

BITT305/BCST305

Total no. of printed pages: 2

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Odd Semester Examination, 2019-20

B. Tech (CSE/IT/PPE, 3rd Semester)**OBJECT ORIENTED PROGRAMMING & METHODOLOGY**

Time: 3 hour

Max. Marks: 100

Note : (i) Attempt **ALL** questions and all Questions carry equal marks.

1. Attempt **any four** parts of the following: (5 × 4 = 20)
- (a) Differentiate between a class and object with some example. Also prepare a list of objects that you would expect each of the following systems to handle;
(i) a program for laying out a newspaper (ii) a catalogue store order entry system.
- (b) What are the advantages of object oriented programming over other programming languages?
- (c) Draw a use case diagram for the college management system.
- (d) What do you mean by encapsulation? Explain it with an example.
- (e) What do you mean by event? What are the different types of event?
- (f) Explain advanced dynamic Modelling concepts.
2. Attempt **any four** parts of the following: (5 × 4 = 20)
- (a) Define SA/SD.
- (b) Write short notes on architectural modelling with suitable example and diagram.
- (c) Discuss the collaboration diagram with an example.
- (d) Define state machine. Draw a state machine diagram for train departure form a station.
- (e) Write a short note on Jackson Structured Development (JSD).
- (f) Explain in brief OMT (object Modelling techniques) methodologies.

3. Attempt *any two* parts of the following: (10 × 2 = 20)
- (a) (i) Why is Java called machine independent language? Explain
 - (a) (ii) What is a JVM? Explain their use.
 - (b) (i) Explain the different features of java programming language.
 - (b) (ii) Describe the various data types and string matching functions used in java.
 - (c) Write short notes on the following:
 - i) Applet and its life cycle.
 - ii) Java servlets.
4. Attempt *any two* parts of the following: (10 × 2 = 20)
- (a) Write short notes on the different components of AWT.
 - (b) What are exceptions? When are they used? Explain with a code snippet.
 - (c) define I/O operations used in java with the help of program explain how I/o is done for creation/ append a file.
5. Attempt *any two* parts of the following: (10 × 2 = 20)
- (a) What are the collections in Java? Where are they used?
 - (b) (i) What do you mean by database connectivity? How many types of connectivity are there in java.
 - (b) (ii) Write a short note on different types application of java.
 - (c) Why the need for migrating from C++ to Java was felt in software development community? Describe?
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