

**KDK College Of Engineering, Nagpur**  
**Department of Information Technology**  
**Question Bank based on unit no 1 & 2**  
**SESSION:-2019-2020**  
**VI Semester I.T**

**Subject:-Computer Network (BEIT601T)**

Date:-09-04-2020

UNIT NO:-1

CO601.1 Learn and apply the basic fundamental concepts of computer networking.

Q.no	Questions	BTL
1.	Differentiate between : - 1) Service & Protocol. 2) Bluetooth & WiMAX. 3) Connection oriented and Connection less services 4) ISO-OSI Reference model and TCP/IP Reference model	BTL-4
2.	Enumerate the functions of seven layers of ISO -OSI reference model with the help of block diagram.	BTL-4
3.	Explain TCP/IP Reference model.	BTL-2
4.	Define following terms:- i) Throughput    ii) Packet delivery Ratio    iii) Reliability    iv) Jitter v) Delay    vi) Packet loss rate    vii) Latency    viii) Packet loss Ratio	BTL-4
5.	Explain IEEE 802.11 standard and its architecture.	BTL-2
6.	Explain in brief connection-oriented and connection less service with suitable example	BTL-2
7.	Describe following Transmission medium. 1) Infrared transmission. 2) Radio Transmission	BTL-4
8.	Explain the concept of Bluetooth and WiMAX.	BTL-2
9.	Write a short note on Wireless transmission	BTL-2
10.	Explain various performance issues in network	BTL-4
11.	Explain the neat diagram following transmission media:- i) Coaxial cables    ii) Twisted pair cables    iii) Fibre optics.	BTL-2
12.	Explain the concept of interfaces and services with the help of suitable diagrams	BTL-2
13.	List out the different problems in transmission lines.	BTL-4
14.	How does a layer 'n' interact with layer (n+1) and layer (n-1)?	BTL-2
15.	Define computer Network .what are the characteristics of computer network	BTL-4
16.	Discuss DQDB standard in context to MAN.	BTL-4

**Subject In-charge**  
**Prof. R.R.Kolte**

UNIT NO:-2

CO601.2 Use and implement the concept of data link layer.

Q.no	Questions	BTL						
1.	Explain about static and dynamic channel allocation system in detail.	BTL-2						
2.	Explain in detail selective repeat ARQ with its working.	BTL-2						
3.	What is framing? Also explain different framing technique use in data link layer with example.	BTL-2						
4.	What is CSMA protocol? Explain its features. Also explain 1-persistence, Non persistence & P – persistence CSMA protocol.	BTL-2						
5.	Explain the following: - i) Simplex stop-and-wait protocol. ii) Go back N ARQ protocol. iii) One bit sliding window protocol. iv) Simplex protocol for noisy channel.	BTL-2						
6.	Write short notes on error-detecting codes.	BTL-2						
7.	Explain ALOHA system and their types in detail.	BTL-2						
8.	Write a short note on CSMA/CA with an example.	BTL-2						
9.	Define piggybacking & its benefit.	BTL-4						
10.	Describe a go -back -n protocol the implement flow control as well as error control. It should work correctly for lost or damaged acks.	BTL-4						
11.	There is no acknowledgement mechanism in CSMA/CD, but we need this mechanism in CSMA/CA. Explain the reason.	BTL-2						
12.	With respect to data -link -layer what is the meaning of following term. i) Framing ii) Pipe lining iii) Piggy backing iv) Virtual bit pipe	BTL-2						
13.	Discuss the polynomial method of error handing, CRC for the data given below:- $P(x) = x^7 + x^6 + x^5 + x^4 + x^3 + x^0$ $G(x) = x^5 + x^4 + x^2 + x^1 + x^0$	BTL-4						
14.	Following table gives the 7 bit data code that is transmitted and received. Using Hamming code find the location of 1 bit error in the received code. <table border="1" style="margin-left: auto; margin-right: auto;"> <tr> <td>Transmitted</td> <td>Received</td> </tr> <tr> <td>1011001</td> <td>1010001</td> </tr> <tr> <td>0110001</td> <td>1110001</td> </tr> </table> Assume even parity.	Transmitted	Received	1011001	1010001	0110001	1110001	BTL-4
Transmitted	Received							
1011001	1010001							
0110001	1110001							
15.	Implement CRC using the following data and finally give the received frame data. $P(x) = x^7 + x^5 + x^4 + x^2 + x^1 + x^0$ $G(x) = x^5 + x^4 + x^1 + x^0$	BTL-4						
16.	Generate the CRC code for message $M(x) = 1101010101$ . Given generator polynomial $g(x) = x^4 + x^2 + 1$							

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