

H.T No:

--	--	--	--	--	--	--	--	--	--

**R18**

Course Code: A30534



**CMR COLLEGE OF ENGINEERING & TECHNOLOGY**  
(UGC AUTONOMOUS)

**B.Tech VII Semester Supplementary Examinations April-2024**

**Course Name: DESIGN PATTERNS**

**(Common for CSE & IT)**

**Date: 24.04.2024 AN**

**Time: 3 hours**

**Max.Marks: 70**

**(Note: Assume suitable data if necessary)**

**PART-A**

**Answer all TEN questions (Compulsory)**

**Each question carries TWO marks.**

**10x2=20M**

1. What is MVC pattern? 2 M
2. How can we implement facade pattern in .NET? 2 M
3. What is Prototype Pattern? 2 M
4. Which are the three main categories of design patterns? 2 M
5. What is Mediator Pattern? 2 M
6. Write a snippet code to explain the structure of Strategy pattern? 2 M
7. Discuss about Patterns in software. 2 M
8. Explain any two Pattern Languages. 2 M
9. Explain Brief history of Design pattern. 2 M
10. Illustrate about interpreter in behavioral patterns. 2 M

**PART-B**

**Answer the following. Each question carries TEN Marks.**

**5x10=50M**

- 11.A). Describe organization of design pattern catalog. Draw a diagram to show relationships among design patterns. 10M

**OR**

11. B). What is a Design Pattern? How to use a design pattern? 10M

12. A). What are design problems in Lexi's design? Explain in detail. 10M

**OR**

12. B). Explain the standards for supporting multiple look and feel. 10M

13. A). Describe about Abstract factory in detail. 10M

**OR**

13. B). Explain implementation of virtual constructor. 10M

14. A). Explain sample code and known uses of Façade design pattern. 10M

**OR**

14. B). Illustrate with an example of Bridge Pattern. 10M

15. A). Discuss about Observer and visitor patterns. 10M

**OR**

15. B). Illustrate with a neat sketch to explain template method and command patterns. 10M

**\*\*\*\*\***

H.T No:

--	--	--	--	--	--	--	--	--	--

**R18**

Course Code: A31206



**CMR COLLEGE OF ENGINEERING & TECHNOLOGY**  
(UGC AUTONOMOUS)

B.Tech VII Semester Supplementary Examinations April-2024

Course Name: Human Computer Interaction

(Information Technology)

Date: 26.04.2024 AN

Time: 3 hours

Max.Marks: 70

(Note: Assume suitable data if necessary)

**PART-A**

Answer all TEN questions (Compulsory)

Each question carries TWO marks.

10x2=20M

1. What is meant by good design and what it comprises? 2 M
2. Define graphical system. 2 M
3. List the principles of web user interface. 2 M
4. What are the characteristics of GUI? 2 M
5. Mention some screen elements. 2 M
6. What are the qualities in visually pleasing elements? 2 M
7. Differentiate between screen and window. 2 M
8. What is web page? 2 M
9. Give any three window guidelines. 2 M
10. list the operations of window. 2 M

**PART-B**

Answer the following. Each question carries TEN Marks.

5x10=50M

- 11.A). Explain various advantages and disadvantages of graphical systems. 10M
- OR**
11. B). Explain about history of screen designing. 10M
12. A). Elaborate human considerations and human interaction speeds in design. 10M
- OR**
12. B). Discuss in detail about technological considerations in interface design. 10M
13. A). Discuss the characteristics of device-based controls. 10M
- OR**
13. B). Explain the role of multimedia in User Interface Design. 10M
14. A). What are the different evaluation techniques used in HCI? List out the goals of evaluation? 10M
- OR**
14. B). Briefly discuss about multi modal interaction. 10M
15. A). Discuss about the applications of augmented reality. 10M
- OR**
15. B). What are linguistic models? Explain in detail. 10M

\*\*\*\*\*

H.T No:

--	--	--	--	--	--	--	--	--	--

**R18**

Course Code: A30540



**CMR COLLEGE OF ENGINEERING & TECHNOLOGY**  
(UGC AUTONOMOUS)

B.Tech VII Semester Supplementary Examinations April-2024

Course Name: **BIG DATA ANALYTICS**

(Common for CSE & IT)

Date: 29.04.2024 AN

Time: 3 hours

Max.Marks: 70

(Note: Assume suitable data if necessary)

**PART-A**

Answer all TEN questions (Compulsory)

Each question carries TWO marks.

10x2=20M

1. What are the characteristics of Big Data? 2 M
2. List few NOSQL databases. 2 M
3. Identify different types of Hadoop nodes. 2 M
4. What is mean by rack awareness in Hadoop? 2 M
5. What is Key-value data store? 2 M
6. Define Map and Reduce terms. 2 M
7. What are the advantages of Apache Pig? 2 M
8. Classify the user defined functions of Apache Pig. 2 M
9. When we use external tables in Hive? 2 M
10. What is the use of R-Tool in data analytics? 2 M

**PART-B**

Answer the following. Each question carries TEN Marks.

5x10=50M

- 11.A). What are the benefits of Big Data? Discuss the challenges under big data? How Big Data Analytics can be useful in the development of smart cities? 10M
- OR**
11. B). Differentiate Relational Database with Big data in detail. 10M
12. A). Discuss the Hadoop Ecosystem components in four layers. 10M
- OR**
12. B). Explain the Characteristics of Hadoop in detail. 10M
13. A). Define Map Reduce? Explain its architecture with neat diagram. 10M
- OR**
13. B). Demonstrate the procedure of setup Hadoop on a single node in detail. 10M
14. A). Illustrate the different relational operators of Apache Pig. 10M
- OR**
14. B). Explain the concept Parameter Substitution in Apache Pig briefly. 10M
15. A). Discuss the Managed tables and External tables with example. 10M
- OR**
15. B). Describe the process of Querying Hive Tables with example. 10M

\*\*\*\*\*