

Online Exams
Sri Lanka Institute of Information Technology

Consider the following finite state Machine A.

```
graph LR; start(( )) --> a((a)); a -- 0 --> b((b)); a -- 1 --> c((c)); b -- 1 --> a; b -- 0 --> b; b -- 0 --> c; b -- 1 --> d((d)); b -- 1 --> f(((f))); c -- 0 --> b; c -- 1 --> d; d -- 0 --> e((e)); d -- 1 --> f; e -- 1 --> f; f -- "0,1" --> f;
```

What is the initial State?

To what state does A go if 1010111 input to A in sequence starting from the initial state?

Find $N(d, 1)$

Find $N(f, 0)$

a
 a
 a
 f

Next Step



Question 14

Not yet answered

Marked out of
9.00 Flag question

If $|A| = 128$ then find the cofactor matrix of A.

$$A = \begin{bmatrix} x & 5 & 7 \\ 2 & 4 & 1 \\ -2 & 8 & 3 \end{bmatrix}$$

C_{11}

C_{12}

C_{13}

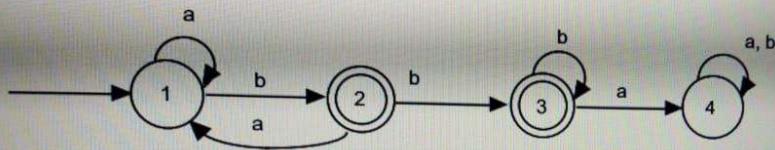
C_{21}

C_{22}

C_{23}

C_{31}

Consider the following finite state Machine A.



What is the initial State?

To what state does A go if abbabaaba input to A in sequence starting from the initial state?

Find $N(2, a)$

Find $N(3, b)$

Choose... ▾

Choose... ▾

Choose... ▾

Choose... ▾

☰ Quiz navigation

DECLARATION

I

EXAM QUESTIONS

1	2	3	4	5	6
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15	16	17	18	19	20
22	23	24	25	26	27
I					

Finish attempt ...

Next page

Time left 0:56:29

C | i | A

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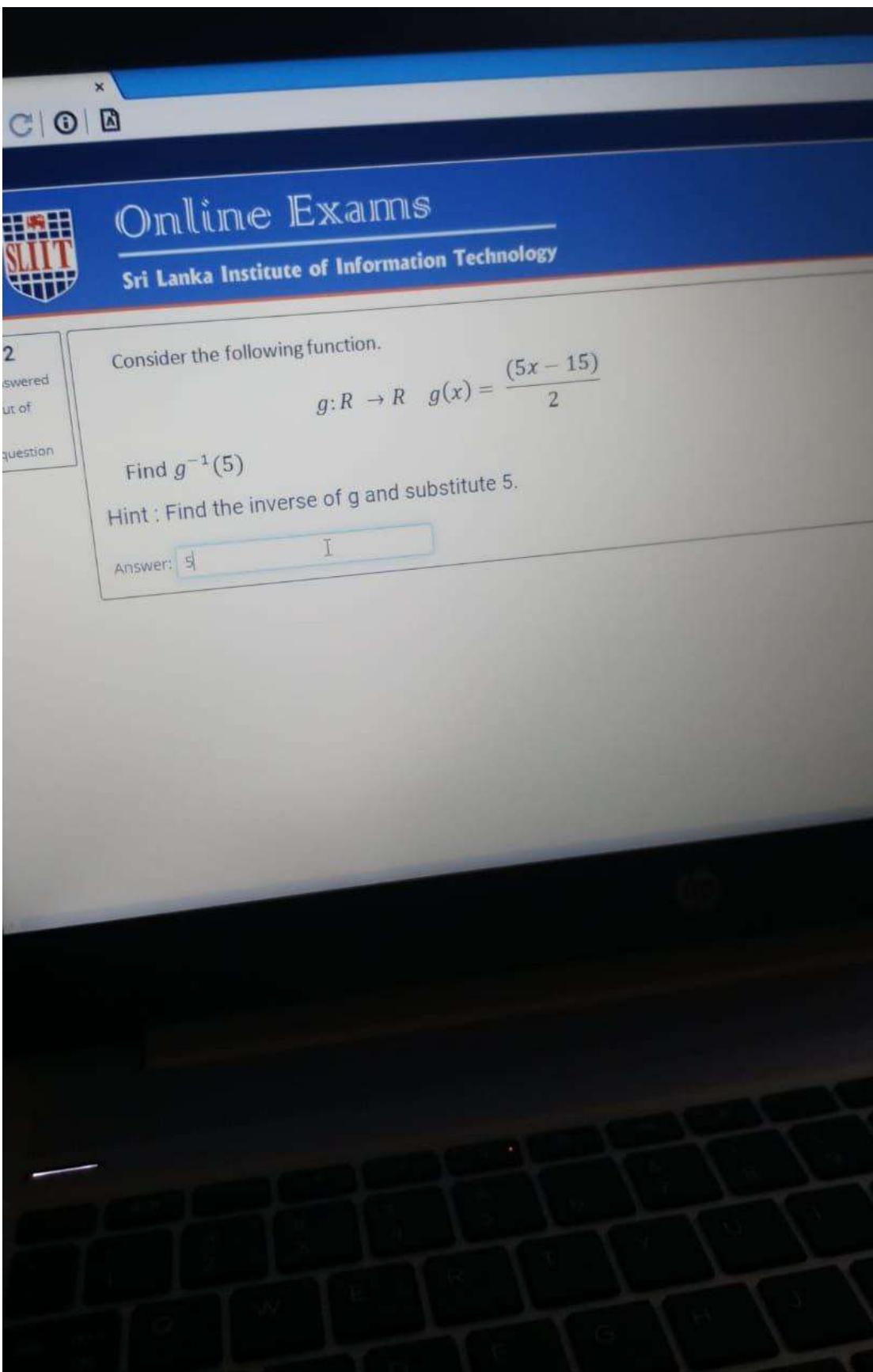
2
swered
ut of
question

