Note: 1) All questions are compulsory. 2) Figures to the right indicate full marks. Q.1 Attempt the following. (Any Three) [15 M] a) What is Software Engineering? Explain SDLC with all its phases. b) Explain Waterfall model. c) What do you mean by Agility? Explain its methods. d) Explain Extreme programming. ** e) What are Functional and Non-functional software requirements? f) Explain RAD Model. O.2 Attempt the following. (Any Three) [15 M] a) What are the essential characteristics of socio technical system? b) What are the types of Critical System? c) What is Availability and Reliability of the software system? d) Write short note on Feasibility Study. e) Write a short note on Behavioral Model. f) What are the Data models available in Software System? [15 M] Q.3 Attempt the following. (Any Three) a) What is Modular Decomposition in Software System? b) What is the need of UI design? c) What do you mean by Project Scheduling? d) Write short note on Risk Management. e) Explain Quality Assurance and Standards used to maintain the quality of software. f) What are the Software Metrics? Q.4 Attempt the following. (Any Three) [15 M] a) Write short note on Verification and Validation in Software System. b) Write short note on System Testing. c) Explain Size-oriented Metrics. d) How to design the Test Cases? e) Explain Component Testing. f) What do you mean by Staffing?

[15 M]

Q.5 Attempt the following. (Any Three)

- a) Explain CMMI process.'
- b) What do you mean by Service Engineering?
- c) Briefly explain Process and Product quality.
- d) What is Software reuse? Also explain COTS product reuse.
- e) What are the issues faced by Distributed software engineering?
- f) Explain Client Server Computing.
