

Code: CS7T1

**IV B.Tech - I Semester – Regular / Supplementary Examinations
November 2016**

**SOFTWARE ARCHITECTURE
(COMPUTER SCIENCE AND ENGINEERING)**

Duration: 3 hours

Max. Marks: 70

Answer any FIVE questions. All questions carry equal marks

1. a) Explain about Excessive Link-Time Dependencies with an example. 7 M

b) Write Short Notes on: 7 M
 - i) Global Name Space
 - ii) Typedef Declarations

2. a) Explain the Major Design Rule ‘Keep class data member private’ with an example. 7 M

b) Discuss the Design rule ‘Avoid free function’ (Except operator functions) at file scope in .h Files and avoid free function with External Linkage (including operator functions) in .c Files. 7 M

3. a) Write about Implied Dependency among the components and Illustrate the Uses Relation often implies a Compile-Time and Link-Time dependency. 7 M

- b) Justify The Statement ‘ Friendship Affects Access privileges but not implied dependency’ with an example. 7 M
4. Write about Cumulative Component Dependency and compute the Link-Time cost for a binary tree of dependencies. 14 M
5. Write Short Notes On:
- a) Opaque Pointers 5 M
 - b) Redundancy 5 M
 - c) Factoring 4M
6. a) Mention the C++ Constructs and Explain the inline functions and Compile-Time Coupling. 7 M
- b) Write about include Directive and Compile-Time Coupling. 7 M
7. Discuss any Four Partial Insulation Techniques. 14 M
8. a) Give the schematic Illustration of a Procedural Interface. 4 M
- b) Write about the Inheritance and Opaque Objects. 10 M