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Fourth Semester B.C.A. 3 Degree Examination, May/June 2017 (2014-2015 Onwards) (Regular) SOFTWARE ENGINEERING

Time: 3 Hours

Max, Marks: 80

Instructions: 1) All Sections are compulsory.

2) Draw neat diagrams wherever necessary.

SECTION-A

Answer any ten full questions:

(10×2=20)

- a) What do you mean by Software Engineering?
- b) What are Generic and Customized Software Products?
- c) What is Prototyping?
- d) What are User and Software Requirements?
- e) What is Interaction Modeling? Mention two diagrams used in Interaction Modeling.
- f) What is Data Dictionary? Mention notations used in Data Dictionary.
- g) Mention architectural views.
- h) What are the three implementation issues in design?
- i) What are Redundancy and Diversity?
- j) What do you mean by system survivability?
- k) What are the four major tasks of Risk Management Process?
- I) What is Project Scheduling?

P.T.O.

SECTION - B

Answer any four full questions:

 $(4 \times 5 = 20)$

- 2. Explain Reuse-Oriented Software Engineering.
- 3. What are the stages in process of requirement elicitation and analysis? Explain with a neat diagram.
- 4. With an example, explain Use-Case diagram.
- 5. What do you mean by client-server architecture? Explain with a neat diagram.
- 6. Explain N-version programming with triple modular redundancy.
- 7. Write a short note on Team-Work.

SECTION-C

Answer any four full questions:

 $(4 \times 10 = 40)$

- 8. How does a software developed using spiral model? Explain.
- 9. Explain:
 - a) Requirement Engineering Process.
 - b) Context Model.
- 10. Explain Repository Architecture and Layered Architecture.
- 11. Write the design guidelines for secure system engineering.
- 12. Write short notes on :
 - a) Software Engineering Ethics.
 - b) Open Source Development.