th d. 11th
27. The 4th term from the end of A.P. -11, -8, -5.....49 is
- a. 37 b. 40 c. 43 d. 58
28. If the nth term of an A.P. is $(2n+1)$, then the sum of its first three terms is
- a. $6n+3$ b. 15 c. 12 d. 21
29. If the 2nd term of a term of an A.P. is 13 and 5th term is 25, what is its 7th term?
- a. 30 b. 33 c. 31 d. 38
30. The sum first five multiples of 3 is
- a. 45 b. 55 c. 65 d. 75
31. If $\theta=30^\circ$, then $\frac{1-\tan^2\theta}{1+\tan^2\theta}$ is
- a. $\frac{1}{2}$ b. $\frac{1}{3}$ c. 2 d. $\sqrt{3/2}$
32. If $3 \tan x = 4$, then value of $\sin x + \cos x =$
- a. $\frac{3}{5}$ b. $\frac{4}{5}$ c. $\frac{7}{5}$ d. $\frac{1}{5}$
33. Value of $\frac{2\tan 30^\circ}{1+\tan 30^\circ}$ is
- a. $\sin 60^\circ$ b. $\cos 60^\circ$ c. $\tan 60^\circ$ d. $\sin 30^\circ$
34. If $\sin \theta = \cos \theta$, then value of θ is
- a. 0° b. 45° c. 30° d. $\sin 30^\circ$
35. Given that $\sin A = \frac{1}{2}$ and $\cos B = \frac{1}{\sqrt{2}}$ then the value of $A+B$ is:
- a. 30° b. 45° c. 75° d. 15°

36. If $\sin(A-B) = 1/2$ and $\cos(A+B) = 1/2$ then the value of B is
 a. 45° b. 60° c. 15° d. 0°
37. Which of the following are not the sides of a right triangle?
 a. 9 cm, 15 cm, 12 cm c. 2 cm, 1 cm, $\sqrt{5}$ cm
 b. 400 cm, 300 cm, 500 cm d. 9 cm, 5 cm, 7 cm
38. If $\cos 3\theta = \frac{\sqrt{3}}{2}$, $0 < \theta < 20^\circ$ then the value of θ is
 a. 15° b. 10° c. 0° d. 12°
39. If $3 \cos \theta = 1$ then the value of $\cos \theta$ is
 a. $2\sqrt{2}$ b. $\frac{3}{2\sqrt{2}}$ c. $\frac{2\sqrt{3}}{3}$ d. $\frac{4}{3\sqrt{2}}$
40. Value of $\sin 45^\circ$ is
 a. 0 b. $\frac{1}{2}$ c. $\frac{1}{\sqrt{2}}$ d. $\frac{\sqrt{3}}{2}$
41. Area of a sector of a circle with radius r and angle with degree measure θ is
 a. $\frac{\theta}{180}$ b. $\frac{\theta}{360} * \pi r^2$ c. $2 \pi r^2$ d. None of these
42. If the ratio of circumferences of two circles is 3:1 then the ratio of area is
 a. 1:9 b. 9:1 c. 3:1 d. 1:3
43. The ratio of the area of the two circles is 4:9 the ratio of their radii is
 a. 4:9 b. 3:2 c. 2:3 d. 1:3
44. The pendulum swings through an angle of 60° and describes an arc 8.8 cm in length, the length of the pendulum is
 a. 4.2 cm b. 2.1 cm c. 8.4 cm d. 6.3 cm
45. If the area of circumference of a circle are numerically equal, then the diameter is
 a. 3 units b. 5 units c. 4 units d. 2 units
46. The outer and inner diameters of a circular ring are 34 cm and 32 cm respectively, then the area of ring is
 a. 66π b. 60π c. 33π d. 29π
47. The circumference of a circle is 44 cm, then the area of circle is
 a. 276 cm^2 b. 44 cm^2 c. 176 cm^2 d. 154 cm^2
48. If the perimeter of a semicircular protractor is 36 cm, then its diameter is :
 a. 10 cm b. 12 cm c. 14 cm d. 15 cm
49. The area of circle that can be inscribed in a square of side 6 cm is
 a. $36 \pi \text{ cm}^2$ b. $18 \pi \text{ cm}^2$ c. $12 \pi \text{ cm}^2$ d. $9 \pi \text{ cm}^2$
50. Angle made by minute hand in 1 minute equals to
 a. 6° b. 60° c. 360° d. $\frac{1}{2}$
51. The mean of 20 observations is 12, if each observation is increased by 5 then new mean is
 a. 12 b. 7 c. 17 d. 26
52. The mean of 100 numbers is 112.5 if each number is multiplied by 2, then new mean is
 a. 225 b. 66.25 c. 112.5 d. 200

