

B.Tech IV Year II Semester (R15) Advanced Supplementary Examinations July 2019

**BUILDING LARGE SCALE SOFTWARE SYSTEMS**

(Common to CSE and IT)

Time: 3 hours

Max. Marks: 70

**PART – A**

(Compulsory Question)

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- 1 Answer the following: (10 X 02 = 20 Marks)
- (a) Define coupling.
  - (b) What is temporal cohesion?
  - (c) List out practices to compile large scale C programs.
  - (d) Outline good coupling design issues with large C program.
  - (e) Name tools for building large programs.
  - (f) Point the need for various control systems.
  - (g) State out merits for measuring the quality of C++.
  - (h) Expand MOOD metrics.
  - (i) Recall need for pattern oriented software architecture.
  - (j) How do you identify a design pattern for a given software?

**PART – B**

(Answer all five units, 5 X 10 = 50 Marks)

**UNIT – I**

- 2 Demonstrate various types of coupling with suitable examples.

**OR**

- 3 Compare and contrast cohesion mechanisms with elaborate justification.

**UNIT – II**

- 4 Summarize the design principles of large C programs having good cohesion.

**OR**

- 5 Illustrate how to build a large C program using C modules. Also state notation of separate compilation.

**UNIT – III**

- 6 Explain how to work with various development tools used for large scale programs.

**OR**

- 7 Describe various procedures used in implementing version control management through 'git'.

**UNIT – IV**

- 8 (a) What are the metrics for measuring the quality of C++ program?  
(b) Organize the architecture of large C++ programs.

**OR**

- 9 Explain in detail how to redesign the Linux kernel into MOOL.

**UNIT – V**

- 10 Describe a case study in detail for building a software with most design patterns.

**OR**

- 11 Analyze the need for pattern oriented software architecture in building large software applications. Give an example with neat sketch.

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