

**Rayat Shikshan Sanstha**  
**Sadguru Gadage Maharaj College, Karad**  
**(An Autonomous College) Affiliated to Shivaji University, Kolhapur**

Mar./April 2024

Course Name - B.Sc. Part-III Semester-V

Subject- Computer Science Paper-X Paper No.:X

Subject Code No.-BCST502

**Day & Date-**

Time - Saturday, 06/04/2024

3:00 PM To 5:00 PM

Marks -40

**Instruction :**

- 1) All questions are compulsory.
- 2) Draw neat labelled diagram wherever necessary.
- 3) Figures to the right indicates full marks.

**Q1 Select correct alternatives. (1 Marks Each)**

8

- 1 All C# Application begin execution by calling the .....Method.
  - a. Class()
  - b. Main()
  - c. Namespace
  - d. Method
2. A.....is an identifier that denotes storage location.
  - a. Common language runtime
  - b. CLI
  - c. Garbage Collection
  - d. Class Loader
3. The method that have the same name but different parameter list and different definition is called.....
  - a. Method Overloading
  - b. Operator Overloading
  - c. Method Overriding
  - d. Operator Overriding
4. C# does't support to the .....
  - a. Abstraction
  - b. Polymorphism
  - c. Multiple Inheritance
  - d. Inheritance
5. Which of the following Assemblies can be stored in global assembly cache?
  - a. Private assembly
  - b. Public assembly
  - c. Shared assembly
  - d. Protected assembly

**Q.2 Attempt Any Two of the Following. (8 Marks Each)**

1. Explain the Value Type and Reference Type with Example.
  2. Describe parameter passing technique.
  3. Explain the standard controls and components and Events.

**Q.3 Attempt Any Four of the Following. (4 Marks Each)**

1. Difference between Class and structure.
  2. Explain Polymorphism with example.
  3. Explain Enumeration And Namespaces.
  4. Explain Garbage Collection.
  5. Explain Interface and Derive Interface.
  6. Explain Form ,Form Class, MDI in windows application.

**Rayat Shikshan Sanstha**  
**Sadguru Gadage Maharaj College, Karad**  
**(An Autonomous College)Affiliated to Shivaji University,Kolhapur**

**Mar./April 2024**

**Course Name - B.SC.**

**Part-III Semester-V**

**Subject- Computer Science Paper-XI Paper No.:XI**

**Subject Code No.-BCST503**

**Day & Date-Monday, 08/04/2024**

**Time - 3:00 PM To 5:00 PM**

**Marks -40**

**Instruction :**

- 1) All Questions are Compulsory
- 2) Figures to the right indicates Full Marks
- 3) Draw Neat Labelled Diagrams Whenever Required

**Q.1. Select the Correct Alternative and Rewrite the Sentence**

**8**

1) \_\_\_\_\_ is the ListenerInterface of ScrollBar Control

- a)ActionListener    b)AdjustmentListener    c)ItemListener
- d)TextListener

2) To Obtain name of Button control \_\_\_\_\_ method is used

- a) getSource()    b) getActionCommand()    c) charAt()    d) None of these

3) Which method can set or change the text in a Label?

- a) setText()    b) getText()    c)Both a& b    d)None of these

4) Frame window have \_\_\_\_\_ superclass

- a) Panel    b)Window    c)Canvas    d)None of these

5) AWT means \_\_\_\_\_

- a) applet window toolkit    b) abstract window toolkit
- c) absolute window toolkit    d) none of these

6) Which are passive controls that do not support any interaction with the user?

- a)Choice    b)Button    c)Label    d)CheckBox

7) List Control have \_\_\_\_\_ event class

a) ItemEvent b) AdjustmentEvent c) KeyEvent d) TextEvent

8) Which cookie it is valid for single session only and it is removed each time when the user closes the browser?

a) Persistent Cookie b) Non-Persistent Cookie c) Both a&b d) None of these

**Q.2. Attempt any TWO of the following**

A) What is JDBC? Explain JDBC Drivers in Detail.

B) What is Session Management? Explain in Detail.

