

Roll No.

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Total No. of Pages : 02

Total No. of Questions : 09

MCA (2015 Batch) (Sem.-3)

JAVA PROGRAMMING

Subject Code : MCA-304

Paper ID : [74076]

Time : 3 Hrs.

Max. Marks : 60

INSTRUCTIONS TO CANDIDATES :

1. SECTIONS-A, B, C & D contains TWO questions each carrying TEN marks each and students has to attempt any ONE question from each SECTION.
2. SECTION-E is COMPULSORY consisting of TEN questions carrying TWENTY marks in all.
3. Use of non-programmable scientific calculator is allowed.

SECTION-A

1.
 - a) What are various features of java? Explain.
 - b) Give any three key differences between java and C++.
 - c) Differentiate between Abstract class and an Interface. (5,3,2)
2.
 - a) What are wrapper classes? Discuss their use in java programming.
 - b) Discus method overloading and overriding in detail. (5,5)

SECTION-B

3.
 - a) Explain thread synchronization with the help of producer-consumer problem. Also write the code snippet.
 - b) Write a java program for writing and reading character data using file streams. (5,5)
4.
 - a) Write a java code to implement multiple inheritance through interfaces.
 - b) Discuss the use of String Tokenizer. Explain the working of tokenizer with the help of an example. (5, 5)

SECTION-C

5. Write a code snippet to implement an applet displaying a welcome message running from right to left over the applet-viewer window. (10)
6. a) What are various mouse events and their corresponding listener interfaces? Write a java code illustrating various mouse events with the help of applets.
b) Write a java swing code to ask a string from user and display it in a pop-up menu. Explain the working of your code. (5,5)

SECTION-D

7. Discuss in detail the client server application using HttpServletRequest and HttpServletResponse methods. (10)
8. Write various methods associated with TCP and UDP sockets. Also differentiate between TCP and UDP sockets. (10)

SECTION-E

9. Write briefly :

- a) Autoboxing and Unboxing.
- b) Garbage Collection.
- c) Use of Scanner Class.
- d) Differentiate between MousePressed and MouseClicked events.
- e) Frames and Panels.
- f) Differentiate between doGet and doPost methods.
- g) What is byte code?
- h) What is the importance of repaint() method?
- i) Use of drawString(String) method.
- j) What is Window Adapter?