53. The mean of first 10 multiples of 4 is

- a. 22 b. 44 c. 48 d. 50

54. If the mode of data is 53 and mean is 33, then its median is :

- a. 36.97 b. 38 c. 40 d. 39.67

55. The modal class of the following data is

Class Interval	30-60	50-70	70-90	90-110
Frequency	8	12	20	3

- a. 30-50 b. 70-90 c. 90-110 d. 50-70

56. If the mean of the following data is 12, then the value of p is

x	4	8	p	16	20
f	5	3	12	5	4

- a. 10 b. 12 c. 11 d. 13

57. Construction of a cumulative frequency table is useful in determining the

- a. Mean b. median c. mode d. all of these

58. If mode = 80 and mean = 110, then the median is

- a. 110 b. 120 c. 100 d. 90

59. The formula for mean is

- a. $\bar{x} = \frac{\sum fix_i}{\sum fi}$ b. $\bar{x} = \frac{\sum fix + \pi}{efi}$ c. $\bar{x} = h/2$ d. $\bar{x} = \pi r^2/2$

60. The formula for median is

- a. $L + \frac{n-f}{2/f} * h$ b. c. $l^2/2$ d. $l+2/R$

61. A die is thrown once the probability of facing a prime number is:-

- a. 0 b. 1 c. $\frac{1}{2}$ d. $\frac{1}{6}$

62. If probability of happening of an event is $\frac{3}{7}$, then the probability non happening of this event is

- a. $\frac{1}{7}$ b. $\frac{2}{7}$ c. $\frac{4}{7}$ d. $\frac{5}{7}$

63. The probability of a sure event is

- a. 0 b. 1 c. -1 d. 2

64. The probability of an impossible is

- a. $\frac{1}{2}$ b. 1 c. 0 d. 2

65. A die is thrown once the probability of getting a number less than 3 is

- a. $\frac{1}{6}$ b. $\frac{1}{3}$ c. $\frac{2}{3}$ d. $\frac{5}{6}$

66. If one card is drawn from a deck of 52 cards then the probability getting black king is

- a. $\frac{1}{26}$ b. $\frac{1}{52}$ c. $\frac{1}{13}$ d. $\frac{3}{52}$

67. In a simultaneous toss of two coins, the probability of exactly 1 head is

- a. $\frac{1}{2}$ b. $\frac{3}{4}$ c. $\frac{1}{4}$ d. $\frac{4}{4}$

68. A card is drawn from a pack of 52 cards the probability of drawing a red face card is

- a. $\frac{2}{13}$ b. $\frac{3}{26}$ c. $\frac{1}{13}$ d. $\frac{3}{52}$
69. In a throw of a pair of dice, what is the probability of getting a doublet?
a. $\frac{1}{3}$ b. $\frac{1}{6}$ c. $\frac{5}{12}$ d. $\frac{2}{3}$
70. If a probability of an event is p , then the probability of its complementary event will be
a. $P-1$ b. p c. $1-p$ d. $1-1/p$
71. A and B are the end points of a diameter of a circle, having its center at C if the coordinates of A and B are $(-3, 3)$ and $(5, 1)$, then the Coordinates of C are
a. $(2, 4)$ b. $(8, 4)$ c. $(2, 1)$ d. $(1, 2)$
72. The Centroid divides each median in the ratio
a. $(1:1)$ b. $(2:1)$ c. $1:2$ d. $(3:1)$
73. If C $(-2, 1)$ is the midpoint of line segment joining $A(-6, p)$ and $B(2, p+6)$, then the value of p is
a. 2 b. -2 c. 0 d. 4
74. The three consecutive vertices of a parallelogram taken order are $(6, 8)$ $(3, 9)$ and $(-2, -4)$. The fourth vertex is
a. $(-1, 5)$ b. $(1, 5)$ c. $(1, -5)$ d. $(-1, -5)$
75. The centroid of triangle whose vertices are $(3, -7)$, $(-8, 6)$ and $(5, 10)$ is
a. $(0, 3)$ b. $(3, 0)$ c. $(5, 4)$ d. $(9, 6)$
