

Reg.No. \_\_\_\_\_



# Karunya UNIVERSITY

(Karunya Institute of Technology & Sciences)  
(Declared as Deemed-to-be University under Sec.3 of the UGC Act, 1956)

## End Semester Examination – Nov/Dec – 2016

Code : **14EI3020**  
Sub. Name : **Networks and Protocols for Instrumentation and Control**

Semester : **2016-17 ODD**  
Duration : **3hrs**  
Max. marks : **100**

### ANSWER ALL QUESTIONS (5 x 20 = 100 Marks)

Q. No.	Sub Div.	Questions	Course Outcome	Marks
1.	a.	Explain in brief about OSI model with neat diagram.	CO1	20
(OR)				
2.	a.	Describe the connection details of UART and its function as a Transmitter and receiver with necessary diagrams.	CO1	20
3.	a.	Explain in detail about RS 232 the most widely used serial interface standard.	CO1	20
(OR)				
4.	a.	What are the different types of wired transmission media?. Discuss about them in detail.	CO2	10
	b.	Differentiate between shielding, earthing and grounding.	CO2	3
	c.	Find the data rate for the co-axial cable whose operating band of frequency is upto 1Gbps and Signal to Noise ratio is 1000 dB.	CO2	3
	d.	Explain in detail about the IEEE 802 standard that is used in Wired LAN communication.	CO1	4
5.	a.	Discuss in detail about Multiplexing techniques and statistical multiplexers	CO2	20
(OR)				
6.	a.	Explain Radio modems in detail with neat diagrams.	CO3	20
7.	a.	Describe the Architecture and communication model of the Profibus protocol.	CO3	20
(OR)				
8.	a.	Explain any three methods of error detection methods in detail and also hamming code method of error correction in detail.	CO2	20
<b><u>Compulsory:</u></b>				
9.	a.	Discuss in detail about HART protocol.	CO3	20

ALL THE BEST