

Printed pages: 2

Sub Code : ECS503

Paper Id:

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B.TECH
(SEM. V) THEORY EXAMINATION 2017-18
OBJECT ORIENTED TECHNIQUES

Time: 3 Hours**Total Marks: 100**

- Note:** 1. Attempt all Sections. If require any missing data; then choose suitably.
 2. Any special paper specific instruction.

SECTION A

1. Attempt all questions in brief. 2 x 10 = 20

- a. What are data members?
- b. Differentiate between early and late binding with example.
- c. Differentiate between overriding and overloading of functions in JAVA.
- d. What is an abstraction and why is it important?
- e. What is the difference between Aggregation and composition?
- f. What is activity diagram? Explain with example.
- g. What do you mean by event?
- h. Discuss the synchronization of concurrent activities.
- i. Define interface.
- j. Is Java pure object oriented language? If yes, How?

SECTION B

2. Attempt any three of the following: 10 x 3 = 30

- a. What do you mean by scenarios? Prepare an event trace for a phone call.
- b. Write short notes on-
 - i.) Java Swings
 - ii.) Servlet
 - iii.) Event Handling
- c. What are the three models in OMT? How is the object- oriented analysis and design attached with OMT? Explain with an example.
- d. What is abstraction? Explain abstract method and abstract class. Write a Java program for employee class where salary as an abstract method with full implementation.
- e. Describe the relation of functional model, object model and dynamic models. What is the relationship and differences between OOA (Object oriented analysis) and OOD (Object oriented design)?

SECTION C

3. Attempt any one part of the following: 10 x 1 = 10

- (a) Write a program in Java to read the two matrices from the keyboard and compute their sum. Overload toString () method to display the result matrix in row and column form.
- (b) What do you understand by the database connectivity? Give the connectivity model. Also discuss JDBC in detail with an example.

4. Attempt any two parts of the following: 5 x 2 = 10

- (a) Why Java does not support multiple inheritances? Justify.

(b) What is multithreading? How it is achieved in Java?

(c) Explain session beans and entity beans.

5. Attempt any *two* parts of the following: 5 x 2 = 10

(a) Explain package diagram with suitable examples.

(b) What is class diagram? Draw a class diagram for e-commerce website.

(c) Explain jackson structured development.

6. Attempt any *two* part of the following: 10 x 1 = 10

(a) What is UML? Mention the different kinds of modeling diagrams used. Explain use case with example.

(b) Give the conceptual model of UML. Use some example to illustrate the model in detail using diagram.

7. Attempt any *one* part of the following: 10 x 1 = 10

(a) "Object oriented program are easy to maintain" Justify.

(b) Explain the deployment diagram. What is the difference between components and nodes?