

**POKHARA UNIVERSITY**

Level: Bachelor  
Programme: BCA  
Course: Java Programming

Semester: Fall  
Year : 2018  
Full Marks: 100  
Pass Marks: 45  
Time: 3hrs.

Candidates are required to give their answers in their own words as far as practicable.  
The figures in the margin indicate full marks.

Attempt all the questions.

1. a) Define platform independency. Explain the bitwise operators with an example. 7
  2. a) What is an applet? Differentiate between applet and application with supporting example. 7
  3. a) Write a program to input 10 students name and address and store into a file called "student.txt" 7
  4. a) Write a program to create an applet as per the given below figure using grid bag constraint layout. 7
- Enter Name
- Enter Address
- Gender
- City
- |            |
|------------|
| Biratnagar |
| Kathmandu  |
| Bhaktapur  |
| Pokhara    |
- b)** What do mean by multi thread programming? Explain the multi thread programming with supporting an example. 8
5. a) What do mean by java client – Server programming? Explain TCP/IP Server socket program with an example. 7
- b) Define URL connection. Write down the steps with code for database connection. 8
6. a) Write a java program to create an applet that reads customer data like as customer id, name and address and store into the database. 7
- b) What is a generic class? Explain with generic constructor with an example. 8
7. Write short notes on any two: 2×5
- a) Generic methods
  - b) Print Writer class
  - c) Applet Tag

Submit

Cancel

# POKHARA UNIVERSITY

Level: Bachelor  
Programme: BCA  
Course: Java Programming

Semester: Spring

Year : 2018  
Full Marks: 100  
Pass Marks: 45.  
Time : 3hrs.

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

The figures in the margin indicate full marks.

Attempt all the questions.

1. a) What is an interface? How to create multiple inheritance in java?  
Explain with an example. 7
- b) Write a Java Program to find  $x$  to the power  $y$ . Use overloading for different cases when  $x$  and  $y$  are combinations of integer and floating points numbers. 8
2. a) Differentiate between Java application and Java applet. Briefly explain the life cycle of Applet. 7
- b) What are the advantages of thread? Discuss the multi thread program with an example. 8
3. a) Write a program to input 10 suppliers name, address and phone number and store into a file called "supplier.dat". 7
- b) What are the different types of layout in java? Explain the Gridbag layout manager with an example. 8
4. a) Classify the event categories. State and explain about event delegation model. 7
- b) What do mean by proxy server? Explain the Datagram Server Socket program with an example. 8
5. a) Write a java program to read the all customer's records from the customer table and display in elegant table format. 8
- b) Classify the types of statements and result set. Mention the steps for using the JDBC in Database applications. 7
6. a) What do you mean by generics? State and explain about general form of generic class and creation of generic methods. 7
- b) Define URL. Explain four components of URL with suitable example. 8
7. Write short notes on any two:  
    a) Frame  
    b) Polymorphism in Generics  
    c) Netbeans IDE 2x5

# POKHARA UNIVERSITY

Level: Bachelor  
Programme: BCA  
Course: Java Programming

Semester: Spring

Year : 2017  
Full Marks: 100  
Pass Marks: 45  
Time: 3hrs.

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

The figures in the margin indicate full marks.

Attempt all the questions.

1. a) Define constructor and its advantages? What is the use of super keyword in java? Explain with example. 8
- b) What are exception handling techniques? Show the use of Array Index Out Of Bounds Exception with possible explanation. 7
2. a) Why applets are used in java? Explain the life cycle of an applet with illustrative diagram. 8
- b) Explain the difference between random file and sequential file access in java. 7
3. a) Write the program to append to an already existing file named "student.mov". 7
- b) Explain multithreading with runnable interface with suitable example. 8
4. a) Write the code to design the student registration form using swing components using action Performed() method. 8
- b) Describe about event delegation model with suitable example. 7
5. a) Define proxy server, socket and port. Write down the steps for implementing TCP/IP based client and server. 7
- b) What does the URL Connection class does and what are the methods used in the class. Explain? 8
6. a) Write a program to extract the user information such as username, email, address, age, sex and father's name from the database and display in the console. 7
- b) What is the difference between generic methods and other methods used in java? Explain. 8

# POKHARA UNIVERSITY

Level: Bachelor

Semester - Fall

Year : 2017

Programme: BCA

Full Marks: 100

Course: Java Programming

Pass Marks: 45

Time : 3hrs.

