

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 : **14CS2007**  
Sub. Name : **COMPUTER NETWORKS**

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

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

Q. No.	Sub Div.	Questions	Course Outcome	Mark
1.	a.	What are the seven layers of OSI model?	CO1	(5)
	b.	Explain the various delays incurred in computer networks.	CO1	(15)
		(OR)		
2.	a.	What are the various physical media used to connect the networks	CO2	(10)
	b.	Explain the functionalities of layers in computer networks.	CO2	(10)
3		Explain the working of Simple Mail Transfer Protocol	CO3	(20)
		(OR)		
4	a.	What is the need for DNS?	CO3	(5)
	b.	What are the services provided by DNS?	CO3	(5)
	c.	Explain how domain name system converts URL into IP address	CO3	(10)
5	a.	Why do certain application prefer UDP?	CO2	(5)
	b.	With neat sketch explain the TCP header Structure.	CO2	(15)
6		What are the various congestion control mechanism used in TCP?	CO2	(20)
7.	a.	Find the error, if any, in the following IPv4 addresses: a. 111.56.045.78 b. 221.34.7.8.20 c. 75.45.301.14 d. 11100010.23.14.67	CO2	(4)
	b.	Find the class of each address: a. 227.12.14.87 b. 193.14.56.22	CO2	(4)
	c.	Explain the need for TTL in IP header.	CO2	(4)
	d.	List the private IP range in class A,B and C. Give reasons why do we need the same.	CO2	(8)
8.	a.	State any two difference between IPV4 and IPV6?	CO2	(4)
	b.	Change the following IPv4 addresses from binary notation to dotted-decimal notation. i) 10000001 00001011 00001011 11101111	CO2	(4)

		ii) 11000001 10000011 00011011 11111111		
	c.	i. Subnet the following network into four subnets 223.1.17.0/24. Provide eight network addresses (of the form a.b.c.d/x) that satisfy the above constraints.	CO2	(12)
		<b><u>Compulsory</u></b>		
9	a.	With neat sketch explain the working of CSMA CD and CSMA CA	CO3	(10)

ALL THE BEST