

H.T No:

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

R18

Course Code: A36210



CMR COLLEGE OF ENGINEERING & TECHNOLOGY
(UGC AUTONOMOUS)

B.Tech VI Semester Regular Examinations May-2023

Course Name: **CONCEPTS OF ETHICAL HACKING**
(CSC)

Date: 08.05.2023 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. Define Script kiddies. 2 M
2. What is OSPF protocol? 2 M
3. What are the cons of parallel shared only attack? 2 M
4. Define Red team. 2 M
5. What are the Hacker tools? 2 M
6. What is Pretty Good Privacy? 2 M
7. Define Null connection. 2 M
8. What is RPC? 2 M
9. What is the format of Deliverable? 2 M
10. Define Vulnerable ranking. 2 M

PART-B

Answer the following. Each question carries TEN Marks.

5x10=50M

- 11.A). Explain Risk analysis process in detail with examples. 10M
- OR**
11. B). Explain the Information security model for Computer security in detail. 10M
12. A). Discuss Multi phased attacks in detail. 10M
- OR**
12. B). Explain the Business challenges for a information system. 10M
13. A). Explain Social Engineering methods in detail. 10M
- OR**
13. B). Explain physical security of a system. 10M
14. A). Discuss Elements of Enumeration Techniques. 10M
- OR**
14. B). Discuss Operating system attacks and password crackers methods. 10M
15. A). Discuss Mitigation Techniques in detail. 10M
- OR**
15. B). Discuss Security policy methods in detail. 10M

H.T No:

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

R18

Course Code: A36212



CMR COLLEGE OF ENGINEERING & TECHNOLOGY

(UGC AUTONOMOUS)

B.Tech VI Semester Regular Examinations May-2023

Course Name: **MOBILE & WIRELESS SECURITY**

(CSC)

Date: 10.05.2023 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. Define elliptic curve cryptography. 2 M
2. State protocol adapters. 2 M
3. Define message authentication code. 2 M
4. Define security protocol in WLANs. 2 M
5. Define intrusion detection system in MANET. 2 M
6. List out some secure routing protocols in wireless ad-hoc networks. 2 M
7. Compare 2G and 3G. 2 M
8. List out the security challenges in 3G. 2 M
9. Define data integrity. 2 M
10. State some security issues in sensor networks. 2 M

PART-B

Answer the following. Each question carries TEN Marks.

5x10=50M

- 11.A). Explain in detail about how to achieve security in mobile computing? 10M
- OR**
11. B). Briefly describe about the working of ECC co-processor. 10M
12. A). Discuss in detail about the cross-domain mobility adaptive authentication. 10M
- OR**
12. B). Develop the architecture for achieving wireless LAN roaming security. 10M
13. A). Describe in detail about Pre-Authentication and Authentication Models in Ad Hoc Networks. 10M
- OR**
13. B). Outline the working and usage of intrusion detection in mobile ad hoc networks. 10M
14. A). Explain in detail about security concerns in 5G networks. 10M
- OR**
14. B). Outline in detail about the features of 3G, 4G and 5G. 10M
15. A). Analyze the working of key management schemes for secure routing in sensor networks. 10M
- OR**
15. B). Analyze how to achieve security in IoT systems. 10M

H.T No:

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

R18

Course Code: A36215



CMR COLLEGE OF ENGINEERING & TECHNOLOGY
(UGC AUTONOMOUS)

B.Tech VI Semester Regular Examinations May-2023

Course Name: **PRINCIPLES OF SOFTWARE ENGINEERING**
(CSC)

Date: 12.05.2023 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. Explain generic view of software Engineering. 2 M
2. Illustrate the merits of Waterfall model. 2 M
3. Summarize the functional requirements. 2 M
4. Classify any two points of view can be used to describe the requirements model. 2 M
5. Model class diagram with any example. 2 M
6. Identify the characteristics of a good design. 2 M
7. Classify verification and validation. 2 M
8. Define unit testing. 2 M
9. List any two software metrics. 2 M
10. What you mean by RMMM? 2 M

PART-B

Answer the following. Each question carries TEN Marks.

