ULANGKAJI TINGKATAN 4

BAB 5 : RANGKAIAN DALAM TEORI GRAF

(12 soalan: Isi dalam bulatan)

NAMA GURU:

SUBJEK: MATEMATIK

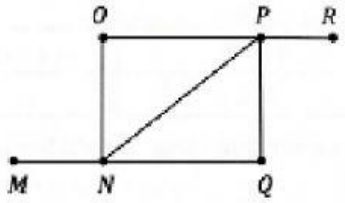
NAMA:

KELAS:

SOALAN 1

Nyatakan set bucu, V, bagi graf berikut.

State the set of vertices, V for the following graph.



A V= {0, P, N, Q}

B V = {M, N, O, P, Q, R}

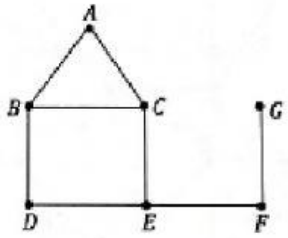
C V = {(M, N),(0, N),(N, P),(N, Q),(0, P),(P, R)}

D V = {(M, N), (0, N), (N, P),(N, Q), (0, P), (P, Q), (P, R)}

SOALAN 2

Nyatakan 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)}

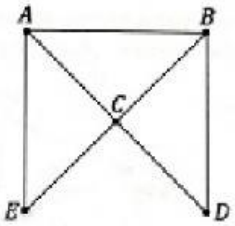
C {A, B, C, D, E, F, G}

D {A, B, C, D, E}

SOALAN 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?

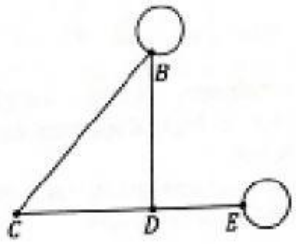
A 10 C 12

B 11 D 14

SOALAN 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

LIVEWORKSHEETS

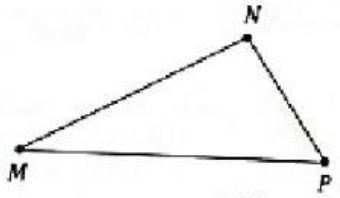
SOALAN 5

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

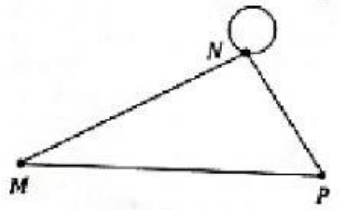
*Which of the following is **not** a network?*

A

B



C

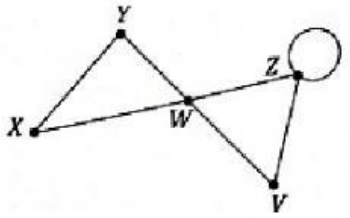


D

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

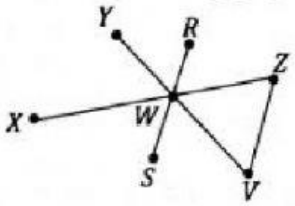
B 16 D 8

SOALAN 8

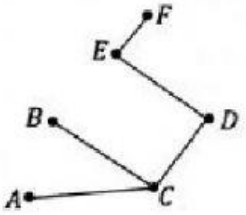
Antara graf berikut, yang manakah ialah satu **pokok**?

*Which of the following graphs is a **tree**?*

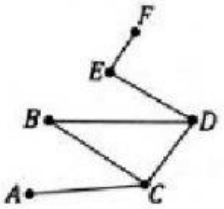
A



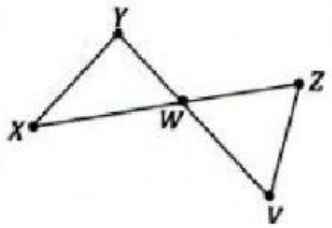
B



C



D



LIVEWORKSHEETS

SOALAN 9

Jadual berikut menunjukkan pasangan bucu dan pemberatnya pada suatu graf.

