MCQ of class 9 (Mathematics) Uint.1

Select the correct answer in each of the following.

1. The order of matrix $[2 \quad 1]$ is.....	(a) 2-by-l (b) l-by-2 (c) 1-by-l (d) 2-by-2
2. $\begin{bmatrix}\sqrt{2} & 0\\ 0 & \sqrt{2}\end{bmatrix}$ is called ..... matrix.	(a) diagonal (b) unit (c) scalar (d) singular
3. Which is order of a square matrix.....	(a) 2-by-2 (b) l-by-2 (c) 2-by-l (d) 3-by-2
4. Order of transpose of $\begin{bmatrix}2 & 1\\ 0 & 1\\ 3 & 2\end{bmatrix}$ is ----------	(a) 3-by-2 (b) 2-by-3 (c) 1-by-3 (d) 3-by-1
5. Adjoint of $\begin{bmatrix}1 & 2\\ 0 & -1\end{bmatrix}$ is ----------	(a) $\begin{bmatrix}-1 & -2\\ 0 & 1\end{bmatrix}$ (b) $\begin{bmatrix}1 & -2\\ 0 & -1\end{bmatrix}$ (c) $\begin{bmatrix}-1 & 2\\ 0 & -1\end{bmatrix}$ (d) $\begin{bmatrix}-1 & 0\\ 2 & 1\end{bmatrix}$
6. Product of $[x \quad y]\begin{bmatrix}2\\ -1\end{bmatrix}$ is =----------	(a) [2x+y] (b) [x-2y] (c) [2x-y] (d) [x+2y]
7. If $\begin{vmatrix}2 & 6\\ 3 & x\end{vmatrix} = 0$, then x is equal to ---	(a) 9 (b) -6 (c) 6 (d) -9
8. If $X + \begin{bmatrix}-1 & -2\\ 0 & -1\end{bmatrix} = \begin{bmatrix}1 & 0\\ 0 & 1\end{bmatrix}$, then X is equal to --------	(a) $\begin{bmatrix}2 & 2\\ 2 & 0\end{bmatrix}$ (b) $\begin{bmatrix}0 & 2\\ 2 & 2\end{bmatrix}$ (c) $\begin{bmatrix}2 & 0\\ 0 & 2\end{bmatrix}$ (d) $\begin{bmatrix}2 & 2\\ 0 & 2\end{bmatrix}$
9. The order of the matrix $\begin{bmatrix}3\\ 2\end{bmatrix}$ is -	(a) 1-by-2 (b) 3-by-2 (c) 2-by-1 (d) 2-by-2
10. $\begin{bmatrix}\sqrt{5} & 0\\ 0 & \sqrt{5}\end{bmatrix}$ is called-------- matrix	a) scalar (b) zero (c) unit (d) singular
11. Order of the transpose of $\begin{bmatrix}2 & 1 & 3\\ 4 & 0 & 2\end{bmatrix}$ is --------	(a) 2-by-3 (b) 3-by-2 (c) 1-by-3 (d) 2-by-1
12. Adjoint of $\begin{bmatrix}1 & 3\\ -1 & 0\end{bmatrix}$ is --------	(a) $\begin{bmatrix}0 & -1\\ 3 & 1\end{bmatrix}$ (b) $\begin{bmatrix}1 & -3\\ 1 & 0\end{bmatrix}$ (c) $\begin{bmatrix}0 & -3\\ 1 & 1\end{bmatrix}$ (d) $\begin{bmatrix}-1 & -3\\ 1 & 0\end{bmatrix}$
13. If $\begin{bmatrix}2 & x\\ 2 & 4\end{bmatrix}$ is a singular matrix then x = ----------	(a) 6 (b) 2 (c) 4 (d) 0
14. Additive inverse of $\begin{bmatrix}1 & 2\\ -1 & 0\end{bmatrix}$ is ----------	(a) $\begin{bmatrix}1 & -2\\ 1 & 0\end{bmatrix}$ (b) $\begin{bmatrix}0 & -2\\ 1 & 1\end{bmatrix}$ (c) $\begin{bmatrix}-1 & -2\\ 1 & 0\end{bmatrix}$ (d) $\begin{bmatrix}1 & 2\\ 1 & 0\end{bmatrix}$
15. If $\begin{bmatrix}7 & 2\\ 4 & y-2\end{bmatrix} = \begin{bmatrix}7 & 2\\ 4 & -3\end{bmatrix}$ then the value of y = --------	(a) 2 (b) 3 (c) 4 (d) -1
16. $\begin{bmatrix}2 & 5 & 3\end{bmatrix}$ is a ---- matrix	(a) square (b) row (c) column (d) zero
17. If a matrix A is equal to its transpose then 'A' is called ---- matrix	(a) symmetric (b) rectangular (c) null (d) skew symmetric
18. $(B^t)^t$ = --------	(a) B^{-1} (b) $\frac{1}{B}$ (c) B (d) Adjoint of B
19. If a square matrix A is skew symmetric then A^t = -----	(a) A^{-1} (b) Adjoint of A (c) -A (d) none of these
20. Multiplicative inverse of a singular matrix is equal to = ------	(a) additive inverse (b) does not exist (c) Its adjoint (d) none of these

21. A matrix having only one column is called ------ matrix	(a) row (b) singular (c) column (d) none of these
22. A matrix having only one row is called------ matrix	(a) column (b) row (c) square (d) Identity
23. If the number of rows of a matrix is not equal to the number of columns, then the matrix is called:	(a) Square matrix (b) rectangular matrix (c) scalar matrix (d) Diagonal matrix
24. In matrices $(A+B)^t = ?$	(a) B^t+A^t (b) A^tB^t (c) A^t+B^t (d) B^tA^t
25. $\begin{bmatrix}0 & 0\\0 & 0\end{bmatrix}$ is called ___ matrix:	(a) Zero (b) Unit (c) Scalar (d) Singular
26. $\begin{bmatrix}1 & 0\\0 & 1\end{bmatrix}$ is called ___matrix:	(a) Zero (b) Unit (c) Scalar (d) Singular
27. Matrix A+B can be found, if order of A and B is:	(a) Zero (b) Equal (c) -1 (d) Not equal
28. Inverse of Identity matrix is is called ---- matrix	(a) Identity (b) rectangular (c) scalar (d) Diagonal
29. If the determinant of a square matrix is equal to zero then is called --- matrix.	a) Zero (b) Unit (c) Scalar (d) Singular
30. In matrix multiplication , in general, AB…..BA	(a) $\neq$ (b) $=$ (c) $\cong$ (d) //
31. The order of matrix $\begin{bmatrix}2\\-1\\5\end{bmatrix}$ is.....	(a) 2-by-3 (b) 3-by-1 (c) 1-by-3 (d) 2-by-1
32. Negative of matrix $\begin{bmatrix}1 & -2\\3 & 4\end{bmatrix}$ is ---	(a) $\begin{bmatrix}1 & 2\\3 & 4\end{bmatrix}$ (b) $\begin{bmatrix}-1 & 2\\-3 & -4\end{bmatrix}$ (c) $\begin{bmatrix}-1 & 2\\3 & -4\end{bmatrix}$ (d) $\begin{bmatrix}4 & 2\\3 & -1\end{bmatrix}$
33. order of Identity (unit)matrix is always equal to…matrix	(a) Square (b) rectangular (c) row (d) null
34. Addition of two matrices $\begin{bmatrix}1 & 0\\0 & 1\end{bmatrix}+\begin{bmatrix}0 & 2\\3 & 0\end{bmatrix}$	(a) $\begin{bmatrix}1 & 2\\3 & 0\end{bmatrix}$ (b) $\begin{bmatrix}1 & 0\\3 & 2\end{bmatrix}$ (c) $\begin{bmatrix}1 & 2\\3 & 1\end{bmatrix}$ (d) $\begin{bmatrix}1 & 3\\2 & 1\end{bmatrix}$
35. Product of $\begin{bmatrix}2 & 0\\0 & 1\end{bmatrix}\begin{bmatrix}-3 & 0\\0 & 4\end{bmatrix}$	(a) $\begin{bmatrix}-6 & 0\\0 & 4\end{bmatrix}$ (b) $\begin{bmatrix}6 & 0\\0 & 4\end{bmatrix}$ (c) $\begin{bmatrix}6 & 0\\0 & -4\end{bmatrix}$ (d) $\begin{bmatrix}-6 & 0\\0 & -4\end{bmatrix}$
36. If $\begin{vmatrix}3 & -1\\0 & x\end{vmatrix} = 3$, then x is equal	(a) 2 (b) 5 (c) 1 (d) 0
37. If $\begin{bmatrix}a+3 & 2\\0 & -3\end{bmatrix} = \begin{bmatrix}5 & 0\\0 & -3\end{bmatrix}$, then "a"is equal to --------	(a) 2 (b) 5 (c) 6 (d) 1
38. $(AB)^{-1}$ =……	(a) $A^{-1}B^{-1}$ (b) $B^{-1}A^{-1}$ (c) AB (d) BA
39. $(AB)^t$ =……	(a) A^tB^t (b) B^tA^t (c) AB (d) BA
40. Inverse of matrix A is equal to	(a) $\frac{AdjA}{detA}$ (b) $\frac{detA}{AdjA}$ (c) $\frac{A^t}{AdjA}$ (d) $\frac{AdjA}{A^t}$
Unit.2 Real Numbers and Complex Numbers	
41. $(27x^{-1})^{\frac{-2}{3}}$ ……	(a) $\frac{\sqrt[3]{x^2}}{9}$ (b) $\frac{\sqrt{x^3}}{9}$ (c) $\frac{\sqrt[3]{x^2}}{8}$ (d) $\frac{\sqrt{x^3}}{8}$
42. Write $\sqrt[7]{x}$ in exponential form	(a) x (b) x^7 (c) $x^{\frac{1}{7}}$ (d) $x^{\frac{7}{2}}$
43. Write $4^{\frac{2}{3}}$ with radical sign ……	(a) $\sqrt[3]{4^2}$ (b) $\sqrt{4^3}$ (c) $\sqrt[2]{4^3}$ (d) $\sqrt{4^6}$

