Roll No. 22321047

TBC–305/TBI–305

B. C. A./B. SC. (IT)
(THIRD SEMESTER) MID SEMESTER EXAMINATION, Oct., 2023

SOFTWARE ENGINEERING

Time : 1½ Hours

Maximum Marks : 50

Note : (i) Answer all the questions by choosing any ***one*** of the sub-questions.

(ii) Each sub-question carries 10 marks.

1. (a) What is Software ? What are the characteristics of good software ? (CO1)

OR

(b) What problems are faced by a development team during development of the software ? Write a detailed note on software crisis. (CO2)

P. T. O.

2. (a) Give IFEE definition of software engineering. How software engineering helps developers to develop reliable cost effective software ? (CO1)

OR

(b) What is the advantage of using prototype software development model instead of Waterfall nodel ? Also explain the effect of defining a prototype on the overall cost of the software project ? (CO1)

3. (a) What are the advantages of Spiral model over other models ? Explain spiral model with its complete diagram. (CO1)

OR

(b) Assume that you are assigned responsibility of developing an Examination Form Submission System (EFSS). EFSS will have all necessary fields that are essential for generation of a Hall Ticket without any errors. After Examination Form is submitted, the data needs to be validated by EFSS. If the data is valid, then Hall Ticket should be

generated. Appropriate e-mail should be sent to student in all cases. Make necessary assumptions. For developing EFSS as specified above, which SDLC paradigm will be selected ? Justify your answer. (CO1)

4. (a) Write short notes on the following : (CO2)

(i) DFD

(ii) ER diagrame

(iii) Flowchart

OR

(b) Explain the need of software requirement analysis and specification. What are the characteristics of good SRS ? (CO2)

5. (a) Explain the concept of Cohesion and Coupling. What are the different types of coupling ? (CO2)

OR

(b) What is structured coding technique ? Explain the difference between top-down and bottom-up programming. (CO2)