Consider the following function.
$$g: R \rightarrow R \quad g(x) = \frac{(5x - 15)}{2}$$

Find $g^{-1}(5)$

Hint : Find the inverse of g and substitute 5.

Answer: I





Online Exams

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Consider the following linear system of equations:

$$x + y + z = -2$$

$$x - y - z = 4$$

$$-x - y + az = -2$$

Find the value of a if the above system of equations has a unique solution.

Answer:



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Question 10

Not yet answered

Marked out of
1.00

Flag question

Consider the following linear system of equations.

$$x + y + z = 3$$

$$2x - y - z = 6$$

$$x - y + az = -1$$

Find the value of a if the above system of equations have no solution.

Answer:



Next page

Module

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10

Flag question

$$\begin{bmatrix} 1 & 2 & 1 & 3 \\ 2 & 4 & 0 & 9 \\ 3 & 4 & 8 & 0 \end{bmatrix}$$

$$r_3' = r_3 - 3r_1$$



$$\begin{bmatrix} a & b & c & d \\ e & f & g & h \\ i & j & k & l \end{bmatrix}$$

$$a = : 1$$

$$b = : 2$$

$$c = : 1$$

$$d = : 3$$

$$e = : 2$$

$$f = : 4$$

$$g = : 0$$

$$h = : 9$$

$$i = : 0$$

$$j = : -2$$

$$k = : 5$$

question

$$\begin{bmatrix} 1 & 0 & -1 & 1 & 2 & -1 \\ 0 & 1 & 2 & 0 & 0 & 1 \\ 0 & 0 & 1 & -1 & 1 & 0 \end{bmatrix}$$



$$\begin{bmatrix} 1 & 0 & 0 & a & b & c \\ 0 & 1 & 0 & d & e & f \\ 0 & 0 & 1 & -1 & 1 & 0 \end{bmatrix}$$

$a =$

$b =$

$c =$

$d =$

$e =$

$f =$



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ion 11

not answered

ed out of

lag question

Find the values of the resulting matrix.

$$\begin{bmatrix} 1 & 0 & -2 & 0 & 1 & 2 \\ 0 & 1 & 0 & 2 & -1 & 0 \\ 0 & 0 & 2 & 4 & -2 & 0 \end{bmatrix}$$



$$\begin{bmatrix} 1 & 0 & 0 & a & b & c \\ 0 & 1 & 0 & 2 & -1 & 0 \\ 0 & 0 & 1 & d & e & f \end{bmatrix}$$