5x10=50M

- 11.A). List and explain various software myths. 10M
- OR**
11. B). How SEI CMMI helps to improve software development process? 10M
12. A). Illustrate the functional and nonfunctional requirements. 10M
- OR**
12. B). Illustrate the tasks of Requirement Engineering. 10M
13. A). Explain how to create an architectural design. 10M
- OR**
13. B). What are the four basic design principles that are applicable to component-level design? 10M
14. A). What do you mean by system testing? Explain any two system testing. 10M
- OR**
14. B). Explain metrics for testing. 10M
15. A). Summarize RMMM plan. 10M
- OR**
15. B). Explain a short note on ISO 9000 quality standards. 10M

H.T No:

R18

Course Code: A36213



CMR COLLEGE OF ENGINEERING & TECHNOLOGY
(UGC AUTONOMOUS)

B.Tech VI Semester Regular Examinations May-2023

Course Name: **DIGITAL FORENSICS**

(CSC)

Date: 15.05.2023 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. Recall the key differences between computer forensics and digital forensics. 2 M
2. Describe the role of criminalistics in cyber-crime investigations. 2 M
3. Write retrieved communication and un retrieved communication. 2 M
4. Outline the significance of obtaining a search warrant before searching and seizing electronic evidence. 2 M
5. What is the importance of having a forensic mindset when managing shared folders using an operating system? 2 M
6. Define a "normal case" and explain how it applies to evidence management and presentation. 2 M
7. Define the steps required to prepare a case for computer forensics investigation. 2 M
8. What are open-source security tools for network forensic analysis? 2 M
9. Explain how mobile forensics techniques can be used in a criminal investigation. 2 M
10. How can digital forensics experts ensure their collected evidence is admissible in court? 2 M

PART-B

Answer the following. Each question carries TEN Marks.

5x10=50M

- 11.A). Explain the life cycle of the investigation process. 10M
- OR**
11. B). Differentiate the proactive and reactive approaches to cyber-forensics investigations and provide examples of situations where each approach would be appropriate. 10M
12. A). i) Identify the various court orders that can be used to search and seize electronic evidence. 5M
- ii) Recommend the process that investigators must follow to obtain court orders. 5M
- OR**
12. B). i) Discuss the importance of preserving the integrity of electronic evidence, and 5M
- ii) Summarize how investigators can ensure that electronic evidence is admissible in court. 5M
13. A). Examine the importance of the forensic mindset in evidence management and presentation and explain how this mindset differs from traditional investigative approaches. 10M
- OR**
13. B). i) Define and apply the concept of probable cause in a cybercrime investigation. 5M
- ii) Interpret the legal and ethical considerations that investigators must consider when establishing probable cause. 5M

(P.T.O.)

14. A). i) Survey the techniques and tools investigators can use to begin a computer forensics investigation. 5M
ii) Explain the importance of maintaining proper documentation and records throughout the investigation. 5M

OR

14. B). Critique a computer forensics case, identifying the strengths and weaknesses of the investigation and the presentation of the evidence in court. 10M

15. A). Explain the legal aspects of digital forensics in India, particularly the IT Act 2000 and its amendment in 2008. Discuss the impact of these laws on digital forensics investigations. 10M

OR

15. B). i) Discuss the importance of maintaining the chain of custody in mobile forensics investigations. 5M
ii) Write about Mobile Forensic tools. 5M

H.T No:

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

R18

Course Code: A30544



CMR COLLEGE OF ENGINEERING & TECHNOLOGY
(UGC AUTONOMOUS)

B.Tech VI Semester Regular Examinations May-2023

Course Name: INTERNET OF THINGS

(CSC)

Date: 17.05.2023 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. List out the features of IoT. 2 M
2. Define Machine 2 Machine. 2 M
3. What is the necessity of node discovery. 2 M
4. What is the importance of data dissemination. 2 M
5. Why security is required in IoT? 2 M
6. What is the importance of design challenge in IoT? 2 M
7. What are the elements of home automation system? 2 M
8. What are common applications in IoT? 2 M
9. List the various IoT tools. 2 M
10. What are various applications that can be developed using IoT? 2 M

PART-B

Answer the following. Each question carries TEN Marks.

5x10=50M

- 11.A). Describe Functional blocks of IoT, Communication models & APIs in logical design of IoT. 10M
- OR**
11. B). Explain software define network architecture with neat diagram. 10M
12. A). Explain the following concepts. i) MAC protocol survey ii) Survey routing protocols. 10M
- OR**
12. B). Describe data aggregation and dissemination concepts. 10M
13. A). Describe security challenges in IoT. 10M
- OR**
13. B). Explain development challenges in IoT. 10M
14. A). Describe the various components for industry application using IoT. 10M
- OR**
14. B). Discuss the surveillance application models using IoT. 10M
15. A). Explain how applications can be developed using IoT tools. 10M
- OR**
15. B). How sensor based applications are developed through embedded system platform, explain? 10M

H.T No:

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

R18

Course Code: C30168



CMR COLLEGE OF ENGINEERING & TECHNOLOGY

(UGC AUTONOMOUS)

B.Tech VI Semester Regular Examinations May-2023

Course Name: INTELLECTUAL PROPERTY RIGHTS

(CSC)

Date: 19.05.2023 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 Intellectual Property Rights? Give examples. 2 M
2. What are the features of Intellectual property? 2 M
3. What are the basic requisites of Trade mark? 2 M
4. Briefly explain how trademark can be acquired. 2 M
5. Define Copyright. 2 M
6. What are the objectives of copyrights? 2 M
7. What is False advertising? 2 M
8. Write short note about the protection of unfair competitions. 2 M
9. Write about International Patents law. 2 M
10. Write about International trade secrets law. 2 M

PART-B

Answer the following. Each question carries TEN Marks.

