

SECTION B : 55 MARKS
BAHAGIAN B : 55 MARKAH

INSTRUCTION:

This section consists of **TWO (2)** structured questions. Answer **ALL** questions.

ARAHAN:

Bahagian ini mengandungi DUA (2) soalan berstruktur. Jawab semua soalan.

QUESTION 1
SOALAN 1

CLO1
C1

- (a) Give **TWO (2)** considerations when you need to plan a subnet.

Berikan DUA (2) pertimbangan apabila anda ingin merancang subnet.

[2 marks]
[2 markah]

CLO2
C3

- (b) Find the network address, broadcast address, first and last usable IP address for 25.43.127.153/12.

Cari alamat rangkaian, alamat broadcast, alamat IP yang pertama dan terakhir bagi 25.43.127.153/12.

[4 marks]
[4 markah]

CLO2
C3

- (c) Given network address 172.17.32.0/23.

Diberi alamat rangkaian 172.17.32.0/23.

- (i) Calculate number of subnets if subnet mask is change to /27

Kirakan bilangan subnet jika subnet mask ditukarkan ke /27

[2 marks]
[2 markah]

- (ii) Find the usable host addresses per subnet in c(i).

Cari jumlah alamat hos bagi setiap subnet dalam c(i)

[2 marks]
[2 markah]

CLO1
C2

(d) Explain **THREE (3)** functions of data encapsulation in MAC sublayer.

*Terangkan **TIGA (3)** fungsi enkapsulasi data dalam MAC sublayer.*

[3 marks]
[3 markah]

CLO1
C2

(e) Describe **TWO (2)** types of memory bufferings that are used in switches.

*Huraikan **DUA (2)** jenis memori buffer yang digunakan dalam switch.*

[4 marks]
[4 markah]

CLO2
C2

(f) Discuss **TWO (2)** methods that can be used to access router or switch.

*Bincangkan **DUA (2)** kaedah untuk mengakses router atau switch.*

[4 marks]
[4 markah]

QUESTION 2

SOALAN 2

CLO1
C2

- (a) Describe the function of Converged Network inside switched network technology.

Huraikan fungsi Converged Network didalam teknologi rangkaian switch.

[2 marks]

[2 markah]

CLO2
C2

- (b) Demonstrate a complete command to configure a switch port security that should satisfy maximum number of secure address allowed on the port which is only 91. Assume that you are currently in switchport Fast Ethernet 0/9 configuration line.

Demonstrasikan arahan lengkap bagi mengkonfigurasi keselamatan port switch bagi memenuhi keperluan jumlah alamat maksimum yang dibenarkan adalah 91. Andaikan anda sedang di dalam garis konfigurasi switchport Fast Ethernet 0/9.

[3 marks]

[3 markah]

CLO2
C3

- (c) Provide a logical solution in switch configuration as network administrator to manage network device for a company with four types of user which were management, accounting, technical and sales.

Sediakan satu penyelesaian logical didalam konfigurasi switch sebagai pentadbir rangkaian untuk menguruskan peranti rangkaian kepada sebuah syarikat yang terdiri daripada empat jenis pengguna iaitu pengurusan, perakaunan, teknikal dan jualan.

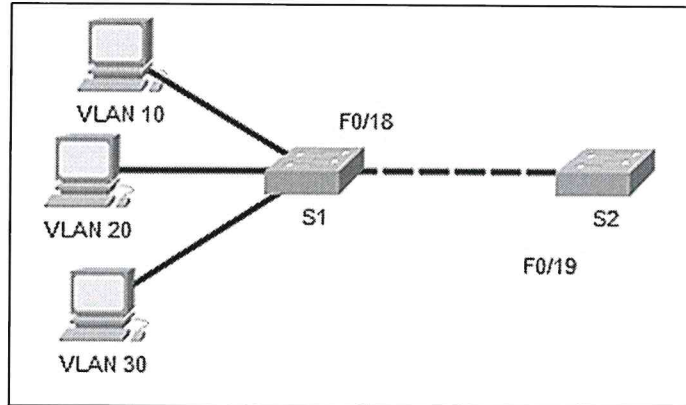
[4 marks]

[4 markah]

CLO2
C3

- (d) Refers to Figure B2d. Apply a command to configure Switch S1 to forward all users generated data on the link connected to Switch S2.

Rujuk Rajah B2d. Aplikasikan arahan bagi mengkonfigurasi Switch S1 untuk



menghantar semua data pengguna dijana di sambungan ke Switch S2.

