

COPYRIGHT RESERVED BCA(IV) – Soft.
Engg. (402) Core – 9

2019

Time : 3 hours

Full Marks : 70

*Candidates are required to give their answers in
their own words as far as practicable.*

The figures in the margin indicate full marks.

*Answer from **all** the Sections as directed.*

Section – A
(Compulsory)

1. Choose the correct answer from of the following
multiple choice questions : $2 \times 10 = 20$

(a) Software engineering primarily aims on :

- (i) Reliable software
- (ii) Cost effective software
- (iii) Reliable and cost effective software
- (iv) None of the above

(b) SRS stands for :

- ☒ (i) Software Requirement Specification
- (ii) Software Requirement Solution
- (iii) System Requirement Solution
- (iv) None of the above

(c) Which phase is not available in SDLC ?

- (i) Coding
- (ii) Testing
- (iii) Maintenance
- ☒ (iv) Abstraction

(d) Project risk factor is considered in :

- (i) Waterfall model
- (ii) Prototyping model
- ☒ (iii) Spiral model
- (iv) Build and fix model

(e) Which of the following is not a characteristics of software ?

- ☒ (i) Availability

- (ii) Maintainability
 - (iii) Usability
 - (iv) Efficiency
- (f) Software quality is :
- (i) Conformance to requirement
 - (ii) Fitness for the purpose
 - (iii) Level of satisfaction
 - (iv) All of the above
- (g) Which of the items listed below is not one of the software engineering layers ?
- (i) Process
 - (ii) Tools
 - (iii) Methods
 - (iv) Manufacturing
- (h) Context Diagram explains :
- (i) The overview of the system
 - (ii) The internal view of the system
 - (iii) The entities of the system
 - (iv) None of the above

(i) Mistakes made in the system analysis stage show up in :

- ☒ (i) Implementation
- ☒ (ii) System developments
- (iii) System design
- (iv) All of the above

(j) Which of the following is not a software metric ?

- (i) Process
- ☒ (ii) Application
- (iii) Product
- (iv) Project

Section – B

Answer any **four** questions of the following :

$$5 \times 4 = 20$$

2. Explain why the spiral life cycle model is considered to be a meta model.
3. Explain the characteristics of SRS document and why it is needed ?

4. What are umbrella activities ? Do umbrella activities occur throughout the software process ?
5. Explain the Non-functional requirements.
6. What are the characteristics of a software ?
7. Define project scheduling with the help of PERT and Gantt Charts.
8. What do you mean by level 0 DFD ? Explain how DFD model help in the working of a software system ?
9. Explain McCall's quality factors.

Section – C

Answer any **two** questions of the following :

15×2 = 30

10. Draw a schematic diagram to represent the waterfall model of software development and explain it.
11. The capability maturity model consists of five levels. Explain them.

12. What are the principles followed for project planning ?
13. Explain the important types of risks that a project might suffer from ? How will you do the risk identification ?

