

SAVITIBAI PHULE UNIVERSITY OF PUNE
S. Y. B.Sc. (Computer Science) Semester III
Practical Examination
SUBJECT: CS-233 Practical course based on CS231
Time: 3 hours Max. Marks: 35

Q1. Read the 'n' numbers from user and sort using bubble sort. [10]

Q2. Write a program to reverse the elements of a queue using queue library.
Implement basic queue operations init, enqueue, dequeue. [20]

Q3. Viva [5]

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Q1. Create a random array of n integers. Accept a value x from user and use linear search algorithm to check whether the number is present in the array or not and output the position if the number is present. [10]

Q2. Implement a priority queue library (PriorityQ.h) of integers using a static implementation of the queue and implement the below two operations.

- 1) Add an element with its priority into the queue.
- 2) Delete an element from queue according to its priority. [20]

Q3. Viva [5]

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Q1. Implement a linear queue library (st_queue.h) of integers using a static implementation of the queue and implementing the init(Q), add(Q) and peek(Q) operations. Write a program that includes queue library and calls different queue operations [10]

Q2. Read the data from the file “employee.txt” and sort on names in alphabetical order (use strcmp) using bubble sort or selection sort. [20]

Q3 Viva [5]

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Q1. Read the data from file 'cities.txt' containing names of cities and their STD codes. Accept a name of the city from user and use linear search algorithm to check whether the name is present in the file and output the STD code, otherwise output “city not in the list”. [10]

Q2. Implement a circular queue library (cir_queue.h) of integers using a dynamic (circular linked list) implementation of the queue and implementing init(Q), AddQueue(Q) and DeleteQueue(Q) operations. Write a menu driven program that includes queue library and calls different queue operations. [20]

Q3 Viva [5]

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Q1. Implement a linear queue library (st_queue.h) of integers using a static implementation of the queue and implementing the operations like init (Q), AddQueue(Q, x) and X=DeleteQueue(Q). Write a program that includes queue library and calls different queue operations. [10]

Q2. Read the data from file 'cities.txt' containing names of cities and their STD codes. Accept a name of the city from user and use sentinel linear search algorithm to check whether the name is present in the file and output the STD code, otherwise output “city not in the list”. [20]

Q3. Viva [5]