B. C. A. DEGREE END SEMESTER EXAMINATION - OCTOBER 2018

SEMESTER – 3 : BACHELOR OF COMPUTER APPLICATIONS (CORE COURSE)

COURSE: **16U3CRBCA8, SOFTWARE ENGINEERING**

(For Regular 2017 Admission and Supplementary / Improvement 2016 admission)

Time: Three Hours   Max Marks: 75

PART A
Answer *all* questions. Each question carries **1** mark.

1. Define Software Engineering paradigm.
2. What is a software process model?
3. What do you mean by data dictionary?
4. What are software requirement analysis principles?
5. What are the common characteristics of design methods?
6. What are the different levels of abstraction?
7. What do you mean by Black Box Testing?
8. What is meant by Bottom-up Integration Testing?
9. Define measure.
10. What is activity plan?

(1 x 10 = 10)

PART B

Answer *any eight* questions. Each question carries **2** marks.

11. Differentiate System and Computer based System?
12. What are the advantages of incremental model?
13. Mention any two functional requirements on software to be developed?
14. What is meant by feasibility study?
15. What are the different types of Cohesion?
16. What is the purpose of domain analysis? Explain with an example.
17. What are the roles of testing tools?
18. What do you mean by test case management?
19. How the CASE tools are classified?
20. How do you estimate time required for a software project?   (2 x 8 = 16)

PART C

Answer *any five* questions. Each question carries **5** marks.

21. Briefly discuss the umbrella activities in Software Engineering.
22. Discuss the features of state transition diagram and its applications.

23. Draw a DFD diagram for University Information System.
24. Compare horizontal and vertical partitioning.
25. What is the design document? How is it organized?
26. What do you mean by boundary value analysis? Give two examples of boundary value testing.
27. Explain about function point metric in detail. (5 x 5 = 25)

PART D

Answer *any two* questions. Each question carries **12** marks.

28.
   a. Explain iterative waterfall and spiral model for software life cycle and discuss various activities in each phase.
   b. Differentiate product engineering and business engineering overview?

29.
   a. Explain the ways and means for collecting the software requirements and how are they organized and represented?
   b. Explain ER diagram with an example.

30.
   a. Discuss in detail about the design process in software development process.
   b. Justify "Design is not coding and coding is not design".

31.
   a. What is COCOMO? How project parameters such as effort, development time and cost are estimated using COCOMO? Explain.
   b. Explain Delphi cost estimation technique with an example.

(12 x 2 = 24)

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