

Total number of printed pages-3

53 (CS 602) SWEN

2019

SOFTWARE ENGINEERING

Full Marks : 100

Time : Three hours

The figures in the margin indicate full marks for the questions.

Answer **any five** questions.

1. (a) Define 'Software'. Software has characteristics that are considerably different than those of hardware — Explain. 1+9=10
- (b) What are the broad categories of computer softwares that present continuing challenges for software engineers? Describe. What are the layers of Software Engineering? 7+3=10
2. (a) Describe various framework activities and umbrella activities of a generic process framework. 5+8=13

Contd.

(b) What is CMMI? Give the meanings of various capability levels as per CMMI guidelines. 2+5=7

(a) What do you understand by Prescriptive software process model? Explain the Waterfall Model. 2+8=10

(b) Describe the Unified Process. 10

4. (a) "The requirements engineering process is accomplished through the execution of seven distinct functions". What are they? Briefly explain each function. 7×2=14

(b) Draw a diagram showing dimensions of the design model. 6

5. (a) Draw and explain the components of an Architectural Context Diagram (ACD). 10

(b) According to Theo Mandel, what are the "golden rules" for Interface Design? Explain. Write the steps of Interface Design. 6+4=10

6. (a) Describe software testing strategy for conventional software architecture and for object-oriented architecture. 10

(b) Define Black Box Testing and White Box Testing. Explain Control Structure Testing techniques. 4+6=10

7. Write short notes on : 5×4=20

(i) Function Point Metric (FP)

(ii) Software Quality Metrics

(iii) COCOMO

(iv) Software Risks.

