

Roll No. 0002569....

BCA-403(N)

**B. C. A. (Fourth Semester)
EXAMINATION, May, 2018**

(New Course)

Paper Third

SOFTWARE ENGINEERING

Time : Three Hours]

[Maximum Marks : 75

Note : Attempt questions from all Sections as directed.

Inst. : The candidates are required to answer only in serial order. If there are many parts of a question, answer them in continuation.

Section—A

(Short Answer Type Questions)

Note : All questions are compulsory. Each question carries 3 marks.

1. (A) What are the different steps in software development life cycle ?
- (B) List the reasons for software crisis.
- (C) What are the limitations of waterfall model ?
- (D) Give the outline structure of SRS.
- (E) What is project scheduling ?

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- (F) What is the basic objective of the functional decomposition to structured design ? 4
- (G) Differentiate between top-down and bottom-up approaches. 4
- (H) How does white-box testing differ from black-box testing ? 4
- (I) What is software maintenance ? Explain it. 4

Section—B

(Long Answer Type Questions)

Note : Attempt any two questions. Each question carries 12 marks.

- 2. (a) Explain in detail the difference between Software Engineering and Conventional Engineering. 8
- (b) Describe requirement analysis phase. 4
- 3. (a) Describe the different types of non-functional requirement which may be placed on a system. 8
- (b) Explain the following terms : 4
 - (i) Risk Retention
 - (ii) Risk Transfer
- 4. (a) What is COCOMO model ? Explain in detail. 8
- (b) What is the main objective of data design ? 4
- 5. Give a brief requirements specification for a bus ticket reservation system. Model it using objects. 12

Section—C

(Long Answer Type Questions)

Note : Attempt any two questions. Each question carries 12 marks.

- 6. (a) What is the role of Software Configuration Management (SCM) in software development ? Explain in detail. 8

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- (b) What is Software Reliability ? How can we achieve the reliable software ? 4
- 7. (a) Describe the different types of functional testing techniques in detail. 8
- (b) Name the important approaches used in program debugging. 4
- 8. (a) What are the basic facts which we should have in our mind when we translate design into coding ? 8
- (b) What is the importance of information hiding ? 4
- 9. (a) Define module coupling and explain the different types of coupling in detail. 6
- (b) Explain the following : 3 each
 - (i) CASE Environment
 - (ii) Difference between CMM and ISO

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