EXAMINATION PAPER

FACULTY	:	**COMPUTER SCIENCE AND MULTIMEDIA**
COURSE	:	**BACHELOR OF INFORMATION TECHNOLOGY (Hons)**
YEAR/ SEMESTER	:	**SECOND YEAR / SEMESTER THREE**
MODULE TITLE	:	**WEB TECHNLOGOGY**
CODE	:	**BIT 233**
DATE	:	**26 – APRIL, 2019, FRIDAY**
TIME ALLOWED	:	**3 HOURS**
START	:	**1:00 PM** **FINISH** **: 4:00 PM**

Instruction to candidates

1. This question paper has THREE (3) Sections.

2. Answer **ALL** questions in Section A, MCQ.

3. Answer **5** questions in Section B, MSAQ.

4. Answer **2** questions in Section C, MEQ.

5. No scripts or answer sheets are to be taken out of the Examination Hall.

6. For Section A, answer in the OMR form provided.

Do not open this question paper until instructed

(Candidates are required to give their answers in their own words as far as practicable)

SECTION A

Multiple Choice Questions   **(30*1=30)**

1. Expansion of FTP is:
   a. Fine Transfer Protocol
   b. File Transfer Protocol
   c. First Transfer Protocol
   d. None of the above

2. Which of the following functions are done by a web server?
   a. Accept requests from a web browser
   b. Sends back results in HTML
   c. Executes programs with arguments supplied by the user
   d. All of the above

3. HTML is considered as _____ language.
   a. Higher Level Language
   b. Markup Language
   c. OOP Language
   d. Programming Language

4. A webpage displays a picture. What tag was used to display that picture?
   a. picture
   b. image
   c. img
   d. src

5. Which attribute is used to name an element uniquely?
   a. class
   b. id
   c. dot
   d. all of the above

6. Which of these tags are all <table> tags?
   a. <table><head><tfoot>
   b. <table><tr><td>
   c. <table><tr><tt>
   d. <thead><body><tr>

7. Which CSS property is used to control the text size of an element ?
   a. font-style
   b. text-size
   c. font-size
   d. text-style

8. **We can declare all type of variables in JavaScript with the keyword_____.**
   a. var
   b. obj
   c. jvar
   d. None of the above

9. **Which of the following is NOT a comparison operator?**
   a. ++
   b. <=
   c. >=
   d. ==

10. **Which of the following is the correct syntax to display "BIT" in an alert box using JavaScript?**
    a. alertbox("BIT");
    b. msg("BIT");
    c. msgbox("BIT");
    d. alert("BIT");

11. **The statement a===b refers to_____.**
    a. Both a and b are equal in value, type and reference address
    b. Both a and b are equal in value
    c. Both 'a' and 'b' are equal in value and type
    d. There is no such statement

12. **Which method is called only once during the run time of your applet?**
    a. stop()
    b. paint()
    c. init()
    d. destroy()

13. **Which of the following is invoked after the init() method or browser is maximized?**
    a. public void start()
    b. public void paint(Graphics g)
    c. Public void stop()
    d. Public void init()

14. **In the following statements which is a drawback for Applet?**
    a. It works at client side so less response time
    b. Secured
    c. It can be executed by browsers running under many platforms, including Linux, Windows, and Mac Os etc.
    d. Plugin is required at client browser to execute applet

15. Which of the following depicts correct order of phases in JSP life cycle?
   a. Compilation, Initialization, Execution, Cleanup
   b. Initialization, Compilation, Cleanup, Execution
   c. Initialization, Cleanup, Compilation, Execution
   d. Cleanup, Compilation, Initialization, Execution

16. In the following which packages do a JSP API consists of?
   a. javax.servlet.jsp
   b. java.servlet
   c. javax.servlet.jsp.tagext
   d. Both 'a' & 'c'

17. In the following statements identify the disadvantages of CGI?
   a. If number of clients increases, it takes more time for sending response
   b. For each request, it starts a process and Web server is limited to start processes
   c. It uses platform dependent language e.g. C, C++, perl
   d. All of the above

