

University Institute of Engineering & Technology

(Recognised Under Section 2(f) and 12B of UGC)

Kurukshetra University, Kurukshetra

TIME – 3 Hrs 15 Min

THEORY EXAMINATION – FEB 2021

B.TECH - CSE

SEMESTER - III

M.M. - 56

PAPER - PC-CS-203

SUBJECT- OBJECT ORIENTED PROGRAMMING

INSTRUCTIONS TO BE FOLLOWED

- Allotted time for examination is 3 hours 15 minutes that includes time for downloading the question paper, writing answers, scanning of answer sheets and E-mailing the PDF files to the designated Email ID.
- For CSE-A Regular Students, the Email ID is:- btech3rdcsea@kuk.ac.in
- For CSE-B Regular Students, the Email ID is:- btech3rdcseb@kuk.ac.in
- The candidates will be required to attempt 75% of the question paper (maximum) by choosing to their any best questions accumulating 56 marks.
- The PDF files should be saved as Roll No. and Subject Code. Proper attention should be given while sending the email and in the subject line, the Roll Number and Subject Code should be mentioned.
- Maximum Page Limit should be 20 (Twenty) for attempting the question paper on A4 sheets which could be downloaded and printed from the sample sheets given in the Kurukshetra University Examination guidelines.
- Over-attemptation should be avoided.
- Handwriting should be neat and clean and diagrams should be clear and contrasted.
- The candidate should not write their Mobile No. otherwise Unfair Means Case will be made.
- While attempting the paper, the candidate will use blue/black pen only.
- Before attempting the paper, the candidate will ensure that he/she has downloaded the correct question paper. No complaint for attempting wrong question paper by the candidate will be entertained.
- Candidate must ensure that he/she has put his/her signature on each page of the answer sheet used by him/her. Answer sheet without the signature of the candidate will not be evaluated.

PART-A

Q. No. – 1 Answer the following questions.

15x1=15

(i)	Define abstract classes.
(ii)	What are function templates?
(iii)	List various Arithmetic Operators in C++?
(iv)	Define the Extraction and Insertion operators in C++?
(v)	Define Default Parameters.
(vi)	Differentiate Structures and classes in C++.
(vii)	List applications of object oriented programming languages.
(viii)	Differentiate function overloading and function overriding.
(ix)	Define stream manipulators .List some stream manipulators.
(x)	Why this pointer is used.
(xi)	Define exceptions. Also write keywords used in exception handling.
(xii)	Define virtual destructors.
(xiii)	Write syntax for copy constructor.
(xiv)	Define friend function and also write syntax for friend function.
(xv)	What is the role of the Static keyword for a class member variable?

PART-B

2	Write a program to explain concept of classes and objects with suitable example.	5
3	Define static class members. How they are used in static member functions? Explain with suitable Example.	5
4	Write a program in C++ to explain Operator overloading.	5
5	Define Exception Handling and also write mechanism for exception Handling.	5

PART-C

6	Define class and object. Write a program to create a class Customer with data members : name, age and account number and balance and also use suitable member functions to explain working of class Customer.	10
7	Define objected oriented programming. Discuss features of object oriented programming. Also write a Program in C++ to implement concept of polymorphism.	10
8	Define Constructor and destructor. Discuss various types of constructors with suitable Program.	10
9	Define Inheritance. Write a program to implement various types of Inheritance.	10
10	What do you mean by operator overloading? What are various restrictions in operator Overloading. Write a Program in C++ to overload binary operator using member function and friend function.	10
11	Differentiate Compile time and run time polymorphism. Write a program to illustrate virtual functions.	10
12	What is a file? Write a program in C++ to implement read and write operations in Sequential files.	10
13	Define Class Template and Function Template. Write a Program in C++ to implement Function template.	10