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**R-15**

**Code: 5G481**

IV B.Tech. II Semester Regular & Supplementary Examinations September 2020

**Design Patterns**

( Information Technology )

Max. Marks: 70

Time: 3 Hours

Answer all five units by choosing one question from each unit ( 5 x 14 = 70 Marks )

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**UNIT-I**

- 1. a) List and explain different ways of organizing design patterns. 7M
- b) Discuss about toolkits and frameworks. 7M

**OR**

- 2. a) How a Design pattern solves the design problem? Illustrate with an example. 7M
- b) Describe the consistent format for describing the design patterns. 7M

**UNIT-II**

- 3. a) Describe formatting in Lexi's design. 7M
- b) Explain about encapsulating the analysis in Lexi's design. 7M

**OR**

- 4. a) Illustrate the Supporting Multiple Window systems design problem 7M
- b) Discuss about the representation of a document structure. 7M

**UNIT-III**

- 5. Discuss in detail about creational patterns. 14M

**OR**

- 6. a) Draw and explain about Factory Method. 9M
- b) Discuss the benefits of abstract factory pattern. 5M

**UNIT-IV**

- 7. a) Discuss about implementation issues of Decorator pattern. 7M
- b) Explain the sample code of Flyweight pattern. 7M

**OR**

- 8. a) Discuss in detail about the participants and consequences of Composite pattern. 5M
- b) Discuss the pattern name, Applicability, Consequences and Related Patterns of the following Patterns
- a) Bridge b) Proxy 9M

**UNIT-V**

- 9. What is Command Pattern? Describe in detail about structure, participants and collaborations of Command pattern. 14M

**OR**

- 10. a) Explain what to expect from design patterns. 7M
- b) Write about Pattern community in brief. 7M

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**R-15**

**Code: 5G482**

IV B.Tech. II Semester Regular & Supplementary Examinations September 2020

## **Mobile Communications**

( Information Technology )

Max. Marks: 70

Time: 3 Hours

Answer *all five* units by choosing one question from each unit ( 5 x 14 = 70 Marks )

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### **UNIT-I**

1. a) Describe Novel applications and limitations of Mobile Computing. 7M
- b) Explain the GSM system architecture in detail. 7M

**OR**

2. a) Explain Mobile call termination in GSM, detailing the need and the use of MSRN and IMSI numbers. 10M
- b) What you meant by security in GSM? Explain about that in detail? 4M

### **UNIT-II**

3. a) Describe in detail about TDMA, FDMA, and CDMA and tabulate the differences among them. 7M
- b) Explain why the traditional IP cannot be used in a mobile network 7M

**OR**

4. a) Explain about mobile IP and its requirements. 5M
- b) Explain in detail the mobile IP packet delivery and agent discovery. 9M

### **UNIT-III**

5. Discuss how snooping TCP acts as a transparent TCP and explain the role of foreign agent in it. 14M

**OR**

6. a) Explain Characteristics, Applications of MANET 7M
- b) What are the security threats in a MANET? What are the factors responsible for limited security in MANETs? 7M

### **UNIT-IV**

7. a) With neat sketches and illustrations, discuss the Wireless Application Protocol architecture in detail. 10M
- b) What are various user scenarios of Bluetooth? 4M

**OR**

8. a) Describe Wireless LAN IEEE 802.11a & IEEE802.11b 7M
- b) Discuss about J2ME in developing Wireless Applications 7M

### **UNIT-V**

9. a) Explain how caching invalidation mechanisms useful in Mobile communication? 7M
- b) Describe various recovery and quality of service issues? 7M

**OR**

10. Define Communications asymmetry? Also explain classification of new data delivery mechanisms? 14M

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**R-15**

**Code: 5GA82**

IV B.Tech. II Semester Regular & Supplementary Examinations September 2020

## **Human Resource Management**

( Common to CE, CSE & IT )

Max. Marks: 70

Time: 3 Hours

Answer all five units by choosing one question from each unit ( 5 x 14 = 70 Marks )

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### **UNIT-I**

1. a) Define Human Resource Management and explain its scope 4M
- b) Narrate major differences between Personnel Management and HRM 10M

**OR**

2. What are the competitive challenges of HRM 14M

### **UNIT-II**

3. a) Discuss the steps in Human Resource Planning Process 7M
- b) Write a short notes on Job description. 7M

**OR**

4. a) Explain in detail the methods of Job Design 6M
- b) What are the methods of collecting Job Analysis Data 8M

### **UNIT-III**

5. Define selection. Narrate the sequential steps involved in selection process. 14M

**OR**

6. a) What are the sources of Recruitment? Explain the advantages of them. 8M
- b) Distinguish between Placement and Induction? Explain their significance 6M

### **UNIT-IV**

7. a) What is Career Planning? Explain its advantages 5M
- b) Discuss the steps in Employee Career Planning 9M

**OR**

8. a) What are the different training methods used in a company to train an employee? 7M
- b) Explain any two training methods in detail. 7M

### **UNIT-V**

9. a) Explain the components of Compensation Structure 5M
- b) Discuss important features of wage policy in India 9M

**OR**

10. a) What is 360 degree performance appraisal? 4M
- b) Explain different approaches to Industrial Relations in India 10M

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