18. Which cookie it is valid for single session only; it is removed each time when user closes the browser?
   a. Persistent cookie
   b. Non-persistent cookie
   c. Both 'a' & 'b'
   d. None of the above

19. These methods doGet(),doPost(),doHead,doDelete(),deTrace() are used in?
   a. Genereic Servlets
   b. HttpServlets
   c. Both 'a' & 'b'
   d. None of the above

20. Which are the session tracking techniques?
   i. URL rewriting
   ii. Using session object
   iii. Using response object
   iv. Using hidden fields
   v. Using cookies
   vi. Using servlet object
   a. i, ii, iii, vi
   b. i, ii, iv, v
   c. i, vi, iii, v
   d. i, ii, iii, v

21. Which of the following is advantage of using Prepared Statement in Java?
   a. Slow performance
   b. Encourages SQL injection
   c. Prevents SQL injection
   d. More memory usage

22. Which of the following step establishes a connection with a database?
   a. Import packages containing the JDBC classes needed for database programming.
   b. Register the JDBC driver, so that you can open a communications channel with the database.
   c. Open a connection using the DriverManager.getConnection () method.
   d. Execute a query using an object of type Statement.

23. Which of the following condition is required for deadlock to be possible?
   a. mutual exclusion
   b. a process may hold allocated resources while awaiting assignment of other resources
   c. no resource can be forcibly removed from a process holding it
   d. all of the above

24. XML is much more similar like_____.
   a. HTML
   b. CSS
   c. C Programming
   d. JavaScript

25. DTD Stands for _____.
   a. Document Transport Direction
   b. Document Transcript Definition
   c. Document Type Definition
   d. None of the above

26. Which of the following is true about XML?
   a. XML is technology independent. It can be used by any technology for data storage and transmission purpose.
   b. XML uses simple text format. It is human readable and understandable.
   c. Using XSD, DTD and XML structure can be validated easily.
   d. All of the above.

27. When to use a DOM Parser?
   a. You need to know a lot about the structure of a document.
   b. You need to move parts of the document around.
   c. You need to use the information in the document more than once.
   d. All of the above.

28. XML is designed to store data and_____.
   a. design
   b. verify
   c. transport
   d. both 'a' & 'b'

29. In which type of EJB it encapsulates the state that can be persisted in the database,it is deprecated,Now, it is replaced with JPA (Java Persistence API)?
   a. Entity Bean
   b. Message Driven Bean
   c. Session Bean
   d. None of the above

30. In RMI Architecture which layer Intercepts method calls made by the client/redirects these calls to a remote RMI service?
   a. Stub & Skeleton Layer
   b. Application Layer
   c. Remote Reference Layer
   d. Transport Layer

Short Answer Questions
Attempt all five (5) questions out of eight (8) questions   (5*6=30)

1. Explain Web server .How does it work? (2+4)

2. Describe static and dynamic web page with its application.

3. Explain the servlet life cycle.

4. Define deadlock .Explain the method for handling deadlocks. (2+4)

5. Illustrate the java applet life cycle.

6. Difference between CGI and servlet.

7. Define tier with its type.

8. Differentiate between Ejb and Java beans.

SECTION C
Long Answer Questions
Attempt two (2) questions out of three (3) questions (2*20=40)

1. Write HTML code to accept input from a user for flight reservation system (The input elements are Departure Date, Return Date, from and To Destinations, Nationality, First Name, Last Name, Gender, Contact Number) and validate them using JavaScript so that no any fields are empty.

2.
   A. Define XML with it syntax. Discuss XML elements and attributes with its syntax.(10)
   B. Define JDBC. Differentiate between prepared statement and Callable statement.(2+8)

3.
   A. Illustrate RMI with its architecture.(8)
   B. Write short notes on (**any three**) (3*4)
      i. Hash Table
      ii. Servlet API
      iii. Cookies and Sessions
      iv. HTML

****BEST OF LUCK****