a = Choose... ▾

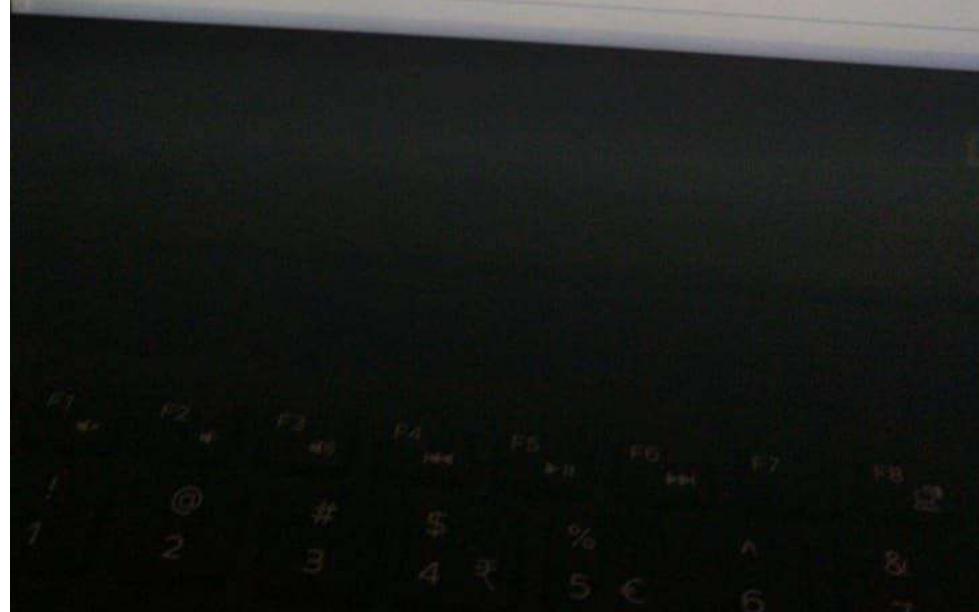
b = Choose... ▾

c = Choose... ▾

d = Choose... ▾

e = Choose... ▾

f = Choose... ▾



Find the values of the resulting matrix.

$$\begin{bmatrix} 1 & 0 & -1 & 1 & 2 & -1 \\ 0 & 1 & 2 & 0 & 0 & 1 \\ 0 & 0 & 1 & -1 & 1 & 0 \end{bmatrix}$$



$$\begin{bmatrix} 1 & 0 & 0 & a & b & c \\ 0 & 1 & 0 & d & e & f \\ 0 & 0 & 1 & -1 & 1 & 0 \end{bmatrix}$$

a =

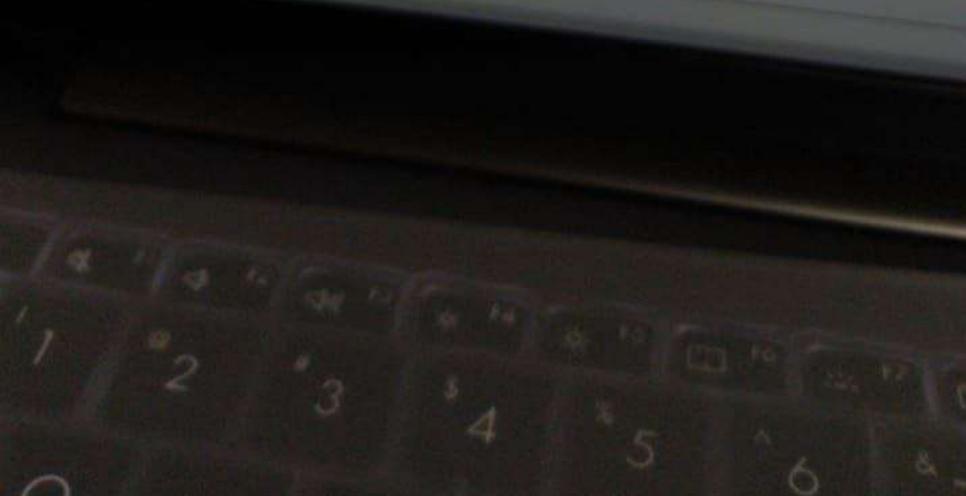
b =

c =

d =

e =

f =



$$5x + 4y = 4$$

$$-3x - 2y = -$$

Represent the above equations in $Ax = B$

Let $\text{adj } A = \begin{bmatrix} p & q \\ r & s \end{bmatrix}$

Find the Following.

$$|A| = : 2$$

$$p = : -2$$

$$q = : 4$$

$$r = : 3$$

$$s = : 5$$

$$x = : 8$$

$$y = : 1$$

 SLIIT
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Consider the following linear system of equations.

$$x + y + z = 0$$
$$2x + y + z = 2$$
$$x - 2y + az = 11$$

Find the value of a if the above system of equations have no solution.

Answer:



Online Exams

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Consider the following linear system of equations.

$$x + y + z = 0$$

$$2x + y + z = 2$$

$$x - 2y + az = 11$$

Find the value of a if the above system of equations have

Answer:



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Question 10
Not yet answered
Marked out of 1.00
Flag question

Consider the following linear system of equations.

$$2x + y + az = 3$$
$$x + y + z = 1$$
$$x + 2y + 2z = 0$$

Find the value of a if the above system of equations have infinite number of solutions.