44. In $\sqrt[3]{35}$ the radicand is ……	(a) 3 (b) $\frac{1}{3}$ (c) 35 (d) none of these
45. $(\frac{25}{16})^{\frac{-1}{2}}$	(a) $\frac{5}{4}$ (b) $\frac{4}{5}$ (c) $\frac{-5}{4}$ (d) $\frac{-4}{5}$
46. The conjugate of 5 + 4i is	(a) -5 + 4i (b) -5-4i (c) 5-4i (d) 5+4i
47. The value of i^9 is	(a) 1 (b) -1 (c) i (d) -i
48. Every real number is	(a) a positive integer (b) a rational number (c) a negative integer (d) a complex number
49. Real part of $2ab(i + i^2)$ is.....	(a) 2ab (b) (d) -2abi (c) 2abi (d) -2ab
50. Imaginary part of $-i(3i + 2)$ is	(a) -2 (b) 2 (c) 3 (d) -3
51. Which of the following sets have the closure property w.r.t addition ……	(a) {0} (b) $\{0, -1\}$ (c) $\{0, 1\}$ (d) $\{1, \sqrt{2}, \frac{1}{2}\}$
52. Name the property of real numbers used in $(-\frac{\sqrt{5}}{2}) \times 1 = -\frac{\sqrt{5}}{2}$ ……	(a) additive identity (b) additive inverse (c) multiplicative identity (d) multiplicative inverse
53. If x,y,z ∈ R $z < 0$ then $x < y \Rightarrow$ ……	(a) $xz < yz$ (b) $xz > yz$ (c) $xz = yz$ (d) none of these
54. If a,b ∈ R then only one of a = b or a < b or a > b holds is called ……property	(a) Trichotomy (b) transitive (c) additive (d) multiplicative
55. A non-terminating, non-recurring decimal represents ……number	(a) a natural (b) a rational (c) an irrational (d) a prime
56. $\overline{0.3}$ = ----------	(a) $\frac{1}{2}$ (b) $\frac{4}{3}$ (c) $\frac{2}{5}$ (d) $\frac{1}{3}$
57. The number $\frac{-2}{5}$ on the number line will be in between ------	(a) 0 & 1 (b) 1 & 2 (c) 0 & -1 (d) 3 & 4
58. For all a , b ∈ R a , b ∈ R, the property used in it is ----------	(a) Commutative property (b) Closure property (c) Multiplicative identity (d) Additive inverse
59. 5 + (-5) = 0, The property used in it is ----------	(a) Commutative (b) Associative (c) Additive inverse (d) Multiplicative inverse
60. $(8)^{\frac{3}{2}}$	(a) 5 (b) 4 (c) 6 (d) 8
61. The conjugate of -4- 5i is	(a) 4 + 5i (b) -4 + 5i (c) 4 - 5i (d) -5 - 4i
62. If Z = 2 + 0i , the conjugate of Z = -------	(a) $2 + 0i$ (b) $-2 - 0i$ (c) $-2 + 0i$ (d) none of these
63. i^2 = --------	(a) $-i$ (b) $+i$ (c) i^3 (d) - 1
64. In $\sqrt[5]{23}$, the radicand is --------	(a) 5 (b) 23 (c) $\frac{1}{5}$ (d) $(23)^{\frac{1}{5}}$
65. In exponential form $\sqrt[3]{y}$ = ---	(a) y (b) y^3 (c) $(y)^{\frac{1}{3}}$ (d) $(y)^{\frac{3}{2}}$
66. The set $\{1, -1, 0\}$ has closure property with respect to ---------	(a) addition (b) multiplication (c) division (d) both a & b

67. Every integer is a ------ number	(a) natural (b) whole (c) rational (d) prime
68. The numbers containing zero with natural numbers are called…number	(a) natural (b) whole (c) rational (d) prime
69. The numbers which cannot be expressed as quotient of integer called…number	(a) natural (b) irrational (c) rational (d) prime
70. π (pi) is a /an ……number	(a) natural (b) irrational (c) rational (d) prime
Unit-3 Logarithm	
71. If $a^x = n$, then …….	(a) $a = \log_x n$ (b) $x = \log_n a$ (c) $x = \log_a n$ (d) $a = \log_n x$
72. The relation $y = \log_z x$ implies …….	(a) $x^y = z$ (b) $z^y = x$ (c) $x^z y$ (d) $y^z = x$
73. The logarithm of unity to any base is……	(a) 1 (b) 10 (c) e (d) 0
74. The logarithm of any number to itself as base is……	(a) 1 (b) 0 (c) -1 (d) 10
75. loge = --------, where e ≈ 2.718	(a) 0 (b) 0.4343 (c) ∞ (d) 1
76. The value of $\log(\frac{p}{q})$ is ……	logp - logq (b) $\frac{\log p}{\log q}$ (c) $\log p + \log q$ (d) $\log q - \log p$
77. logp – logq = ----------	(a) $\log(\frac{q}{p})$ (b) log(p-q) (c) $\frac{\log p}{\log q}$ (d) $\log(\frac{p}{q})$
78. $\log(m^n)$ can be written as ------	(a) $(\log m)^n$ (b) mlogn (c) nlogm (d) log(mn)
79. $\log_b a \times \log_c b$ can be written as ----	(a) $\log_a c$ (b) $\log_c a$ (c) $\log_a b$ (d) $\log_b c$
80. $\log_y x$ will be equal to --------	(a) $\frac{\log z^x}{\log y^z}$ (b) $\frac{\log x^z}{\log y^z}$ (c) $\frac{\log z^x}{\log z^y}$ (d) $\frac{\log z^y}{\log z^x}$
81. In scientific notation 8600 = ----------	(a) 0.86×10^{-4} (b) 8.6×10^{-3} (c) 8.6×10^3 (d) 86×10^3
82. In ordinary notation 5.06×10^{-3} =----------	(a) 5060 (b) 0.00506 (c) 50.60 (d) 0.5600
83. Log100 = ----------	(a) 1 (b) 2 (c) 3 (d) 4
84. If Log2 = 0.3010 and Log 3 = 0.4771 then Log 6 = -----	(a) 0.7781 (b) 1.3010 (c) 2.4717 (d) 2.1517
85. If $\log_9 3 = x$ then x = ------	(a) 2 (b) 3 (c) 4 (d) $\frac{1}{2}$
86. log (0.5 × 7) = ----------	(a) log0.5+log7 (b) $\log(\frac{0.5}{7})$ c) log0.5-log7 (d)log(0.35)
87. 2logx – 3logy = -------	a) $\log(\frac{x^2}{y^3})$ (b) $\log(x^2 \times y^3)$ (c) $\log(\frac{x}{y})$ (d) log (2x ×3y)
88. If $\log_{64} 8 = \frac{x}{2}$ then x=-----	(a) 1 (b) 2 (c) 3 (d) 4
89. e ≈ --------	(a) 3.718 (b) 2.718 (c) 0.3178 (d) 0.2718
90. $\log_3 2 \times \log_2 81$ = ----------	(a) 2 (b) 4 (c) 3 (d) 9
91. Who gave the idea of logarithms?	(a) Johan Napier (b) Henry Briggs (c)Khwarizmi (d) Jobst Burgi
92. Who prepared the logarithm table?	(a) Johan Napier (b) Henry Briggs (c)Khwarizmi (d) Jobst Burgi
93. Base of common logarithm is	(a) 1 (b) 10 (c) e (d) 0
94. In scientific notation 416.9 = ----------	(a) 4169×10^{-1} (b) 41.69×10^1 (c) 0.4169×10^3 (d) 4.169×10^2
95. The integral part of the common logarithms of a number is called…	(a) characteristic (b) mantissa (c) antilog (d) none of these

