H.T No: | | | | | | | | | | | **R18** | **Course Code: A30013**

CMR COLLEGE OF ENGINEERING & TECHNOLOGY

(UGC AUTONOMOUS)

B.Tech VII Semester Supplementary Examinations April/May-2023

Course Name: BUSINESS MANAGEMENT & FINANCIAL ANALYSIS

(Common for CSE & IT)

Date: 27.04.2023 FN **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. Define the Organizing. 2 M
2. Explain the Self-actualization needs. 2 M
3. Define Societal Marketing. 2 M
4. Explain Financial Planning. 2 M
5. Explain Inflation. 2 M
6. Define the Cost benefit analysis. 2 M
7. Define the Breakeven point. 2 M
8. Explain the Production function. 2 M
9. Define Trading account. 2 M
10. Define the Partnership firm. 2 M

PART-B

Answer the following. Each question carries TEN Marks. **5x10=50M**

11.A). Define Management and explain its functions. 10M

OR

11. B). Discuss Frederick Taylor's principles of Scientific Management. 10M

12. A). Write a detailed note on Marketing mix. 10M

OR

12. B). Describe the importance of financial management in business. 10M

13. A). Differentiate micro and macro-economics. 10M

OR

13. B). Explain the stages of Product Life Cycle with a diagram. 10M

14. A). Define pricing. Explain various types of pricing. 10M

OR

14. B). Discuss different types of competition in free market system. 10M

(P.T.O..)

15. A). Define the accounting and explain the double entry book-keeping. 10M

OR

15. B). Calculate Current Ratio and Quick Ratio from the following particulars. 10M

PARTICULARS	AMOUNT (Rs)
Inventory	1,50,000
Cash	50,000
Sundry debtors	2, 50,000
Creditors	3,00,000
Bills Receivable	30,000
Bank OD	30,000

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H.T No: | | | | | | | | | | | **R18** **Course Code: A30163**

CMR COLLEGE OF ENGINEERING & TECHNOLOGY

(UGC AUTONOMOUS)

B.Tech VII Semester Supplementary Examinations April/May-2023

Course Name: AIR POLLUTION & CONTROL

(Common for EEE, ME, ECE, CSE & IT)

Date: 29.04.2023 FN **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. Define Air Pollution. 2 M
2. Broadly classify the air pollutants. 2 M
3. Define turbulence. 2 M
4. What is called temperature lapse rate? 2 M
5. Differentiate Indoor air pollution from others. 2 M
6. What is stack air pollution? 2 M
7. List out the various control technique. 2 M
8. Write a note on scrubbers. 2 M
9. Discuss any one global episode as environmental issue. 2 M
10. List out noise standards. 2 M

PART-B

Answer the following. Each question carries TEN Marks. **5x10=50M**

11.A). Discuss in detail about the characterization of air pollutants. 10M

OR

11. B). Explain the effects of air pollution on health. 10M

12. A). Discuss in detail about Wind rose diagram. 10M

OR

12. B). Explain about plume behavior in detail. 10M

13. A). Discuss about Sampling of particulate pollutants. 10M

OR

13. B). Explain about Gaussian dispersion model 10M

14. A). Discuss in detail about settling chambers. 10M

OR

14. B). Explain about cyclone separators. 10M

15. A). How to control air pollution due to automobiles? 10M

OR

15. B). Explain about environmental laws and acts. 10M

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H.T No: | | | | | | | | | | | **R18** **Course Code: A30534**

CMR COLLEGE OF ENGINEERING & TECHNOLOGY

(UGC AUTONOMOUS)

B.Tech VII Semester Supplementary Examinations April/May-2023

Course Name: DESIGN PATTERNS

(Computer Science & Engineering)

Date: 02.05.2023 FN **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.	Define catalog of design patterns.	2 M
2.	Sketch MVC architecture.	2 M
3.	Differentiate compositor and composition.	2 M
4.	Write a short note on Design problems.	2 M
5.	Define abstract factory design pattern.	2 M
6.	List five types of creational patterns.	2 M
7.	Sketch the structure of decorator pattern.	2 M
8.	Discuss the role of participants.	2 M
9.	Write the intentions of mediator pattern.	2 M
10.	List the situations where state pattern can be used.	2 M

