



UTTARAKHAND OPEN UNIVERSITY, HALDWANI (NAINITAL)

उत्तराखण्ड मुक्त विश्वविद्यालय, हल्द्वानी (नैनीताल)

BBA 1ST Semester Assignment

Last date of Submission- 15 January 2011.

Programme Name-BBA-First Semester

Programme Code-BBA-10

Course Name-BUSINESS MATHAMETICS

Course Code:BBA-102

Section - A

Section 'A' contains 08 short answer type questions of 5 marks each. Students are required to answers 4 questions only. Answers of short answer-type questions must be restricted to 250 words approximately.

Briefly discuss the following (Q1- Q5) :

Q1. Business mathematics is a better tool for managers.

Q2. Differentiability of a function and consider an example to illustrate its differentiability.

Q3. Differentiation and it's applications in business?

Q4. Permutation and Combination and how it can be utilised in organisational activities.

Q5. Different types of Matrices.

Q6. Create sets of your neighbours in different standards (class) and apply operations like Union, Intersection, and Subsets in those sets.

Q7. Using Venn diagrams prove that if A, B and C are three sets then

$A \cup (B \cap C) = (A \cup B) \cap (A \cup C)$. Also provide an example in support of that.

Q8. If $\log 2 = 0.3010$ and $\log 3 = 0.4771$, find $\log 16^{1/5} \times 5^2 / 108^2$.

Section - B

Section 'B' contains 04 long answer-type questions of 10 marks each. Students are required to answers 02 questions only.

Q1. Two bags A and B contain 4 white 3 black balls and 2 white and 2 black balls respectively. From bag A two balls are transferred to bag B. Find the probability of drawing

a) 2 white balls from bag B?

- b) 2 black balls from bag B?
- c) 1 white & 1 black ball from bag B?

Q2. Prove that the sum of finite number of quantities in an Arithmetical Progression is $S_n = n/2 [2a_1 + (n-1) d]$. Also provide some examples in support of it and explain its uses in managerial decision making.

Q3. Describe Total and Marginal cost principal, derive the relationship between average and marginal costs using differentiation. Explain how differentiation and integration can be utilised by managers in 'Planning' function.

Q4. Describe Matrix and Determinants in detail. Also, explain types of matrices and properties of determinants. How would you determine that the given square matrix is of order one, order two or order three.