76. The coordinates of point P dividing the line segment joining of points $A(1, 3)$ and $B(4, 6)$ in the ratio $2:1$ are
a. $(2, 4)$ b. $(3, 5)$ c. $(4, 2)$ d. $(5, 3)$
77. Value of a so that the point $(3, a)$ lies on the line $2x-3y=5$ is
a. 12 b. 3 c. $\frac{1}{2}$ d. $\frac{1}{3}$
78. The y axis divides the line segment joining the points $A(-4, 5)$ and $B(3, -7)$ internally in the ratio
a. $3:4$ b. $7:3$ c. $3:2$ d. $4:3$
79. The distance of a point P (x, y) from origin is
a. $\sqrt{x+y}$ b. $\sqrt{x^2+y^2}$ c. $\sqrt{x^2-y^2}$ d. $x-y$
80. The perimeter of a triangle with vertices $(0, 4)$ $(0, 0)$ and $(3, 0)$ is
a. 8 b. 10 c. 12 d. 15
81. If sun's elevation is 60° then a pole of height 6 m will cast a shadow of length
a. $6\sqrt{3}m$ b. $\sqrt{3}m$ c. $2\sqrt{3}m$ d. $3\sqrt{2}m$
82. A pole 6 meter high casts a shadow $2\sqrt{3}m$ on the ground, then the sun's elevation is
a. 60° b. 45° c. 30° d. 90°
83. A ladder of 10m length touches a wall at height of 5 m the angle θ made by it with the horizontal is
a. 90° b. 60° c. 45° d. 30°

84. The angle of elevation of the top of a building 50 m high, from a point on the ground is 45° , The distance of point from foot of the building is
 a. 100 m b. 50 m c. 45 m d. 60 m
85. A wall 8 m long cast a shadow 5 m long, at the same time, a tower casts a shadow 50m, then the height of tower is
 a. 40 m b. 60 m c. 80 m d. 100 m
86. The length of shadow of a tower on the plane ground is $\sqrt{3}$ time the height of the tower the angle of elevation of sun is
 a. 45° b. 30° c. 60° d. 90°
87. When a point is observed, the angle formed by the line of sight with horizontal where the point being viewed is above the horizontal level is known is
 a. Angle of elevation c. angle of depression
 b. Angle of triangle d. right angle
88. If the elevation of the sun is 30° , then the length of the shadow cast by a tower of height 150 m is
 a. 150 m b. $50\sqrt{3}m$ c. $150\sqrt{3}m$ d. 200 m
89. When we lower our head to look at an object, the angle formed by the line of sight with the horizontal is known as
 a. Obtuse angle c. angle of elevation
 b. Angle of depression d. acute angle
90. The value of $\tan 45^\circ$
 a. 0 b. $1/\sqrt{3}$ c. 1 d. $\sqrt{3}$
91. The probability of getting a bad egg from a lot of 400 egg is 0.035, the numbers of bad eggs in the lot is
 a. 7 b. 14 c. 21 d. 28
92. From a pack of 52 playing cards, a card is drawn at random, the probability, that the drawn card is not a face card is
 a. $3/13$ b. $9/13$ c. $10/13$ d. $3/4$
93. If an event can't occur, then its probability is
 a. 1 b. $3/4$ c. $1/2$ d. 0
94. The probability of guessing, the correct answer to certain question is $1/12$. If the probability of not guessing the correct answer to same question is $3/4$, the value of P is
 a. 3 b. 4 c. 2 d. 1
95. Volume of cylinder is
 a. $\pi r^2 h$ b. $1/3 \pi r^2 h$ c. $l^2 = r^2 + h^2$ d. $2 \pi r^2$
96. Volume of cone is
 a. $\pi r^2 h$ b. $1/3 \pi r^2 h$ c. $2 \pi r^2$ d. πr^2
97. Area of circle