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

*The figures in the margin indicate full marks.*

**Attempt all the questions.**

- |   |   |     |
|---|---|-----|
| 8 | a) Explain the OOP features with respect to Java.   | 8   |
| 7 | b) Explain checked and unchecked exception. Explain with suitable example.                                      | 7   |
| 8 | 2. a) Explain the life cycle of applet with suitable example.   | 8   |
| 7 | b) Why runnable thread is preferred than packaged thread? Explain with suitable example.                        | 7   |
| 7 | 3. a) Differentiate between byte/character and buffered reader/writer with suitable example.                    | 8   |
| 8 | b) Define package. Write down the steps to create package with suitable example                                 | 7   |
| 7 | 4. a) Why GUI component is required? Explain various types of layout manager.                                   | 7   |
| 8 | b) Define event delegation model. Explain event source, event listener and event handler with suitable example. | 8   |
| 8 | 5. a) Define datagram. Explain with example demonstrating datagram server and client.                           | 8   |
| 7 | b) Define sockets. How it is differ from proxy. Explain with example.   | 7   |
| 7 | 6. a) Explain the types of JDBC drivers.  | 8   |
| 7 | b) Define generics and its requirement. Explain with generic classes with example.                              | 7   |
| 8 | 7. Write short notes on any two:  | 2×5 |
| 7 | a) Print writer   |     |
| 7 | b) Swing component  |     |
| 8 | c) CRUD Operation   |     |

# POKHARA UNIVERSITY

Level: Bachelor  
Programme: BCA  
Course: Java Programming

Semester: Fall

Year : 2016  
Full Marks: 100  
Pass Marks: 45  
Time: 3hrs.

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

*The figures in the margin indicate full marks.*

*Attempt all the questions.*

- a) Why Java is called platform independency? What are the major features of Java language? 7
- b) Explain different data types in Java language with supporting example? 8
- a) What is an applet? Differentiate between applet and application with supporting respective example. 7
- b) Write applet code to create a button and label it with "Click Me", and When button is clicked by mouse, the message " Welcome to Pokhara University" should be displayed in text Field of applet. 8
- a) Grid bag constraint layout. 7

Enter Name	<input type="text"/>			
Enter add	<input type="text"/>			
Select Gender	<input type="radio"/>	male	<input type="radio"/>	female
City	<input type="checkbox"/> Biratnagar <input type="checkbox"/> Kathmandu <input type="checkbox"/> Bhaktapur <input type="checkbox"/> Pokhara			
	<input type="text"/>	<input type="text"/>		

- b) What is tread synchronization explain with detail example. 8

4. a) What is Event? Explain the major type of event sources and event Listeners. 7
- b) What is Socket? Write a simple Java socket programming in which client sends a text and server receives it. 8
5. a) Differentiate between JDBC and ODBC driver? What are the steps to connect to the database in Java? 7
- b) What is Generics in Java and what are its advantages? Explain it with a simple generic program. 8
6. a) Write the steps for implementing the TCP/IP based Client/Server applications. 7
- b) What is thread synchronization explain with detail example? 8
7. Write short note on **any two**: 2×5
- a) CRUD operations
  - b) Event delegation Model
  - c) Conversion of application to applet

# POKHARA UNIVERSITY

Level: Bachelor  
Programme: BCA  
Course: Java Programming (New)

Semester – Fall

Year : 2015  
Full Marks: 100  
Pass Marks: 45  
Time : 3 hrs.

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

The figures in the margin indicate full marks.

Attempt all the questions.

Why Java called as platform independent? Explain JVM architecture. 4+4

Design a class to represent account, including the following members. 7

## Data Members:

Name of Depositer --- String

Account Number --- int

Type of Account --- boolean

Balance Amount --- double

## Methods:

- i. To assign initial values (using constructor)
- ii. To deposit an amount after checking balance and minimum balance is 5000
- iii. To display the name of the depositor and balance.

Differentiate between Applet Vs Application. Explain life cycles of applet. 4+4

Why multithreading is required in Java programming? Explain thread life cycle. 3+4

What is Java Stream? How many types of streams used in Java? 3+5  
Write a Java program to write 50 Employees info (empname, empage, empid) into file called EmpInfo.txt.

Define AWT. Explain different layout manager used in AWT with suitable example. 2+5

Explain Java Event Handling? What are the various steps for handling event in Java? Explain with an example. 2+5

b) What are the advantages of socket programming? Explain TCP/IP 3+5

based Server and Client.

5. a) Explain the use of JDBC. Explain the types of statement objects with suitable example. 2+6
- b) Explain types of JDBC drivers. 7
6. a) Define Generic programming. Give an example of generic classes with example. 8
- b) Create a simple swing form for the following design with suitable layout. 7

Name:

Address:

Telephone No:

Email ID:

DOB:

Age:

Sex

A vertical stack of five empty text input fields, likely for Name, Address, Telephone No, Email ID, and DOB.

Male

Female

Submit

Close

7. Write short notes on any two: 2×5

- a) URL Connections  
b) Throws and Throw  
c) Print writer.

