

2019

BCA

4th Semester Examination

Software Engineering

Paper – 2204

Full Marks – 70

Time : 3 Hours

The figures in the margin indicate full marks.

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

*Answer question No. 1 any **five** from the rest.*

1. (a) What is prototype ? What is the advantage of constructing a working prototype first before developing actual model ? 5
- (b) Explain the major phases in the spiral model. 5
- (c) Compare logical and physical DFD with example. 4

2. (a) Explain organic, semi-detached and embedded type projects. 4
- (b) Write down the expressions to find out development effort and time in case of organic, semi-detached and embedded type projects according to COCOMO. 3
- (c) Describe the various types of cohesion that a module might exhibit. 4
- (d) What do you mean by regression testing? 3
3. (a) Differentiate between verification and validation. 5
- (b) What do you mean by software reliability? 4
- (c) What are the metrics of reliability? 5
4. (a) What is ER-diagram? Give its notation. 5
- (b) What do you mean by Structured Analysis? 3
- (c) Explain various tools of structured analysis in detail. 6
5. (a) What do you mean by software configuration management? 4
- (b) What are the activities that a project manager perform during project planning? 3

- (c) What is decision table ? Explain with an example. 3
- (d) What is SRS ? Write down the characteristics of SRS. 4
6. (a) What is alpha testing ? 3
- (b) What are the characteristics of a good test plan ? 5
- (c) What are the different objectives kept in mind while black box and white box testing ? 6
7. (a) What do you mean by risk in software development ? Mention some common risks associated with software development. 5
- (b) Explain ISO 9000 certification. 3
- (c) What is the difference between unit testing and system testing ? 4
- (d) State the importance of Rayleigh curve on staffing estimation. 2

[Internal Assessment – 30 marks]
