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TBC-403

B. C. A. (Fourth Semester)
End Semester EXAMINATION, 2017
SOFTWARE ENGINEERING

Time : Three Hours] [Maximum Marks : 100

Note : (i) This question paper contains *five* questions.

(ii) All questions are compulsory.

(iii) Instructions on how to attempt a question are mentioned against it.

(iv) Total marks assigned to each question are **twenty**.

1. Attempt any *two* questions of choice from (a), (b) and (c). (2×10=20 Marks)

(a) Explain the problems which are the main cause of software crisis.

(b) Why prototyping is used ? Explain prototyping in details.

(c) Explain incremental model with a neat diagram.

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2. Attempt any *two* questions of choice from (a), (b) and (c). (2×10=20 Marks)
- (a) What is requirement analysis ? How DFD and ERD are used to analyse a requirement ?
 - (b) What are the main components of an SRS ? What are the main criteria for evaluating the quality of an SRS ?
 - (c) What is functional independence ? How do we achieve functional independence ?
3. Attempt any *two* questions of choice from (a), (b) and (c). (2×10=20 Marks)
- (a) Explain structured programming in details.
 - (b) Explain the following :
 - (i) Internal documentation
 - (ii) Coding guidelines
 - (c) Explain the testing strategies in detail.
4. Attempt any *two* questions of choice from (a), (b) and (c). (2×10=20 Marks)
- (a) Explain the term "Software project estimation" in details.
 - (b) Explain in details the basic form of COCOMO model.
 - (c) Why is there a need of software maintenance ? Explain software maintenance in details.

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5. Attempt any *two* questions of choice from (a), (b) and (c). (2×10=20 Marks)
- (a) Explain software reliability matrices in details.
 - (b) Briefly explain the following :
 - (i) Software reliability
 - (ii) Software quality
 - (c) Explain in detail the SEI capability Maturity Model. Also differentiate it with ISO.

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