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# **BMS College of Engineering, Bangalore-560019**

(Autonomous Institute, Affiliated to VTU, Belgaum)

## **May 2016 Semester End Main Examinations**

**Course: SOFTWARE ENGINEERING**

**Course Code: 10CI6GCSWE**

**Duration: 3 Hours**

**Max Marks: 100**

**Date: 05.05.2016**

**Instructions: Answer FIVE FULL questions, choosing one from each unit.**

### **UNIT-1**

1. a) Explain the attributes of good software? What are the key challenges facing in software engineering? **08**
- b) With a neat block diagram explain system engineering process activities. **06**
- c) Define legacy systems. Explain components of legacy system. **06**

### **OR**

2. a) Distinguish between functional and nonfunctional requirement with example. **04**
- b) Explain the terms **06**
  - i) Domain requirements
  - ii) User Requirements
  - iii) System Requirements
- c) Explain in detail requirement validation. **10**

### **UNIT-2**

3. a) Explain the process of Risk Management in detail with help of a neat diagram. **08**
- b) Explain the general structure of a Project Plan. **07**
- c) Draw and explain the Context Model of a Library system. **05**

### **UNIT-3**

4. a) Define object and object class. Explain the various proposal made to identify object class. **08**
- b) Describe the two event driven control models. **06**
- c) Design the architecture of a film and picture library system using client-server model. **06**

#### **UNIT-4**

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|----|----|--|-----------|
| 5. | a) | With a neat diagram explain clean room software development? | <b>08</b> |
|    | b) | Analyze the factors that lead to higher maintenance costs.   | <b>06</b> |
|    | c) | Devise guidelines for interface testing?                     | <b>06</b> |

#### **OR**

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|----|----|--|-----------|
| 6. | a) | Explain the principles of agile methods?                   | <b>06</b> |
|    | b) | Explain rapid application development with a neat diagram. | <b>06</b> |
|    | c) | Assess the rationale underlying Lehman's law.              | <b>08</b> |

#### **UNIT-5**

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|----|----|--|-----------|
| 7. | a) | Using your knowledge of how an ATM is used, Identify the actors, Develop a set of use cases that could serve as a basis for understanding the requirement of ATM System and design the sequence diagram for cash withdrawal. | <b>08</b> |
|    | b) | Discuss the control styles.  | <b>05</b> |
|    | c) | Define State machine model and design the state model for Microwave Oven with explanation.   | <b>07</b> |

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