Answer: A=1, A!=1

Next page

Finish attempt ...
Time left 1:09:39

Moodle

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Question 10
Not yet answered
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Flag question

Consider the following linear system of equations.

$$x + 2y + z = 1$$
$$x + y - z = 0$$
$$2x + 2y + az = 5$$

Find the value of a if the above system of equations have no solution.

Answer: 2

Next page

Finish attempt ...
Time left 1:05:53



Question 6

Not yet answered

Marked out of
1.00

Flag question

Find the determinant of A.

$$A = \begin{bmatrix} -6 & -7 & 8 \\ 9 & 4 & -3 \\ 6 & 8 & 3 \end{bmatrix}$$

Answer:

Moodle

→ X C O

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Flag question

$$\begin{bmatrix} 1 & 2 & 1 & -3 \\ 2 & 5 & 0 & 9 \\ -3 & -4 & 8 & 0 \end{bmatrix}$$

$$r_2' = r_2 - 2r_1$$



$$\begin{bmatrix} a & b & c & d \\ e & f & g & h \\ i & j & k & l \end{bmatrix}$$

$$a = : 1$$

$$b = : 2$$

$$c = : 1$$

$$d = : -3$$

$$e = : 0$$

$$f = : 1$$

$$g = : -2$$

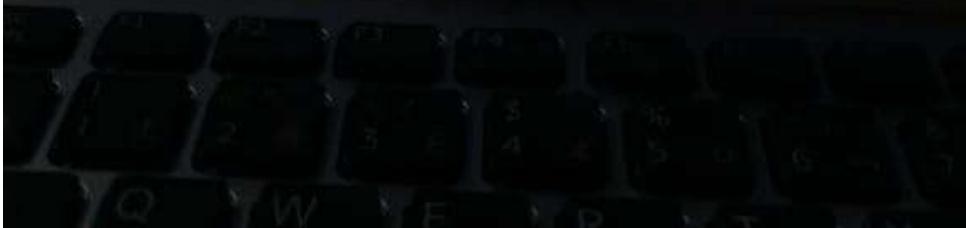
$$h = : 15$$

$$i = : -3$$

$$j = : -4$$

$$k = : 8$$

$$l = : d$$





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10

Answered
out of
question

Consider the following linear system of equations.

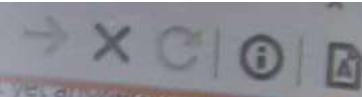
$$x + y + z = 0$$

$$2x + y + z = 2$$

$$x - 2y + az = 11$$

Find the value of a if the above system of equations has no solution.

Answer:



Not yet answered

Marked out of
100

Flag question

$$\begin{bmatrix} 1 & 2 & -1 & 3 \\ 2 & 5 & 0 & 9 \\ -3 & -4 & 7 & 1 \end{bmatrix}$$

$$r_2' = r_2 - 2r_1$$


$$\begin{bmatrix} a & b & c & d \\ e & f & g & h \\ i & j & k & l \end{bmatrix}$$

$$a = : 1$$

$$b = : 2$$

$$c = : -1$$

$$d = : 3$$

$$e = : 0$$

$$f = : 1$$

$$g = : 2$$

$$h = : 3$$

$$i = : -1$$

$$j = : -4$$

$$k = : 7$$

$$l = : 1$$

$$5x + 4y = 4$$

$$-3x - 2y = -2$$

Represent the above equations in $Ax = b$ form.

Let $\text{adj } A = \begin{bmatrix} p & q \\ r & s \end{bmatrix}$

Find the Following.

$|A| = :$

$p = :$

$q = :$

$r = :$

$s = :$

$x = :$

$y = :$

 Online Exams

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$5x + 4y = 4$

$-3x - 2y = -2$

Represent the above equations in $Ax = b$ form.

Let $\text{adj } A = \begin{bmatrix} p & q \\ r & s \end{bmatrix}$

Find the Following.

