

**B.Tech. – VIEP – COMPUTER SCIENCE AND
ENGINEERING (BTCSVI)**

00244 Term-End Examination

December, 2014

BICS-005 : SOFTWARE ENGINEERING

Time : 3 hours

Maximum Marks : 70

*Note : All the questions are to be answered in English language only. All questions carry equal marks. Attempt any **seven** questions.*

1. (a) What is the principal aim of Software Engineering discipline ? What does the discipline of Software Engineering discuss ? 5
- (b) Differentiate between a Program and a Software Product. 5
2. Explain in detail about the incremental model of software development. Also explain how it differs from the prototype model. 10
3. Discuss typical Software Risk. What technique can we use to control risk ? How do we select the best risk reduction techniques when there are many ways of reducing a risk ? 10
4. (a) What are the different parameters used for estimation ? 5
- (b) Explain COCOMO in detail. 5

5. Draw a content level DFD and level 1 DFD for Library Information System. Also identify the software modules and their functions. 10
6. Discuss the objectives of modular software design. What do you mean by the terms cohesion and coupling in the context of software design ? How are the concepts of cohesion and coupling useful in arriving at good software design ? 10
7. Describe the significance and use of requirement engineering. Explain five desirable characteristics of a good software requirement specification document. 10
8. What is software testing ? Explain the basis path testing using flow graph analysis in detail. 10
9. (a) What is the difference between testing and debugging ? 5
(b) What are drivers and stub modules in context of integration and unit testing ? 5
10. Write short notes on any **two** from the following : $2 \times 5 = 10$
(a) Black Box Testing
(b) Spiral Model
(c) Functional Modelling
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