

## Java Programming-212

### Sem-III

Time 3hrs

M.M.- 70

Note: - The Candidates are required to attempt Two question each from Section A & B C will be compulsory

#### Section A

Q1. Differentiate between:

- a) switch statement and if statement
- b) break and continue

10.5

Q2. What is inheritance? Discuss different types of inheritance available in java.

10.5

Q3. Design a class named Fan to represent a fan. The class contains:

Three constants named SLOW, MEDIUM & FAST with values 1, 2 & 3 to represent speed. One int data field named speed that specifies the current speed of fan (default 1). A boolean data field named on specify whether fan is on or off (default false). A color data field (default blue)

A no-argument constructor to create a default fan.

A constructor to create a fan specified by arguments.

A method named compare that returns the speed difference of current fan with other fan of the Fan type.

Write a test program that creates two fans, one default and other with speed 3, color green and turn on. Compare and Display the faster fan with all its attributes.

10.5

Q4. What is a constructor? Explain the different kinds of constructors available in Java. Why no destructor is available in Java?

10.5

#### Section B

Q5. Explain the concept of the classpath. How it is related to the "Class not found" error? Give example based on java packages.

10.5

Q6. Explain the exception handling mechanism in java. How throw differs from throws? Explain with example.

10.5

Q7. How many ways a thread can be created? Illustrate the pros and cons of the different ways of creating a thread.

10.5

Q8. Explain the life cycle of an applet? What is the order of method invocation in an applet?

10.5

#### Section C

Q9. a) List any four characteristics of Java Language?

b) Discuss the usage of wait(), notify() and notifyAll()

c) Explain Static Fields &amp; Static Methods.

d) How can we prevent a class from being extended?

e) Is it essential to catch all types of exceptions?

f) Explain the use of super and this keyword.

g) What is the difference between importing and extending a class?

7 X 4 =28