- a. $2\pi r$ b. πr^2 c. $3\pi r^2$ d. $4\pi r^2$
98. Circumference of circle is
- a. πr^2 b. $2\pi r$ c. $\frac{\pi r^2}{2}$ d. $4\pi r^2$
99. C.S.A of cone is
- a. $\pi r l$ b. πr^2 c. $2\pi r^2$ d. $4\pi r^2$
100. π is a
- a. Rational number c. Irrational number
b. Both. d. none of these

PART B

1. The HCF of 8 and 20 is:
a) 2 b) 4 c) 6 d) 8
2. Euclid's division lemma is used to find:
a) LCM b) HCF c) Factors d) Roots
3. The decimal expansion of a rational number is non-terminating repeating when the denominator contains prime factors other than:
a) 2, 3 b) 3, 5 c) 2, 5 d) 5, 7
4. $\sqrt{50} \times \sqrt{8} =$
a) 10 b) 20 c) 40 d) 80
5. If p/q is a rational number in simplest form and its decimal terminates, then q is of the form:
a) $2^m 5^n$ b) $3^m 5^n$ c) $2^m 3^n$ d) $7^m 5^n$
6. $\text{HCF}(6, 9, 15) =$
a) 3 b) 6 c) 9 d) 15
7. The LCM of 12 and 18 is:
a) 24 b) 36 c) 48 d) 12
8. A rational number between $1/3$ and $1/4$ is:
a) $7/24$ b) $5/12$ c) $1/5$ d) $1/2$
9. The decimal expansion of $1/11$ is:
a) Terminating b) Repeating c) Non-repeating d) Irrational
10. Which is irrational?
a) $\sqrt{9}$ b) $\sqrt{25}$ c) $\sqrt{7}$ d) $\sqrt{16}$
11. Degree of polynomial $3x^2 + 2x + 1$ is:
a) 1 b) 2 c) 0 d) 3
12. The value of polynomial $p(x) = x^2 - 4x + 3$ at $x = 2$ is:
a) 0 b) 3 c) -1 d) 1
13. A polynomial of degree 1 is called:
a) Constant b) Linear c) Quadratic d) Cubic

14. Zero of $x + 7$ is:
a) -7 b) 7 c) 0 d) 1
15. If α, β are zeroes of the quadratic $x^2 - 5x + 6$, then $\alpha + \beta =$
a) 6 b) -5 c) 5 d) -6
16. In a cubic polynomial, the number of zeroes is at most:
a) 1 b) 2 c) 3 d) 4
17. Zero of $3x - 9$ equals:
a) 3 b) -3 c) 9 d) -9
18. A polynomial having degree 0 is:
a) Linear b) Constant c) Quadratic d) None
19. If $p(x) = x^2 - 9$, then $p(3) =$
a) 6 b) 0 c) -6 d) -9
20. Zeroes of $x^2 - 49$ are:
a) ± 7 b) ± 49 c) $7, 49$ d) None
21. For $ax + by = c$ and $px + qy = r$, if $a/p = b/q \neq c/r$, the system is:
a) Consistent b) Inconsistent c) Infinite solutions d) None
22. The graph of $x + y = 5$ is a:
a) Point b) Circle c) Straight line d) Parabola
23. If two equations have infinite solutions, they are:
a) Intersecting b) Parallel c) Coincident d) Perpendicular
24. Solution of $x - y = 2$ and $x + y = 6$ is $x =$
a) 2 b) 3 c) 4 d) 6
25. Same LHS but different RHS gives:
a) Unique solution b) No solution c) Infinite solution d) Both
26. $2x + 3y = 6$ represents a line passing through:
a) $(0, 2)$ b) $(3, 0)$ c) Both d) None
27. Method to solve LHS = RHS by multiplying equations is:
a) Graphical b) Elimination c) Substitution d) Cross-multiplication
28. If lines intersect, solutions are:
a) Many b) Two c) One d) None
29. $x/2 + y/3 = 1$ is equivalent to:
a) $3x + 2y = 6$ b) $2x + 3y = 6$ c) $6x + 6y = 1$ d) None
30. $4x - 2y = 6$ and $-2x + y = -3$ are:
a) Parallel b) Coincident c) Intersecting d) None
31. Standard form of quadratic equation is:
a) $ax + b = 0$ b) $ax^2 + bx + c = 0$ c) $ax^3 + bx + c = 0$ d) None
32. Equation $x^2 - 9 = 0$ has roots:
a) ± 3 b) ± 9 c) $0, 9$ d) None

