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## FOURTH SEMESTER B.C.A DEGREE (SUPPLEMENTARY/IMPROVEMENT) EXAMINATION, MAY 2016

(UG-CCSS)

Core Course

CA 4B 05—PROG	RAMMING IN JAVA  Maximum: 30 Weightage							
Time : Three Hours	Maximum: 30 Weight							
I. Answer all <i>twelve</i> questions:	9							
1 Which Property does not hold good for	Java							
(a) Object-Oriented.	(b) Secure.							
(c) Dynamic:	(d) Complex.							
2 A compiler converts	ram into an intermediate language representation							
called								
(a) Bytecode.	(b) Byte.							
(c) Byteclass.	(d) Bytejava.							
3 In Java, exceptions are the sub-class	es of the built-in class							
Operator is used to create a	an object.							
(a) Class.	(b) New.							
	(d) Main.							
(c) Fillit.	nd a package of readymade software components. This							
	-							
package is known as	(b) JVM API.							
(a) Java API.								
(c) JM API.	(d) API.							
6 The method of an app <sup>let</sup>	called only once in an applet's life-cycle.							
7 Which of the following is not a Loc	oping statement							
( ) D	(b) Switch.							
(a) For.	(d) Do-while.							
(c) While.	Turn ove							

er

8 Which

C 5157 property of Java allows the creation of hierarchical classification (a) Interface. (b) Inheritance. (c) Robust. (d) Distributed. 9 OOPS allows us to decompose a problem into a number of entities called 10 The class at the top of the exception classes hierarchy is called (a) Common. (b) Throwable (c) NULL. (d) Catch. 11 The class creates and maintains a buffer for an input stream. (a) Common Buffered input Stream. (b) Buffered Stream. (c) Input Stream. Buffered input Stream. 12 A is a sequence of bytes traveling from a source to a path. destination over a co-nmunication (a) String. (b) Stream. (c) Character. (d) Integer. II. Short Answer Type Questions. Answer all  $_{ne}$  questions : (12 x 3 weightage) 13 Explain in brief the concepts garbage collection and dynamic binding. 14 Describe Method overriding. Explain it with an example. 15 How is interface used to support  $\label{eq:multiple inheritance} \textit{PExplain with a program}.$ What is meant by 'Late binding' ? 17 How is a superclass constructor or method invoked ? 18 What is synchronization When it is used ? 19 How applies differ from application programs ? 20 What is the differe e ween reloading and restarting an a pplet ? 21 Differentiate b/w J2EE, J2ME and J2SE.  $(9 \times 1 = 9 \text{ weightage})$ 

- III. Short Essay or Paragraph Questions. Answer any five questions:
  - 22 Explain 'Dynamic method dispatch' with one example program.
  - 23 List out the similarities between interfaces and classes.
  - 24 How do we set priorities for threads ?
  - 25 List out the common types of exceptions in java.
  - 26 Explain briefly the concept of *method overriding* with example.
  - 27 Describe the following terms with examples:
    - (a) Interface.

- (b) Constructors and methods.
- (c) The modifier final.
- (d) The modifier abstract.

(e) Private.

- (f) Protected.
- 28. What is a stream? How are the concepts of streams used in java?

 $(5 \times 2 = 10 \text{ weightage})$ 

- IV. Essay questions. Answer any two questions:
  - 29 Describe the AWT class hierarchy. Also describe the methods in component, container, and frame and panel class.
  - 30 What is *multithreading* ? How do you handle it in Java ? Explain the different ways of creating thread .Write a Java program that creates three **threads**. First thread displays "Good Morning" every one second, the second thread displays "Hello" every two seconds and the third thread displays "Welcome" every three seconds.
  - 31 Explain in detail about Java Buzzwords (or) Java features (or) Characteristics.

 $(2 \times 4 = 8 \text{ weightage})$