

No. of Printed Pages : 2 **MCSL-216(Set-I)**

**MASTER OF COMPUTER
APPLICATIONS (MCA-NEW)
Term-End Practical Examination
December, 2024**

MCSL-216(Set-I) : DAA & WEB DESIGN LAB

Time : 2 Hours

Maximum Marks : 50

Note : (i) *This question paper comprises of two compulsory questions, each of 20 marks.*

(ii) *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 merge sort algorithm to sort the following list of numbers : 10

200, 150, 50, 100, 25, 75, 10, 5

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 the following :

$$5+5+5+5=20$$

- (a) Use JavaScript to validate all the fields in the form.
- (b) Submit button should enter the data of the 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.

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