

Summer-2026, Quiz-1, SE 131 - Data Structure, Section-b, Time-20 min, Marks-15, Date: 15-June-26

1. Suppose you have an array of characters: {'a', 'b', 'c', 'd', 'e', 'f', 'g', 'h'}. Apply binary search to find the character 'k'. Show the middles and write the corresponding C code. 4+4= 8
2. If you need to insert "k", in the array given in question number 1 then write down the basic part of the code for array insertion. 4
3. Suppose you have an array with some elements such as 50, 20, 10, 55, 5, 33. Apply bubble to to sort the data in ascending order. 3

Quiz-2, Data Structure, Date: 07-07-2026, Section-B, Summer- 2026, Time: 30 Mins

1. Suppose you have a data set with some elements, X, X, Y, Y, Z. You need to preserve the data in a linked list. If the memory contains only: 111,222,333,444,555,666 memory cells available then

- A. Construct the linked list.
- B. After construction, insert two elements A and B as first and last elements. Draw the linked list.
- C. After insertion delete one element Z and draw the linked list.
- D. Write the C program (four lines) to create a new node and assign the integer values for two different nodes for a linked list.

[marks: 2+2+2+2]

2. Suppose inside an STACK, size-3, there are some elements: A, B, C. Show the outputs of the following operation:

A. Draw the following:

- i. Push X,Y
- ii. POP 3 elements
- iii. POP 2 elements
- iv. Push M, I, N, A, P

B. Write the basic part of the code for a STACK delete Operation

[marks: 4+3]

Quiz-3, Data Structure, Date: 21-July-2026, Section-B , Summer - 2026, Time: 20 Mins

1. Suppose you have a data set with elements: A, B, C, D. You need to store them in a Cercular linked list with sentinel value. If memory cells available are: M1, M2, M3, M4, M5 then construct the linked list. After construction, insert two elements E and F as first and last elements. Draw the linked list. After that delete one element A and draw the linked list. [marks: 3+3+2]
2. Explain Double ended Queue with example. [marks:4]
3. If you have a queue of size 6 and perform the following operations, draw the result after each step: [marks: 3]
 - I. Insert 5 elements: A, B, C, D, E
 - II. Insert 2 elements: F, G
 - III. Delete 7 elements