C) What is AWT? Explain Different AWT Event Classes and Listener Interfaces.

**Q.3 Attempt any FOUR of the following.**

A) Write difference between AWT and Swing

B) Write short note on Cookie

C) Write short note on Servlet

D) Write short note on MVC Architecture

E) Write Java Program to create Applet window

F) Write JSP Program to display sum of digits of a number

**Rayat Shikshan Sanstha  
Sadguru Gadage Maharaj College, Karad  
(An Autonomous College) Affiliated to Shivaji University, Kolhapur**

**Mar./April 2024**

**Course Name - B.SC.**

**Part-III Semester-V**

**Subject- Computer Science Paper-XII Paper No.:XII**

**Subject Code No.-BCST504**

**Day & Date-Wednesday, 10/04/2024**

**Time - 3:00 PM To 5:00 PM**

**Mark**

**Instruction :1) All questions are compulsory.**

- 2) Figures to the right indicates full marks.
- 3) Draw neat labeled Diagrams wherever necessary

**Que.1) Choose the correct answer.**

**(Q)**

- 1) Which of the following functions helps us to randomize the items of a list?

- a) seed
- b) randomise
- c) shuffle
- d) uniform

- 2) Which type of Programming does Python support?

- a) object-oriented programming
- b) structured programming
- c) functional programming
- d) all of the mentioned

- 3) The value of the Python expression given below would be:

$$4+2**5//10$$

- a) 77
- b) 0
- c) 3
- d) 7

- 4) The output of this Python code would be:  

```
s='{}', {1}, and {2}'  
s.format('hi', 'great', 'day')
```

a) 'hi, great, and day'

b) 'hi great and day'

c) 'hi, great, day'

d) Error

- 5) Which function removes a set's first and the last element from a list?
- a) pop
  - b) dispose
  - c) remove
  - d) discard

- 6) Which of these functions can NOT be defined under the sys module?
- a)sys.argv
  - b)sys.readline
  - c)sys.path
  - d)sys.platform

) The output of this Python code would be:

```
a = ['mn', 'op']
print(len(list(map(list, a))))
```

4

Not specified

thon case sensitive when dealing with identifiers' nine independent  
?d my two of the following.

ction that can accept two arguments prints its value?  
non shell and installation process

hods with examples?  
the following.

- a) Explain dictionary with examples.
- b) Explain bitwise operators and its types with example?
- c) Write tkinter library installation process?
- d) Define Regular Expression with example?
- e) Explain Literals and keywords example?
- f) Explain Hybrid inheritance ?Explain Example?

**Seat No.**

**Rayat Shikshan Sanstha  
Sadguru Gadage Maharaj College, Karad  
(An Autonomous College) Affiliated to Shivaji University, Kolhapur  
Mar./April.2023**

## **Course Name - B.Sc.**

Part-III Semester-V

**Subject- Computer Science Paper-X Paper No.:X**

**Subject Code No.-BCST502**

**Day & Date-** Thursday, 25/05/2023

**Time - 11.00 am to 01.00 pm**

Marks -40

### **Instruction :**

- 1) All questions are compulsory.
  - 2) Draw neat labelled diagram wherever necessary.
  - 3) Figures to the right indicates full marks.

**O1 Select correct alternatives. (1 marks each)**

- 1) The ..... is responsible for managing the execution of code written in any of the .NET supported languages.
    - a) Common Language Runtime
    - b) Framework Class Library
    - c) Base Class Library
    - d) Windows Presentation Foundation
  - 2) A data type is a value type if it holds a data value within its own memory space, is called.....
    - a) value type
    - b) Reference type
    - c) Memory Type
    - d) Space Type
  - 3) Once the C# programs are compiled, they're physically packaged into .....
    - a) Assemblies
    - b) XML
    - c) Byte
    - d) Binary
  - 4) ..... are used to pass methods as arguments to other methods.
    - a) Events
    - b) Delegates
    - c) ToString()
    - d) Object Class
  - 5) The class whose features are inherited is known as .....
    - a) Super Class
    - b) SubClass
    - c) Object Class
    - d) None Of These
  - 6) In ..... , subclasses inherit the features of one superclass
    - a) Multiple Inheritance
    - b) Single Inheritance
    - c) Hybrid inheritance
    - d) Hierarchical Inheritance
  - 7) The ..... controls are designed to permit users to make one or more selections on a form.
    - a) CheckBox
    - b) TextBox
    - c) Label
    - d) None Of these

8) The ..... offer different interfaces for displaying and manipulating  
a list format.