PART-B

Answer the following. Each question carries TEN Marks. **5x10=50M**

11.A).	Explain the catalog of design patterns with neat diagrams.	10M
	OR	
11. B).	How to describe the design patterns? Explain each section in detail.	10M
12. A).	Discuss the goals and constraints in choosing an internal representation for a document.	10M
	OR	
12. B).	Explain the Design Patterns in terms of relationship.	10M
13. A).	Explain the Implementation of Abstract Factory with examples.	10M
	OR	
13. B).	Explain the Sample Code and Related Pattern of Prototype Pattern.	10M
14. A).	Explain the structure of Adapter design pattern with class diagram and consequences.	10M
	OR	
14. B).	Give the intent, applicability and structure of composite design pattern and explain it.	10M
15. A).	What is an iterator? Explain the various operations that an iterator supports. Explain them in detail.	10M
	OR	
15. B).	Discuss with suitable scenarios, how state, strategy and visitor patterns can solve design problems.	10M

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H.T No: | | | | | | | | | | | **R18** **Course Code: A30539**

CMR COLLEGE OF ENGINEERING & TECHNOLOGY
(UGC AUTONOMOUS)
B.Tech VII Semester Supplementary Examinations April/May-2023
Course Name: ETHICAL HACKING
(Computer Science & Engineering)

Date: 04.05.2023 FN **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. Define Ethical Hacking. 2 M
2. List differences between IPv4 and IPv6. 2 M
3. Define Phishing. 2 M
4. How to avoid a Hacker Attack on your website? 2 M
5. Define the term encryption and decryption. 2 M
6. What is Computer Fraud? 2 M
7. List the different wireless access control threats. 2 M
8. Define wireshark and list any four advantages. 2 M
9. What is vulnerability assessment? What are its limitations? 2 M
10. Define a Trojan. What is the purpose of Trojans? 2 M

PART-B

Answer the following. Each question carries TEN Marks. **5x10=50M**

11.A). Discuss about TCP and UDP Protocols. 10M

OR

11. B). With an example explain the Flooding, Hierarchical routing algorithms used in computer networks. 10M

12. A). Describe the impact of social engineering attack on an organization. 10M

OR

12. B). Explain the stack segment and stack-based buffer overflows. 10M

13. A). Define Hash function. Illustrate with example. 10M

OR

13. B). Discuss about the framework for predicting insider attacks. 10M

14. A). Explain the wireless hacking methodology. 10M

OR

14. B). Define and compare the terms DNS and ARP poisoning. Explain the types of DNS poisoning attacks. 10M

15. A). What is a web application? What are its components? Explain. 10M

OR

15. B). i) Explain automated penetration testing. 5M
ii) Illustrate side channel attacks with suitable example. 5M

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H.T No: | | | | | | | | | | | **R18** **Course Code: A30540**

CMR COLLEGE OF ENGINEERING & TECHNOLOGY

(UGC AUTONOMOUS)

B.Tech VII Semester Supplementary Examinations April/May-2023

Course Name: BIG DATA ANALYTICS

(Common for CSE & IT)

Date: 06.05.2023 FN **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 advantages of Big Data? 2 M
2. List out the applications of Big Data. 2 M
3. Briefly write the core components of Hadoop. 2 M
4. What is checkpointing? 2 M
5. Write the list of configuration files needs to be edited to setup Hadoop? 2 M
6. What is Reducer Phase? 2 M
7. What are the running modes of Apache PIG? 2 M
8. Write the relational operators in PIG? 2 M
9. Write syntax for creating a table in HIVE? 2 M
10. What is external table? 2 M

PART-B

Answer the following. Each question carries TEN Marks. **5x10=50M**

11.A). What is NOSQL Database and explain the features of NOSQL database? 10M

OR

11. B). Write the characteristics and importance of Big Data over Relational database. 10M

12. A). Explain HDFS architecture with neat diagram. 10M

OR

12. B). Explain about Hadoop Rack Awareness concept. Also discuss the core components of Hadoop. 10M

13. A). Explain in detail with neat diagram about Executing Map Phase – Shuffling and Sorting and Reducing Phase Execution. 10M