33. Discriminant of $x^2 - 4x + 4$ is:

- a) 0 b) 4 c) 8 d) 16

34. If $D < 0$, equation has:

- a) Real roots b) No real roots c) Equal roots d) None

35. Roots of $x^2 - 7x + 12 = 0$ are:

- a) 3,4 b) 4,3 c) Both a & b d) None

36. If roots are equal, D is:

- a) > 0 b) < 0 c) $= 0$ d) None

37. Root of $x^2 - 16 = 0$ is:

- a) ± 4 b) ± 8 c) ± 16 d) 0

38. If $x = -1$ is a root of $x^2 + kx - 12 = 0$, then $k =$

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

39. Sum of roots of $ax^2 + bx + c = 0$ is:

- a) $-a/b$ b) $-b/a$ c) b/a d) c/b

40. Product of roots of $x^2 - 5x + 6 = 0$ is:

- a) 1 b) 5 c) 6 d) -6

41. n th term of AP is:

- a) $a + (n - 1)d$ b) $a + nd$ c) $an + d$ d) None

42. AP: 2, 5, 8, 11... has common difference:

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

43. 10th term of AP 3, 7, 11,... is:

- a) 39 b) 40 c) 41 d) 42

44. Sum of first n terms of AP is:

- a) $n(a + (n - 1)d)$ b) $n/2 [2a + (n - 1)d]$
c) $nd/2$ d) None

45. If $a = 5$, $d = 2$, then 20th term is:

- a) 45 b) 43 c) 47 d) 50

46. AP is 4, 9, 14... then 8th term is:

- a) 39 b) 36 c) 38 d) 40

47. If $d = 0$, AP is a:

- a) Constant sequence b) Increasing
c) Decreasing d) None

48. If $t_n = 20$, $a = 2$, $d = 3$, find n :

- a) 4 b) 5 c) 6 d) 7

49. AP: 1, 4, 7, 10..., $S_{10} =$

- a) 100 b) 135 c) 150 d) 200

50. AP with $a = 3$, $d = 0$ has n th term:

- a) $3n$ b) 3 c) 0 d) n

51. In a triangle, sum of angles is:
 a) 90° b) 180° c) 270° d) 360°
52. Pythagoras theorem applies to:
 a) Acute triangle b) Obtuse c) Right triangle d) All
53. If AD is a median, triangle ABD and ACD have:
 a) Same area b) Different area c) No relation d) None
54. If two triangles are similar, their sides are:
 a) Equal b) Proportional c) Parallel d) None
55. In a right triangle, hypotenuse is the:
 a) Longest side b) Shortest side c) Any side d) None
56. If $\triangle ABC \sim \triangle DEF$, then $\angle A =$
 a) $\angle D$ b) $\angle E$ c) $\angle F$ d) None
57. If sides are 6, 8, 10 triangle is:
 a) Right b) Acute c) Obtuse d) None
58. Basic proportionality theorem is by:
 a) Euclid b) Thales c) Pythagoras d) Aryabhata
59. If two triangles have equal areas, they may be:
 a) Congruent b) Similar c) Both d) None
60. Corresponding angles in similar triangles are:
 a) Unequal b) Equal c) Double d) Half
61. Distance between (2,3) and (6,3) is:
 a) 3 b) 4 c) 6 d) 8
62. Midpoint of (2,4) and (6,8) is:
 a) (4,6) b) (5,5) c) (6,6) d) (4,8)
63. Formula for section ratio is:
 a) $m:x$ b) $(mx + ny)/(m+n)$ c) $m + n$ d) None
64. Distance between (0,0) and (a,b) is:
 a) $a + b$ b) $a^2 + b^2$ c) $\sqrt{a^2 + b^2}$ d) ab
65. Area of triangle using coordinates uses:
 a) $\frac{1}{2} |x_1(y_2 - y_3) + \dots|$ b) πr^2 c) $\frac{1}{2}bh$ d) None
66. $\sin 90^\circ =$
 a) 0 b) 1 c) $\frac{1}{2}$ d) $\sqrt{3}/2$
67. $\cos 0^\circ =$
 a) 1 b) 0 c) -1 d) None
68. $\tan \theta =$
 a) $\sin\theta/\cos\theta$ b) $\cos\theta/\sin\theta$ c) $1/\sin\theta$ d) $1/\cos\theta$
69. $\sin^2\theta + \cos^2\theta =$
 a) 0 b) 1 c) 2 d) None

