Question Paper

MANIPAL ACADEMY OF HIGHER EDUCATION

Manipal School of Information Sciences (MSIS), Manipal
Second Semester M.Sc. Information Science Degree Examination - June 2022

Advance Programming Techniques [MIS 506]

Marks: 100   **Duration: 180 mins.**

Thursday, June 23, 2022

Answer all the questions.

1)	Explain the important object oriented principles in detail (TLO 1.2) (10 marks)	(10)
2)	a) Explain difference between Java Applets and Application (TLO 2.1) (4 marks) b) Why do we say that Java works on the "Write once, Run anywhere" principle? Explain in detail how this is achieved (TLO 2.1) (6 marks)	(10)
3)	a) Write a short note on java's Type Conversion and Casting. (TLO 2.1) (4 marks) b) List and explain different selection statements available in java. (TLO 2.1) (6 marks)	(10)
4)	a) Explain call by value and call by reference with an example (TLO 2.2) (5 marks) b) Explain the concept of "overloaded constructor" with an examples (TLO 2.2) (5 marks)	(10)
5)	Explain the concept dynamic method dispatching. Illustrate with an example. (TLO 2.2) (10 marks)	(10)
6)	a) Explain Java Streams. (TLO 2.2) (3 marks) b) Discuss at least four methods available in File class, with an example (TLO 2.2) (2 marks) c) Define serialization (TLO 2.2) (2 marks) d) Discuss predefined streams (TLO 2.2) (3 marks)	(10)
7)	a) What is checked and unchecked exception (TLO 2.2) (3 marks) b) Briefly explain different ways of handling the exception in Java (TLO 2.2) (7 marks)	(10)
8)	Explain with an example various steps involved in creating a GUI (TLO 3.1) (10 marks)	(10)
9)	Write a short note on following topics (TLO 3.2) (2.5x4 marks) a) BorderLayout Manager	(10)

b) Adapter classes
c) Applet
d) Swing components

10)   Draw neat sketch of Life Cycle of a Thread, and explain different states   (10)
(TLO 2.2) (10 marks)

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