

TBC/TBI-502**B. C. A./B. SC. (IT) (FIFTH 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 : (1×5=5 Marks)

- (a) Software is a set of _____ that when executed provide desired function and performance.**
- (b) In Waterfall model, the phases involved in the software development are organized in _____.**
- (c) The document produced at the end of the requirements phase of software development cycle is known as _____.**

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- (d) DFD is related with _____ and _____ phases.
- (e) The _____ method is also known as the iterative enhancement model.

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

- (a) List out the major application areas of software.
- (b) Write a short note on Feasibility Study.
- (c) Enlist out the important characteristics of a good SRS.
- (d) List the task regions in the Spiral Model.
- (e) Draw Use Case diagram of Railway Reservation System.
- (f) Write a short note on different types of testing.

Section—B

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

- (a) Define Software Engineering. "Software does not wear out." Justify.
- (b) What are the symptoms of software crisis ? What are the possible solutions to it ?

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(3)

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- (c) Which life cycle model would you follow for developing software for each of the following applications ?

- (i) Well understood data processing application.
- (ii) The graphical user interface part of a large software product.
- (iii) An extremely large software that would provide, monitor and control cellular communication among its subscriber using a set of revolving satellites.
- (iv) A new library automation software that would link various libraries in city.
- (v) A compiler for new language. Assume that your company has previous experience of developing compiler.

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

- (a) What problems will a software development organization face if it does not adequately document its software process ? What are the different types of document associated with software development process ?

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(b) Define the term DFD and also discuss in which phase it used.. Draw DFD for online shopping.

(c) Draw and explain spiral model. Also explain the merits and demerits of this model.

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

(a) Distinguish between a program and a software product.

(b) What do you mean by the terms cohesion and coupling in context of software deigning ?

(c) Differentiate between the following :

(i) Verification and Validation

(ii) Top down and Bottom-up design approach