

**PARUL UNIVERSITY**  
**FACULTY OF IT & COMPUTER SCIENCE**  
**MCA Winter 2019 – 20 Examination**

**Semester: 4**  
**Subject Code: 05201251**  
**Subject Name: Advanced Java Programming**

**Date: 09/12/2019**  
**Time: 2:00pm to 4:30pm**  
**Total Marks: 60**

**Instructions:**

1. All questions are compulsory.
2. Figures to the right indicate full marks.
3. Make suitable assumptions wherever necessary.
4. Start new question on new page.

**Q.1 Answer the following:****A. Write short answers.**

1. What is JDBC?
2. List advantages of servlet.
3. Explain various types of cookies.
4. What is the use of Filter?
5. List any 2 advantages of REST framework.

**[05]****B. Answer the following:(Each of 01 marks)**

1. Full form of JSP.
  - a) Java Servlet Programming
  - b) Java Service Package
  - c) Java Server Pages
  - d) Java Service Provider
2. Which packages contain the JDBC classes?
  - a) java.jdbc and javax.jdbc
  - b) java.jdbc and java.jdbc.sql
  - c) java.sql and javax.sql
  - d) java.rdb and javax.rdb
3. JSP is basically used for
  - a) implementing business logic
  - b) to make view
  - c) to store data
  - d) All of the above
4. Which of the following method is called once in servlet life cycle?
  - a) init
  - b) service
  - c) redirect
  - d) doGet
5. Which of the following annotation of JAX RS API is used to annotate a method to get the relative path of the resource class/method?
  - a) @Path
  - b) @GET
  - c) @PUT
  - d) @POST
6. JDBC is a programming language. True/False?
7. Servlet is client side technology. True/False?
8. A bean may have methods apart from constructor and setter and getter methods. True/False?
9. A windows application creation or a web application creation is mandatory in order to test a web service. True/False?
10. Web Services are interoperable and extensible. True/False?

**[10]****Q.2 Answer the followings**

1. Describe any 3 JDBC API components. **(03)**
2. How does HTTP Servlet handle client requests? **(03)**
3. What are JSTL formatting tags? **(03)**
4. When doGet() method of servlet to be called? **(02)**
5. What is JDBC Driver? **(02)**
6. How to read http header information in servlet? **(02)**

**[15]****Q.3 Answer the following. (Any three) (Each of 05 marks)**

1. What are JSP directives? Explain different types of directives with example.
2. What are the steps to connect to the database in java?
3. What is a JSP custom tag? What is JSP Expression Language?
4. What are cookies? How to create and use cookies in java servlets?

**[15]****Q.4 Answer the following.**

- A.** What are the JDBC statements? Explain with examples. **[05]**
- B.** Explain servlet life cycle with example program. **[10]**

**OR**

- B.** Explain JSP Architecture in detail. **[10]**