$|A| = :$

$p = :$

$q = :$

$r = :$

$s = :$

$x = :$

$y = :$



Question 7

Not yet answered

Marked out of
7.00

Flag question

Consider the following linear system.

$$x + y + 2z = 1$$

$$2x + y - 3z = 8$$

$$x - y + z = 0$$

$$x = \frac{|A_1|}{|A|} \quad y = \frac{|A_2|}{|A|} \quad z = \frac{|A_3|}{|A|}$$

Find the following.

$$|A_1| = :$$

$$|A_2| = :$$

$$|A_3| = :$$

$$|A| = :$$

$$x = :$$

$$y = :$$

$$z = :$$

Question 9
Not yet answered
Marked out of
12.00
 Flag question

Consider the following row operation and find the values of the resulting matrix.

$$\begin{bmatrix} 1 & -2 & 1 & 3 \\ 5 & 3 & -1 & 9 \\ 3 & -2 & 1 & 0 \end{bmatrix}$$

$$r_3' = r_3 - 3r_1$$



$$\begin{bmatrix} a & b & c & d \\ e & f & g & h \\ i & j & k & l \end{bmatrix}$$

$$a = : 1$$

$$b = : -2$$

$$c = : 1$$

$$d = : 3$$

$$e = : 5$$

$$f = : 3$$

$$g = : -1$$

$$h = : 9$$

Quiz navigation

DECLARATION

I

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Finish attempt

Time left: 1:04:18



Online Exams

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Consider the following linear system of equations.

$$x - y - z = 0$$

$$x + 2y - z = 6$$

$$-2x + y + az = -5$$

Find the value of a if the above system of equations have no solution.

Answer:



Moodle

SLIT Sri Lanka Institute of Information Technology

Question 7
Not yet answered
Marked out of 1.00
Flag question

Consider the following linear system.

$$\begin{aligned}x + y - z &= -2 \\2x - y + 3z &= 9 \\x + 3y + z &= 0\end{aligned}$$
$$x = \frac{|A_1|}{|A|} \quad y = \frac{|A_2|}{|A|} \quad z = \frac{|A_3|}{|A|}$$

Find the following.

$|A_1| = :$

$|A_2| = :$

$|A_3| = :$

$|A| = :$

$x = :$

$y = :$

$z = :$

$$3x - 5y = 1$$

$$4x - 3y = 5$$

Represent the above equations in $Ax = b$ form.

Let $\text{adj } A = \begin{bmatrix} p & q \\ r & s \end{bmatrix}$

Find the Following.

$|A| = :$

$p = :$

$q = :$

$r = :$

$s = :$

$x = :$

$y = :$



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Consider the following linear system.

$$x + y + z = 0$$

$$2x + 3y + z = 4$$

$$x - 3y + 2z = -10$$

$$x = \frac{|A_1|}{|A|} \quad y = \frac{|A_2|}{|A|} \quad z = \frac{|A_3|}{|A|}$$

Find the following.

$$|A_1| = : \boxed{}$$

$$|A_2| = : \boxed{}$$

$$|A_3| = : \boxed{}$$

$$|A| = : \boxed{}$$

$$x = : \boxed{}$$

$$y = : \boxed{}$$

$$z = : \boxed{}$$



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Question 8

Not yet answered

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0

Flag question

$$3x - 4y = 1$$

$$2x + 3y = 12$$

Represent the above equations in $Ax = b$ form.

Let $\text{adj } A = \begin{bmatrix} p & q \\ r & s \end{bmatrix}$

Find the Following.

$|A| = :$

$p = :$

$q = :$

$r = :$

$s = :$

$x = :$

$y = :$

Question 8

Not yet answered

Marked out of
7.00

Flag question

$$3x - 4y = 1$$

$$2x + 3y = 12$$

Represent the above equations in $Ax = b$ form.

Let $\text{adj } A = \begin{bmatrix} p & q \\ r & s \end{bmatrix}$

Find the Following.