96. The decimal part of the common logarithms of a number is called…	(a) characteristic (b) mantissa (c) antilog (d) none of these
97. If $\log_a y = x$, then"y" is called…of "x"	(a) base (b) mantissa (c) antilog (d) common
Unit-4 Algebraic Expressions	
98. $4x + 3y - 2$ is an algebraic.....	(a) expression (b) sentence (c) equation (d) inequality
99. The degree of the polynomial $4x^4 + 2x^2y$ is -------	(a) 1 (b) 2 (c) 3 (d) 4
100. $a^3 + b^3 =$ ----------	(a) $(a-b)(a^2+ab+b^2)$ (b) $(a+b)(a^2-ab+b^2)$ (c) $(a-b)(a^2-ab+b^2)$ (d) $(a-b)(a^2+ab-b^2)$
101. $(3+\sqrt{2})(3-\sqrt{2})$ is equal to	(a) 7 (b) -7 (c) -1 (d) 1
102. Conjugate of the surd $a+\sqrt{b}$ is ---------	(a) $-a+\sqrt{b}$ (b) $a-\sqrt{b}$ (c) $\sqrt{a}+\sqrt{b}$ (d) $\sqrt{a}-\sqrt{b}$
103. $(\sqrt{a}+\sqrt{b})(\sqrt{a}-\sqrt{b}) =$	(a) a^2+b^2 (b) a^2-b^2 (c) $a-b$ (d) $a+b$
104. $x^3 - y^3$ is equal to ---------	(a) $(x+y)(x^2-xy-y^2)$ (b) $(x+y)(x^2+xy-y^2)$ (c) $(x-y)(x^2+xy+y^2)$ (d) $(x-y)(x^2-x$
105. If $x+\frac{1}{x}=3$ then $x^2+\frac{1}{x^2} =$ ----------	(a) 6 (b) 7 (c) 8 (d) 9
106. If $x-\frac{1}{x}=4$, then $(x-\frac{1}{x})^2 =$ ----------	a) 8 (b) 12 (c) 16 (d) 20
107. $(\sqrt{x}+\sqrt{2})(\sqrt{x}-\sqrt{2}) =$ --	(a) x-2 (b) x-4 (c) x+2 (d) x+4
108. The factorization of $x^2 - 5 =$----------	(a) $(x+25)(x-25)$ (b) $(x-25)(x-25)$ (c) $(x+25)(x+25)$ (d) $(x+\sqrt{5})(x-\sqrt{5})$
109. $\frac{1}{x-y} - \frac{1}{x+y} =$ -------	(a) $\frac{2y}{x^2-y^2}$ (b) $\frac{2x}{x^2-y^2}$ (c) $\frac{2y}{x^2+y^2}$ (d) $\frac{2x}{x^2+y^2}$
110. If $S=\sqrt{5}+2$ then $S+\frac{1}{S} =$ -------	(a) 4 (b) 25 (c) $2\sqrt{5}$ (d) 10
111. $(x+y)(x^2-xy+y^2) =$ ----	(a) $x^2 - y^2$ (b) $x^2 + y^2$ (c) $x^3 - y^3$ (d) $x^3 + y^3$
112. $\frac{x^2-y^2}{x+y} =$ -------	(a) x+y (b) x-y (c) $x^3 - y^3$ (d) x^2+y^2
113. Conjugate of $5+\sqrt{3} =$ ---	(a) $5+\sqrt{3}$ (b) $-5+\sqrt{3}$ (c) $5-\sqrt{3}$ (d) $-5-\sqrt{3}$
114. Factorization of $8x^3 - 125y^3 =$ ----------	(a) $(2x-5y)(4x^2+10xy+25y^2)$ (b) $(2x-5y)(4x^2+10xy+25y^2)$ (c) $(2x+5y)(4x^2+10xy+25y^2)$ (d) $(2x+5y)(4x^2-10xy+25y^2)$
115. After rationalization $\frac{6}{\sqrt{3}} =$	(a) $2\sqrt{3}$ (b) 18 (c) $2\sqrt{9}$ (d) 12
116. $3 \times \sqrt[3]{8} =$ ------	(a) 8 (b) 6 (c) 12 (d) 24
117. $(\sqrt{3}+\frac{1}{\sqrt{2}})(\sqrt{3}-\frac{1}{\sqrt{2}}) =$	(a) 6 (b) $\frac{5}{2}$ (c) $\sqrt{5/2}$ (d) $\frac{5}{4}$
If x=2, y= -2 , z= -1 then $\frac{zx^2}{y^2} =$ -------	(a) 2 (b) 3 (c) -1 (d) 5
118. $\frac{x+y}{x^2+xy+y^2} \div \frac{x+y}{x^3-y^3} =$ ---	(a) (x+y) (b) (x-y) (c) $(x^2 - y^2)$ (d) $(x^2 + y^2)$
119. $x^2 - 4^2 =$.....	(a) $(x+2)(x-2)$ (b) $(x-4)(x+4)$ (c) $(x^2+2)(x^2-2)$ (d) $(x-2)^2$