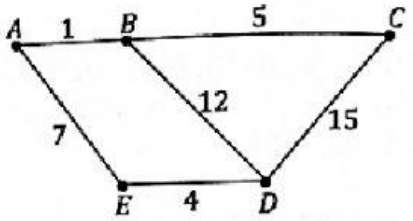
The following table shows the pairs of vertices and their weight of a graph.

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

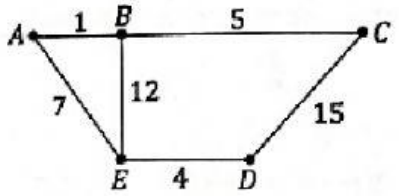
Antara berikut, yang manakah mewakili graf di atas?

Which of the follow represents the above graph?

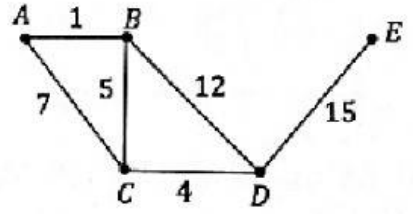
A



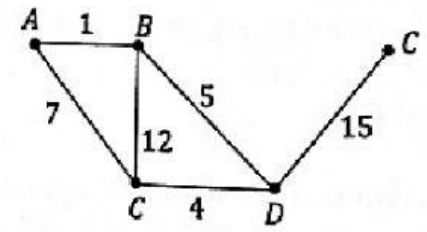
B



C



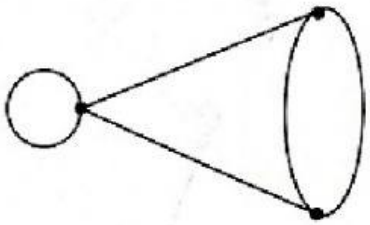
D



SOALAN 10

Pilih darjah yang memuaskan graf berikut.

Choose the degree that satisfies the following graph.



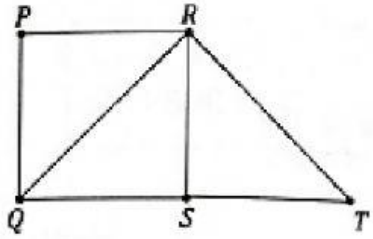
A 4,3,3 C 3,3,1

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

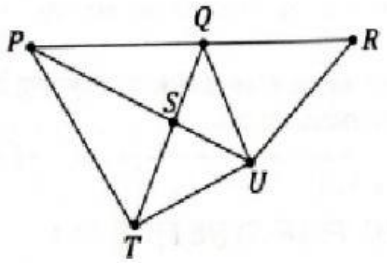
B 2 D 4

LIVEWORKSHEETS

SOALAN 12

Rajah berikut menunjukkan graf G.

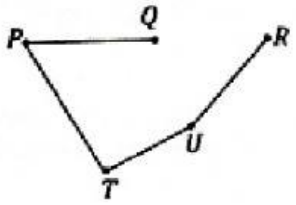
The following diagram shows graph G.



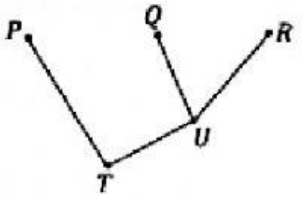
Antara berikut, yang manakah **bukan** suatu subgraf bagi graf G?

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

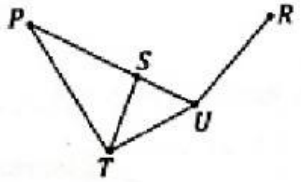
A



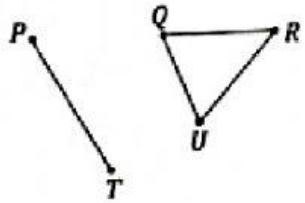
B



C



D



Wan Harniyanty Wan Ahmad

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