



RAN-2411000903022001

B.C.A. (NCF-NEP) (Sem.-III) Examination November - 2025 Object Oriented Programming And Data Structures (TH) (MJ2-304)

Time: 1 Hour]

[Total Marks: 25

સૂચના : / Instructions

- (1) ઉપરોક્ત દર્શાવેલ વિગતો ઉત્તરવહી પર અવશ્ય લખવી.
Fill up strictly the above details on your answer book
- (2) All questions are compulsory.
- (3) Figure to the right indicate full marks.
- (4) Mention your options clearly.

Seat No.:

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Student's Signature

Q.1. A. Answer the following (any 4)

4

1. Which of the following is not a built-in data type
 - a. int
 - b. char
 - c. enum
 - d. void
2. One base class may be inherited by more than one child class is called
 - a. Single Inheritance
 - b. Multiple Inheritance
 - c. Multilevel Inheritance
 - d. Hierarchical Inheritance
3. A function with the same name and same signature in both the base class and derived class is known as:
 - a. Overloading
 - b. Overriding
 - c. Friend
 - d. Null
4. A sub class of linear data structure in which elements can be inserted or deleted from only one end is called :
 - a. Stack
 - b. FIFO List
 - c. Push-Down list
 - d. all
5. If F= R in a circular queue, how many elements are there in the queue?
 - a. only 1
 - b. 0
 - c. 2
 - d. 3

Q.1. B. Answer the following in short (any 4)

4

1. List various library header files required for C++.
2. Which access specifier is used when members need to be inherited but not publicly accessible?
3. What is a friend function in C++?
4. Convert expression $A*B+C/D$ into postfix.
5. What is the overflow condition of queue?

Q.2. A. Write an algorithm to insert an element into circular queue.

5

OR

Write an algorithm to delete an element from circular queue.

- Q.2. B.** Explain virtual function and pure virtual function **4**
- Q.3. Answer the following (any 2)** **8**
1. Explain class and object with an example.
 2. Explain conversion from infix to postfix expression
 3. Explain Multiple-inheritance with example
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