

PURBANCHAL UNIVERSITY

2018

Bachelor in Information Technology (B.I.T.)/Sixth Semester/Final
Time: 03:00 hrs.
Full Marks: 80/Pass Marks: 32
BIT376CO: Advance Object-Oriented Programming (New Course)

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

Figure in the margin indicate full marks.

Group A

Answer TWO questions.

$2 \times 12 = 24$

1. What do you mean by polymorphism? How multiple inheritance is obtained in JAVA? Explain with an example. 4+8
2. Differentiate swing and AWT. Write a program using components to add two numbers. Use text fields for inputs and output. Your program should display the result when the user presses a button. 4+8
3. What is socket programming Write down client/server chat program using TCP. 6+6

Group B

Answer SEVEN questions.

$7 \times 8 = 56$

4. What are exceptions? Why is it important to handle exceptions? Discuss different keywords that are used to handle exception. 1+2+5
5. Discuss any five classes to handle files in java. 8
6. What is JDBC? Compare JDBC with ODBC. How do you execute SQL queries in JDBC. 8
7. What is JSP? Differentiate it with servlet. Discuss life cycle of servlet in brief. 1+3+4
8. What is Applet in JAVA, explain with its uses. Discuss border layout with suitable example. 3+5
9. Why multithreading is important in Java programming? Write a program to create two threads in Java. 4+4
10. What is RMI? Explain with its architecture. Differentiate it with CORBA. 5+3

(2)

- ⑩. What do you mean by event handling? Explain different JDBC driver type. 4+4
12. Explain features of JAVA programming. Write a programming implementing class object. 4+4



PURBANCHAL UNIVERSITY

2019

Bachelor in Information Technology (B.I.T.)/Sixth Semester/Final

Time: 03:00 hrs.

Full Marks: 80/Pass Marks: 32

BIT376CO: Advance Object-Oriented Programming (View Course)

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

Figure in the margin indicate full marks.

Group A

Answer TWO questions.

2×12=24

1. What makes RMI different with socket programming? Write program using RMI technology to send two numbers to the server and the server returning the greatest number between them. 3+9
2. What are JDBC and ODBC? Write a Java program using JDBC to extract name of those students who live in Morang district, assuming that student table has four attributes (ID, name, district, and age). 2+10
3. What is the task of Socket class? Write program using socket program to send the string "hello" to the client. 2+10

Group B

Answer SEVEN questions.

7×8=56

4. Write a program in Java that reads line of text from keyboard and write to file. Also read the content of the same file and display on monitor.
5. Write an object oriented program in Java to find area of circle.
6. What is servlet? Discuss its life cycle. 2+6
7. What is thread? How it is created? Make a thread using runnable interface to display number from 1 to 20; each number should be displayed in the interval of 2 seconds. 1+2+5
8. What is the difference between error and an exception? How to create custom exceptions? Give an example. 3+5

(2)

9. What are the swing components? Create Swing application that receive a number through a JTextFields and display the square of numbers in a JTextField when the SQUARE button is pressed. 2+6
10. What is an applet.? Explain life cycle of an applet. How an image can be loaded in applet? Give example. 2+3+3
11. What is interface? Develop a java code to implement the interface concept for finding the sum and average of given N number. 2+6

**PURBANCHAL UNIVERSITY
2023**

Bachelor in Information Technology (B.I.T.)/Fourth Semester/Final

Time: 03:00 hrs.

Full Marks: 80/Pass Marks: 32

BIT255CO: Programming in Java (New Course)

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

Figure in the margin indicate full marks.

Group A

$2 \times 12 = 24$

Answer TWO questions.

1. Define multi-threaded programming. Explain its application and importance. Write a program to create two threads, one thread is to display even numbers between 1 to 10 in 1 second and other thread is to display odd numbers between 10 to 20 in 2 seconds. $2+3+7$
2. Differentiate between AWT and Swing. Write a Swing program using JFrame to calculate addition of two numbers input by the users and display the result when user clicks "Add" button and clear the field when user clicks "Clear" button. (Use JTextField and JButton) $4+8$
3. Explain TCP and UDP. Write a program to create a chat application using TCP protocol and chat ends when any one of client and server says "goodbye". $4+8$

Group B

$7 \times 8 = 56$

Answer SEVEN questions.

4. Why Java is called platform independent language? Explain multiple inheritance in Java with example. $3+5$
5. What is Exception? What is user-defined Exception? What are different Exception handling techniques? $2+2+4$
6. Compare method overloading with method overriding with examples.
7. Differentiate between applet and application. Explain applet life-cycle. $4+4$

Contd. ...

8. What is JDBC? Write a program to connect mysql database and also insert a record in customer table having attributes: customer_id, customername, customer_address. 2+6
9. Explain Stub and Skeleton. Write a program to create distributed application using RMI. 3+5
10. What is Servlet? Write a program to create a user form (FirstName, LastName, Email) in jsp file and when the user clicks "Submit" button, the information should be printed by the Servlet class. Also do necessary mapping in web.xml file. 2+6
11. Write short note on any TWO: 2x4=8
- (a) Polymorphism
 - (b) FileReader and FileWriter
 - (c) Package



PURBANCHAL UNIVERSITY

2024

Bachelor in Information Technology (B.I.T.)/Fourth Semester/Final

Time: 03:00 hrs.