- a) Button
- b) Label
- c) ListBox
- d) None Of these

**Q.2** Attempt Any Two of the Following. (8 marks each)

- a) Explain Block Diagram of .net framework.
- b) Describe Control Flow Statement.
- c) Explain Compiling and Running the Program.

**Q.3** Attempt Any Four of the Following. (4 marks each)

- a) Difference between Managed Code and Unmanaged Code.
- b) Explain Value type and reference type.
- c) Explain Standard Controls.
- d) What is Delegates, type of delegates.
- e) What is inheritance, Explain type of inheritance.
- f) What is method Overloading.

Ruyat Shikshan Sanstha's  
Sadguru Gadge Maharaj College, Karad  
(An Autonomous College)

Affiliated Shivaji University, Kolhapur

Supplementary SEE Examination, March /April – 2022-23

Course Name: B.Sc. Computer Science (Optional) Part-III SEM-V

Subject: Python Programming

Subject Code No: BCST504 (Paper XII)

Day and Date: Thursday, 06/07/2023

Time: 03.00 pm to 05.00 pm

**Instructions:**

- 1) All Questions are compulsory.
- 2) Figures to the right indicate full marks.

**Q.1) Select correct alternative and rewrite entire statement. [8]**

- 1) Who founded Python?
  - a) Alexander G. Bell
  - b) Vincent van Gogh
  - c) Leonardo da Vinci
  - d) Guido van Rossum
- 2) What is the extension of the Python file?
  - a) .pl
  - b) .py
  - c).python
  - d) .p
- 3) The built-in function in Python is:
  - a) Print ()
  - b) Seed ()
  - c) Sqrt ()
  - d) Factorial ()
- 4) Which of the following is the use of function in python?
  - a) Functions do not provide better modularity for applications
  - b) One can't create our own functions
  - c) Functions are reusable pieces of programs
  - d) All of the above

5) find the invalid variable among the following:

- a) 1st\_string
- b) my\_string\_1
- c) \_
- d) foo

6) Which arithmetic operators can we NOT use with strings?

- a) -
- b) +
- c) \*
- d) All of the above

7) What keyword would you use to add an alternative condition to an if statement?

- a) else if
- b) elseif
- c) elif
- d) None of the above

8) Can we write if/else into one line in python?

- a) Yes
- b) No
- c) if/else not used in python
- d) None of the above

### **Q.2) Attempt any Two of the following.**

- a) Explain Concept of Tuple with its different method.
- b) Define function. Explain with example.
- c) Explain jumping statement break, continue and goto with example.

### **Q.3) Attempt any four of the following.**

- a) Explain increment and decrement operators with example.
- b) Explain concept of list with its operations.
- c) Explain for loop statement with example
- d) Write a python program to check given number is even or odd.
- e) Write a short note on GUI.
- f) Write a short note on class and object.

Seat No.

Rayat Shikshan Sanstha  
Sadguru Gadage Maharaj College, Karad  
(An Autonomous College) Affiliated to Shivaji University, Kolhapur  
Mar./April.2023

Course Name - B.SC. Part-III Semester-V  
Subject- Computer Science Paper-XII Paper No.:XII  
Subject Code No.-BCST504

Day & Date- Saturday, 27/05/2023

Time - 11.00 am to 01.00 pm

Marks -40

**Instruction :**

- 1) All Questions are compulsory
- 2) Figures to the right indicate full marks.

