

ULANGKAJI TINGKATAN 4

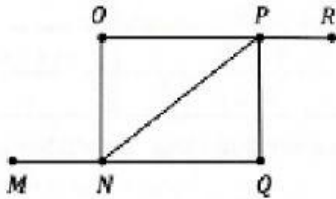
NAMA GURU: _____

SUBJEK: MATEMATIK

**BAB 5 : RANGKAIAN
DALAM TEORI GRAF**

NAMA: _____

KELAS: _____

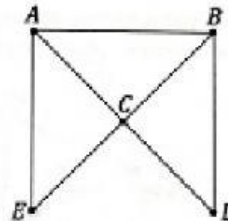
(12 soalan: Isi dalam bulatan)**SOALAN 1**Nyatakan set bucu, V , bagi graf berikut.State the set of vertices, V for the following graph.

- A $V = \{O, P, N, Q\}$
 B $V = \{M, N, O, P, Q, R\}$
 C $V = \{(M, N), (O, N), (N, P), (N, Q), (O, P), (P, R)\}$
 D $V = \{(M, N), (O, N), (N, P), (N, Q), (O, P), (P, Q), (P, R)\}$

SOALAN 3

Rajah berikut menunjukkan satu graf mudah.

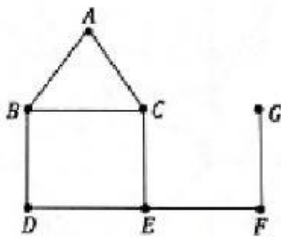
The following diagram shows a simple graph.



Berapakah bilangan darjah bagi graf di atas?

What is the sum of degrees for the graph above?

- A 10 C 12
 B 11 D 14

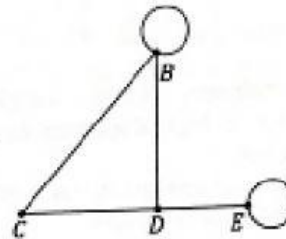
SOALAN 2Nyatakan set tepi, E bagi graf berikut.State the set of edges, E for the following graph.

- A $\{(A, B), (A, C), (B, D), (B, C), (C, E), (D, E), (E, F), (F, G)\}$
 B $\{(A, B), (A, C), (B, D), (B, C), (C, E), (D, E)\}$
 C $\{A, B, C, D, E, F, G\}$
 D $\{A, B, C, D, E\}$

SOALAN 4

Rajah berikut menunjukkan satu graf mudah.

The following diagram shows a simple graph.



Bucu yang manakah mempunyai darjah yang paling tinggi?

Which vertex has the highest number of degrees?

- A B C D
 B C D E

SOALAN 5

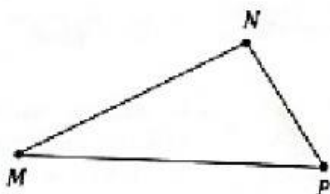
Antara berikut, yang manakah adalah **bukan** rangkaian?

Which of the following is **not** a network?

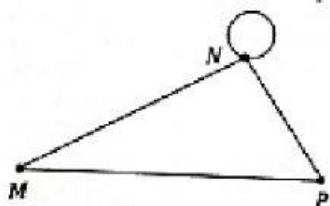
A



B



C



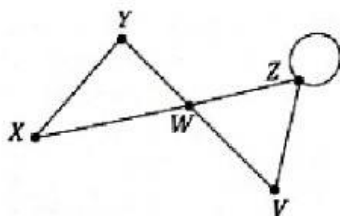
D



SOALAN 6

Rajah berikut menunjukkan satu rangkaian.

The following diagram shows a network.



Hitung bilangan darjah bagi bucu Z.

Calculate the degree of vertex Z.

A 1

C 3

B 2

D 4

SOALAN 7

Diberi bahawa suatu rangkaian graf mempunyai 8 tepi. Cari jumlah darjah bagi graf tersebut.

Given that a network graph has 8 edges. Find the sum of degrees of the graph.

A 24

C 14

B 16

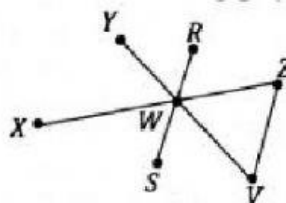
D 8

SOALAN 8

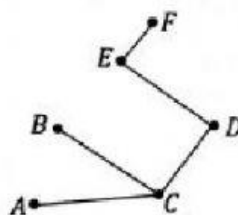
Antara graf berikut, yang manakah ialah satu pokok?

