

Name:

Enrolment No:



**UNIVERSITY OF PETROLEUM AND ENERGY STUDIES**

**Online End Semester Examination, December 2020**

**Course: Front-end Web Application**

**Program: BCA – BFSI**

**Course Code: CSBC 2016**

**Semester: IV**

**Time: 03 hr**

**Max. Marks: 100**

**SECTION A**

**1. Each Question will carry 5 Marks**

**2. Instruction: Select the correct answer(s)**

S. No.	Question	CO
Q 1	(i) Which of the following are part of the Java EE 7 Web Profile? a. RESTful web services b. JMS c. JSPs d. Servlets (ii) Which aspects can a Logger inherit from a parent Logger? a. Filters b. Handlers c. Level d. Default message	CO1
Q2	(i) Why is a POST request preferable to a GET request when processing form data? a. POST executes faster. b. POST compresses form data. c. GET cannot be used with a form. d. POST does not include form data in the URL. (ii) Given the URL <code>http://host/war/resources/resource?name=matt</code> , which field would be set to the value "matt"? a. <code>@MatrixParam("name") String n;</code> b. <code>@FormParam("name") String n;</code> c. <code>@QueryParam("name") String n;</code> d. <code>@HeaderParam("name") String n;</code>	CO2
Q3	(i) <code>Invocation.Builder</code> allows the application to set which of the following headers: a. <code>Accept</code> b. <code>Accept-Language</code> c. <code>Cookie</code> d. <code>HTTP</code> (ii) Which of the following is a correct way for creating an empty object? a. <code>var obj_1 = {};</code> b. <code>var obj_2 = new Object();</code> c. <code>var obj_3 = Object.create(null);</code>	CO3

Q4	<p>(iii) Which of the following methods are used for accessing and manipulating elements?</p> <ol style="list-style-type: none"> <li>createElement</li> <li>replaceChild</li> <li>removeChild</li> <li>cloneNode</li> </ol> <p>(iv) Web Services can experience errors on</p> <ol style="list-style-type: none"> <li>Client side</li> <li>Server side</li> <li>Both side</li> <li>None of the above</li> </ol>	<b>CO3</b>
Q5	<p>(v) Which three methods are used to demarcate a transaction?</p> <ol style="list-style-type: none"> <li>begin(), commit(), end()</li> <li>begin(), end(), rollback()</li> <li>begin(), end(), explode()</li> <li>begin(), commit(), rollback()</li> </ol> <p>(vi) What does object-relational mapping software attempt to do?</p> <ol style="list-style-type: none"> <li>Simplify SQL statements</li> <li>Optimize the database schema</li> <li>Optimize memory related to data objects</li> <li>Simplify the code needed to map an object to a database</li> </ol>	<b>CO4</b>
Q6	<p>(i) Given a business case where you want to preserve users' data (for example, a wish list) until they explicitly delete their account, which type of bean should you consider?</p> <ol style="list-style-type: none"> <li>Stateless</li> <li>Stateful</li> <li>Singleton</li> </ol> <p>(ii) Roles are tied to which of the following?</p> <ol style="list-style-type: none"> <li>Systems and users</li> <li>Users and privileges</li> <li>Systems and databases</li> <li>Privileges and systems</li> </ol>	<b>CO4</b>

**SECTION B**

- Each question will carry 10 marks**
- Instruction: Write short / brief notes**

S. No.	Question	CO
Q 7	<p>(a) What are the factors need to be considered for the selection of application server?</p> <p>(b) What do you mean by JavaBeans? Discuss the role of accessors and mutators methods in JavaBeans.</p>	<b>CO1</b>
Q 8	<p>(a) Differentiate between EJB Container and Web Container?</p> <p>(b) What is the purpose of Java Logging? Discuss the convenience logging methods.</p>	<b>CO1</b>
Q 9	<p>(a) What do you mean by Function scope and Global scope of variables in JavaScript? Differentiate between them with the help of a code snippet.</p> <p>(b) What are web service errors? Where these errors can occur? Write the HTTP status code for these errors.</p>	<b>CO3</b>

Q 10	(c) How many types of transaction-management models are available for database implementation? Differentiate between them with the help of an example. (d) Differentiate between singleton, stateless and stateful session beans.	<b>CO4</b>
Q 11	(a) Differentiate between desktop applications and web applications? (b) What do you mean by session binding? Discuss the different techniques used for session binding.  OR (a) Discuss the similarities in runtime behaviour of servlets and JSP components. (b) Differentiate between the scopes available for JavaServer Pages.	<b>CO2</b>
<b>Section C</b>		
<b>1. Each Question carries 20 Marks.</b> <b>2. Instruction: Write long answer.</b>		
Q12	Write a program (HTML + JavaScript) that take input from the user and perform the following data validation and print a message in case data validation fails: (i) validate a phone number of 10 digits with no comma, no spaces, no punctuation (ii) validate that the 8 digit number entered in two text boxes is identical.  OR Write a program (HTML + JavaScript) to perform basic validation and data format validation on a form having an input box named "email"? Also, Print a message in the case form validation fails.	<b>CO3</b>