

**Exam. Code : 206703**  
**Subject Code : 4796**

**M.Sc. Computer Science 3<sup>rd</sup> Semester**  
**(Batch 2020-22)**  
**ADVANCED SOFTWARE ENGINEERING**  
**Paper—MCS-301**

**Time Allowed—3 Hours] [Maximum Marks—100**

**Note :— Attempt FIVE questions in all, selecting at least ONE question from each section. The fifth question may be attempted from any section. All questions carry equal marks.**

**SECTION—A**

1. What are the various fundamentals of Software Project Planning ? Explain Effort Estimation and Risk Management in detail.
2. Compare and contrast the different ways of conventional software development process with modern software development process.

**SECTION—B**

3. (a) Differentiate between Software Re-engineering, Software Restructuring and Software Reuse.  
(b) Explain various activities involved in Software Reuse process.

2341(2221)/IZ-8728

1

(Contd.)

4. Describe various class-based as well as method-based OO metrics used to measure the design of an object-oriented system.

**SECTION—C**

5. What is Object-Oriented Design ? Explain its various attributes during software development with the help of a suitable example.
6. What do you mean by Object-Oriented Analysis and Design ? Discuss Booch methodology in detail. How it is incorporated in modern software development ?

**SECTION—D**

7. Illustrate the working of Software Agents depending upon their different types along with suitable examples.
8. How Multi-Agent systems are related with Intelligent Software Agents ? Describe the various properties of Multi-Agent systems. Give few examples of Multi-Agent systems in software engineering.

2341(2221)/IZ-8728

2

800