B.Sc.4516-Computer Science-II : Paper-II : Elective-III : Java

P. Pages : 2

Time : Three Hours

1261

GUG/S/16/5633

Max. Marks : 50

Notes : 1. All questions are compulsory and carry equal marks.

1. **Either**

a) Describe various Java tools are used in the application development. 5

b) Explain Java program structure in detail. 5

OR

c) Explain switch statement with suitable example. 5

d) Write a program to convert the given temperature in Fahrenheit to Celsius using the following conversion formula $C = \dfrac{F-32}{1.8}$ and display the values. 5

2. **Either**

a) Distinguish between the following terms: 5

    i) Objects and classes.

    ii) Data abstraction and data encapsulation.

b) Describe different forms of inheritance with examples. 5

OR

c) Compare and contrast overloading and overriding methods. 5

d) Discuss the various levels of access protection available for packages. 5

3. **Either**

a) Discuss the concept of exception handling. 5

b) What is multithreading? What are the methods available in Java for inter-thread communication? Discuss with an example. 5

OR

c) Discuss throwing and catching exceptions. 5

d) What are interrupting threads? Explain thread states and synchronization. 5

1 P.T.O

4. **Either**

a) Write a program to create a frame with the following menus, such that the corresponding geometric object is created when a menu is clicked.   **5**

   i) Circle.

   ii) Rectangle.

b) Explain Applet life cycle? How applets are prepared and executed.   **5**

OR

c) Draw the inheritance hierarchy for the frame and component classes in AWT.   **5**

d) Write note on Flow layout and grid layout in Java.   **5**

5. Solve all the questions.

   a) What is variable? How to declare variables in Java.   **2½**

   b) What is class? Give an example.   **2½**

   c) Write note on Thread priorities.   **2½**

   d) What is Listeners?   **2½**

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