EXAMINATION PAPER

FACULTY	:	**COMPUTER SCIENCE AND MULTIMEDIA**
COURSE	:	**BACHELOR OF INFORMATION TECHNOLOGY (HONS)**
YEAR/ SEMESTER	:	**SECOND YEAR / SEMESTER FOUR**
MODULE TITLE	:	**JAVA PROGRAMMING**
CODE	:	**BIT 243**
DATE	:	**24 SEPTEMBER, 2019, TUESDAY**
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)

Multiple Choice Questions
Attempt All Questions   **[30×1=30]**

1. **Earlier name of Java Programming Language was:**
   A. D
   B. Netbeans
   C. Eclipse
   D. Oak

2. **Java is considered as Platform Independent because:**
   i. Platform independent language means once compiled you can execute the program on any platform (OS).
   ii. Java compiler converts the source code to bytecode, which is Intermediate Language and bytecode can be executed on any platform using JVM.
   A. true true
   B. true false
   C. false true
   D. false false

3. **Which of the following are legal lines of Java code?**
   i.   int w = (int)888.8;
   ii. byte x = (byte)100L;
   iii. long y = (byte)100;
   iv. byte z = (byte)100L;
   A. 1 and 2
   B. 2 and 3
   C. 3 and 4
   D. All statements are correct

4. **Which method can be defined only once in a program?**
   A. Main Method
   B. Finalize Method
   C. Static Method
   D. Private Method

5. **Which component is responsible to optimize byte code to machine code?**
   A. JVM
   B. JDK
   C. JIT
   D. JRE

6. **Which of this package is used for handling security related issues in a program?**
   A. Java.security
   B. Java.lang.security
   C. Java.awt.image
   D. Java.io.security

7. **Which of the following is NOT a correct statement?**
   A. Every class containing abstract method must be declared abstract
   B. Abstract class defines only the structure of the class not its implementation
   C. Abstract class can be initiated by new operator
   D. Abstract class can be inherited

8. **What exception thrown by parseInt() method?**
   A. ArithmeticException
   B. ClassNotFoundException
   C. NullPointer Exception
   D. NumberFormatException

9. **Which of these operators can be used to get run time information about an object?**
   A. Get info
   B. Info
   C. Instance of
   D. Get info of

10. **When destroy () method of a filter is called?**
    A. The destroy() method is called only once at the end of the life cycle of a filter
    B. The destroy() method is called after the filter has executed do Filter method
    C. The destroy() method is called only once at the beginning of the life cycle of a filter
    D. The destroyer() method is called after the filter has executed

11. **Which of the following does not belong to JSP life cycle methods?**
    A. init()
    B. service()
    C. destroy()
    D. None of the above

12. **Which of the following code retrieves the MIME type of the body of the request?**
    A. new MimeType()
    B. request.getContentType()
    C. response.getContentType()
    D. None of the above

13. **Which of the following is NOT true about session?**
    A. All users connect to the same session
    B. All users have same session variable
    C. Default timeout value for session variable is 20 minutes
    D. New session cannot be created for a new user

14. **Which tag should be used to pass information from JSP to included JSP?**
    A. Using <%jsp:page> tag
    B. Using <%jsp:param> tag
    C. Using <%jsp:import> tag
    D. Using <%jsp:useBean> tag

15. **What temporarily redirects response to the browser?**
    A. <jsp:forward>
    B. <%@directive%>
    C. response.sendRedirect(URL)
    D. response.setRedirect(URL)

16. **Which of the following request attributes that an error-handling servlet can access to analyse the nature of error/exception?**
    A. javax.servlet.error.status_code
    B. javax.servlet.error.exception_type
    C. javax.servlet.error.message
    D. All of the above

17. **Which of the following is NOT java application server?**
    A. GlassFish
    B. WildFly
    C. Apache Tomcat
    D. IIS

18. **Which of these packages contains all the classes and methods required for event handling in Java?**
    A. java.applet
    B. java.awt
    C. java.event
    D. java.awt.event

19. **What is a listener in context to event handling?**
    A. A listener is a variable that is notified when an event occurs
    B. A listener is an object that is notified when an event occurs
    C. A listener is a method that is notified when an event occurs
    D. None of the above

20. **Which of the following is an advantage of using JDBC connection pool?**
    A. Slow performance
    B. Using more memory
    C. Using less memory
    D. Better performance

21. **Which one of the following contains date information?**
    A. java.sql.TimeStamp
    B. java.sql.Time
    C. java.io.Time
    D. java.io.TimeStamp

22. **Which of the following is used to call stored procedure?**
    A. Statement
    B. PreparedStatement
    C. CallableStatment
    D. CalledStatement

23. **Which of the following is used to rollback a JDBC transaction?**
    A. rollback()
    B. rollforward()
    C. deleteTransaction()
    D. RemoveTransaction()

24. **Which of the following is a protocol for breaking and sending packets to an address across a network?**
    A. TCP/IP
    B. DNS
    C. Socket
    D. Proxy Server

25. **How many bits are in a single IP address?**
    A. 8
    B. 16
    C. 32
    D. 64

26. **Which of the following class is used to encapsulate IP address and DNS?**
    A. DatagramPacket
    B. URL
    C. InetAddress
    D. ContentHandler

27. **Which class provides system independent server side implementation?**
    A. Socket
    B. ServerSocket
    C. Server
    D. ServerReader

28. **What does bind() method of ServerSocket offer?**
    A. binds the serversocket to a specific address (IP Address and port)
    B. binds the server and client browser
    C. binds the server socket to the JVM
    D. binds the port to the JVM

29. **What happens if IP Address of host cannot be determined?**
    A. The system exit with no message
    B. UnknownHostException is thrown
    C. IOException is thrown
    D. Temporary IP Address is assigned

30. **Which of the following is a wrapper around everything associated with a reply from an http server?**
    A. HTTP
    B. HttpResponse
    C. HttpRequest
    D. httpserver

SECTION B
Short Answer Questions
Answer any five (5) questions out of eight (8) questions   [5×6=30]

1. Define JDBC. How do you execute SQL statements in JDBC? [1+5]

2. Discuss any five classes to handle files in java.

3. Write in brief about JSP? Differentiate it with servlet. [2+4]

4. Give your comment on UDP socket. Differentiate it with TCP socket. [2+4]

5. Write Java programs using TCP sockets that communicate with each other in a computer network.

6. Discuss the uses of abstract class and interface. [3+3]

7. Write a show note on: [3+3]
      A. Encapsulation
      B. Abstraction

8. Write the features of java in detail.

SECTION C
Long Answer Questions
Attempt any two (2) questions out of three (3) questions. [2×20=40]

1. Define servlet. Discuss the life cycle of a servlet. Write a simple JSP file to display 'Lincoln University College' 15 times. [2+8+12]

2. Write a Java program to find the sum of two numbers using swing components. Use text fields for input and output. Your program displays output if you press any key on the keyboard. Use a key adapter to handle events. [6+14]

3. Define exception handling. Discuss the use of each keyword (try, catch, throw, throws and finally) with suitable Java program. [2+18]

****BEST OF LUCK****