5x10=50M

- 11.A). Define Intellectual property rights. What are the benefits of IPRs? 10M
- OR**
11. B). Examine the need for intellectual property laws in a developing country like India. 10M
12. A). Define Trade mark. Explain about the Trade Marks and rights arising from trade mark registration. 10M
- OR**
12. B). Explain about Trade mark registration process. 10M
13. A). Discuss the procedure for registration of copyright 10M
- OR**
13. B). Define Patents? Explain about foundation of Patent law. 10M
14. A). What is trade secret? Give example of trade secret. Why are trade secrets so significant and what is the negative aspect of trade secret? 10M
- OR**
14. B). Define Trade secret. Elaborate Trade secret laws in India. 10M
15. A). Discuss in detail about new developments of Intellectual property 10M
- OR**
15. B). What type of intellectual property audits are applicable in India? 10M

H.T No:

R18

Course Code: C30167



CMR COLLEGE OF ENGINEERING & TECHNOLOGY
(UGC AUTONOMOUS)

B.Tech VI Semester Regular/Supplementary Examinations May-2023

Course Name: **MARKETING MANAGEMENT**

(Common for CSE, IT, CSC & CSM)

Date: 19.05.2023 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 marketing? 2 M
2. What are objectives of marketing? 2 M
3. Define brand. 2 M
4. Define market segmentation. 2 M
5. Importance of social media. 2 M
6. Define public relations. 2 M
7. Define marketing channels. 2 M
8. What is wholesale Marketing? 2 M
9. Importance of sales management. 2 M
10. What are the objectives of sales? 2 M

PART-B

Answer the following. Each question carries TEN Marks.

5x10=50M

- 11.A). Define market. Explain the functions of marketing Management. 10M
- OR**
11. B). Explain different stages of product life cycle (PLC). 10M
12. A). Describe the consumer behaviour and explain the models of consumer behaviour. 10M
- OR**
12. B). Define market segmentation. Explain the steps involved in market segmentation. 10M
13. A). What do you mean by sales promotion? State its major objectives. 10M
- OR**
13. B). Explain how online selling is different from offline selling. 10M
14. A). What are the four steps to require to designing marketing channels in their correct order? 10M
- OR**
14. B). Briefly state the factors to be considered in selecting channels. 10M
15. A). Explain the nature and importance of sales management. 10M
- OR**
15. B). Explain different types of sales organizations. 10M

H.T No:

R18

Course Code: A30559



CMR COLLEGE OF ENGINEERING & TECHNOLOGY
(UGC AUTONOMOUS)

B.Tech VI Semester Regular/Supplementary Examinations May-2023

Course Name: INTRODUCTION TO DATA SCIENCE

(Common for ECE, CSE & CSC)

Date: 19.05.2023 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. Summarize the current traits of Big Data. 2 M
2. Explain the concept of Web Scripting. 2 M
3. Define the term Rescaling. 2 M
4. Distinguish between Cleaning and Munging. 2 M
5. Explain the importance of Support Vector Machine. 2 M
6. Illustrate the concept of Bayes Theorem. 2 M
7. Briefly elaborate the importance of Neural Networks. 2 M
8. Examine the Induction rule in brief. 2 M
9. Demonstrate the application of Data Science in Weather Forecasting. 2 M
10. Analyze implementation of Data Science in the Stock Market. 2 M

PART-B

Answer the following. Each question carries TEN Marks.

5x10=50M

- 11.A). Compare and contrast the differences between Analysis and reporting with a suitable example? 10M
- OR**
11. B). Classify the important concepts of Matplotlib and NumPy in Python. 10M
12. A). Evaluate the importance of Dimensionality Reduction in Data Science. 10M
- OR**
12. B). Analyze the concept of Visualization of data? Also demonstrate the implications of Bar Charts, Line Charts and Scatterplots. 10M
13. A). Compare and contrast the differences between Supervised and Unsupervised Learning. 10M
- OR**
13. B). Distinguish between Naïve Bayes and K- nearest Neighbors Classifications with suitable example. 10M
14. A). Outline the concept of Decision trees and random forest. 10M
- OR**
14. B). Interpret the concept of Deep Learning for problem solving. 10M
15. A). Illustrate the applicability of Object Recognition in Data Science with suitable example. 10M
- OR**
15. B). Classify the importance of Real Time Sentiment Analysis. 10M
