

MCSL-216 (Set-1)
MASTER OF COMPUTER APPLICATIONS
(MCA-NEW)
DAA and Web Design Lab

Duration : 2 hours

Maximum Marks : 50

Note: 1. This question paper comprises of two Compulsory Questions, each of 20 marks.

2. Rest 10 marks are for viva-voce.

1. (a) Implement Fractional Knapsack algorithm and find out optimal result for the problem instance given below: 10

$$(P_1, P_2, P_3, P_4, P_5) = (20, 30, 40, 32, 55)$$

$$(W_1, W_2, W_3, W_4, W_5) = (5, 8, 10, 12, 15)$$

Given Maximum Knapsack capacity = 20

(b) Implement multiplication of two matrices $A[4, 4]$ and $B[4, 4]$ and calculate following: 10

(i) How many times the innermost and the outermost loop will run?

(ii) Total number of multiplication and additions in computing the multiplication of given matrices.

2. Design a form for booking room through a Hotel website. The form should have relevant fields (make suitable assumptions). Further, the form should have Submit and Reset button. Now, perform following: 20

- (a) Use java script to validate all the fields in the form.
- (b) Submit button should enter the data of fields in the database.
- (c) Error message should be shown if text field is left blank.
- (d) Reset button should reset all the fields to blank.