$|A| = :$

$p = :$

$q = :$

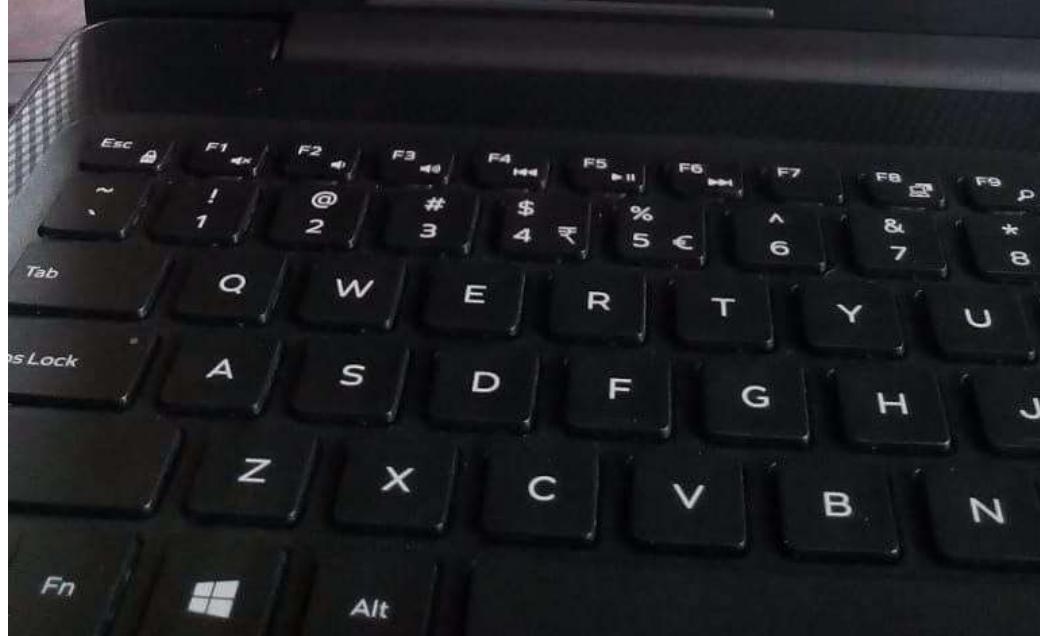
$r = :$

$s = :$

$x = :$

$y = :$

DELL





Consider the following raw operation

$$\begin{bmatrix} 1 & -2 & 1 & 3 \\ 2 & 4 & 0 & 9 \\ 3 & -4 & 8 & 1 \end{bmatrix}$$

$$r_3' = r_3 - 3r_1$$



$$\begin{bmatrix} a & b & c & d \\ e & f & g & h \\ i & j & k & l \end{bmatrix}$$

$$a = :$$

$$b = :$$

$$c = :$$

$$d = :$$

$$e = :$$

$$f = :$$

 Online Exams
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Question 7
Not yet answered
Marked out of
7.00
 Flag question

Consider the following linear system.

$$x - y + z = -1$$
$$x + y - 5z = 5$$
$$3x - 2y + 6z = 0$$
$$x = \frac{|A_1|}{|A|}, \quad y = \frac{|A_2|}{|A|}, \quad z = \frac{|A_3|}{|A|}$$

Find the following.

$|A_1| = :$

$|A_2| = :$

$|A_3| = :$

$|A| = :$

$x = :$

$y = :$

$z = :$

☰ Quiz navigation
DECLARATION

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Finish attempt...
Time left 1:16:30

Online Exams

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$$3x - 4y = 1$$

$$2x + 3y = 12$$

Represent the above equations in $Ax = b$ form.

Let $\text{adj } A = \begin{bmatrix} p & q \\ r & s \end{bmatrix}$

Find the Following.

$|A| = :$

$p = :$

$q = :$

$r = :$

$s = :$

$x = :$

$y = :$

Moodle

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Consider the following row operation and find the values of the resulting matrix.

$$\begin{bmatrix} 1 & 2 & 1 & 3 \\ -2 & 4 & 0 & 9 \\ 3 & 2 & 8 & 1 \end{bmatrix}$$

$r_3' = r_3 - 3r_1$

↓

$$\begin{bmatrix} a & b & c & d \\ e & f & g & h \\ i & j & k & l \end{bmatrix}$$

a =

b =

c =

d =

e =

f =

g =

h =

i =

j =

k =

l =

acer

F1 F2 F3 F4 F5 F6 F7 F8 F9 F10 F11 F12

Q W E R T Y U I O

Z S D F G H J K

Shift

Space



Online Exams

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ag question

Find the determinant of A.

$$A = \begin{bmatrix} 2 & -3 & 5 \\ -3 & 6 & 2 \\ 1 & -2 & 5 \end{bmatrix}$$

Answer: 17

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Online Exams

Sri Lanka Institute of Information Technology

on 6
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eg question

Find the determinant of A.

$$A = \begin{bmatrix} -5 & -8 & 8 \\ 7 & 9 & -4 \\ 6 & 5 & 6 \end{bmatrix}$$

Answer: -554



hp

$$5x + 4y = 4$$

$$\rightarrow -3x - 2y = -2$$

Represent the above equations in $Ax = b$ form.

Let $\text{adj } A = \begin{bmatrix} p & q \\ r & s \end{bmatrix}$

Find the Following.

$$|A| = :$$

$$p = :$$

$$q = :$$

$$r = :$$

$$s = :$$

$$x = :$$

$$y = :$$



Consider the following linear system.

$$x + y - z = 2$$

$$2x - 3y + 4z = -7$$

$$y + z = 0$$

$$x = \frac{|A_1|}{|A|} \quad y = \frac{|A_2|}{|A|} \quad z = \frac{|A_3|}{|A|}$$

Find the following.

$$|A_1| = : \boxed{}$$

$$|A_2| = : \boxed{}$$

$$|A_3| = : \boxed{}$$

$$|A| = : \boxed{}$$

$$x = :$$

$$y = : \boxed{}$$

$$z = : \boxed{}$$



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Flag question

Find the determinant of A.

$$A = \begin{bmatrix} 6 & -5 & 8 \\ 7 & 5 & -3 \\ 2 & 8 & 7 \end{bmatrix}$$

Answer:

Select the symmetric matrix from the following choices.

