

M.C.A. First Semester (Second Year) (CGS)
15521 : Java Programming : 3 MCA 3

P. Pages : 2

Time : Three Hours



AU - 3161

Max. Marks : 80

- Notes :
1. Due credit will be given to neatness and adequate dimensions.
 2. Assume suitable data wherever necessary.
 3. Illustrate your answer necessary with the help of neat sketches.
 4. Use of pen Blue/Black ink/refill only for writing book.

1. a) Write a program to print following pattern using command line arguments. 8
- ```
*
* *
* * *
* * * *
* * * * *
```

- b) What is JDK? State and explain tools supported by JDK. 6

OR

2. a) Write a program to calculate factorial of a number using command line arguments. 8
- b) Explain : 6
- i) Javac
  - ii) Byte code
  - iii) Jvm

3. a) How strings are handled in java? Explain. 6
- b) Write a program to demonstrate the use of constructor overloading. 8

OR

4. a) Write a program to accept a string from user and count vowels in a string. 8
- b) Explain 6
- i) this
  - ii) Class data
  - iii) Abstract class

5. a) Write procedure to create your own exception in Java. Show use of user defined exception with example. 7
- b) What are threads? How threads are created and handled in java? Explain. 6

OR

6. a) Explain 6
- i) Finally block
  - ii) Throw
  - iii) Throws

- b) Write a program to display numbers from 1 to 10 with a pause of 1 second in every printing.  
(\* use thread class) 7
7. a) Explain 6  
 i) Paint ( )  
 ii) update ( )  
 iii) repaint ( )
- b) Write a program to copy contents of text file "source.txt" into "destination.txt". 7
- OR**
8. a) Explain 6  
 i) transient  
 ii) volatile  
 iii) File Input stream
- b) Write a program to display following on applet area. 7  
**SGBAU**  
 (use font-times New Roman, BOLD, 24 size)
9. a) How events are handled in java? Explain. 6
- b) Write a program to display message Mouse pressed, Mouse Released, Mouse move etc. Whenever related operations are performed on mouse. 7
- OR**
10. a) Explain 8  
 i) Adapter class  
 ii) Inner class
- b) What is Event class? Explain. 5
11. a) What are menus? How they are added in a container ? Explain 5
- b) Write a program to convert temp. from fahrenheit to celsius using AWT controls. 8
- OR**
12. a) Write a program showing use of Frame class. 7
- b) Explain: 6  
 i) Grid layout  
 ii) Card layout

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