MALLA REDDY UNIVERSITY

(Telangana State Private Universities Act No. 13 of 2020 &
G.O.Ms.No. 14, Higher Education (UE) Department)

Maisammaguda, Kompally,
Hyderabad - 500100,
Telangana State.

I B. Tech II Semester – CSE/AIML/CS/DS/IT/IOTQuestion Bank

Adaptive Computer Technologies

Course Code: MR22-1ES0103

Unit-I

1. Explain the characteristics of computer networks and list the advantages of computer networks?
2. Explain different types of networks? Give brief description of each network.
3. What are the five network performance metrics? Briefly explain
4. Describe wireless transmission with neat sketch?
5. Explain wired transmission media in detail?
6. What are 5G technologies and its applications? Explain it briefly
7. Write short notes on a) HUB b) Repeater c) Switch
8. Discuss briefly about bridge and router with examples
9. Explain in brief about Gateway, network interface card and RJ45
10. Discuss various types of networks topologies in computer networks?

UNIT-II

1. What is an IP address? Explain different types of IP address.
2. What is the use of DNS? Explain how it works.
3. Write short notes on a) Email b) FTP c)Internet
4. What are the important features of WWW and Explain?
5. What are the 5 components of encryption and what is decryption? What is its need?
6. Discuss about the following a.) Virus   b.) Trojan Horse
7. Explain in brief about a) Malware b) Worm c) DDos
8. Define and Explain briefly about a) Spyware b) Rootkit c) Phishing
9. What is a Firewall? Discuss the advantages of firewall.
10. What is penetration testing explain it in brief?

UNIT-III

1. What is distributed computing? Explain it briefly
2. Comparison between grid and cloud computing
3. Explain utility computing with an example
4. Explain briefly about characteristics of Cloud computing
5. Explain about cloud service models with example.
6. Discuss about Public, Private, Hybrid and community deployment models.
7. Give brief overview of IoT with its architecture and explore IoT reference model.
8. Define the physical components of IoT and discuss about sensors and actuator.
9. Discuss various applications of IoT.
10. Explain the fundamentals of Capacitance, Magnetic, Electromagnetic and Pieso electricsensors.
11. Give the principal of operation and applications of light, heat transfer and resistive sensors.

UNIT-IV

1. Explain Augmented Reality and what are the different kinds of Augmented Reality? List the applications of Augmented Reality?

2. Explain Virtual Reality and what are the different kinds of Virtual Reality? List theapplications of Virtual Reality?

3. a)What is the main difference between Virtual Reality and Augmented Reality? Brieflyexplain. b) What is Augmented Virtuality ? Explain what is its need?

4. a) Explain what Mixed Reality is and need for Mixed Reality in AI? b) Give brief Description of Mixed Reality different from Augmented Reality?

5. What do you understand by Extended Reality? What are the applications and challengesassociated with Extended Reality?

6. Explain briefly about a) Augmented Reality Mobile Devices b) Augmented Reality Headsets c) Augmented Reality Glasses d) Augmented Reality Controllers

7. Explain briefly features of Virtual Reality?

8. Discuss various Virtual Reality controllers and need of Virtual Reality controllers.

9. Discuss about the following a) Current issues with Virtual Reality. b) Current issues with Augmented Reality.

10. Explain briefly about importance of Augmented Reality and Virtual Reality in EducationSector and IT Sector.

UNIT-V

1. Define and explain in brief the following: a) Data b) Information c) Knowledge.
2. List the Applications of Data-Information-Knowledge?
3. Define and explain in brief the following Databases - Data warehouse - Big Data
4. List the Applications of Databases - Data warehouse - Big Data
5. Differentiate supervised learning and unsupervised learning?
6. Explain Reinforcement learning with respect to Data mining?
7. Define and explain the following Machine Learning - Artificial Intelligence - Deep Learning?
8. Explain Real time applications on AI, ML, DL, DS ?
9. Describe how you would create a Google Form to design a customized survey/ questionnairefor stakeholders.
10. What is the purpose of Google Search Engine? What is Google Drive and what are its main functionalities?