**Q.1) Select correct alternative and rewrite entire statement.**

- 1 Which type of Programming does Python support?
  - a) object-oriented programming
  - b) structured programming
  - c) functional programming
  - d) all of the mentioned
- 2 What does the name Python signify?
  - a) It is a snake
  - b) It is very difficult to use
  - c) Named after the British comedy group Monty Python
  - d) All of the above
- 3 What is the data type of (1)?
  - a) List
  - b) Tuple
  - c) Integer
  - d) Both b and c
- 4 Which of the following is not a core data type in Python programming?
  - a) Tuples
  - b) Lists
  - c) Class
  - d) Dictionary
- 5 Which of the following is not used as a loop in python?
  - a) for loop
  - b) while loop
  - c) do-while loop

d) None of the above

6 Which of the following is a valid for loop in Python?

a) for i in range(5)

b) for i in range(0,5)

c) for(i=0; i < n; i++)

d) for i in range(0,5);

7 Which keyword is used for function?

a) Fun

b) Define

c) Def

d) function

8 The readlines() method returns \_\_\_\_\_

a) str

b) a list of lines

c) a list of single characters

d) a list of integers

Q.2) Attempt any Two of the following.(8 Mark Each)

- a) Explain Concept of dictionary with its different method.
- b) Define Inheritance. Explain difference types of inheritance with example.
- c) Explain all looping statement with example

Q.3) Attempt any four of the following.(4 Mark Each)

- a) Explain all keywords in python.
- b) Explain concept of set with its operations
- c) Explain if else statement with example
- d) Define function with example
- e) Write a short note on regular expression.
- f) Write use of following method
  - a) delete()
  - b) index()
  - c) reassign()
  - d) reverse()

Rayat Shikshan Sanstha  
 Sadguru Gadage Maharaj College, Karad  
 (An Autonomous College) Affiliated to Shivaji University, Kolhapur  
 Mar./April.2023  
 Course Name - B.S.C. Part-III Semester-V  
 Subject- Computer Science Paper-XI Paper No.:XI  
 Subject Code No.-BCST503

Day & Date-Friday, 26/05/2023

Time - 11.00 am to 01.00 pm

Marks

**Instruction :**

- 1) All questions are compulsory
- 2) Figures to the right indicates full marks
- 3) Figures to right indicates full marks

**Q.1. Select the Correct Alternative**

- 1) \_\_\_\_\_ is rich control in swing
 

a) JButton	b) JFrame
c) JTabbedPane	d) JCheckBox
- 2) CheckBox Control have \_\_\_\_\_ event class
 

a) ItemEvent	b) AdjustmentEvent
c) KeyEvent	d) TextEvent
- 3) Which method can set or change the text in a Label?
 

a) setText()	b) getText()
c) Both a& b	d) None of these
- 4) Which are passive controls that do not support any interaction with the user?
 

a) Choice	b) Button	c) Label	d) CheckBox
-----------	-----------	----------	-------------
- 5) Frame window have \_\_\_\_\_ superclass
 

a) Panel	b) Window	c) Canvas	d) None of these
----------	-----------	-----------	------------------
- 6) AWT means \_\_\_\_\_
 

a) applet window toolkit	b) abstract window toolkit
--------------------------	----------------------------

**Q.2. Attempt any TWO of the Following**

- a) What is JDBC? Explain in detail different JDBC drivers.
  - b) Describe any Four Components of swing in detail.
  - c) What is AWT? Describe AWT Controls in Brief

**Q.3. Attempt any Four of the Following**

- a) Write short note on JSP
  - b) Write JSP Program to check the number is prime or not
  - c) Write short note on Cookie
  - d) Explain MVC Architecture
  - e) Write difference between AWT and Swing
  - f) Explain Types of Servlet

Seat No.

Supplement  
S.G.M. Coll.  
(An Auton-

Rayat Shikshan Sanstha

Sadguru Gadage Maharaj College, Karad

(An Autonomous College) Affiliated to Shivaji University, Kolhapur

Mar./April.2023

Course Name - B.Sc. Part-III Semester-VI

Subject- Computer Science Paper-XVI Paper No.:XVI

Subject Code No.-BCST604

Day & Date- Thursday, 06/07/2023

Time - 11.00 am to 01.00 pm

Marks -40

**Instruction :**

- 1) All Questions are compulsory.
- 2) Figures to the right indicate full marks.

