(6	pages)		

Reg. No. :

# Code No. : 20096 E

Sub. Code: SMCS 31/ SMSE 31

## B.Sc. (CBCS) DEGREE EXAMINATION, NOVEMBER 2023

#### Third Semester

Computer Science / Software Engineering - Core

### JAVA PROGRAMMING

(For those who joined in July 2017-2019)

Time: Three hours

Maximum: 75 marks

PART A —  $(10 \times 1 = 10 \text{ marks})$ 

Answer ALL questions.

Choose the correct answer:

- 1. Which of these can be returned by the operator &?
  - (a) Integer
- (b) Boolean
- (c) Character
- (d) Integer or Boolean
- 2. Generics does not work with?
  - (a) Set
- (b) List
- (c) Tree
- (d) Array
- 7. Which of these modifiers can be used for a variable so that it can be accessed from any thread or parts of a program?
  - (a) transient
  - (b) volatile
  - (c) global
  - (d) No modifier is needed
- 8. What is a listener in context to event handling?
  - (a) A listener is a variable that is notified when an event occurs
  - (b) A listener is a object that is notified when an event occurs
  - (c) A listener is a method that is notified when an event occurs
  - (d) None of the mentioned
- When we invoke repaint () for a java.awt. Component object, the AWT invokes the method:
  - (a) draw()
- (b) show()
- (c) paint()
- (d) update()
- 10. In which places can put the event handling code?
  - (a) Same class
  - (b) Other class
  - (c) Annonymous class
  - (d) All mentioned above
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- 3. Which of these operators is used to allocate memory for an object?
  - (a) malloc
- alloc
- (c) new
- d) give
- 4. A class member declared protected becomes a member of subclass of which type?
  - (a) public member
  - (b) private member
  - (c) protected member
  - (d) static member
- 5. Which of these is a mechanism for naming and visibility control of a class and its content?
  - (a) Object
  - (b) Packages
  - (c) Interfaces
  - (d) None of the Mentioned
- 6. Thread priority in Java is?
  - (a) Integer
- (b) Float
- (c) double
- (d) long

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#### PART B — $(5 \times 5 = 25 \text{ marks})$

Answer ALL questions, choosing either (a) or (b).

Either answer should not exceed 250 words

11. (a) Describe the bitwise operators with suitable examples.

Or

- (b) Explain What is dynamic initialization of a variables.
- 12. (a) Explain about the various command line argument and its usage.

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- (b) Write a short note on method over riding.
- 13, (a) Write a steps to create and import packages.

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- (b) Illustrate Java thread model with suitable diagram.
- 14. (a) Write a short note on Applet Display method.

Or

(b) Describe about Mouse Event.

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[P.T.O.]

 (a) Explain working with Fonts and Colors in AWT class.

Or

(b) Write a short note on Menu bars and Menus.

PART C —  $(5 \times 8 = 40 \text{ marks})$ 

Answer ALL questions, choosing either (a) or (b).

Either answer should not exceed 600 words

16. (a) Explain the features of java and say why it is important?

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- (b) Explain the usage of constructors with suitable example.
- 17. (a) Write a program using Recursion function.

Or

- (b) Distinguish Inheritance and Interface with suitable example.
- 18. (a) Write a program to calculate area of various shapes by importing shape package.

Or

(b) Explain in detail about Thread Lifecycle with neat sketch.

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 (a) Explain in detail about various methods of Applet class.

Or

- (b) Discuss about Event classes with suitable syntax.
- 20. (a) Expound working with Frame Windows in AWT class.

Or

(b) Explain various control in AWT with suitable example.

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