**Level: Bachelor  
Programme: BCA**

**Semester – Spring**

**Year : 2015**

**Full Marks : 100**

**Pass Mark : 45**

**Time : 3 Hrs**

**Course: Java Programming**

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

*The figures in the margin indicate full marks.*

*Attempt all the questions.*

- |    |   |        |
|----|---|--------|
| 1. | a) What is the difference between inheritance and interface? Explain with example.  | 8      |
|    | b) What is the use of catch block in Exception handing? Write a program to find the reverse of any given number.  | 7      |
| 2. | a) What is an applet? Explain the applet methods life cycle.<br>b) What do you mean by thread? Explain the life cycle of a thread.  | 7<br>8 |
| 3. | a) Differentiate between sequential and random access file with supporting an example.<br>b) What do mean by layout manager? Explain the border layout manager with an example. | 7<br>8 |
| 4. | a) Write the code to design the login form using swing components.<br>b) Explain about the MVC pattern.   | 8<br>7 |
| 5. | a) Define JDBC. Explain the user of Driver Manager, Connection Statement and result set Components in JDBC.<br>b) Explain TCP/IP Server socket with suitable example.           | 8<br>7 |
| 6. | a) What is a generic class? Explain with an example.<br>b) Write a program to find an IP address of any machine by domain name.   | 8<br>7 |
| 7. | Write short notes on <b>any two</b> :<br>a) Conversion of application to applet<br>b) Thread life cycle<br>c) CRUD Operation in Database  | 2×5    |

# POKHARA UNIVERSITY

Semester -Fall

Year : 2014

Full Marks: 100

Pass Marks: 45

Time : 3hrs.

Level: Bachelor  
Programme: BCA  
Course: Java Programming

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

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*Attempt all the questions.*

- a) What are the properties of empty class? Explain the two types of class loader in Java Programming language. 8
- b) What is type casting? Explain type casting vs. down casting? When do you get ClassCastException? 7
- a) Write a program to print all the prime numbers between n and m. 8
- b) What is the purpose of garbage collection in Java? When is it used? Can we force Garbage collector to run at any time? Justify your answer. 7
- a) Explain Outer and Inner classes in Java? When will you use an Inner Class? 7
- b) What do you mean by java package? How is a package different from an interface? Explain interface with a suitable example. 8
- a) What are the uses of Applet? Briefly explain the method of passing parameter to applet program from html tags. 8
- b) What is the basic difference between the 2 approaches to exception handling?
  - 1) Try catch block and
  - 2) Specifying the candidate exceptions in the throws clause?7

When and which approach should you use from the above?

- a) What is the advantage of the event-delegation model over the earlier event-inheritance model? 7
- b) Write a java frame application called myFrame containing one Label, one text area and one close button. It should close the application whenever we press the close button. 8
- a) Write a java code to insert the values in an ms-access table called student which has fields stdid, name and address. 8

b) What do you mean by URI and URL? Explain the java API that is used to create a TCP/IP server application.

2x5

7. Write short notes on any two:

- a) Abstract class
- b) String vs StringTokenizer
- c) Dynamic method dispatching

## POKHARA UNIVERSITY

Level: Bachelor  
Programme: BCA  
Course: Java Programming

Semester - Spring

Year : 2014

Full Marks: 100

Pass Marks: 45

Time : 3 hrs.

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

*The figures in the margin indicate full marks.*

*Attempt all the questions.*

1. a) What are the features that make Java as object oriented programming language? 5  
b) Write a Java program to generate the following series 5  

1  
1 2  
1 2 3  
1 2 3 4  
1 2 3 4 5
- c) What do you mean by scope of variable? Describe the role of public, private protected and default access specifiers used in java program 5
2. a) Create a class Employee with instance variables name, address, telephone, monthly\_basic\_salary and allowances. Write default and parameterized constructor. Also write a method to calculate the income tax of employee assuming 15 % tax on earning greater than 2 lakhs. Also write method to get the state of object on the screen. 8  
b) How is abstract class different from interface? Explain with suitable example. Can we declare a class as both final and abstract keyword? 7
3. a) Differentiate between static and non-static inner classes. Write examples of a non-static inner class and list the class files that would be created on compilation. 7  
b) Differentiate between package and interface with suitable example. 8
4. a) Differentiate error and exceptions. How exceptions can be handled in java? 7

- b) What do you mean by string buffer? Explain the major string buffer functions with supporting example. 8
5. a) Write a program to demonstrate use of repaint( ) and /or update( ) method(s) of the java. applet. Applet class. 7
- b) Explain event handing in Java. What are the steps for handing events in java? Explain with an example. 8
6. a) Define JDBC and ODBC. Briefly explain the different types of JDBC driver. 8
- b) What are the advantages of socket programming? Explain the Server socket program. 7
7. Write short notes on any two: 2x5  
a) Frames  
b) String constructor  
c) Dynamic method Dispatching