Galgotias College of Engineering and Technology, Greater Noida

Pre University Test (PUT) : Odd Semester 2024 - 2025

Course/Branch '	: MCA
Subject Name	: Web Technology
Subject Code	: KCA-021

Semester	: III
Max. Marks	: 100
Time	: 180 min

CO-1 : Apply the knowledge of HTML and CSS to develop web application and analyze the insights of internet programming to implement complete application over the web.

CO-2 : Understand, analyze and apply the role of JavaScript in the workings of the web and web applications.

CO-3 : Understand, analyze and build dynamic web applications using servlet and JSP.

CO-4 : Develop Spring-based Java applications using Java configuration, XML configuration, annotation-based configuration, beans and their scopes, and properties.

CO-5 : Develop web application using Spring Boot and RESTFul Web Services.

Section – A # 20 Marks (Short Answer Type Questions)

Attempt ALL the questions. Each Question is of 2 marks (10 x 2 = 20 marks)

Q. No.		COx	Question Description # Attempt ALL the questions. Each Question is of 2 marks
1	a	CO1	Discuss Ordered list with an example.
	b	CO1	Write HTML code for inserting image on a web page.
	c	CO2	Explain the scope of let and Var variable in JavaScript.
	d	CO2	Differentiate between Client-Side scripting and Server-Side Scripting.
	e	CO3	Describe advantages of JSP over Servlet
	f	CO3	Which class has to be extending for creating Servlet?
	g	CO4	Explain the importance of IoC in spring.
	h	CO4	Differentiate between Bean Factory and ApplicationContext.
	i	CO5	Differentiate between spring & spring boot.
	j	CO5	Discuss, can we call a java class with annotations as POJO class or not?

Section – B # 30 Marks (Long / Medium Answer Type Questions)

Attempt ALL the questions. Each Question is of 6 marks (5 x 6 = 30 marks)

Q.2 (CO-1) : Explain the following HTML tags with example.
    (i) \<a> (ii) \<body>
    (iii) \<img> (iv) \<table> (v) \<p>   (K2)

    OR

Discuss cascading. Write the various approaches of CSS. List out the properties of CSS with example.   (K3)

Q.3 (CO-2): Illustrate Document object Model? How to create text box and button in DOM (K4)

    OR

Construct a JavaScript program to print reverse digit of any number. (K4)

Q.4 (CO-3) : Explain Servlet life cycle in detail. (K2)

    OR

Discuss session tracking? How a session is created? Explain (K3)

Q.5 (CO4) : Compare constructor injection and setter injection in spring with suitable example (K3)

    OR

Classify all the annotations those are exclusively used for spring boot applications. (K3)

Q.6 (CO-5): Explain GET, PUT, POST, and DELETE method with respect to REST API. (K3)

    OR

Create a RESTful spring boot application for handling the delete and put request (K4)

Section – C # 50 Marks (Medium / Long Answer Type Questions)

Attempt ALL the questions. Each Question is of 10 marks.

Q.7 (CO-1) : Attempt any TWO / ONE question. Each question is of 5 / 10 marks.
a. Explain the development of the World Wide Web and its impact on modern communication and technology (K2)
b. Highlight the role of protocols governing the Web, such as HTTP, HTTPS, FTP, and DNS. (K2)
c. Discuss various form elements such as \<input>, \<textarea>, \<button>, \<select>, and \<option>. (K2)

Q.8 (CO-2): Attempt any TWO / ONE question. Each question is of 5 / 10 marks.
a. How are variables created and used in JavaScript? Explain with examples. (K3)
b. What are JavaScript functions, and how do they enhance code reusability? (K2)
c. Explain the concepts of conditions and loops in JavaScript with examples (K2)

Q.9 (CO-3) : Attempt any TWO / ONE question. Each question is of 5 / 10 marks.
a. What are Java Server Pages (JSP), and how are they different from Servlets?. (K2)
b. How do Servlets handle HTTP GET and POST requests? (K3)
c. What are session tracking and cookies? Discuss their role in web applications. (K2)

Q.10 (CO4) : Attempt any TWO / ONE question. Each question is of 5 / 10 marks.
a. Explain the various ways to configure beans in Spring, including XML configuration, annotation-based configuration, and Java-based configuration. (K3)
b. Provide a practical example of implementing AOP in a Spring application, such as logging or transaction management. (K3)
c. List and explain different bean scopes in Spring (Singleton, Prototype, Request, Session, Application, and WebSocket). (K3)

Q.11 (CO-5) : Attempt any TWO / ONE question. Each question is of 5 / 10 marks.
a. Provide examples to demonstrate how custom runners and logging configurations can be implemented in a Spring Boot application. (K4)
b. Describe the use of annotations like @RestController, @RequestMapping, @RequestBody, @PathVariable, and @RequestParam with examples. (K2)
c. Explain the Configuration and Annotations in Spring Boot. (K2)