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# BMS College of Engineering, Bangalore-560019

(Autonomous Institute, Affiliated to VTU, Belgaum)

## January 2017 Semester End Make Up Examinations

Course: Software Engineering  
Course Code: 16CS5DCSWE

Duration: 3 hrs  
Max Marks: 100

Date: 16.01.2017

**Instructions: 1. Answer any five full questions choosing one from each unit.**

**2. Assume missing data (if any) suitably**

### UNIT 1

- |   |    |   |    |
|---|----|---|----|
| 1 | a) | Describe the attributes of good software?                                       | 04 |
|   | b) | With a neat diagram explain the waterfall model of software development process | 10 |
|   | c) | Explain the possible metrics to specify non-functional requirements.            | 06 |

### UNIT 2

- |   |    |  |    |
|---|----|--|----|
| 2 | a) | Illustrate with a neat diagram the state machine model of a simple microwave oven.         | 10 |
|   | b) | Describe concurrent objects. Explain different types of concurrent object implementations. | 06 |
|   | c) | Explain the two generic control styles used in software systems.                           | 04 |

### UNIT 3

- |   |    |   |    |
|---|----|---|----|
| 3 | a) | Explain Boehm's W5HH principle to provide plans for simple projects | 10 |
|   | b) | Explain in detail the COCOMO II model of software estimation.       | 10 |

### OR

- |   |    |   |    |
|---|----|---|----|
| 4 | a) | Define Risk Identification. Explain in detail the checklist used for identification.      | 10 |
|   | b) | Construct a Task network for concept development project and explain with a neat diagram. | 10 |

### UNIT 4

- |   |    |  |    |
|---|----|--|----|
| 5 | a) | Describe Agile methods of software development. Illustrate its principles in detail. | 08 |
|   | b) | Discuss the advantages of pair programming   | 06 |
|   | c) | Describe RAD in software development and explain the tools in RAD environment.       | 06 |

### OR

- |   |    |  |    |
|---|----|--|----|
| 6 | a) | Define software testing workbench. Explain testing automation with a neat diagram. | 10 |
|   | b) | Explain Integration testing and Release testing with diagram                       | 10 |

### UNIT 5

- |   |    |  |    |
|---|----|--|----|
| 7 | a) | Explain the key challenges facing software engineering   | 06 |
|   | b) | Explain Object aggregation with an example.  | 08 |
|   | c) | List and explain the different checks to be carried out during requirement validation process in the requirement document? | 06 |

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