

[Time:2.30 Hrs]		[Marks:75]
Please check whether you have got the right question paper.		
N.B:	1. All question are compulsory. 2. Figures to the right indicate full marks.	

Q.1	Attempt <u>any three</u> of the following: a. What is software engineering? Explain in brief. b. Write a short note the significance of SRS. c. Define process? Write the difference between project and process? d. What are the different phases in the Waterfall Software Model? e. What is agile software development methodology? f. Explain the time boxing model.	15
Q.2	Attempt <u>any three</u> of the following: a. Explain the four dimensions of Dependability? b. What is requirement Management? Explain. c. Explain Use case diagram. d. What are the advantages of Architectural Design? Which factors are dependable during the design? e. Explain what is socio-technical system? f. What is Safety Critical Systems?	15
Q.3	Attempt <u>any three</u> of the following: a. Explain the process of Software Quality Management. b. Explain Software metric and measurement? c. What is Risk Management? Explain. d. What is Software Prototyping? e. Explain how product quality can be planned. f. Explain Quality assurance and Standards.	15
Q.4	Attempt <u>any three</u> of the following: a. Explain the differences between verification and validation b. How programmer productivity can be measured by function points? c. What is the objective of software cost estimation? d. List some cost estimation techniques that are not based on any size related metric of software? e. Explain why program inspections are an effective technique for discovering errors in a program. f. What are the main costs of a software development project?	15
Q.5	Attempt <u>any three</u> of the following: a. Explain Service Engineering with neat diagram. b. Explain why SOAs should be based on standards. c. What are the major technical and nontechnical factors that hinder software reuse? d. What do you understand by 'scalability'? Discuss the differences between 'scaling up' and 'scaling out'. e. What is meant by 'inversion of control' in application frameworks? f. Explain process improvement cycle.	15