

**III B. Tech II Semester Supplementary Examinations, November-2018**

**SOFTWARE ENGINEERING**

(Computer Science and Engineering)

Time: 3 hours

Max. Marks: 70

- Note: 1. Question Paper consists of two parts (**Part-A** and **Part-B**)  
 2. Answering the question in **Part-A** is compulsory  
 3. Answer any **THREE** Questions from **Part-B**

**PART-A**

- |    |    |  |      |
|----|----|--|------|
| 1. | a) | Distinguish between software process and project.                            | [4M] |
|    | b) | What are the characteristics of good SRS document?                           | [3M] |
|    | c) | List the principles of a software design.                                    | [4M] |
|    | d) | Will exhaustive testing guarantee that the program is 100% correct? Explain. | [3M] |
|    | e) | List a few process and project metrics.                                      | [4M] |
|    | f) | Define maintenance. What are the types of software maintenance?              | [4M] |

**PART-B**

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|----|----|--|------|
| 2. | a) | Explain why incremental development is the most effective approach for developing business software systems. Why is this model less appropriate for real-time systems engineering? | [8M] |
|    | b) | Explain briefly Software development lifecycle.  | [8M] |
| 3. | a) | What is the goal of requirements analysis phase? Give reasons why the requirements analysis phase is a difficult one.  | [8M] |
|    | b) | Identify and briefly describe four types of requirement that may be defined for a computer based system.   | [8M] |
| 4. | a) | Explain about object oriented analysis and design principle.   | [8M] |
|    | b) | What are the design principles? Explain in detail.   | [8M] |
| 5. | a) | Explain integration testing process with an example.   | [8M] |
|    | b) | What are the benefits of involving users in release testing at an early stage in the testing process? Are there disadvantages in user involvement?                                 | [8M] |
| 6. | a) | Discuss about COCOMO II model for software estimation.   | [8M] |
|    | b) | Discuss about the software metrics for small organizations.  | [8M] |
| 7. | a) | What is reengineering? Explain in detail.  | [8M] |
|    | b) | Explain why design metrics are, by themselves, an inadequate method of predicting design quality.  | [8M] |

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