

Mumbai University

October - 2018

B.Sc.IT: SEMESTER – V

(QUESTION PAPER)

[Choice Based Syllabus]

ELECTIVE – II

ENTERPRISE

JAVA

Time: 2 ½ Hours

Total Marks: 75

Note:

- (1) All Questions (Q1 To Q5) are Compulsory.
- (2) Figures on the right indicate total marks. All sub questions carry equal marks.
- (3) Write the question numbers clearly, as mentioned in the question paper.
- (4) Mixing of sub-questions is not allowed.
- (5) Draw diagrams and give examples whenever necessary.
- (6) Write the comments in the program/algorithm and write the assumptions, if any.
- (7) Use of calculator or any electronic gadget is not allowed.

Q.1 ATTEMPT ANY THREE QUESTIONS: (15 MARKS)

- (A) Explain the features of Java EE 7. (5)
- (B) Explain Multi-Tier Architecture with advantages and disadvantages. (5)
- (C) Write a short note on Servlet with its General Format. Describe its advantages. (5)
- (D) Explain the various methods of ServletConfig Interface. Describe the difference between ServletConfig and ServletContext. (5)
- (E) What is mean by ResultSet Interface? Explain the various methods of Result Interface. (5)
- (F) Write a program in java to develop Simple Servlet Question Answer Application using Database. (5)

Q.2 ATTEMPT ANY THREE QUESTIONS: (15 MARKS)

- (A) Explain how to set a cookie and send it to the client. (5)
- (B) What is a session? Explain with the methods used. (5)
- (C) What is the use of multipart config? Explain its attributes. (5)
- (D) Explain Non-Blocking I/O in detail. (5)
- (E) What are Channels and Selectors? Explain the concept on Non-Blocking I/O. (5)
- (F) Using Request Dispatcher Interface create a Servlet which will validate the password entered by the user, if the user has entered "Servlet" as password, then he will be forwarded to Welcome Servlet else the user will stay on the index.html page and an error message will be displayed. (5)

Q.3 ATTEMPT ANY THREE QUESTIONS: (15 MARKS)

- (A) Distinguish between JSP and Servlets. (5)
- (B) What is JSP? What are its advantages and disadvantages? (5)
- (C) Explain JSP declaration and comments in detail. (5)
- (D) Explain which action element is used to forward JSP Page to Another Page. (5)
- (E) Explain unified Expression Language in detail. (5)
- (F) What are JSTL Functions? Write the syntax to indicate JSTL function library in JSP. (5)

Q.4 ATTEMPT ANY THREE QUESTIONS: (15 MARKS)

- (A) What are the advantages of EJB? Explain. (5)
- (B) What is Message Driven Bean? Explain in Lifecycle. (5)
- (C) What are the uses of Stateless Session Beans? Explain with the examples. (5)
- (D) Explain Interceptor in detail. (5)
- (E) With the help of diagram. Explain the working of Naming System. (5)
- (F) Explain the servlet hits example using Singleton Session Bean in detail with the help of program. (5)

Q.5 ATTEMPT ANY THREE QUESTIONS: (15 MARKS)

- (A) Explain JPA, ORM Database and the application in detail. (5)
- (B) What is Hibernate? Explain the different components of Hibernate. (5)
- (C) What do you mean by Persistence? Explain JPA in detail. (5)
- (D) Write a JPA Application in Java. (5)
- (E) Explain how Hibernate works? (5)
- (F) Discuss the importance of JPA, Hibernate and ORM. (5)