



A-1317

M.Sc. (Computer Application (Sem. I) Examination
March / April – 2015
101 : Advanced Data Structure
(Old & New Course)

Time : 3 Hours]

[Total Marks : 70

Instruction :

नीचे दशांकेव निशानीवाणी विगतो उत्तरवडी पर अवश्य क्षपवी.
Fillup strictly the details of signs on your answer book.

Name of the Examination :
M.SC. (COMPUTER APPLICATION (SEM. I))

Name of the Subject :
101 : ADVANCED DATA STRUCTURE

Subject Code No. : 1 3 1 7 Section No. (1, 2.....): Nil

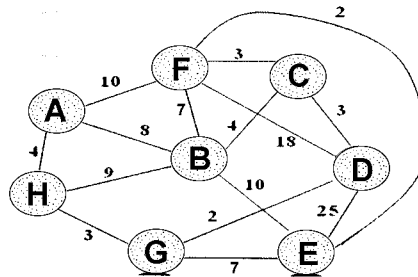
Seat No. :

Student's Signature

- 1 Do as directed. 14
(a) Write the Huffman coding for the following sentence : 6
There was cat in the house.

OR

- (a) What is an AVL tree? Explain how to construct an 6
AVL tree, taking proper example.
(b) Explain Shortest Path Algorithm giving suitable example . 6
(c) Explain the importance of hashing.. 2
- 2 Do as directed. 14
(a) Explain Depth First Traversal in graph with an example. 6
(b) Implement Krushkal Algorithm for the following graph 6



OR

- (b) Explain Prim' s Algorithm with suitable example. 6
(c) Define Directed Acyclic Graph 2

3	Do as directed.	14
	(a) Explain Mark and Sweep Garbage Collection in detail.	6
	(b) Explain Branch and Bound with proper example .	6
	OR	
	(b) Explain Topological algorithm giving suitable example.	6
	(c) Define garbage collection	2
4	Do as directed.	14
	(a) Write the algorithm for Divide and Conquer.	6
	(b) What is Brute Force algorithm? State its advantages and disadvantages, if any.	6
	OR	
	(b) Discuss the application of heaps. Explain what are Binomial Queues.	6
	(c) Explain cyclic and acyclic graphs	2
5	Do as directed.	14
	(a) Discuss Binary, Leftist, Binomial Queues.	6
	(b) Write a note on binary tree traversals.	6
	(c) Define abstract hash table.	2