120.	$X^3+\frac{1}{x^3}$ =	(a) $(x+\frac{1}{x})(x^2+\frac{1}{x^2}-1)$ (b) $(x-\frac{1}{x})(x^2+\frac{1}{x^2}+1)$ (c) $(x-\frac{1}{x})(x^2+\frac{1}{x^2}-1)$ (d) $(x+\frac{1}{x})(x^2+\frac{1}{x^2}+1)$
121.	$(a+b)^2+(a-b)^2$= ?	(a) 4ab (b) $2(a^2+b^2)$ (c) $(a+b+c)^2$ (d) $2(a^2-b^2)$
122.	The degree of polynomial $x^2y^2+3xy-y^3$	(a) 1 (b) 2 (c) 3 (d) 4
123.	$(x-\frac{1}{x})^2$=?	a) $(x+\frac{1}{x})(x-\frac{1}{x})$ (b) $\mathbf{x^2+\frac{1}{x^2}+2}$ (c) $\mathbf{x^2+\frac{1}{x^2}-2}$ (d) $\mathbf{x^2-\frac{1}{x^2}}$
124.	order of surd $\sqrt[3]{x}$ is	a) 1 (b) $\frac{1}{3}$ (c) $\frac{2}{3}$ (d) 3
125.	$\frac{1}{2-\sqrt{3}}$ =?	(a) $2+\sqrt{3}$ (b) $2-\sqrt{3}$ (c) $-2+\sqrt{3}$ (d) $-2-\sqrt{3}$
126.	A surd which contains a single term is called.	a) monomial surd (b) binomial surd (c) none of these (d) mixed surd
127.	Conjugate of $\sqrt{x}+\sqrt{y}$ = ------	a) $-\sqrt{x}+\sqrt{y}$ (b) $\sqrt{x}-\sqrt{y}$ (c) $-\sqrt{x}-\sqrt{y}$ (d) $\frac{1}{\sqrt{x}+\sqrt{y}}$
128.	A surd which contains sum or difference of is called.	a) monomial surd (b) binomial surd (c) none of these (d) mixed surd
129.	An irrational radical with rational radicand is called----	a) rational expression (b) rational sentence (c) surd (d) none of these
130.	In $\sqrt[n]{x}$ "n" is called	a) radicand (b) surd index (c) conjugate of surd (d) constant
131.	The degree of polynomial $2x^4y^3+3x^2y^2+8$	a) 4 (b) 1 (c) 8 (d) 7
132.	$4x^2+3x-\frac{2}{\sqrt{x}}$ is an	(a) expression (b) sentence (c) equation (d) inequality
133.	$\frac{2x+1}{3x+8}$ is a	a) rational expression (b) irrational expression (c) algebraic number (d) polynomial
134.	$(a+b)^2$ is equal to	a) a^2+b^2+2ab (b) a^2+b^2-2ab (c) a^2-b^2+2ab (d) a^2-b^2-2ab
135.	$(x+\frac{1}{x})^2=3$, then $\mathbf{x^2+\frac{1}{x^2}=?}$	(a) 1 (b) 2 (c)3 (d) 4
136.	$(a-b)^3$= ------	(a) $a^3+3ab(a+b)+b^3$ (b) $a^3-3ab(a-b)-b^3$ (c) $a^3+3ab(a-b)-b^3$ (d) $a^3+3ab(a-b)+b^3$
137.	$(x-y)(x^2+xy+y^2)$ =----	a) x^3-y^3 (b) x^3+y^3 (c) $(x-y)^3$ (d) $(x+y)^3$
138.	a^2+b^2 is equal to	(a) $(a+b)^2+2ab$ (b) $(a+b)^2-2ab$ (c) $(a-b)^2-2ab$ (d) $(a-b)^2+4ab$
Unit-5	**Factorization**	
139.	The factors of x^2-5x+6 are ---------	(a) x +1, x -6 (b) x-2, x-3 (c) x+6,x-1 (d) x+2, x+3
140.	Factors of $8x^3+27y^3$ are ------	(a) $(2x+3y),(4x^2+9y^2)$ (b) $(2x+3y),(4x^2-9y^2)$ (c) $(2x+3y),(4x^2-6xy+9y^2)$ (d) $(2x-3y),(4x^2-6xy+9y^2)$
141.	Factors of $3x^2-x-2$ are ------	(a) $(x+1),(3x-2)$ (b) $(x+1),(3x+2)$ (c) $(x-1),(3x-2)$ (d) $(x-1),(3x+2)$
142.	Factors of a^4-4b^4 are -------	(a) $(a-b),(a+b),(a^2+4b^2)$ (b) $(a^2-2b^2),(a^2+2b^2)$ (c) $(a-b),(a+b),(a^2-4b^2)$ (d) $(a-2b),(a^2+2b^2)$
143.	What will be added to complete the square of $9a^2-12ab$?	(a) $-16b^2$ (b) $16b^2$ (c) $4b^2$ (d) $-4b^2$

144.	Find m so that x^2+4x+m is a complete square -----	(a) 8 (b) -8 (c) 4 (d) 16
145.	Factors of $5x^2-17xy-12y^2$ are -----	(a) (x+4y),(5x+3y) (b) (x-4y),(5x-3y) (c) (x-4y),(5x+3y) (d) (5x-4y),(x3y)
146.	Factors of $27x^3-\frac{1}{x^3}$ are ----	(a)$(3x-\frac{1}{x}), (9x^2+3+\frac{1}{x^2})$ (b) $(3x+\frac{1}{x}), (9x^2+3+\frac{1}{x^2})$ (c) $(3x-\frac{1}{x}), (9x^2-3+\frac{1}{x^2})$ (d) $(3x+\frac{1}{x}), (9x^2-3+\frac{1}{x^2})$
147.	Factors of $4a^2-16$ are ------ -----	(a) (2a+4),(2a-4) (b) (2a+2),(2a-2) (c) (2a+4),(2a+4) (d) (2a-2),(2a-2)
148.	$(x+y)(x^2-xy+y^2)$ =?	a) x^3-y^3 (b) x^3+y^3 (c) $(x-y)^3$ (d) $(x+y)^3$
149.	Factors of a^4-16 are -------- ---	(a) (a–2),(a+2),(a^2+4) (b) $(a^2-2),(a^2+2)$ (c) (a–2),(a+2),(a^2-4) (d) (a-2),(a^2+4)
150.	If (x-2)is a factor of $p(x)=x^2+2kx+8$, then k is equal to	a) 2 (b) -2 (c) 3 (d) -3
151.	What will be added to complete the square of $4a^2+4ab$? --- -----	a) b^2 (b) $2b^2$ (c) $4b^2$ (d) $-4b^2$
152.	The polynomial(x-a) is the factor of p(x)if:	a) P(x) = 0 (b) P(a) = 0 (c) P(a) ≠ 0 (d) none of these
153.	$a^3+3ab(a+b)+b^3$=?	a) a^3+b^3 (b) $(a-b)^3$ (c) a^3-b^3 (d) $(a+b)^3$
154.	$8X^3-\frac{1}{27y^3}$ =	a) $(2x-\frac{1}{3}), (4x^2+\frac{2x}{3y}+\frac{1}{9y^2})$ (b) $(2x-\frac{1}{3y}), (4x^2+\frac{2x}{3y}+\frac{1}{9y^2})$ (c) $(2x+\frac{1}{3y}), (4x^2+\frac{2x}{3y}+\frac{1}{9y^2})$ (d) $(2x-\frac{1}{3y}), (4x^2-\frac{2x}{3y}+\frac{1}{9y^2})$
155.	What will be added to complete the square of $4a^2-12ab$? --- -	(a) $-9b^2$ (b) $9b^2$ (c) $3b^2$ (d) $-3b^2$
156.	Find k so that x^2+6x+k is a complete square -----	a) 4 (b) 5 (c) 3 (d) 9
157.	If $9x^2-6x+2$ is divided by x-3 then remainder is	a) 65 (b)85 (c) 101 (d) 71
158.	If $4x^3-4x+2$ is divided by x-2 then remainder is	a) 20 (b) 22 (c) 26 (d) 36
159.	Factors of $1-25y^3$ are -------	a) $(1-5x), (1+5x+25x^2)$ (b) $(1+5x), (1+5x+25x^2)$ (c) $(1+5x), (1-5x-25x^2)$ (d) $(1+5x), (1-5x+25x^2)$
160.	Factors of ka+ kb+ kc are	a) $(a+b+c)k^2$ (b) (a+b+c)k (c) $(a+b+ck)k^2$ (d) (a+b+ck)k
161.	Factors of $1+2ab-a^2-b^2$ are	a) (1-a-b) (1-a-b) (b) (1-a+b) (1-a-b) (c) (1+a+b) (1-a-b) (d) (1-a+b) (1+a-b)
162.	Factors of $\frac{a^2}{b^2}-2+\frac{b^2}{a^2}$are	a) $(\frac{a}{b}-\frac{b}{a})^2$ (b) $(\frac{a}{b}+\frac{b}{a})^2$ (c) $(\frac{a}{b}-\frac{2b}{a})^2$ (d) $(\frac{a}{b}+\frac{b}{2a})^2$
163.	Factors of ac+ad+bc+bd are	a) (a+b)(c+d) (b) $(a+b)^2(c+d)^2$ (c) $(a^2-b^2)(c^2+d^2)$ (d) $(a^2+c^2)(b^2+d^2)$
164.	Factorize $4x^2-25x^4$ are	a) $(2x-5x^2)(2x+5x^2)$ (b) (2x-5x) (2x+5x²) (c) (2x-5x) (2x+5x) (d) $(2x+5x^2)(2x+5x^2)$
165.	**Unit-6 ,7 (Algebraic Manipulation) and (Linear Equations)**	
166.	H.C.F of p^3q-pq^3 and $p^5q^2-p^2q^5$ is ------	(a) $pq(p^2-q^2)$ (b) pq(p - q) (c) $p^2q^2(p-q)$ (d) $pq(p^3-q^3)$
167.	H.C.F of $5x^2y^2$ and $20x^3y^3$ is --------	(a)$5x^2y^2$ (b) $20x^3y^3$ (c) $100x^5y^5$ (d) 5xy
168.	H.C.F. of x-2 and x^2+x-6 is ------	(a) x^2+x-6 (b) x+3 (c) x-2 (d) x+2
169.	H.C.F. of a^3+b^3 and	(a) a+b (b) a^2-ab+b^2 (c) $(a-b)^2$ (d) a^2+b^2