Select one:

$$\begin{bmatrix} -12 & 16 & 13 & 19 & 26 & 0 & 2 \\ 24 & 5 & -19 & 29 & -19 & 16 & -10 \\ 21 & -26 & 16 & 13 & -17 & 16 & 7 \\ 12 & 20 & 4 & 22 & 18 & -3 & -12 \\ 17 & -26 & -9 & 10 & -15 & 6 & 11 \\ -9 & 23 & 8 & 6 & -3 & 8 & 8 \\ 10 & -18 & 0 & -21 & 19 & 15 & 4 \end{bmatrix}$$

$$\begin{bmatrix} 18 & 8 & 19 & -18 & 16 & 9 & -1 \\ -13 & 12 & 13 & 17 & -19 & -13 & 15 \\ -15 & -14 & -19 & -5 & 9 & 19 & -8 \\ 10 & 1 & -9 & -10 & 18 & 13 & 13 \\ -15 & -14 & -19 & -5 & 9 & 19 & -8 \\ -13 & 12 & 13 & 17 & -19 & -13 & 15 \\ 18 & 8 & 19 & -18 & 16 & 9 & -1 \end{bmatrix}$$

$$\begin{bmatrix} 4 & -16 & 6 & -2 & 6 & -16 & 4 \\ 0 & -11 & 3 & 3 & 3 & -11 & 0 \\ 12 & 2 & -7 & 13 & -7 & 2 & 12 \\ 7 & -13 & -18 & -17 & -18 & -13 & 7 \end{bmatrix}$$

Select the symmetric matrix from the following choices.

Select one:

•
$$\begin{bmatrix} 14 & 6 & -12 & -3 & -4 & 4 \\ 6 & 17 & 17 & -13 & 1 & -4 \\ -12 & 17 & -13 & -20 & 4 & -17 \\ -3 & -13 & -20 & -2 & 16 & 9 \\ -4 & 1 & 4 & 16 & -10 & -13 \\ 4 & -4 & -17 & 9 & -13 & -13 \end{bmatrix}$$

$$\begin{bmatrix} -14 & -8 & 8 & 8 & -8 & -14 \\ -8 & 0 & 4 & 4 & 0 & -8 \\ -7 & 15 & 1 & 1 & 15 & -7 \\ 15 & -8 & -7 & -7 & -8 & 15 \\ 3 & 8 & 18 & 18 & 8 & 3 \\ 1 & -18 & -20 & -20 & -18 & 1 \end{bmatrix}$$

$$\begin{bmatrix} -12 & -18 & 15 & -14 & -3 & 9 \\ -19 & 7 & 16 & -10 & -3 & 15 \\ 13 & -19 & -5 & -14 & -10 & -15 \\ 13 & -19 & -5 & -14 & -10 & -15 \\ -19 & 7 & 16 & -10 & -3 & 15 \\ -12 & -18 & 15 & -14 & -3 & 9 \end{bmatrix}$$



Question 5

Not yet answered

Marked out of
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Flag question

Select the symmetric matrix from the following choices.

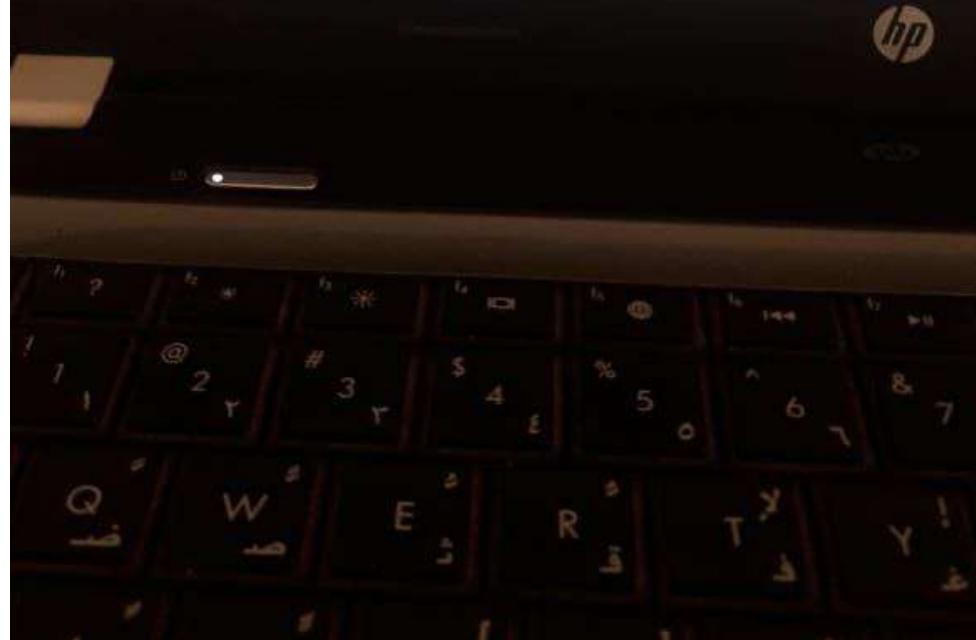
Select one:

