UNIVERSITI TUN HUSSEIN ONN MALAYSIA

FINAL EXAMINATION
SEMESTER II
SESSION 2018/2019

COURSE NAME	:	BASIC COMPUTER NETWORK
COURSE CODE	:	DAT 21203
PROGRAMME CODE	:	DAT
EXAMINATION DATE	:	JUNE / JULY 2019
DURATION	:	2 HOURS 30 MINUTES
INSTRUCTION	:	ANSWERS **ALL** QUESTIONS

THIS QUESTION PAPER CONSISTS OF **FIVE (5)** PAGES

Q1 (a) Calculate the network IP addresses of the following host.

(i) 10.9.1.18/28
(ii) 192.168.200.20/24
(iii) 172.16.100.10/16
(iv) 192.168.10.100/24
(v) 172.16.1.99/16

(10 marks)

(b) Calculate the broadcast address of the following host.

(i) 10.10.10.10/8
(ii) 192.168.100.10/30
(iii) 20.1.0.10/8
(iv) 172.55.10.10/28
(v) 192.168.2.45/24

(10 marks)

Q2 (a) Discuss **THREE (3)** functions of Transport Layer.

(6 marks)

(b) Discuss **THREE (3)** benefits of peer-to-peer network.

(6 marks)

(c) Differentiate between WAN and LAN topology.

(4 marks)

(d) Draw a diagram that matches between TCP/IP and OSI layered architecture.

(4 marks)

Q3 (a) List **FIVE (5)** network topology.

(5 marks)

(b) Draw the diagram of network topology in Q3(a) above.

(10 marks)

(c) State **THREE (3)** objectives of VLAN.

(3 marks)

(d) List **TWO (2)** services of presentation layer.

(2 marks)

Q4 (a) State switch configuration commands for the following requirements.

(i) Entering into a privilege mode

(2 marks)

(ii) Enforcing console password

(2 marks)

(iii) Showing VLAN configuration

(2 marks)

(iv) Telneting a switch terminal that has 192.168.1.250/24 IP address.

(2 marks)

(v) Activating an ethernet port on a router

(2 marks)

(b) Figure Q4 shows four routers used to inter-connects six LANs.

(i) Identify the IP address for the R4 Fa0/0 interface.

(2 marks)

(ii) Identify the IP address for the R4 Fa0/1 interface.

(2 marks)

(iii) Identify the IP address for the R2 Fa0/0 interface.

(2 marks)

(iv) State the command used to configure R2 router using RIP routing protocol so that LAN4 is able to connect the router R1 through LAN3 network.

(2 marks)

(v) State the command used to configure R2 router using RIP routing protocol so that LAN6 is able to connect the router R1 through LAN5 network.

(2 marks)

Q5 A network infrastructure of an organization given in Figure Q5 using C class IP for its subnets.

(a) Identify the following host subnet network IP addresses;

(i) 204.17.5.10/27 (2 marks)

(ii) 204.17.5.50/27 (2 marks)

(iii) 204.17.5.100/27 (2 marks)

(iv) 204.17.5.200/27 (2 marks)

(v) 204.17.5.135/27 (2 marks)

(b) The Subnet 7 changed from one into two subnets:

(i) Identify the IP address range of the first subnet (5 marks)

(ii) Identify the IP address range of the second subnet (5 marks)

- END OF QUESTIONS -

FINAL EXAMINATION

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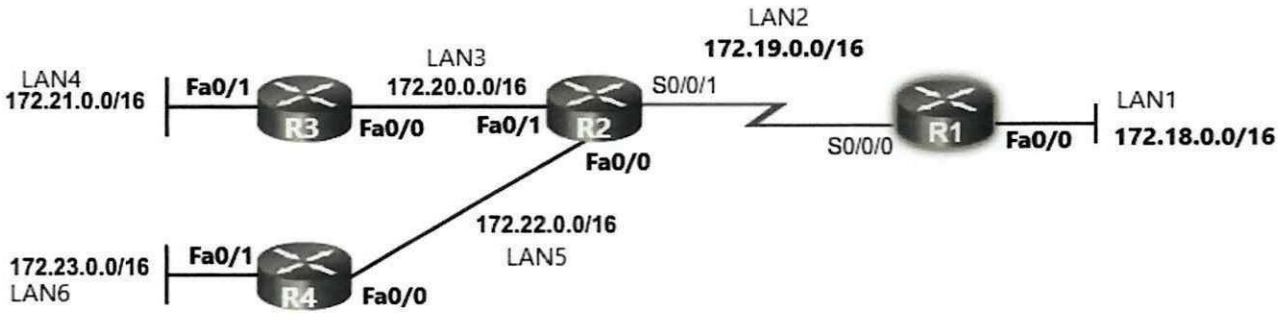

Figure Q4

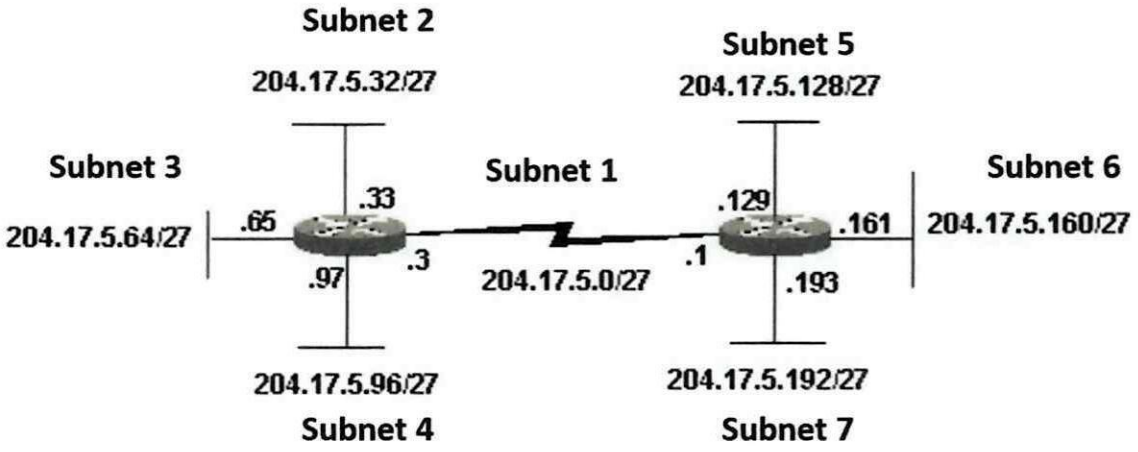

Figure Q5