a^2- a b +b^2 is ------	
170. H.C.F. of x^2 -5x +6 and x^2-x-6 is -----	(a) x-3 (b) x+2 (c) x^2-4 (d) x-2
171. H.C.F. of $a^2 - b^2$ and $a^3 - b^3$ is ------	(a) a –b (b) a+b (c) a^2 +ab+b^2 (d) a^2 –ab+b^2
172. H.C.F. of x^2 +3x+2, x^2 +4x+3 and x^2 +5x+4 is ----	(a) x+1 (b) (x+1)(x+2) (c) x+3 (d)(x+4)(x+1)
173. L.C.M. of $15x^2$, 45xy and 30xyz is -----	(a) 90xyz (b) $90x^2yz$ (c) 15xyz (d) $15x^2yz$
174. L.C.M. of $a^2 + b^2$ and $a^4 - b^4$ is ------	(a) a^2 +b^2 (b) $a^2 - b^2$ (c) a^4 –b^4 (d) a - b
175. The product of two algebraic expressions is equal to the ---- of their H.C.F and L.C.M.	(a)sum (b) Difference (c) Product (d) Quotient
176. Simplify $\frac{a}{9a^2 - b^2} + \frac{1}{3a-b}$ =------	(a) $\frac{4}{9a^2 - b^2}$ (b) $\frac{4a-b}{9a^2 - b^2}$ (c) $\frac{4a+b}{9a^2 - b^2}$ (d) $\frac{b}{9a^2 - b^2}$
177. Simplify $\frac{a^2+5a-14}{a^2 - 3a-18} \times \frac{a+3}{a-2}$ =------	(a) $\frac{a+7}{a-6}$ (b) $\frac{a+7}{a-b}$ (c) $\frac{a+3}{a-6}$ (d) $\frac{a-2}{a+3}$
178. Simplify $\frac{a^3-b^3}{a^4 - b^4} \div \frac{a^2+ab+b^2}{a^2-b^2} =$ --------	(a) $\frac{1}{a+b}$ (b) $\frac{1}{a-b}$ (c) $\frac{a-b}{a^2 + b^2}$ (d) $\frac{a+b}{a^2 + b^2}$
179. Simplify $(\frac{2x+y}{x+y}$ -1)÷(1- $\frac{x}{x+y})$	(a) $\frac{x}{x+y}$ (b) $\frac{y}{x+y}$ (c) $\frac{y}{x}$ (d) $\frac{x}{y}$
180. The square root of $a^2 - 2a +1$ is	(a) ±(a+1) (b) ±(a-1) (c) a-1 (d) a+1
181. What should be added to complete the square of x^4 +64? --	(a) $8x^2$ (b) $-8x^2$ (c) $16x^2$ (d) $4x^2$
182. The square root of $x^4 + \frac{1}{x^4}$ +2 is -------	(a) ±(x+ $\frac{1}{x}$) (b) ($x^2 + \frac{1}{x^2}$) (c) ±(x- $\frac{1}{x}$) (d) ±($x^2 - \frac{1}{x^2}$)
183. Which of the following is the solution of the inequality $3 - 4x \leq 11$?	(a) -8 (b) -2 (c) $-\frac{14}{4}$ (d) None of these
184. A statement involving any of the symbols $<, >, \leq$ o r $\geq$ is called	(a) equation (b) identity (c) inequality (d) linear equation
185. x = -------- is a solution of the inequality $-2 < x < \frac{3}{2}$	(a) -5 (b) 3 (c) 0 (d) $\frac{3}{2}$
186. If x is no larger than 10, then.....	(a) $x \geq 10$ (b) $x \leq 10$ (c) $x < 10$ (d) $x > 10$
187. If the capacity *c* of an elevator is at most 1600 pounds, then	a) $c < 1600$ (b) $c \geq 1600$ (c) $c \leq 1600$ (d) $c > 1600$
188. x = 0 is a solution of the inequality	(a) $x > 0$ (b) $3x + 5 < 0$ (c) $x + 2 < 0$ (d) $x - 2 < 0$
189. 4(x+3)= (x+3) is a/an	a) identity (b) inconsistent (c) conditional (d) equivalent
190. Equation having exactly the same solution are called	a) identity Equation (b) inconsistent Equation (c) conditional Equation (d) equivalent Equation

191. Product of two algebraic expression is equal to	a) H.C.F + L.C.M (b) H.C.F - L.C.M (c) $\frac{\text{H.C.F}}{\text{L.C.M}}$ (d) H.C.F × L.C.M
192. The square root of $x^2 + \frac{1}{4x^2}$ -1 is -------	(a) $\pm(x+\frac{1}{2x})$ (b) $\pm(x+\frac{1}{x})$ (c) $\pm(x+\frac{1}{x})^2$ (d) $\pm(x-\frac{1}{2x})$
193. What should be added to complete the square of x^4+16? ------	(a) $8x^2$ (b) $-9x^2$ (c) $16x^2$ (d) $4x^2$
194. General form of linear equation is	a) ax+b=0 (b) ax+b≤0 (c) a+b=0 (d) $ax^2+bx+c=0$
195. General form of linear inequality is	a) ax+b≤0 (b) $ax^3+b\leq 0$ (c) a+b≤0 (d) $ax^2+bx+c\leq 0$
196. The solution set of $\lvert x-4\rvert = -4$	a) -8 (b) 16 (c) { } (d) 4
197. The solution set of $\lvert 3x-5\rvert = 4$	a) $\{2, \frac{1}{3}\}$ (b) $\{3, \frac{1}{3}\}$ (c) $\{2, \frac{1}{2}\}$ (d) $\{\frac{1}{2}, \frac{1}{3}\}$
198. $\lvert x\rvert$ is equal to	a) -x (b) x^2 (c) x (d) ± x
199. The solution of equation $\sqrt{2x-3}=7$ is	a) {20 } (b) {26 } (c) { 30 } (d) { 42 }
200. If a<b or a=b or a>b ,then this property is called	a) trichotomy property (b) Transitive property (c) closure property (d) Associative property
201. Simplify $\frac{x^2+x+1}{x^2-9} \div \frac{x^3-1}{x^2-4x+3}$	a) $\frac{1}{x+3}$ (b) $\frac{1}{x-3}$ (c) x+3 (d) x-3
202. Simplify $\frac{a+b}{a^2-b^2} \div \frac{a^2-ab}{a^2-2ab+b^2}$	a) $\frac{1}{a+b}$ (b) $\frac{1}{a-b}$ (c) $\frac{1}{b}$ (d) $\frac{1}{a}$

Unit- 8,9 (Linear Graphs) and (Coordinate Geometry)

203. Distance between points (0, 0) and (1, 1) is--------	(a) 0 (b) 1 (c) 2 (d) $\sqrt{2}$
204. Distance between the points (1,0) and (0, 1) is --------	(a) 0 (b) 1 (c) 2 (d) $\sqrt{2}$
205. Mid-point of the points (2, 2) and (0, 0) is----------	(a) (1,1) (b) (1,0) (c) (0,1) (d) (-1,-1)
206. Mid-point of the points (2, -2) and (-2, 2) is---------	(a) (2,2) (b) (-2, -2) (c) (0,0) (d) (1,1)
207. A triangle having all sides equal is called --------	(a) Isosceles (b) Scalene (c) Equilateral (d) None of these.
208. A triangle having all sides different is called --------	(a) Isosceles (b) Scalene (c) Equilateral (d) None of these
209. If (x-1,y+1) = (0,0), then (x,y) is	(a) (1,-1) (b) (-1,1) (c) (1,1) (d) (-1,-1)
210. If (x , 0) = (0 , y) , then (x , y) is	(a) (0,1) (b) (1,0) (c) (0,0) (d) (1,1)
211. Point (2, -3) lies in quadrant	(a) I (b) II (c) III (d) IV
212. Point (-3, -3) lies in quadrant	a) I (b) II (c) III (d) IV
213. If y = 2x+ l,x = 2 then y is	(a) 2 (b) 3 (c) 4 (d) 5
214. Which ordered pair satisfy the equation y = 2x.	(a) (1,2) (b) (2,1) (c) (2,2) (d) (0,1)

