Paper Code - 3055

B B A Sem – I (Old Course)
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BBA 105: Business Mathematics I

કુલ સમય :– ૬૦ મીનીટ કુલ પ્રશ્નો : ૫૦ વિદ્યાર્થીએ ટીક કરવાના પ્રશ્નો : ૩૫

નોંધ : વિદ્યાર્થીએ માત્ર ૩૫ પ્રશ્નો જ ટીક કરવાના રહેશે. જો વધારે ટીક કરેલ હશે તો પ્રથમ ૩૫ પ્રશ્નો જ ગણતરીમાં લેવામાં આવશે.

1.The number of subsets of the set {2, 3, 5} is
A. 3 B.8 C.6 D.None of above

2.The number of subsets of a set containing n elements is
A. 2^n B.2^{-n} C.n D.None of these

3.The set of cubes of the natural number is
A. A finite set, B.A finite set, C.A null set D.None of these

4.A∪ A is equal to
A. A B.E C.Φ D.None of these

5.The domain and range of {(x, y) : Y = x^2} is
A. (reals, natural numbers) B.(reals, positive reals) C.(reals, reals) D.none of these

6.If f(x) = 1/1–x, f(–1) is
A. 0 B.½ C.2 D.None of these

7.The function f(x) = 2^x is
A. one-one mapping B.one-many C.many-one D.none of these

8.Let A = {a, b}. Set of subsets of A is called power set of A denoted by P(A). Now n(P(A)) is
A. 2 B.4 C.3 D.None of these

9."Is equal to" over the set of all rational numbers is
A. (T) B.(S) C.(R) D.All of above

10."has the same father as" …… over the set of children
A. R B.S C.T D.All of above

11.In a group of 20 children, 8 drink tea but not coffee and 13 like tea. The number of children drinking coffee but not tea is
A. 6 B.7 C.1 D.None of these

12.The number of subsets of the sets {6, 8, 11} is
A. 9 B.6 C.8 D.None of these

13.If the set P has 3 elements, Q four and R two then the set P×Q×R contains
A. 9 elements B.20 elements C.24 elements D.None of these

14.Given A = {2, 3}, B = {4, 5}, C = {5, 6} then A × (B ∩ C) is
A. {(2, 5), (3, 5)} B.{(5, 2), (5, 3)} C.{(2, 3), (5, 5)} D.None of these

15.If f(x) = $2x^2$ + 5x - 7, f(0) is
A. 0 B.7 C.2 D.-7

16.If all the element of a matrix are zero, it is said to be a
A. Null matrix B.Zero Matrix C.(A) and (B) both D.None of above

17.A matrix in which number of rows and number of column are equal is said to be
A. Null matrix B.Diagonal Matrix C.Square matrix D.None of above

18.In Skew symmetric matrix, all diagonal elements are
A. Equal B.Zero C.(A) and (B) both D.None of above

19.$\begin{bmatrix}0 & 0\\0 & 0\end{bmatrix}$ is a _____ matrix?
A. Square matrix B.Null matrix C.Symmetric matrix D.All of above

20.$\begin{bmatrix}1 & 0\\0 & 1\end{bmatrix}$ is a _____ matrix?
A. Square matrix B.Unit matrix C.Symmetric matrix D.All of above

21.$\begin{bmatrix}0 & -1\\1 & 0\end{bmatrix}$ is a _____ matrix?
A. Skew symmetric matrix B.Null matrix C.Symmetric matrix D.All of above

22.Transpose of matrix $\begin{bmatrix}5 & 0\\1 & 3\end{bmatrix}$ is
A. $\begin{matrix}5 & 1\\0 & 3\end{matrix}$ B.$\begin{matrix}5 & 0\\1 & 1\end{matrix}$ C.$\begin{matrix}5 & 0\\1 & 3\end{matrix}$ D.None of above

23.Sum of matrix $\begin{bmatrix}5 & 0\\1 & 3\end{bmatrix}$ and $\begin{bmatrix}3 & 2\\-1 & 3\end{bmatrix}$ is
A. $\begin{bmatrix}5 & 0\\1 & 3\end{bmatrix}$ B.$\begin{bmatrix}5 & 2\\1 & 6\end{bmatrix}$ C.$\begin{bmatrix}8 & 2\\1 & 6\end{bmatrix}$ D.None of above

24.Addition and subtraction of two or more matrices is possible only when there are of the _____ order.
A. Same B.Different C.Diversify D.None of above

25.If matrix A of size 2X3 multiply with matrix B of size 3X2, then resultant matrix AB is of size _____.
A. 2X2 B.3X3 C.2X3 D.3X2

26. $\lim_{X\to 0} f(x)$, when f(x) = 6 is
A. 6 B.0 C.1/6 D.None of these

27. $\lim_{X\to 2}(5x+2)$, is
A. 5 B.12 C.2 D.0

28. $\lim_{X\to 1}(\frac{x^2-1}{x-1})$, is
A. 1 B.0 C.2 D.None of above

29. $\lim_{X\to 0}(\frac{x^2+1}{x-1})$, is
A. 1 B.-1 C.0 D.None of above

30. $\lim_{X\to -1}(\frac{x^2+1}{2})$, is
A. 2 B.1 C.-1 D.0

31. $\lim_{X\to 5}(\frac{x^2+1}{2})$, is
A. 10 B.11 C.12 D.13

32. $\lim_{X\to 0}(5x^2-2x+1)$, is
A. 5 B.-2 C.1 D.10

33. $\lim_{X\to 2}(5x+10)/5$, is
A. 4 B.5 C.10 D.2

34. $\lim_{X\to 0}\left(\frac{a^2+1}{2}\right)x$, is
A. X B.A C.0 D.1

35. $\lim_{X\to 1}\left(\frac{5+x}{2}\right)10x$, is
A. 10 B.20 C.30 D.40

36.Slope of the line pass through points (4,5) and (6,2) is
A. 3/2 B.-3/2 C.2/3 D.-2/3

37.Equation of line through the points (2,5) and (6,5) is
A. *x=5* *B.y=5* *C.x=2* *D.y=6*

38.Equation of line through the points (4,1) and (4,5) is
A. *x=4* *B.y=5* *C.x=1* *D.y=4*

39.Equation of the line with slope 3 and y-intercept (-2) is
A. y=3x+2 B. y=3x-2 C.y=2x+3 D.y=2x-3

40.The line 3kx+5y+k=0 passes through the point (-1,4). Value of k is
A. 5 B.0 C.4 D.10

41.A straight line makes intercepts 3 and -5 on x and y axis respectively, its equation is
A. 5x-3y=15 B.5x+3y=15 C.3x+5y=15 D.3x-5y=15

42.Slopes of two parallel lines are
A. 0 B.1 C.Equal D.Cannot determine

43.Multiplication of slope of two perpendicular lines are
A. 0 B.-1 C.1 D.Cannot determine

44.Slope of 2x + y – 15 = 0 is
A. 2 B.½ C.-2 D.-1

45.Slope parallel line of 2x + y – 15 = 0 is
A. 2 B.-2 C.1 D.-1

46.Slope perpendicular line of 2x - y = 0 is
A. 2 B.-1/2 C.½ D.1

47.The line $x + y = 1$, x any y intercept of lines are
A. 1,1 B.-1,-1 C.-1,1 D.1,-1

48.The line $x + y = 5$, x any y intercept of lines are
A. 1,1 B.5,5 C.-5,1 D.1,5

49.Slope of line y=7x+c is
A. 7 B.-7 C.C D.X

50.Y-intercept of line y = -10x+9 is
A. -10 B.10 C.-9 D.9