

MODEL PAPER "BUSINESS MATHEMATICS"**Intermediate Part-I Examination, 2007****(Academic Session 2006-08)****SUBJECTIVE**

Time: 1:45Hours

Marks: 40

Note: - Attempt any TWELVE (12) questions from Section -I and any TWO questions from Section-II

SECTION -I

Q.No.2. Attempt any TWELVE (12) questions.

(12x2)=24

- (i) Write the names of different types of proportion.
- (ii) 35 is what percent of 175
- (iii) If $A:B = 2:5$ & $B:C = 10:15$ find $A : B : C$
- (iv) Write the formula for compound interest.
- (v) Define annuity due.
- (vi) Define term of the annuity.
- (vii) Differentiate between even and odd function.
- (viii) Find x & y intercepts of the equation $y = 5x + 9$
- (ix) If $y = 21 - 9x$, then find y if $x = 9.1$
- (x) Define degree of an equation.
- (xi) 12 times a no is 240, what is the no?
- (xii) Write two consecutive integers where sum is 41
- (xiii) Define a matrix
- (xiv) What is a zero matrix?

(xv) Find the value of x if $\begin{bmatrix} 2 & 1 \\ 3 & x \end{bmatrix}$ is singular.

(xvi) Convert $(10001)_2$ to base 10

(xvii) Convert $(73)_{10}$ to binary system.

(xviii) Simplify $(101)_2 \times (1101)_2$

SECTION -II

Note: - Attempt any TWO questions.

2x8= 16

Q.No3. (a) 14 cows consume 630 kgs of hay in 18 days. How many cows will eat 770 kgs of hay in 28 days at the same rate.

(b) At what rate Rs. 5000 double that in 5 years at compound interest?

Q.No4. (a) Draw the graph of $y = 3x - 5$

(b) Solve the equation $x^{2/3} - 2x^{1/3} = 8$

Q.No5. (a) If $A = \begin{bmatrix} 4 & 9 \\ 7 & 8 \end{bmatrix}$ then find A^{-1} and prove that $A^{-1} A = I_2$

(b) Evaluate $(1111)_2 \times (11111)_2$