215. The distance formula is	a) $d=\sqrt{(x_2-x_1)^2+(y_2-y_1)^2}$, (b) $d=\sqrt{(x_2-x_1)^2-(y_2-y_1)^2}$ (c) $d=\sqrt{(x_2+x_1)^2+(y_2+y_1)^2}$ (d)) $d=\sqrt{(x_2+x_1)^2-(y_2+y_1)^2}$
216. Distance between the points $(1,2)$ and $(0,3)$ is --------	(a) 3 (b) 1 (c) 2 (d) $\sqrt{2}$
217. Origin lies on line	a) x= -2 (b) 3-y=0 (c) y=x (d) x+y=1
218. Point (0,0) lies on	a) X-axis (b) Origin (c) Y-axis (d) I-quad
219. The graph x=-2 is a	(a) horizontal line (b) vertical line (c) in between both (d) none of these
220. Point (3,3) lies in quadrant	(a) I (b) II (c) III (d) IV
221. Point (-1,2) lies in quadrant	(a) I (b) II (c) III (d) IV
222. A triangle is formed by non-collinear points.	(a) One (b) two (c) three (d) six
223. Each side of the triangle has collinear vertices.	(a) one (b) two (c) three (d) so many
224. A line segment has end points.	(a) one (b) two (c) three (d) four
225. All the points that lie on the x-axis are	(a) collinear (b) non-collinear (c) congruent (d) parallel
226. A triangle having two sides equal is called	(a) isosceles (b) scalene (c) equilateral (d) none of these
227. Point O where perpendicular co-ordinate axes intersect each other is called	(a) Abcissa (b) Origin (c) Ordinate (d) Co-ordinate
228. In p(x,y), x-coordinate is called	(a) Origin (b) Abcissa (c) Ordinate (d) None of these
229. In p(x,y), y-coordinate is called	(a) Origin (b) Abcissa (c) Ordinate (d) None of these
230. Point O is represented by order pair	(a) (1,1) (b) (-1,-1) (c) (0,1) (d) (0,0)
231. If (x+2, 2y-1) = (3,5) then (x,y) is equal to	(a) (1,-3) (b) (-1,3) (c) (1,3) (d) (-6,-3)
232. The study of geometrical shapes in a plane is called	(a) plane axis (b) plane geometry (c) Cartesian geometry (d) coordinate geometry
233. The study of geometrical shapes in the Cartesian plane is called	(a) Plane axis (b) Plane geometry (c) Coordinate geometry (d) Cartesian geometry
234. If the length of two sides of a triangle is same and the length of third side is different, then it is called	(a) Equilateral triangle (b) Isosceles triangle (c) Right angled triangle (d) Scalene triangle
235. A closed figure formed by four non collinear points having equal four sides and each angle of 90° is called	(a) Square (b) rectangle (c) Parallelogram (d) circle
Unit 10 to 17	

236. Symbol used for (1−1) correspondence is	(a)≅ (b)~ (c)↔ (d) ≈
237. Two parallel lines intersect at_____ points	(a) one (b)two (c) so many (d) no where
238. Three points are said to be collinear if they lie on ….lines.	(a) same (b) different (c) both A and B (d) none of these
239. A ray has … end points.	(a) one (b) two (c)three (d) so many
240. Two lines can only intersect at--------- points.	(a) one (b) two (c)three (d) so many
241. Diagonals of a rectangle are	(a)collinear (b) concurrent (c)congruent (d) parallel
242. Diagonals of a parallelogram -------each other at a point	(a) intersect (b) don't intersect (c) trisect (d) none
243. In a parallelogram opposite sides are	(a)collinear (b) concurrent (c)congruent (d) non-collinear
244. A line has … end points	(a) one (b) two (c)three (d) no
245. Bisection means to divide into -----equal parts.	(a)one (b) two (c) three (d) six
246. The right bisectors of a sides of triangle are	(a)collinear (b) concurrent (c)congruent (d) non-congruent
247. The right bisectors of a sides of obtuse triangle intersect each other	(a)inside the triangle (b) on hypotenuse (c) outside the triangle (d) on vertex
248. Any point on the right bisector of a line segment is ------ from its end points.	(a) collinear (b)EQUIDISTANT (c) parallel (d) non equidistant
249. The right bisectors of a sides of an acute triangle intersect each other	(a) inside the triangle (b) on hypotenuse (c) outside the triangle (d) on vertex
250. Any point on the bisector of an angle is ---------from its arms	(a) congruent (b)EQUIDISTANT (c) parallel (d) non equidistant
251. Signs used for congruency are	(a) ≅ (b) ~ (c) ↔ (d) <
252.	(a) ASA postulate (b) SAS postulate (c)SSS postulate (d) AAA postulate
253. In congruency of two triangles if one side and two angles of a triangle are congruent to corresponding side and angles of other triangles are congruent by postulate.	(a) ASA postulate (b) SAS postulate (c)SSS postulate (d) AAA postulate
254. Sum of all interior angles of a triangle is	(a)90^o (b)150^o (c) 180^o (d) 360^o
255. How many right angles in triangles?	(a) one (b) two (c) three (d) four
256. Medians of a triangle are	(a) concurrent (b)non- concurrent (c) equidistant from the sides (d) equidistant from the angles
257. If two angles of a triangle are congruent then the sides opposite to them are	(a) congruent (b) non-congruent (c) equal (d) similar
258. If angle bisector of a triangle bisects the side opposite to it, the triangle is	(a) right angled (b) acute angled (c) obtuse angled (d) isosceles
259. Opposites sides of congruent angles of a triangle are	(a) congruent (b) non-congruent (c) parallel (d) similar

260. Medians of an equilateral triangle are…	(a) equal in measure (b) unequal in measure (c) congruent (d) parallel
261. Each diagonal of a parallelogram divides into	(a) two congruent triangles (b) two non-congruent triangles (c) three congruent triangles (d) three non-congruent triangles
262. If two opposite sides and angles of a quadrilateral are congruent then it is called	(a)rectangle (b)rhombus (c)trapezium (d) parallelogram
263. Right bisectors of the sides of a right angled triangle intersect each other	(a) inside the triangle (b) on hypotenuse (c) outside the triangle (d) none of these
264. The bisectors of angles of a triangle are.	(a) concurrent (b) non- concurrent (c) equidistant from its sides (d) equidistant from its angles
265. Symbol used for similarity is	(a) ≅ (b) ~ (c ↔ (d) :
266. Similar triangles are of same shape and….. sizes.	(a) same (b) different (c) both A and B (d) none of these
267. How many lines can be drawn through two points	(a) one (b) two (c) three (d) so many
268. Ratio has no:	(a) antecedent (b) consequent (c) order (d)unit
269. Similar triangles are	(a)collinear (b) parallel (c)congruent (d) non-congruent
270. The angle opposite to greater side is	(a) lesser (b) equal (c) greater (d)lesser or equal
271. Sum of two sides of triangle is…….than the third	(a) lesser (b) equal (c) greater (d)greater or equal
272. A distance between a line and a point on it is	(a) 1cm (b) double than line (c) zero (d) less than line
273. Perpendicular to line form an angle of	(a) 30^o (b) 45^o (c) 60^o (d) 90^o
274. In a right triangle greater angle is of	(a) 45^o (b) 60^o (c) 90^o (d) 120^o
275. In a right triangle, side opposite to right angle is called	(a) perpendicular (b) base (c) hypotenuse (d) vertex
276. If a, b, c are sides right triangle with 'c' as longer side, then	(a) $c^2 < a^2 + b^2$ (b) $c^2 = a^2 + b^2$ (c) $c^2 > a^2 + b^2$ (d) $c^2 \geq a^2 + b^2$
277. If hypotenuse of an isosceles right triangle is$\sqrt{2cm}$, then each of the other side is of length:	(a) 2cm (b) $\sqrt{2cm}$ (c) 4cm (d) 1cm
278. If $a^2+b^2 > c^2$, then the triangle is	(a)right triangle (b)acute triangle (c) obtuse triangle (d) none of these
279. Congruent triangles are of same shape and …… sizes.	(a) same (b) different (c) both A and B (d) none of these
280. If two sides of a triangle are unequal in length, the angle of the longer side opposite to it is of measure	(a) greater than others (b) lesser than others (c) equal (d) none of these
281. In a scalene triangle the angle opposite to the largest side is of measure	(a) less than 60° (b) equal to 60° (c) greater than 60° (d) greater than 180°
282. In an isosceles right angled triangle, angle other than right angle are each of	(a) 30^o (b) 45^o (c) 60^o (d) 75^o
283. How many obtuse angles in a triangle	(a) 2 (b) 3 (c) 1 (d) none of these

