H Roll No. .....

TCS/TIT–302

B. TECH. (CS/IT) (THIRD SEMESTER)
MID SEMESTER EXAMINATION, 2018

SOFTWARE ENGINEERING

Time : 1:30 Hours

Maximum Marks : 50

Note : (i) This question paper contains two Sections.

(ii) Both Sections are compulsory.

Section—A

1. Fill in the blanks/True/False : (1×5=5 Marks)

   (a) Context Level Diagram provides highest level of abstraction of any information system. (True/False)

   (b) Build & Fix Model is suitable for programming exercises of 4000 LOC (Line of Code). (True/False)

   (c) A ..... is a graphical representation of specific decision situations that are used when complex branching occurs in a structured decision process.

(d) The ..... model is used to describe a process for planning, creating, testing, and deploying an information system and forms the foundation of software development models.

(e) "The application of a systematic, disciplined, quantifiable approach to the development, operation, and maintenance of software" is called .....

2. Attempt any *five* parts : (3×5=15 Marks)

(a) Define the term "software engineering". Explain the major differences between software engineering and other traditional engineering.

(b) What is prototype ? Draw the schematic diagram of the prototyping model.

(c) Define the term SDLC. Why is it important to adhere to a life cycle model while developing a large software product ?

(d) Manifesto of Agile Software Development Model.

(e) Differentiate between Functional and Non-Functional Requirements.

(f) Explain the spiral model of software development. Sketch a neat diagram of spiral model.

Section—B

3. Attempt any *two* parts of choice from (a), (b) and (c). (5×2=10 Marks)

(a) Differentiate between Incremental model and Iterative model.

(b) Explain Rational Unified Process Modelling.

(c) Discuss the software characteristics, and also discuss software quality attributes.

4. Attempt any *two* parts of choice from (a), (b) and (c). (5×2=10 Marks)

(a) Explain iterative model.

(b) Explain the Software Myths surrounding Software Engineering and the actual facts.

(c) What is DFD ? Draw Context Level Diagram and level-I Diagram of Online Air Ticket Booking System.

5. Attempt any *two* parts of choice from (a), (b) and (c). (5×2=10 Marks)

(a) Explain RAD model.

(b) List characteristics of a good SRS document. Write an SRS of online shopping system.

(c) Explain Modern Waterfall Model. Throw light on the disadvantages of the same.