70. $\tan 45^\circ =$
 a) 1 b) 0 c) $\sqrt{3}$ d) $1/\sqrt{3}$
71. $\cos 60^\circ =$
 a) $1/2$ b) $\sqrt{3}/2$ c) 1 d) 0
72. $\sin 0^\circ =$
 a) 1 b) 0 c) -1 d) 2
73. $\cot \theta =$
 a) $1/\tan \theta$ b) $\tan \theta$ c) $\sin \theta$ d) $\cos \theta$
74. $\tan 90^\circ$ is:
 a) 0 b) 1 c) Undefined d) -1
75. $\sec \theta =$
 a) $1/\cos \theta$ b) $1/\sin \theta$ c) $1/\tan \theta$ d) None
76. Radius and tangent meet at:
 a) 0° b) 45° c) 90° d) 180°
77. A line meeting circle at two points is:
 a) Tangent b) Secant c) Diameter d) Radius
78. Tangents drawn from external point are:
 a) Unequal b) Equal c) 0 d) Infinite
79. Number of tangents from a point outside circle:
 a) 1 b) 2 c) 3 d) 0
80. If tangent is perpendicular to radius, angle =
 a) 30° b) 45° c) 90° d) 180°
81. Angle 60° is constructed using:
 a) Ruler b) Compass c) Protractor d) None
82. To divide line in 3 equal parts, draw:
 a) 1 ray b) 2 rays c) 3 rays d) None
83. For 90° , construct:
 a) Perpendicular bisector b) Parallel line
 c) Angle bisector d) None
84. To construct 45° , bisect
 a) 60° b) 90° c) 30° d) 120°
85. To draw tangent from point outside circle use:
 a) Bisector b) Perpendicular c) Right triangle d) Circle inside
86. Area of circle =
 a) πr b) πr^2 c) $2\pi r$ d) πd
87. Volume of cylinder =
 a) $\pi r^2 h$ b) $2\pi r h$ c) $\pi r h$ d) $4/3\pi r^3$
88. Total surface area of sphere =
 a) $4\pi r^3$ b) $2\pi r^2$ c) $4\pi r^2$ d) πr^2

89. Curved surface area of cylinder =

- a) $2\pi rh$ b) $\pi r^2 h$ c) $4\pi r^2$ d) None

90. Volume of cone =

- a) $\frac{1}{3}\pi r^2 h$ b) $\pi r^2 h$ c) $\frac{4}{3}\pi r^3$ d) None

91. Area of triangle =

- a) bh b) $\frac{1}{2}bh$ c) $2bh$ d) None

92. Perimeter of square =

- a) $2a$ b) $3a$ c) $4a$ d) a^2

93. Diameter = $2r$ means radius is:

- a) Double b) Half c) Equal d) None

94. Area of rectangle =

- a) $l + b$ b) lb c) $2(l + b)$ d) None

95. 1 hectare =

- a) 100 m^2 b) 1000 m^2 c) $10,000 \text{ m}^2$ d) $1,00,000 \text{ m}^2$

96. Median is the:

- a) Most frequent value b) Middle value
c) Average value d) Highest value

97. Mode is the:

- a) Most repeated value b) Middle value
c) Largest value d) None

98. Mean is:

- a) Sum of values / Total values b) Middle value
c) Difference of values d) Product of values

99. Probability is always between:

- a) -1 to 1 b) 0 to 1
c) 1 to 10 d) None

100. Probability of impossible event:

- a) 1 b) 0 c) $\frac{1}{2}$ d) 2

10TH CLASS MATH MCQ ANSWER KEY

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