284. Which of the following sets form a triangle	(a) 2cm,3cm,5cm (b) 3cm,4cm,5cm (c) 2cm,3cm,6cm (d) 2cm,4cm,7cm
285. If 'a', 'b', and 'c' are the sides of right angled triangle and c is hypotenuse then according to the Pythagoras theorem	(a) $c^2 < a^2 + b^2$ (b) $c^2 = a^2 + b^2$ (c) $c^2 > a^2 + b^2$ (d) $c^2+a^2 = b^2$
286. If 'a', 'b', and 'c' are the sides of obtuse angled triangle then the value of hypotenuse c is	(a) $c^2 < a^2 + b^2$ (b) $c^2 = a^2 + b^2$ (c) $c^2 > a^2 + b^2$ (d) $c^2+a^2 = b^2$
287. Two sides of a triangle measure 10cm and 15cm, which of the following measure is possible for the third side	(a) 5cm (b) 20cm (c) 30cm (d) 25cm
288. If 3cm and 4cm are the two sides of a right angled triangle then the hypotenuse is	(a) 9cm (b) 8cm (c) 6cm (d) 5cm
289. Ratio between two elements a and b is represented as	(a) $a \times b$ (b) a+b (c) a-b (d) a:b
290. If Δ ABC and Δ DEF are two similar triangles, then symbolically they are written as	(a) Δ ABC ≅ Δ DEF (b) Δ ABC = Δ DEF (c) Δ ABC ~ Δ DEF (d) Δ ABC ↔ Δ DEF
291. Similar means that their corresponding angles are congruent and corresponding sides are	(a) Similar (b) parallel (c) proportional (d) equal
292. A line segment has mid points	(a) 1 (b) 2 (c) 3 (d) 4
293. If adjacent angles of two intersecting lines are congruent then lines are	(a) parallel to each other (b) not parallel to each other (c) perpendicular to each other (d) congruent to each other
294. Angle for the minimum distance of a point 'p' from the line segment AB will be	(a) m< PLA=180° (b) m< PLA=120° (c) m< PLA=90° (d) m< PLA=60°
295. A diagonal of a parallelogram divides it into --- congruent triangles.	(a) two (b)three (c) four (d) six
296. Similar figures have ---area.	(a) same (b) different (c) perpendicular (d) parallel
297. In a triangle, perpendicular from vertex to the opposite side is called	(a)base (b) hypotenuse (c)median (d) altitude
298. Congruent figures have --- area	(a) same (b) different (c) both A and B (d) none of these
299. The line segment joining a vertex of a triangle to the mid-point of its opposite side is called:	(a)right bisector (b)side bisector (c)median (d) altitude
300. The point of concurrency of the right bisectors of the three sides of the triangle is---from its vertices.	(a)collinear (b) parallel (c)equidistant (d) non- equidistant
301. The altitudes of a right triangles are concurrent at the---of right triangle.	(a)base (b) hypotenuse (c) perpendicular (d) vertex
302. The diagonal of a parallelogram-----each other.	(a) bisect (b)trisect (c) bisect at right angle (d)don't bisect

303. A point equidistant from the end points of a line segment on its:	(a)bisector (b)right bisector (c) perpendicular (d)median
304. The---altitudes of an isosceles triangle are concurrent.	(a) two (b) three (c)four (d) six
305. The medians of a triangle cut each other in the ratio:	(a)4:1 (b)3:1 (c)2:1 (d) 1:1
306. ---congruent triangles can be made by joining the mid-points of the sides of the triangle.	(a)three (b)four (c) five (d)two
307. On angle on the base of an isosceles triangle is 30^o. What is the measure of its vertical angle?	(a) 30^o (b) 60^o (c) 90^o (d) 120^o
308. The bisectors of three angles of a triangle are:	(a)collinear (b)congruent (c)concurrent (d)parallel
309. The side of right-angled triangle opposite to 90^O is called:	(a)base (b)perpendicular (c)altitude (d) hypotenuse
310. The region enclosed by the bounding lines of a closed figure is called:	(a) m (b) m^2 (c) m^3 (d) 2m
311. If the length and the width of a rectangle are *a* and *b*, then area of rectangle will be:	(a) a + b (b)a−*b* (c)a×b (d) a÷b
312. Two lines which are extended from both of its sides and they will never intersect are called:	(a)perpendicular lines (b) parallel lines (c) non-parallel lines (d)none of these
313. If one side of a parallelogram is taken as its base, the perpendicular distance between that side and the side parallel to it is called:	(a)base (b) hypotenuse (c)median (d) altitude
314. Perpendicular from vertex of triangle to the opposite side is called:	(a)base (b) hypotenuse (c)median (d) altitude
315. Area of parallelogram is equal to ----	(a) hypotenuse ×altitude (b)perpendicular× altitude (c) base × altitude (d) altitude × altitude
316. Basic parts of a triangle are_____:	(a) three (b) four (c) five (d) six
317. A quadrilateral having each angle equal to 90^o is called	(a) rectangle (b)parallelogram (c) trapezium (d)rhombus
318. The right bisectors of three sides of a triangle are	(a)congruent (b) collinear (c) concurrent (d) parallel
319. A triangle having two sides congruent is called:	(a) scalene (b) equilateral (c) right-angled (d) isosceles
320. If three or more lines pass through a single point then they are called	(a)collinear lines (b) non-collinear lines (c) collinear points (d) parallel lines
321. If three altitudes of a triangle are congruent, then the triangle will be:	(a) scalene (b) equilateral (c) right-angled (d) isosceles
322. If two medians of a triangle are congruent, then the triangle will be:	(a) scalene (b) equilateral (c) right-angled (d) isosceles

Mixed MCQ of Full book	
323. Point (0,1) lies on	(a) I quad (b) II quad (c) X-axis (d) Y-axis
324. Point (1,0) lies on	(a) I quad (b) II quad (c) X-axis (d) Y-axis
325. The -----of circle is on the right bisector of each of its chords.	(a) Chord (b) radius (c) center (d) sector
326. A line segment has … end points	(a) 1 (b) 2 (c) 3 (d) 4
327. If three points lies on same line then these points are called.	(a) collinear (b) non-collinear (c) parallel (d) opposite
328. Unit of ratio is ------	(a)sec (b) meter (c) Kg (d) no unit
329. Symbol ↔ stands for	(a)congruent (b) equal (c)similar (d) correspondence
330. One angle of a parallelogram is 55^0 .the remaining angles rae of measure	(a) $55^0, 45^0, 75^0$ (b) $55^0, 55^0, 110^0$ (c) $55^0, 75^0, 75^0$ (d) $55^0, 1`25^0, 125^0$
331. The point of concurrency of angle bisector of a triangle is called	(a)orthocenter (b)incenter (c) centroid (d)circum center
332. Right bisectors of the sides of a Acute angled triangle intersect each other	(a) inside the triangle (b) on hypotenuse (c) outside the triangle (d) none of these
333. The point of concurrency of median of a triangle is called	(a)orthocenter (b)incenter (c) centroid (d)circum center

