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**Question Paper Code: 56502**

B.E. / B.Tech. DEGREE EXAMINATION, DEC 2020

Sixth Semester

Electronics and Instrumentation Engineering

15UEI602 – INDUSTRIAL DATA NETWORKS

(Regulation 2015)

Duration: 1:15hrs

Maximum: 30 Marks

PART A - (6 x 1 = 6 Marks)

**(Answer any six of the following questions)**

- \_\_\_\_\_ was the first network. CO1- R  
(a) CSNET                      (b) NSFNET                      (c) ARPANET                      (d) ANSNET
- Which is the main function of transport layer? CO1- R  
(a) Node to node delivery  
(b) End to end delivery  
(c) Synchronization  
(d) Updating and maintaining routing tables
- Bridges are also repeaters and \_\_\_\_\_. CO2- R  
(a) Regenerator                      (b) Preprocessor                      (c) Amplifier                      (d) Quantizer
- On a network which address does a bridge route with \_\_\_\_\_. CO2 -R  
(a) IP address                      (b) Interrupt                      (c) MAC address                      (d) Source address address
- The HART uses \_\_\_\_\_ technique to carry digital information CO3- R  
(a) BPSK                      (b) ASK                      (c) PSK                      (d) FSK
- Which device is used to remotely view local device data described in the object dictionary?. CO3 -R  
(a) Virtual Field Device                      (b) Variable Frequency Device  
(c) LCD                      (d) LED

7. MODBUS is a..... CO4- R  
 (a) Transmission protocol (b) Receiver protocol  
 (c) Transmission/Receiver protocol (d) None of these
8. Profibus DP is the main emphasis for\_\_\_\_ Automation. CO4 -R  
 (a) Home (b) Factory (c) Fixed (d) Robotic
9. OPC stands for\_\_\_\_. CO5 -R  
 (a) Open Platform Communication (b) Optical proximity correction  
 (c) Originating Point Code (d) Organic Photo-Conductive
10. AS interface is\_\_\_\_\_oriented field bus. CO5 -R  
 (a)Bit (b) Byte (c) Nibbles (d) Words

PART – B (3 x 8= 24 Marks)

**(Answer any three of the following questions)**

11. Explain the various frame format of HDLC and enumerate the data transmission process. CO1- App (8)
12. Explain the function of gateway and their configurations. CO2 -App (8)
13. Explain the principle ,configuration layers of HART Protocol CO3 -Ana (8)
14. Write Short notes on CO4 -U (8)  
 (i) MODBUS function codes for read digital input/ output status  
 (ii) MODBUS function codes for single, multiple registers
15. Write a detailed note on the radio spectrum and frequency allocation CO5 -U (8)