OR

13. B). Explain MapReduce Architecture and its applications. 10M

14. A). i) Write a Pig Latin Script for word count problem. 5M
ii) Illustrate Parameter Substitution with examples. 5M

OR

14. B). i) Explain about Processing Data Using Apache PIG. 5M
ii) Explain about user defined functions in pig with example. 5M

15. A). Explain the following with examples: 10M
i) Loading data in HIVE Tables, ii) Managed Tables

OR

15. B). Write about HIVE and Illustrate HIVE Architecture. 10M

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H.T No: | | | | | | | | | | | R18 | Course Code: A30160

CMR COLLEGE OF ENGINEERING & TECHNOLOGY
(UGC AUTONOMOUS)
B.Tech VII Semester Supplementary Examinations April/May-2023
Course Name: DISASTER MANAGEMENT & MITIGATION
(Common for EEE, ME, ECE CSE & IT)

Date: 08.05.2023 FN **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. State different types of the disasters. 2 M
2. Define landscape approach. 2 M
3. Name the types of endogenous hazards. 2 M
4. Write on man induced disaster. 2 M
5. List three major causes of earth quakes occurred in India. 2 M
6. Briefly write on the occurrence of landslides. 2 M
7. Differentiate between cold wave and heat wave. 2 M
8. List the impacts of floods in India. 2 M
9. Write about the emergency stage of disaster management. 2 M
10. Give an insight on mitigation techniques of any one type of disaster. 2 M

PART-B

Answer the following. Each question carries TEN Marks. **5x10=50M**

11.A). Discuss about the environmental stress and concept of environmental hazard. 10M

OR

11. B). Explain in detail on human ecology and its application on geographical researches. 10M

12. A). Differentiate between man induced hazards and natural hazards. 10M

OR

12. B). Describe in detail about endogenous and exogenous hazards. 10M

13. A). Discuss the environmental impacts of volcanic eruptions. 10M

OR

13. B). Explain the distribution of earthquakes and methods to reduce effects of the earthquake. 10M

14. A). Write the methods of conservation measures for soil erosion. 10M

OR

14. B). Discuss in detail about chemical hazards and nuclear explosion. 10M

15. A). Explain the role of an engineer to reduce the effects of different disasters occurred in India. 10M

OR

15. B). Describe in detail the emerging approaches of disaster management and recommend some remedies to control the disasters. 10M

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H.T No: | | | | | | | | | | | **R18** **Course Code: A30531**

CMR COLLEGE OF ENGINEERING & TECHNOLOGY
(UGC AUTONOMOUS)
B.Tech VII Semester Supplementary Examinations April/May-2023
Course Name: PYTHON PROGRAMMING
(Common for all Branches)

Date: 08.05.2023 FN **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. List the basic data types available in Python with examples. 2 M
2. Mention any two limitations of Python. 2 M
3. Define recursion with an example. 2 M
4. Compare lists and array. 2 M
5. How will you update list items? Give one example. 2 M
6. Can functions return tuples? If yes give example. 2 M
7. What are instance variables, and what role does the name self play in the context of a class definition? 2 M
8. Explain what the __str__ method does and why it is a useful method to include in a class 2 M
9. Why does the blur function need to work with a copy of the original image? 2 M
10. What happens when you enter a number with a decimal point into an Integer Field? 2 M

PART-B

Answer the following. Each question carries TEN Marks. **5x10=50M**

11.A). Write about different types of python operators with example scripts. 10M

OR

11. B). Sketch the structures of interpreter and complier. Details the difference between them. Explain how python works in Interactive mode and script mode with examples. 10M

12. A). Write a program to determine the factorial of a given number with and without the use of recursion. 10M

OR

12. B). Write the syntax and explain the concept of 10M
   (i) recursive function with an example.
   (ii) lambda function with an example.

13. A). Write a function that takes a number as an input parameter and returns the corresponding text in words, for example, on input 452, the function should return 'Four Five Two'. Use a dictionary for mapping digits to their string representation. 10M

OR

13. B). Describe the following: 10M
   (i) Creating the list
   (ii) Accessing values in the lists
   (iii) Updating the list
   (iv) Deleting the list elements.