334. H.C.F of $39x^7y^3$ and $91x^5y^6z^2$ is --------	(a)$13x^7y^6z^2$ (b) $13x^5y^3z$ (c) $91x^7y^6z^2$ (d) $91x^7y^6z^2$
335. Which of the following is the solution of the inequality $3 \leq 7+2x$?	(a)-8 (b) -4 (c) $\frac{10}{2}$ (d) -2
336. Mid-point of the points 337. (-4, 9) and (-4, -3) is----------	(a) $(-4,3)$ (b) $(-8,6)$ (c) $(0,-12)$ (d) $(-8,6)$
338. If a line segment intersect the two sides of a triangle in the same ratio then it is -----to the third side	(a) larger (b) similar (c) parallel (d) equal
339. The point of concurrency of the perpendicular bisector of the sides of a triangle is called its -----	(a)orthocenter (b)incenter (c) centroid (d)circum center
340. Area of triangle with base 16cm and altitude 10cm is	(a) $26cm^2$ (b) $160cm^2$ (c) $80cm^2$ (d) $2(10+16)cm^2$
341. ⊥ is the symbols of	(a) perpendicular (b)congruent ((c) parallel (d) equal
342. Congruent triangles are	(a) parallel (b) similar (c) different (d) none these
343. In a parallelogram congruent parts are	(a) opposite sides (b) opposite angles (c)diagonals (d) opposite sides & angles
344. Symbols for parallelogram is	(a) = (b) // (c) gm// (d) //gm
345. Any point inside an -------- equidistant from its arms is on the bisector of it.	(a)side (b) angle (c) triangle (d) cicle
346. If a:b=c:d then a , b ,c and d are said to be in	(a)proportion (b) Ratio (c) equal (d) unequal
347. The unit of area is -----real number	(a)negative (b) positive (c) neutral (d) negative & positive
348. In a -------- opposite sides are congruent.	(a) parallelogram (b) triangle (c) trapezium (d)none of these
349. The perpendicular bisectors of a sides of triangle are	(a)collinear (b) concurrent (c)congruent (d) non-congruent
350. In scientific notation 0.0643 is = ----------	(a) 6.43×10^{-2} (b) 64.3×10^{-2} (c) 64.3×10^{-1} (d) 6.43×10^{2}
1. Point (0,1) lies on	(a) I quad (b) II quad (c) X-axis (d) Y-axis
2. Point (1,0) lies on	(a) I quad (b) II quad (c) X-axis (d) Y-axis
3. The -----of circle is on the right bisector of each of its chords.	(a) Chord (b) radius (c) center (d) sector
4. A line segment has ... end points	(a) 1 (b) 2 (c) 3 (d) 4
5. If three points lies on same line then these points are called.	(a) collinear (b) non-collinear (c) parallel (d) opposite
6. Unit of ratio is ------	(a)sec (b) meter (c) Kg (d) no unit
7. Symbol ↔ stands for	(a)congruent (b) equal (c)similar (d) correspondence

8. Area of square of side 5cm Is ----	(a) 25 cm^2 (b) 5 cm^2 (c) 20 cm^2 (d)10 cm^2
9. ------None collinear points determine a plane.	(a) 1 (b) 2 (c) 3 (d) 4
10. If $\begin{bmatrix} 3 & -6 \\ 2 & x \end{bmatrix}$ is a singular matrix then x = ----------	(a) 3 (b) -4 (c) 3 (d) 4
11. Parallelogram on equal bases and having the altitude are -----in area	(a) un equal (b) equal (c) congruent (d) similar
12. The point of concurrency of three altitude of a triangle is called -----	(a)orthocenter (b)incenter (c) centroid (d)circum center
13. A triangular region is -----of triangle and its interior.	(a)compliment (b) intersection (c)union (d) outline
14. The hypotenuse of a right angle triangle is --- then each of the other two sides .	(a) double (b) half (c) longer (d) shorter
15. How many right angles have a parallelogram?	(a)4 (b) 2 (c) 1 (d) 0
16. Symbol "for all" is	(a) A (b) ∀ (c) ∃ (d) ∝
17. Mid-point of the points (8, 0) and (0, -12) is---------	(a) (-12,8) (b) (4, 0) (c) (4,-6) (d) (0,-6)
18. Which of the following is the solution of the inequality 9-7x ≤ 19-2x ?	(a) -2 (b) 2 (c)-7 (d) 19
19. The value of $(-i)^8$ is	(a) 1 (b) -1 (c) i (d) -i
20. Antilogarithm table was prepared by ------	(a)John Napier (b) Henry Briggs (c) Jobst Burgi (d) Arthur Calley
21. Artur Cayley introduced the "Theoy of Matrices "	(a)1854 (b)1856 (c) 1858 (d) 1860
22. The symbol used for line AB is	(a) $\overleftrightarrow{AB}$ (b) $\overline{AB}$ (c) $\overleftarrow{AB}$ (d) $\lvert AB \rvert$
23. Equality of two ratios is called	(a) ratio (b) proportion (c) congruent (d) equality
24. Bisection of an angle means to divide into -----equal parts	(a)one (b) two (c) three (d) six
25. Diagonals of a parallelogram divides parallelogram into ----congruent triangles.	(a) 1 (b) 2 (c) 3 (d)4
26. Obtuse angled triangle having ---- angle greater than 90^0	(a) 1 (b) 2 (c) 3 (d) none
27. The symbol used for line segment AB is	(a) $\overleftrightarrow{AB}$ (b) $\overline{AB}$ (c) $\overleftarrow{AB}$ (d) $\lvert AB \rvert$
28. The symbol used for ray AB is	(a) $\overleftrightarrow{AB}$ (b) $\overline{AB}$ (c) $\overleftarrow{AB}$ (d) $\lvert AB \rvert$
29. The distance between a line and a point on it ----	(a) double (b) half (c) zero (d) equal
30. What will be added to complete the square of x^4+64?	(a) $8x^2$ (b)$-8x^2$ (c) $16x^2$ (d) $4x^2$
31. In exponential form $\sqrt[7]{x}$ = ---	(a) x (b) x^7 (c) $(x)^{\frac{1}{7}}$ (d) $(x)^{\frac{7}{2}}$
32. A triangular -----is the union of a triangle and its interior.	(a) region (b) interior (c) exterior (d) Area
33. Which set has closure property with respect to addition	(a){0} (b){0 , 1} (c) {0 , -1} (d){1 , $\frac{1}{2}$}
34. A parallelogram has ----vertices.	(a) 3 (b) 2 (c) 4 (d)1
35. A line segment has ... mid points	(a) 3 (b) 2 (c) 4 (d)1

36. The idea of Matrices is given by	(a)John Napier (b) Henry Briggs (c) Al- khawarzmi (d) Arthur Calley
37. The characteristics of 5.79	(a) 1 (b) 0 (c) -1 (d) -2
38. The number of methods to determine HCF are	(a) 3 (b) 2 (c) 4 (d)1
39. Right bisection of ----- mean to draw a perpendicular which passes through the mid-point of line segment.	(a) Line (b) ray (c) line segment (d) angle
40. In a triangle there can be ---- right angle.	(a) 3 (b) 2 (c) 4 (d)1
41. If three altitude of triangle are congruent. then the triangle is	(a) Equilateral (b) right angled (c) isosceles (d) acute angled
42. Diagonals of a rectangle are ----	(a)Congruent (b) equal (c) parallel (d) concurrent
43. Area of ------= base ×altitude	(a) triangle (b) square (c) parallelogram (d) rectangle
44. Area of ------= side ×side	(a) triangle (b) square (c) parallelogram (d) rectangle
45. Area of ------= length ×breadth	(a) triangle (b) square (c) parallelogram (d) rectangle
46. Area of ------= $\frac{1}{2}$ base ×altitude	(a) triangle (b) square (c) parallelogram (d) rectangle
47. An expression in the variable "x" is	(a)Algebraic expression (b) polynomial expression (c)rational expression (d) irrational expression
48. A square matrix "M" is called to skew symmetric matrix if	(a) $M^t = M$ (b) $M^t = \frac{1}{M}$ (c) $M^t = -M$ (d) $M^t = \bar{M}$
49. Medians of a triangle are----	(a) 1 (b) 2 (c) 4 (d) 3
50. The region enclosed by the bounding lines of a closed figure is called:	(a)Volume (b) Area (c) Surface Area (d) Density
51. Symbol used for approximately is ------	(a) ≅ (b) ~ (c ↔ (d) ≈