1. Answer the following questions in brief: (any eight)  

   (a) Explain the difference between synchronous and asynchronous execution of processes.

   (b) Write down the manner in which a web servers handle concurrent clients.

   (c) Write an note on ServletContext and ServletConfig.

   (d) What are HTTP header ? Explain some important headers.

   (e) What is request dispatching ? How it is better than redirection ?

   (f) Discuss Docky Menus and Tree Component of primefaces ?

   (g) Write a custom JSTL tag to have a captcha control on page.

   (h) Write a note on bean and built in validators.

   (i) How does a property file help in Web applications ? Explain with example.

   (j) Explain lambda expression in java with suitable example.
2  Do as directed (4, 8, 6)
   (a) Explain the life cycle of JSP.
   (b) Write a note on:
       (i) Web Interceptors
       (ii) Web Event Listeners
   (c) Explaining all execution level aspects of web server, state the life cycle of a Servlet and JSP.

3  Do as directed : (7, 7, 4)
   (a) Explain the working of Synchronous and Asynchronous Servlet Swith suitable example.
   (b) Using JSTL explain the usage of all implicit web objects and show the importance of various visibility scopes with suitable examples.
   (c) Explain the difference between AJAX and web sockets. Explain the functioning of web sockets in detail with suitable example.

4  Do as directed (7, 7, 4)
   (a) Explain the building blocks of JSF.
   (b) Describe the components of Spring Framework with a Simple Application.

   OR

   (b) Explain the request processing lifecycle of JSF.
   (c) Write a short note on ajax in JSF.