(P.T.O..)

14. A). i) Write a short notes on Special Class methods, with the help of an example explain the significance of the _init_() method. 5M

ii) Write a short notes on different built in attributes associated with a class. 5M

OR

14. B). Write a menu driven program that keeps record of books and journals available in a library. 10M

15. A). Write a line of code that adds a Float Field to a window, at position (1, 1) in the grid, with an initial value of 0.0, a width of 15, and a precision of 2. 10M

OR

15. B). Explain the turtle graphics with two dimensional shapes. 10M

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H.T No: | | | | | | | | | | | **R18** **Course Code: A30542**

CMR COLLEGE OF ENGINEERING & TECHNOLOGY
(UGC AUTONOMOUS)

B.Tech VII Semester Supplementary Examinations April/May-2023

Course Name: CLOUD COMPUTING

(Common for EEE & CSE)

Date: 09.05.2023 FN **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. Define High Performance Computing. 2 M
2. What is Grid Computing? 2 M
3. Define Cloud Computing. 2 M
4. List the characteristics of Cloud computing. 2 M
5. Define Multitenancy. 2 M
6. Compare Private and public cloud access networking. 2 M
7. Define Infrastructure as a Service. 2 M
8. What are the Characteristics of Paas? 2 M
9. What are the tools for Google Cloud Storage? 2 M
10. Define Rack space. 2 M

PART-B

Answer the following. Each question carries TEN Marks. **5x10=50M**

11.A). Illustrate in detail about parallel and distributed computing. 10M

OR

11. B). Discuss in detail about Quantum and Optical computing. 10M

12. A). Explain the Need and Motivation of Cloud computing. 10M

OR

12. B). Describe any two cloud deployment model in detail. 10M

13. A). Explain Cloud Architecture in detail. 10M

OR

13. B). Describe several approaches of cloud migration. 10M

14. A). Explain in detail about Cloud service models. 10M

OR

14. B). Elaborate on cloud service models that emerged after the introduction of cloud computing. 10M

15. A). Discuss in detail Amazon web services. 10M

OR

15. B). Explain the Overview of Aneka. 10M

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H.T No: | | | | | | | | | | | **R18** **Course Code: A30537**

CMR COLLEGE OF ENGINEERING & TECHNOLOGY

(UGC AUTONOMOUS)

B.Tech VII Semester Supplementary Examinations April/May-2023

Course Name: DATA ANALYTICS WITH R

(Computer Science & Engineering)

Date: 10.05.2023 FN **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. With an example explain the extraction of a subtable. 2 M
2. Differentiate between NA and NULL with suitable example. 2 M
3. List the expected defaults for headers, column separators, and decimal point notations for the functions read. csv2( ) and read.delim() 2 M
4. What are contingency tables? 2 M
5. What are which.min() and which.max()? 2 M
6. Explain det() 2 M
7. Illustrate the use of xlim() and ylim() 2 M
8. What are the applications of predict function? 2 M
9. What is a Decision tree? 2 M
10. What are the effects of smoothing? 2 M

PART-B

Answer the following. Each question carries TEN Marks. **5x10=50M**

11.A). Explain various filtering techniques for vector operations and their uses. 10M

OR

11. B). Discuss in detail the uses of recursion using a Binary Search Tree. 10M

12. A). Illustrate the difference between Descriptive statistics and Exploratory data analysis with a suitable application. 10M

OR

12. B). Compare the exploratory analysis for examining single and multiple variables. 10M

13. A). Illustrate the uses of various statistical distribution functions and sorting function in R. 10M

OR

13. B). Explain Simulation programming in R using Random Variate generators. 10M

14. A). Describe the pwr package and the functions offered by it with suitable examples. 10M

OR

14. B). Illustrate the application of various linear models available in R. 10M

15. A). Describe the different decision tree methods and evaluation metrics available in R. 10M

OR

15. B). Present the Bayes theorem with an example and demonstrate the working principle of the Naïve Bayes Classifier. 10M

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