**Q.1) Select correct alternative and rewrite entire statement.(1 Mark Each)**

- 1 Which of the following is stored at client side?
  - a) URL rewriting
  - b) Hidden form fields
  - c) SSL sessions
  - d) Cookies
- 2 Which one of the following is the most common internet protocol?
  - a) HTML
  - b) NetBEUI
  - c) TCP/IP
  - d) IPX/SPX
- 3 The "function" and " var" are known as
  - a) Keywords
  - b) Data types
  - c) Declaration statements
  - d)Prototypes
- 4 Ajax is used for creating \_\_\_\_.
  - a) Web applications
  - b) Desktop applications
  - c) System applications
  - d) Both a. and b
- 5 What is JDBC?
  - a) java compiler
  - b) Java interpreter
  - c) Java API

- 6 Which http method send by browser that asks the server to get the page only?  
d) All of the above
- a) post  
b) option  
c) get  
d) put
- 7 A \_\_\_\_\_ is a group of reusable code which can be called anywhere in your program.  
a) exception  
b) function  
c) loop  
d) switch
- 8 In the line of code given below, the prototype represents the ----- Function x(){};  
a) Prototype of a function  
b) Function x  
c) Not valid  
d) A custom constructor

**Q.2) Attempt any Two of the following. (8 Mark Each)**

- a) Explain HTTP (Hypertext Transfer Protocol) in detail
- b) Define Array. Explain different ways to construct array in JavaScript.
- c) What is Servlet? Explain life cycle of servlet

**Q.3) Attempt any four of the following.(4 Mark Each)**

- a) Explain concept of JDBC
- b) Explain FTP Protocol in detail.
- c) Write difference between session and cookies
- d) How to declare variable in JavaScript? Explain scope of variable with example.
- e) Write a short note on AJAX
- f) Write use of following method a) abs() b) sqrt() c) max() d) min()

**Seat No.**

**Supplementary**  
**S.G.M. College,**  
**(An Autonomous)**

**Rayat Shikshan Sanstha  
Sadguru Gadage Maharaj College, Karad  
(An Autonomous College) Affiliated to Shivaji University, Kolhapur**

**Mar./April.2023**

**Course Name - B.SC. Part-III Semester-VI**

**Subject- Computer Science Paper-XVI Paper No.:XVI**

**Subject Code No.-BCST604**

**Day & Date- Thursday, 06/07/2023**

**Time - 11.00 am to 01.00 pm**

**Marks -40**

**Instruction :**

- 1) All Questions are compulsory.
- 2) Figures to the right indicate full marks.

**Q.1) Select correct alternative and rewrite entire statement.(1 Mark Each)**

- 1 Which of the following is stored at client side?
  - a) URL rewriting
  - b) Hidden form fields
  - c) SSL sessions
  - d) Cookies
- 2 Which one of the following is the most common internet protocol?
  - a) HTML
  - b) NetBEUI
  - c) TCP/IP
  - d) IPX/SPX
- 3 The "function" and " var" are known as
  - a) Keywords
  - b) Data types
  - c) Declaration statements
  - d)Prototypes
- 4 Ajax is used for creating \_\_\_\_.
  - a) Web applications
  - b) Desktop applications
  - c) System applications
  - d) Both a. and b
- 5 What is JDBC?
  - a) java compiler
  - b) Java interpreter
  - c) Java API

