

**5/H-80 (xiii) (Syllabus-2015)**

**Odd Semester, 2020**

( Held in March, 2021 )

**COMPUTER APPLICATION**

( Honours )

( BCA-502 )

**( Object Oriented Programming Through Java )**

*Marks : 45*

*Time : 2 hours*

*The figures in the margin indicate full marks  
for the questions*

Answer **one** question from each Unit

**UNIT—I**

1. (a) What do you understand with the statement that "Java is portable and architecture-neutral"? 2+2=4
- (b) What do JDK and IDE stand for? 2
- (c) What is JVM? What are Java source filename extension and Java bytecode filename extension? 1+2=3

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( Turn Over )

( 2 )

2. (a) What is bytecode? 2  
(b) What are the three parts of a for loop control? Write a for loop that prints the numbers from 1 to 100. 3+1=4  
(c) Discuss narrowing conversion in Java. 3

UNIT—II

3. (a) Differentiate between method overloading and method overriding with the help of an example. 3+3=6  
(b) When is an object in Java eligible for garbage collection? 3
4. (a) Define a class. Why is an object called an instance of a class? 1+1=2  
(b) How is a static variable different from an instance variable? 2  
(c) Show how a string object can be created from the following : 2  
(i) A string literal  
(ii) An array of characters  
(d) With the help of an appropriate example, illustrate the use of command line arguments. 3

UNIT—III

5. (a) What is a package? Discuss the various levels of access protection available for packages. 2+4=6  
(b) Why is multithreading needed? What is a thread? 2+1=3

( 3 )

6. (a) What is a wrapper class? Describe any four primitive wrapper classes. 2+4=6  
(b) Describe the *try*, *catch* and *finally* block used in exception handling. 3

UNIT—IV

7. (a) What is a stream? Explain the various types of streams available in Java. 1+4=5  
(b) How do you create a statement and execute an SQL statement? 4
8. (a) How do you create sockets on the server and client side with—  
(i) TCP/IP;  
(ii) UDP. 2+2=4  
(b) Specify the steps involved in establishing a connection with a database. 5

UNIT—V

9. (a) What is an applet? How do you put an applet into a web page? 2+2=4  
(b) What is the general model for distributing and handling events? 5
10. Describe the architecture of an applet. Illustrate with an example, how a message such as "Welcome to Applets" can be displayed on an applet. 4+5=9

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