

3E1139

Roll No. _____

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B. Tech. III - Sem. (Back) Exam., February - 2023

Computer Science & Engineering

3CS4 – 06 Object Oriented Programming

Common For CS, IT

Time: 3 Hours

Maximum Marks: 120

Min. Passing Marks: 42

Instructions to Candidates:

Attempt all ten questions from Part A, five questions out of seven questions from Part B and four questions out of five from Part C.

Schematic diagrams must be shown wherever necessary. Any data you feel missing may suitably be assumed and stated clearly. Units of quantities used /calculated must be stated clearly.

*Use of following supporting material is permitted during examination.
(Mentioned in form No. 205)*

1. NIL

2. NIL

PART – A

(Answer should be given up to 25 words only)

[10×2=20]

All questions are compulsory

Q.1 What is class?

Q.2 What is constructor?

Q.3 What is the use of friend function?

Q.4 What do you mean by object oriented Programming?

Q.5 Explain the syntax of inline function.

Q.6 What is abstract class?

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- Q.7 What is Polymorphism?
Q.8 What are access specifies in C++?
Q.9 What is the use of new operator?
Q.10 What is file?

PART – B

(Analytical/Problem solving questions)

[5×8=40]

Attempt any five questions

- Q.1 Design a class having member functions inside and outside class. Also explain object creation and execution in detail.
Q.2 Write a program in C++ that display following pattern on the screen -

```
      *
    * * *
  * * * * *
* * * * * * *
  * * * * *
    * * *
      *
```

- Q.3 What is template? Explain with a suitable example.
Q.4 Explain function overloading in detail.
Q.5 Explain the types of constructor with a suitable example.
Q.6 Write short notes on the following -
 (a) Pure virtual function
 (b) Dynamic binding
Q.7 Explain the difference between C and C++ in detail.

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PART – C

(Descriptive/Analytical/Problem Solving/Design Questions) [4×15=60]

Attempt any four questions

- Q.1 What is inheritance? Explain its types with suitable example.
- Q.2 What is exception handling? What are the different keywords used to handle the exception in a program?
- Q.3 What is virtual base class? Also explain function overriding in detail.
- Q.4 Write a program to explain the concept of operator overloading.
- Q.5 What do you mean by file handling? Explain different modes for file handling. Also explain at least 5 file handling functions with a suitable example.
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