(6 pages) Reg. No. : .....

Code No. : 20814 Sub. Code : R 3 CA 51

B.C.A. (CBCS) DEGREE EXAMINATION,
APRIL 2012.

Fifth Semester

Computer Application — Main

Paper VI — SOFTWARE ENGINEERING

(For those who joined in July 2008 and afterwards)

Time : Three hours Maximum : 75 marks

PART A — (10 × 1 = 10 marks)

Answer ALL questions.

Choose the correct answer.

1. ———— should be continued throughout the life of a software system.

(a) requirements analysis

(b) design

(c) modeling

(d) programming

2. An ———— is a higher-level procedural abstraction.

(a) Variable (b) Attribute

(c) Operation (d) Object

3. ———— describes the meaning of all terms used in the domain.

(a) Domain analysis

(b) Glossary

(c) Verification

(d) Design

4. A good ———— is short and succinct.

(a) Problem (b) Problem statement

(c) Project (d) None

5. The current custodian of UML standard is the

(a) Object model group

(b) Object management group

(c) Object definition group

(d) None

6. A ———— diagram is a way of expressions dynamic information about a system

(a) sequence (b) collaboration

(c) class (d) state

7. The entire record of the series of design decisions becomes a ————

(a) design decision document

(b) design document

(c) decision document

(d) design protocol

8. ———— cohesion is a form of cohesion in which procedures that are called one after another are kept together.

(a) Procedural

(b) Sequential

(c) Communicational

(d) Utility

9. Timing and co-ordination defects arise in situations involving some form of ————

(a) Concurrency (b) Parallelism

(c) Sequence (d) Evolution

10. The ———— model explicitly accounts for the divide and conquer principle.

(a) Waterfall

(b) Concurrent engineering

(c) Phased release

(d) Evolutionary

PART B — (5 × 5 = 25 marks)

Answer ALL questions choosing either (a) or (b).

11. (a) Write notes on internal quality criteria.

Or

(b) What is object orientation?

12. (a) What are the categories of functional requirements? Explain.

Or

(b) Discuss how the non-functional requirements constrain the environment and technology of a system.

13. (a) Explain the common patterns of multiplicity.

Or

(b) Explain how to avoid unnecessary generalizations.

14. (a) Write notes on common coupling.

Or

(b) Explain how to keep the level of abstraction as high as possible.

15. (a) Describe the skills needed on a team.

Or

(b) Write a note on Earned value charts.

PART C — (5 × 8 = 40 marks)

Answer ALL questions choosing either (a) or (b).

16. (a) Explain software quality.

Or

(b) What are the activities commonly found in software engineering project? Explain.

17. (a) What are non-functional requirements? Explain the different categories of non-functional requirements? Explain.

Or

(b) Summarize the functional requirements for an embedded software system which allows a user to control a microwave oven.

18. (a) Explain activity diagrams.

Or

(b) Explain collaboration diagrams in detail.

19. (a) Explain the technique for making good design decision.

Or

(b) Explain Software architecture.

20. (a) What is project management? Explain.

Or

(b) How will you build Software Engineering teams? Explain.

———————