Figure B2d / Rajah B2d

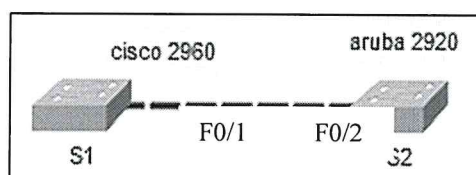
[4 marks]

[4 markah]

CLO2
C3

- (e) Use the **CORRECT** command for the configuration of dynamic trunking protocol inside Switch S1 based on the situation in Figure B2e below regardless the number of switch port connecting both switches.

*Gunakan arahan yang **BETUL** bagi konfigurasi dynamic trunking protocol didalam Switch S1 berdasarkan situasi dalam Rajah B2e d ibawah tanpa*



mengambil kira nombor port switch yang menghubungkan keduanya.

Figure B2e / Rajah B2e

[4 marks]

[4 markah]

CLO1
C2

- (f) Describe Path determination in routing process and give **ONE** example of protocol with metric used.

*Jelaskan Penentuan laluan dalam proses penghalaan dan berikan **SATU** contoh protocol serta metric yang digunakan.*

[4 marks]

[4 markah]

CLO2
C3

- (g) Produce a command to configure Router R1 to enable inter VLAN communication by implementing Router on Stick approach based on Table B2g.

Hasilkan arahan untuk mengkonfigurasi Router R1 bagi membolehkan komunikasi antara VLAN dengan melaksanakan pendekatan Router on Stick berdasarkan Jadual B2g.

Device	Interface	Ip Address	Subnet Mask
R1	G0/0	-	-
S1	VLAN 10	192.168.10.1	255.255.255.0
	VLAN 20	192.168.20.1	255.255.255.0

Table B2g / Jadual B2g

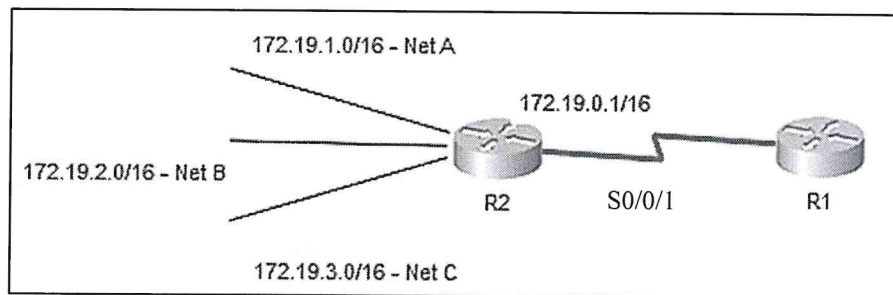
[4 marks]

[4 markah]

CLO2
C3

- (h) Refer to Figure B2h. Configure a step of command to disable a configured static route of Network A, Network B and Network C into a summarized static route.

Rujuk Rajah B2h. Konfigurasi langkah arahan untuk menidakkan laluan tetap yg telah dikonfigurasi bagi Network A, Network B and Network C kepada



satu ringkasan laluan tetap.

Figure B2h / Rajah B2h

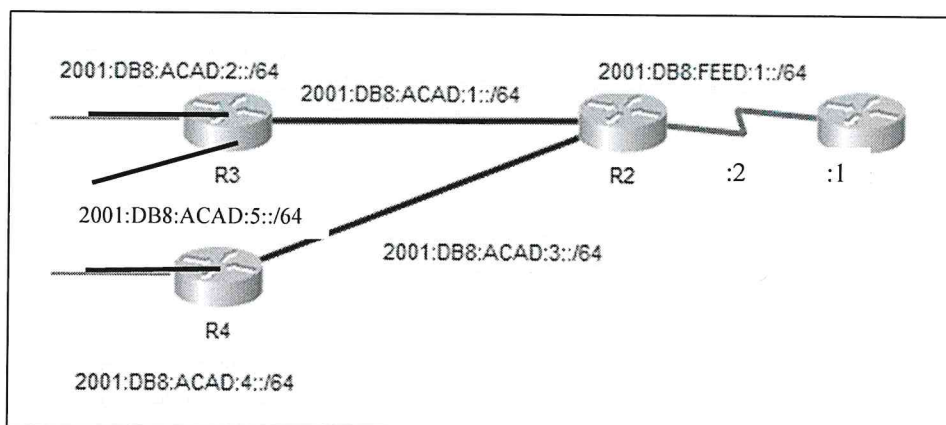
[4 marks]

[4 markah]

CLO2
C3

- (i) Refer Figure B2i. Conduct a command to configure Router R1 to enable static route for all network connected by applying next hop approach.

Rujuk Rajah B2i. Laksanakan arahan konfigurasi router R1 bagi membolehkan laluan tetap untuk semua rangkaian yang disambungkan dengan



mengenakan pendekatan hop seterusnya.

Figure B2i / *Rajah B2i*

[5 marks]

[5 markah]

SOALAN TAMAT