UNIVERSITY OF PETROLEUM AND ENERGY STUDIES
End Semester Examination, December 2018

Program: BBA- AIS   **Semester – III**
Subject (Course): Computer Network and Distributed Computing   **Max. Marks   : 100**
Course Code   : DSIT 2007   **Duration   : 3 Hrs**
No. of page/s: 3

Instructions: Section A is of 20 Marks, Section B is of 20 Marks, Section C is of 30 Marks, Section D is of 30 Marks (Section D is compulsory)

SET 1
SECTION A

S. No.		Marks	CO
1	Computer Network is A. Collection of hardware components and computers B. Interconnected by communication channels C. Sharing of resources and information D. All of the Above	2	CO1
2	Each IP packet must contain A. Only Source address B. Only Destination address C. Source and Destination address D. Source or Destination address	2	CO1 CO1
3	_____ provides a connection-oriented reliable service for sending messages A. TCP B. IP C. UDP D. All of the above	2	CO1
4	How many layers are in the TCP/IP model? A. 4 layers B. 5 layers C. 6 layers D. 7 layer	2	CO1
5	What is the address size of IPv6 ? A. 32 bit B. 64 bit C. 128 bit D. 256 bit	2	CO1

6	What does Router do in a network? A. Forwards a packet to all outgoing links B. Forwards a packet to the next free outgoing link C. Determines on which outing link a packet is to be forwarded D. Forwards a packet to all outgoing links except the originated link	2	CO1
7	What is the uses of subnetting? A. It divides one large network into several smaller ones B. It divides network into network classes C. It speeds up the speed of network D. None of above	2	CO1 CO1
8	What is the benefit of the Networking? A. File Sharing B. Easier access to Resources C. Easier Backups D. All of the Above	2	CO1
9	Which of the following can be Software? A. Routers B. Firewalls C. Gateway D. Modems	2	
10	What is the Demilitarized Zone? A. The area between firewall & connection to an external network B. The area between ISP to Military area C. The area surrounded by secured servers D. The area surrounded by the Military	2	

SECTION B
Answer any four of the following questions

Q 1	Specify the significance of Firewall in networks	5	CO2
Q 2	Why IT , Computer and database security is so important in context of business	5	CO3
Q 3	What is intrusion detection?	5	CO1
Q 4	What is cryptography?	5	CO1
Q 5	Which topology is considered to be the most reliable?	5	CO3

	SECTION-C		
	(Answer any two of the questions)		
Q 1	Explain Denial of Service and highlight the important aspects of CODE RED Case.	**15**	**CO3**
Q 2	Explain the TCP attack	**15**	**CO3**
Q 3	Explain various techniques to provide network security	**15**	**CO3**
	SECTION-D		
Q	**Answer the following questions**		

	As IT manager of a company if you have to develop a network for a company which requires to have accessibility to various IT services available 24 X 7 all the year around, the company has its presence in six countries.
	    1. Which Network Architecture and Topology would you suggest? Justify your suggestion.
	    2. Also recommend the various IT security you would deploy.
		15
		
		15
			CO3

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SET 2
SECTION A

S. No.		Marks	CO
1	Computer Network is A. Collection of hardware components and computers B. Interconnected by communication channels C. Sharing of resources and information D. All of the Above	**2**	**CO1**
2	Each IP packet must contain A. Only Source address B. Only Destination address C. Source and Destination address D. Source or Destination address	**2**	**CO1**
3	_____ provides a connection-oriented reliable service for sending messages A. TCP B. IP C. UDP D. All of the above	**2**	**CO1** **CO1**
4	How many layers are in the TCP/IP model? A. 4 layers B. 5 layers C. 6 layers D. 7 layer	**2**	**CO1**
5	What is the address size of IPv6 ? A. 32 bit B. 64 bit C. 128 bit D. 256 bit	**2**	**CO1** **CO1**

6	What does Router do in a network? A. Forwards a packet to all outgoing links B. Forwards a packet to the next free outgoing link C. Determines on which outing link a packet is to be forwarded D. Forwards a packet to all outgoing links except the originated link	**2**	
7	What is the uses of subnetting? A. It divides one large network into several smaller ones B. It divides network into network classes C. It speeds up the speed of network D. None of above	**2**	**CO1**
8	What is the benefit of the Networking? A. File Sharing B. Easier access to Resources C. Easier Backups D. All of the Above	**2**	**CO1**
9	Which of the following can be Software? A. Routers B. Firewalls C. Gateway D. Modems	**2**	**CO1**
10	What is the Demilitarized Zone? A. The area between firewall & connection to an external network B. The area between ISP to Military area C. The area surrounded by secured servers D. The area surrounded by the Military	**2**	**CO1**

SECTION B
Answer any four of the following questions

Q 1	Specify the significance of Firewall in networks	**5**	**CO2**
Q 2	Why IT , Computer and database security is so important in context of business	**5**	**CO1**
Q 3	What is intrusion detection?	**5**	**CO1**
Q 4	What is cryptography?	**5**	**CO1**
Q 5	Which topology is considered to be the most reliable?	**5**	**CO3**

SECTION-C (Answer two of the questions)			
Q 1	Explain the various levels of database security.	**15**	**CO3**
Q 2	Explain Denial of Service.	**15**	**CO3**
Q 3	How are Virus, Worms and Trojans different from each other while spreading the infection on network?	**15**	**CO3**
SECTION-D			
	Answer the following questions		

Q	As IT manager of a company if you have to develop a network for a company which requires to have accessibility to various IT services available 24 X 7 all the year around, the company has its presence in six countries.
	    1. Which Network Architecture and Topology would you suggest? Justify your suggestion.
	    2. Also recommend the various IT security you would deploy.
		15
		
		15
			CO3