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P.E.S. College of Engineering, Mandya - 571 401

(An Autonomous Institution under VTU, Belgaum)

Third Semester, Master of Computer Applications (MCA)

Semester End Examination; Dec - 2016/Jan - 2017

Programming Using JAVA

Time: 3 hrs

Max. Marks: 100

Note: Answer FIVE full questions, selecting ONE full question from each unit.

UNIT - I

- 1 a. Describe the general structure of a simple Java program. 10
- b. List and explain the characteristics features of Java language. 10
- 2 a. Discuss various data types used in Java. 10
- b. Explain the following : 10
 - i) Access specifies
 - ii) Type casting.

UNIT - II

- 3 a. What is constructor? Explain the different types of constructors. 10
- b. What is string comparison? Explain the different methods in string comparison. 10
- 4 a. What is the difference between overloaded methods and overridden methods? Demonstrate a program explaining each. 10
- b. With a suitable example explain the uses of : 10
 - i) Static
 - ii) Inner class.

UNIT - III

- 5 a. What is inheritance? Explain the different types of inheritance. 10
- b. Explain the following with examples : 10
 - i) Final class
 - ii) Abstract class.
- 6 a. What are interfaces? What are their benefits? Explain how it is implemented in Java with suitable example. 10
- b. What is exception? Explain the exception handling mechanism with a simple example. 10

UNIT - IV

- 7 a. Develop a program to create multithreads with different priorities. 10
- b. What is inter-thread communication? Why do we need it? 10
- 8 a. What is enumeration? Explain values() and valueOf() methods with example. 10
- b. Write a note on: 10
 - i) Synchronizations
 - ii) Generic constructors.

UNIT - V

- 9 a. Explain different stages in the life cycle of an Applet. Demonstrate with a program. 10
- b. What are swings? List the features of swings. 10
- 10 a. Write a Java program to handle mouse event using mouse listener. 10
- b. With a program, explain and give the difference between URL connection class and HTTP URL connection class. 10