Which of the following graphs is a tree?

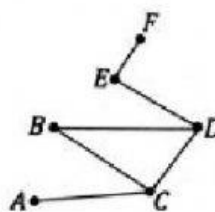
A



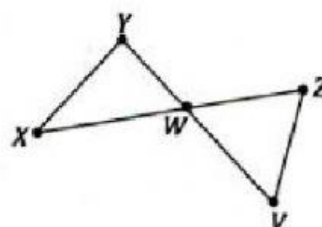
B



C



D



SOALAN 9

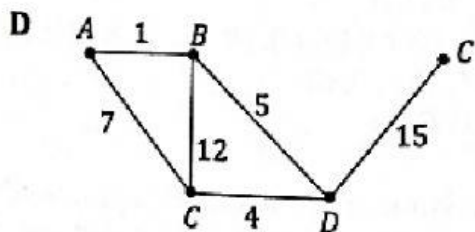
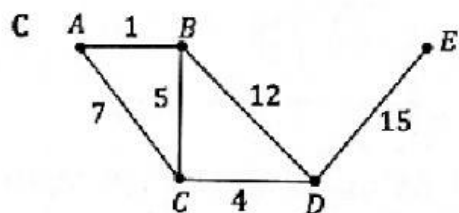
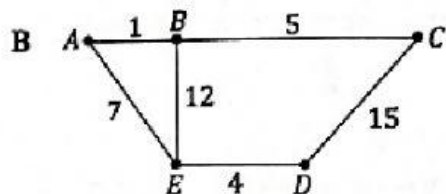
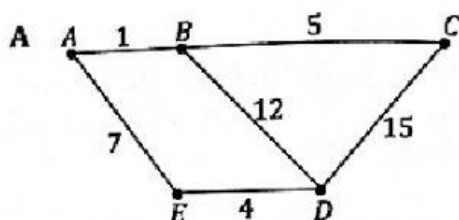
Jadual berikut menunjukkan pasangan bucu dan pemberatnya pada suatu graf.

The following table shows the pairs of vertices and their weight of a graph.

Pasangan Bucu Vertex Pair	Pemberat Weightage
(A, B)	1
(B, C)	5
(A, C)	7
(C, D)	4
(B, D)	12
(D, E)	15

Antara berikut, yang manakah mewakili graf di atas?

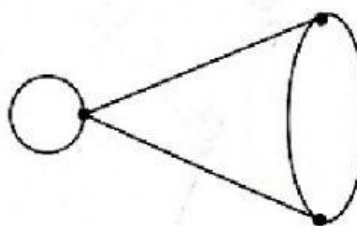
Which of the follow represents the above graph?



SOALAN 10

Pilih darjah yang memuaskan graf berikut.

Choose the degree that satisfies the following graph.



A 4,3,3

C 3,3,1

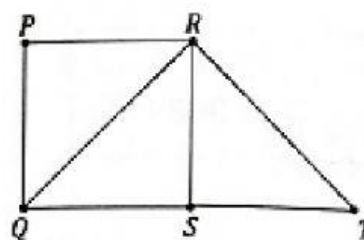
B 3,3,3

D 2,3,3

SOALAN 11

Rajah berikut menunjukkan suatu graf mudah.

The following diagram shows a simple graph.



Nyatakan bilangan tepi yang perlu dikeluarkan untuk menjadi satu pokok.

State the number of edges that needs to be removed to becomes a tree.

A 1

C 3

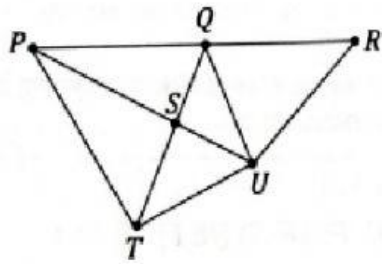
B 2

D 4

SOALAN 12

Rajah berikut menunjukkan graf G.

The following diagram shows graph G.



Antara berikut, yang manakah **bukan** suatu subgraf bagi graf G?

Which of the following is **not** a subgraph of graph?

