(b) Write short notes on the following : (CO5)

   (i) Software configuration management

   (ii) Quality assurance

   (iii) Reverse software engineering

   (iv) Role of management in software development

(c) What Does Computer Aided Software Engineering (CASE) Mean ? Discuss CASE tools and its pros and cons. (CO5)

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H   Roll No. ....

TBC–504/TBI–504

B. C. A. (FIFTH SEMESTER)

END SEMESTER

EXAMINATION, Jan., 2023

SOFTWARE ENGINEERING

Time : Three Hours

Maximum Marks : 100

Note : (i) All questions are compulsory.

     (ii) Answer any *two* sub-questions among (a), (b) and (c) in each main question.

     (iii) Total marks in each main question are **twenty**.

     (iv) Each sub-question carries 10 marks.

1. (a) What is Software Engineering ? Discuss the evolution and need of software engineering. Discuss the various phases of water fall model. (CO1)

P. T. O.

(b) Write short notes on the following : (CO1)

   (i)   Requirement Analysis

   (ii) Software quality and its relevance

   (iii) RAD

   (iv) Software Crisis

(c) Explain Spiral model in detail. Discuss its advantages and disadvantages also. (CO1)

2. (a) What do you understand with the term "requirement elicitation" ? Discuss the various techniques in detail.   (CO2)

   (b) List *five* desirable characteristics of a good SRS document. Discuss the important issues, which an SRS must address. (CO2)

   (c) Explain module coupling and cohesion and explain different types of coupling and cohesion.   (CO2)

3. (a) What is testing ? Discuss the various types of testing. Explain the Levels of Testing.

(CO3)

(b) Explain the following :   (CO3)

   (i)   Verification *vs.* Validation

   (ii) Alpha and Beta Testing

(c) What is meant by software quality ? Explain the metrics for maintenance.

(CO3)

4. (a) What is Software Reliability ? Explain the software reliability metrics in detail.

(CO4)

   (b) Explain Software Engineering Institute Capability Maturity Model (SEICMM) and its various levels.   (CO4)

   (c) Write short notes on the following : (CO4)

   (i)   ISO 9000

   (ii) Software quality and methods

5. (a) What is software project management ? Explain the different activities of software project management.   (CO5)

P. T. O.