Full Marks: 80/Pass Marks: 32

BIT255CO: Programming in Java (New Course)

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

Figure in the margin indicate full marks.

Group A

Answer TWO questions.

$2 \times 12 = 24$

1. What is distributed application? Explain RMI with the help of example.
2. What are swing components? Write a Swing program to create User Registration form as shown below and also display the information input by the user on appropriate components when the user clicks "Register" button. [2+10]

New User Register	
First name	<input type="text"/>
Last name	<input type="text"/>
Email address	<input type="text"/>
Username	<input type="text"/>
Password	<input type="text"/>
Mobile number	<input type="text"/>
Register	

3. Explain in TCP with a neat diagram. Write a complete client-server program that represents the connection to server and sends some text to the server and also receives some message from server. [4+8]

Group B

Answer SEVEN questions.

$7 \times 8 = 56$

4. What is OOP? Explain its importance. Also explain the features of Java. [1+2+5]
5. What is thread? Write a program to demonstrate multi-threading program inheriting Thread class. [2+6]

Contd. ...

(2)

6. Differentiate between abstract class and interface. Explain tree and set interface with appropriate example. [3+5]
7. Differentiate between byte and character stream. Write a program to perform read and write operation using FileOutputStream and FileInputStream. [3+5]
8. What is JDBC driver? Write a program for Java database connectivity and also insert data in database. [2+6]
9. What is exception handling? Explain try, catch and throw with the help of example. [2+6]
10. What do you mean by static and dynamic web page? Explain JSP and Servlet with example. [2+6]
11. Write short note on any TWO: 2×4=8
 - (a) Applet
 - (b) String and StringBuffer
 - (c) Constructor



PURBANCHAL UNIVERSITY

2021

Bachelor in Information Technology (B.I.T.)/Sixth Semester/Final

Time: 03:00 hrs.

Full Marks: 80/Pass Marks: 32

BIT376CO: Advance Object-Oriented Programming (New Course)

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

Figure in the margin indicate full marks.

Group A

Answer TWO questions.

2×12=24

1. What is Swing and AWT? Create Swing application that receive two numbers through a JTextFields and display the multiplication of two numbers in a JTextField when the OK button is pressed and when Exit button is pressed the program will terminate. 3+9
2. What is Distributed Application? Explain the steps to create RMI applications using example. 2+10
3. How socket class can be used in socket program? Write client-server chart programs in Java. 3+9

Group B

Answer SEVEN questions.

7×8=56

4. What is JDBC? Explain different types of JDBC drivers. Write a JDBC Program to display student details from Student table.
5. What is the use of this keyword? How is multiple inheritances achieved in java? Give example
6. How thread is created in Java? Explain the different states of a thread. WAP which will display your name in one thread and your address in another thread in every 500 milliseconds. There should be 10000 iteration. ✓ ..
7. Define polymorphism. Differential between overloading and overriding method with example. ✓
8. What is an applet? How an image can be loaded in applet? Give example.

(2)

9. What is Exception handling? Explain try, catch and finally with an example.
10. Which classes are used to read and write data to file? Write a simple code to write a word to a file.
11. What is a Package? What are the benefits of using packages? Write down the steps in creating a package and using it in a java program with an example.



PURBANCHAL UNIVERSITY

2022

Bachelor in Information Technology (B.I.T.)/Sixth Semester/Final
Time: 03:00 hrs. Full Marks: 80/Pass Marks: 32

BIT376CO: Advance Object-Oriented Programming (New Course)

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

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Group A

$2 \times 12 = 24$

Answer TWO questions.

1. Explain the basic concepts of object-oriented programming. Why is Java known as platform-natural language? Explain the concept of virtual machine in Java Programming language along with block diagram. 4+4+4
2. Define socket. What are the use of TCP and UDP socket? Write a TCP socket program to send "Hello server" text to the remote machine listening on 9999 port and having 192.168.10.20 IP address. 1+3+8
3. Difference between Swing and AWT Java GUI Packages. Explain Swing Components along with example. 4+8

Group B

$7 \times 8 = 56$

Answer SEVEN questions.

4. What are the difference between an array and a vector? Explain the advantage and disadvantage of both. 4+4
5. Write an applet program to calculate x^y where both x and y are integers. 8
6. Write a JDBC connection program with following details.
 - (a) Driver: com.mysql.jdbc.Driver.
 - (b) Host: localhost:
 - (c) Database: students
 - (d) User: root
 - (e) Password : secret
 - (f) Port: 3306

Contd. ...

(2)

7. Discuss how object serialization and object deserialization are achieved.
8. Explain the lifecycle of Servlet with block diagram.
9. What is thread synchronization? Explain the concept of multithread in Java with suitable example.
10. What is code reusability? Explain different mechanism to reuse the code in Java.
11. What are Stub and Skeleton in Distributed Application? Explain its function with block diagram.
12. Write short notes on any TWO:
 - (a) Polymorphism
 - (b) Applet vs. Application
 - (c) Marshalling and Unmarshalling

$$2 \times 4 = 8$$