DGK-11-19

11th CLASS – 12019

BUSINESS MATHEMATICS

TIME: 15 MINUTES
MARKS: 10

OBJECTIVE

NOTE: You have four choices for each objective type question as A , B , C and D . The choice which you think is correct , fill that circle in front of that question number. Use marker or pen to fill the circles. Cutting or filling two or more circles will result in zero mark in that question.

QUESTION NO. 1

Sr.No	QUESTIONS	(A)	(B)	(C)	(D)
1	Reduced form of 27:54 is	2:1	3:4	3:1	1:2
2	25 is what percentage of 500 ?	20%	15%	5%	10%
3	Simple interest on Rs. 1600 @ 5% annually in 2 years is	Rs.160	Rs.100	Rs.200	Rs.80
4	Sum of annuity is called	Present value	Future value	Current value	Compound amount
5	Degree of a Linear Equation is	Three	Two	One	Zero
6	Solution set of $x^2 - 49 = 0$ is	{3,-3}	{5,-5}	{6,-6}	{7,-7}
7	If $2x + y = 3$ & $x + 5y = 6$ then	$x = 0, y = 3$	$x = 4, y = 1$	$x = 2, y = 0$	$x = 1, y = 1$
8	If $f(x) = x^2 + 3$, then f is	Old function	Even function	Constant function	Identity function
9	A square matrix is symmetric if $A^t =$	A^2	A^3	-A	A.
10	In the binary system 5 is	$(11)_2$	$(100)_2$	$(101)_2$	$(110)_2$

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D

DGK-11-19

11 CLASS - 12019

BUSINESS MATHEMATICS

TIME : 1.45 HOURS
MARKS : 40

SUBJECTIVE

SECTION-I

QUESTION NO. 2 Write short answers any Six (6) questions of the following **12**

(1) Find the ratio between one hour and 30 minutes.
(2) Find x if $x : \frac{1}{4} = 12 : 3$
(3) Find 55% of 800
(4) 670.8 is what percentage of 1300.
(5) Find simple interest on Rs. 7000/= for 5 years at rate of 11% p.a.
(6) Define compound interest.
(7) Define annuity.
(8) Solve $3x - 3 = 6$
(9) Solve $9x + 4 = 4x + 29$

QUESTION NO. 3 Write short answers any Six (6) questions of the following **12**

(1) Solve $x^2 - x - 6 = 0$ by factorization:
(2) Write the names of the methods used to solve Quadratic Equation.
(3) Solve $x + y = 8$, $x - y = 4$
(4) If $g(x) = 2x + 1$ then find g(0) and g(-3)
(5) Define odd function.
(6) Define Rectangular matrix.
(7) Find the ad-joint of the matrix $\begin{bmatrix} -1 & -2 \\ 3 & 4 \end{bmatrix}$
(8) Add $(101)_2 + (111)_2$ in binary number system.
(9) Convert $(15)_{10}$ into binary number system

SECTION-II

Note: Attempt any Two questions from this section **8 x 2 = 16**

Q.4. (a) 15 men can finish a job in 8 days, How many men are required to do the same job in 5 days .
(b) Find the compound interest on Rs 2500 invested at 6 % per annum for 3 years.

Q.5. (a) Solve for x. $\frac{5x+4}{3x+2} = \frac{3}{5}$
(b) Solve the equations $x + y = 2$ and $2x - y = 7$

Q. 6. (a) Simplify the following $\{(10111011)_2 - (101110)_2\} + (10000000)_2$

(b) Solve the equation by using the inversion method $4x_1 + 3x_2 = 5$
$3x_1 + x_2 = 7$