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Course Code: MCA-101

Course Name: Fundamentals of IT

Assignment 3

(Based on Unit-IV)

- Q1. Explain how analog signals can be digitized? Also, explain how the analog signals can be recovered from digitized signals? Draw the illustrative diagrams also.
- Q2. List the basic characteristics of communication protocols. Also, discuss the role of physical layer in detail.
- Q3. Flow control and Error control are few functions which are performed by different layers in OSI model. Justify the scope of these functions in the layers where they are performed.
- Q4. Compare the features of TCP/IP model and OSI model. Also, list the reasons why OSI model is only a reference model.
- Q5. Assume you have implemented a star topology with five systems. What would you do if:
- a node in a star-wired Ethernet network failed?
 - a new node needs to be added in the network?
- Q6. Consider a situation where you are given to create a small LAN of 7 to 10 computers for an office. List all the hardware requirements for building LAN for the same. Also, state what factors you will consider for choosing a network topology to implement it?