- 6 d) All of the above  
6 Which http method send by browser that asks the server to get the page only?  
a) post  
b) option  
c) get  
d) put
- 7 A \_\_\_\_\_ is a group of reusable code which can be called anywhere in your program.  
a) exception  
b) function  
c) loop  
d) switch
- 8 In the line of code given below, the prototype represents the ----- Function x(){ };  
a) Prototype of a function  
b) Function x  
c) Not valid  
d) A custom constructor
- .2) Attempt any Two of the following. (8 Mark Each)**
- a) Explain HTTP (Hypertext Transfer Protocol) in detail  
b) Define Array. Explain different ways to construct array in JavaScript.  
c) What is Servlet? Explain life cycle of servlet
- 3) Attempt any four of the following.(4 Mark Each)**
- a) Explain concept of JDBC  
b) Explain FTP Protocol in detail.  
c) Write difference between session and cookies  
d) How to declare variable in JavaScript? Explain scope of variable with example.  
e) Write a short note on AJAX  
f) Write use of following method a) abs() b) sqrt() c) max() d) min()

Seat No.	
-------------	--

**B.C.S. (Part - III) (Semester - V) (New)****Examination, November-2018****COMPUTER SCIENCE****Introduction to VB.Net (Paper - X)****Sub. Code :66067****Day and Date : Tuesday, 13 - 11 - 2018****Total Marks :40****Time : 12.00 noon to 2.00 p.m.**

- Instructions :**
- 1) All questions are compulsory.
  - 2) Figures to the right indicate full marks.

**Q1) Select the correct alternative for each of the following. [8]**

- a) Solution explorer not display \_\_\_\_\_.
  - i) Form properties
  - ii) Reference folder
  - iii) Form file
  - iv) Assemble file
- b) From following sentence \_\_\_\_\_ isnot true about forms and controls in Visual Basic.
  - i) They are pre-built
  - ii) They are graphical objects
  - iii) New versions of the classes must be created with each project
  - iv) Buttons can be created with the drag and drop method.
- c) VB. Net identifies \_\_\_\_\_.
  - i) Are case sensitive
  - ii) Can begin with an underscore
  - iii) Can begin with a number
  - iv) Both (i) and (ii)
- d) Arithmetic operation resulted in \_\_\_\_\_ exception in Vb.Net.
  - i) Overflow
  - ii) Storage
  - iii) Logical
  - iv) System
- e) A class is a conceptual representation of all the entities that share common \_\_\_\_\_.
  - i) Forms and projects
  - ii) Libraries and functions
  - iii) Attribute and behavior
  - iv) errors and solutions

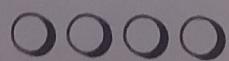
- f) \_\_\_\_\_ contains reusable components that can be added to your application.
- i) Label
  - ii) Listbox
  - iii) Option button
  - iv) Toolbox
- g) The proper operator precedence, form first to last, is \_\_\_\_\_.
- i) Logical, comparison, and arithmetic
  - ii) Arithmetic, comparison, and logical.
  - iii) Arithmetic, logical and comparison
  - iv) Comparison, arithmetic, and logical.
- h) The right side of an assignment statement will hold \_\_\_\_\_.
- i) a variable
  - ii) an object property
  - iii) an expression
  - iv) both (i) and (ii)

**Q2)** Attempt any Two of the following. [16]

- a) Explain the components in the .NET IDE.
- b) What is exception handling? Explain user defined exception.
- c) Explain the events associated with various controls.

**Q3)** Attempt any Four of the following. [16]

- a) Explain Do \_\_\_\_\_ loop until with Example.
- b) What are the advantages of .NET framework?
- c) Explain any four properties of Combo Box Control.
- d) Explain operators used in vb. Net with example.
- e) Explain concept of object.
- f) Explain function in console application with example.



Seat No.	
-------------	--

**B.Sc. (Part - III) (Semester - V) Examination, November - 2018**  
**COMPUTER SCIENCE**  
**Linux Operating System**  
**(Paper - XI)**  
**Sub. Code: 65904**

**Day and Date : Wednesday, 14 - 11 - 2018**

**Total Marks : 40**

**Time : 12.00 p.m. to 2.00 p.m.**

**Instructions :**

- 1) All questions are compulsory.
- 2) Figures to the right indicate full marks.

