

Model Paper – 2
Hi-Tech Institute of Engineering & Technology
B.C.A. Examination
(Semester-3rd) Odd Semester
Data Structure Using C and C++
(BCA-302)

Time: 3 Hours

Maximum Marks: 75

Faculty Name: Mr. Shivam Singh Rana

Note: Attempt questions from all sections as per instructions.

Section – A

Note: Attempt all questions.

5 x 3 = 15

1. What is 2D Array?
2. What is linked list? Explain it.
3. Explain B Tree?
4. What do you mean by hashing?
5. What is priority queues?

Section – B

Note: Attempt any two questions.

2 x 7.5 = 15

6. Explain Heap sort with suitable example.
7. What is Linked list. And also explain how to insert and delete an element in linked list?
8. Define and explain the 'Stack' data structure?

Section – C

Note: Attempt any three questions.

3 x 15 = 45

9. (a) What is Hashing. Explain Different type of hashing techniques?
(b) What is Binary tree. How will you search in Binary Tree?
10. What is tree. And also explain the terminology of tree?
11. a) Convert expression into prefix.
 $R/D-X*(G/E*(A+B)+D-E*(Y-F))+S*J$
b) Explain the method of deletion in Single linked list?
12. a) Perform a quick sort algorithm on given data. (66,35,48,55,62,77,25,38,18,40,30,20)
b) Create a heap tree. (95,13,12,71,96,10,62,43,35,38)
13. Describe sorting technique. And also explain its types?