**Q1) Select the correct alternative and rewrite:** [8]

- a) The \_\_\_\_\_ command extract units of bytes from a file.
  - i) bc
  - ii) tail
  - iii) grep
  - iv) cat
- b) In a Linux user can combine different commands using \_\_\_\_\_.
  - i) pipe
  - ii) semicolon
  - iii) comma
  - iv) both i and ii
- c) The rmdir command works on a \_\_\_\_\_ directory.
  - i) file containing
  - ii) empty
  - iii) read and write protected
  - iv) all of these
- d) \_\_\_\_\_ file is also known as regular file.
  - i) ordinary
  - ii) directory
  - iii) device
  - iv) none of these
- e) There are \_\_\_\_\_ different phases are carried out in the creation of a process.
  - i) two
  - ii) three
  - iii) four
  - iv) five
- f) PID of the login shell is stored in the shell parameter \_\_\_\_\_.
  - i) \$#
  - ii) S\*
  - iii) \$\$
  - iv) \$1

1161

**Q2) Attempt any TWO of the following:**

- Attempt any **TWO** of the following:

  - a) Explain different basic file attributes with suitable example.
  - b) How to carried out job scheduling in Linux? Give its different examples.
  - c) What is use of ex mode in VI? How to save your work in a different ways in it.

**Q3) Attempt any FOUR of the following:**

[16]

- a) Write the different options with their use supported by who command.
  - b) What is a buffer? Write its different status.
  - c) Write a shell script to get a file name and find out whether it is exist or not.
  - d) Write syntax and use of chmod command.
  - e) How to switch from one mode to another mode for operations in VI editor?
  - f) What is system call? Give its example.



Seat  
No.

**B.Sc. (Computer Science) (Entire) (Part - III) (Semester - VI)**  
**(New) Examination, April- 2018**  
**Advanced Java Programming (Paper - XX)**  
**Sub. Code: 66077**

Day and Date : Monday, 16 - 04 - 2018

**Total Marks : 40**

Time : 3.00 p.m. to 5.00 p.m.

**Instructions :** 1) All questions are compulsory.

2) Figures to the right indicate full marks.

**Q1) Select correct alternative and rewrite the statement. [8]**

- a) \_\_\_\_\_ is the abbreviation of AWT.  
i) Applet Windowing Toolkit      ii) Abstract Windowing Toolkit  
iii) Absolute Windowing Toolkit      iv) None of these
- b) The JDBC-ODBC bridge is \_\_\_\_\_.  
i) Multithreaded      ii) Singlethreaded  
iii) Both (i) and (ii)      iv) None of these
- c) \_\_\_\_\_ type of servlets use these methods doGet( ), doPost( ), doDelete ( ), doTrace( ).  
i) Generic Servlets      ii) HTTP Servlets  
iii) All of Above      iv) None of these
- d) In JSP action tags \_\_\_\_\_ are used in for bean development.  
i) jsp:useBean      ii) jsp:setProperty  
iii) jsp:getProperty      iv) All of these
- e) \_\_\_\_\_ techniques are used in session tracking.  
i) 4      ii) 3  
iii) 2      iv) 5

- f) \_\_\_\_\_ methods drops all changes made since the previous commit.  
 i) public void rollback()  
 ii) public void commit()  
 iii) public void close()  
 iv) public Statement createStatements()
- g) \_\_\_\_\_ object can be constructed to show any number of choices in the visible windows.  
 i) Labels  
 ii) Choice  
 iii) List  
 iv) Checkbox
- h) JDBC technology based drivers generally fit into \_\_\_\_\_ categories.  
 i) 4  
 ii) 3  
 iii) 2  
 iv) 5

**Q2)** Attempt any Two of the following.

- a) How session tracking technique works?  
 ✓b) What is difference between JSP and Servlet?  
 c) Explain various components of AWT with example.

[16]

**Q3)** Attempt any four of the following:

- ✓a) Explain different drivers of JDBC.  
 b) Write steps to connect database in Java.  
 ✓c) Explain life cycle of JSP.  
 d) Explain any two components of swing.  
 e) Describe simple prepared and callable statement types.  
 f) Write a program using any swing component with event handling.

[16]

✓ ✓ ✓