$\begin{bmatrix} 5 & -5 & 13 & -5 & 5 \\ 8 & -6 & 20 & -6 & 8 \\ 15 & -6 & 5 & -6 & 15 \\ 7 & 19 & -6 & 19 & 7 \\ -4 & -16 & -10 & -16 & -4 \end{bmatrix}$

$\begin{bmatrix} -3 & -18 & -19 & 32 & -8 \\ -9 & 5 & 3 & 12 & 4 \\ -10 & -5 & 12 & -20 & -10 \\ 25 & 20 & -11 & -6 & -7 \\ 1 & 11 & -1 & 2 & -27 \end{bmatrix}$

$\begin{bmatrix} -12 & -16 & -3 & 16 & 17 \\ -16 & 14 & -7 & -7 & -4 \\ -3 & -7 & -11 & 7 & -11 \\ 16 & -7 & 7 & 19 & 7 \\ 17 & -4 & -11 & 7 & -17 \end{bmatrix}$

$\begin{bmatrix} 13 & 6 & -9 & -6 & 18 \\ -15 & -5 & 15 & -10 & 4 \end{bmatrix}$



Moodle

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Question 6

Not yet answered

Marked out of 1.00

Flag question

Find the determinant of A.

$$A = \begin{bmatrix} 4 & 2 & 6 \\ -1 & -4 & 5 \\ 3 & 7 & 2 \end{bmatrix}$$

Answer: 102

SONY

Esc F1 F2 F3 F4 F5

1 2 3 4 5 6



Find the determinant of A.

$$A = \begin{bmatrix} 5 & 7 & 8 \\ 6 & 5 & -4 \\ 3 & 4 & 6 \end{bmatrix}$$

Answer: -34

I

The image shows a screenshot of a web browser displaying an online exam page. The header features a logo with 'SLIIT' and the text 'Online Exams' followed by 'Sri Lanka Institute of Information Technology'. The main content area contains a math problem and an answer input field.

Find the determinant of A.

$$A = \begin{bmatrix} 5 & 4 & 7 \\ 3 & -6 & 5 \\ 4 & 2 & -3 \end{bmatrix}$$

Answer: 366



Question 6

Not yet answered

Marked out of
1.00

Flag question

Find the determinant of A.

$$A = \begin{bmatrix} -2 & 3 & -1 \\ 4 & 5 & -2 \\ -3 & 4 & 5 \end{bmatrix}$$

Answer: -139

Moodle

Online Exams

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Question 5
Not yet answered
Marked out of 1.00
Flag question

Select the symmetric matrix from the following choices.

Select one:

$\begin{bmatrix} -13 & 6 & 13 & 2 & -17 \\ 6 & 19 & 17 & 14 & -7 \\ 13 & 17 & 7 & -10 & -13 \\ 2 & 14 & -10 & -6 & -15 \\ -17 & -7 & -13 & -15 & 4 \end{bmatrix}$

$\begin{bmatrix} 5 & 19 & 8 & 19 & 5 \\ 13 & -9 & -8 & -9 & 13 \\ 3 & -15 & 17 & -15 & 3 \\ 16 & -16 & -7 & -16 & 16 \\ 12 & -20 & 3 & -20 & 12 \end{bmatrix}$

$\begin{bmatrix} 10 & -34 & 2 & 14 & -4 \\ -25 & 19 & 2 & 5 & -13 \\ -5 & -6 & 1 & -15 & -35 \\ 5 & -4 & -7 & 24 & 1 \\ 3 & -6 & -26 & 9 & -2 \end{bmatrix}$

$\begin{bmatrix} 3 & -19 & -10 & -18 & -16 \\ 9 & 16 & -19 & -8 & -7 \\ -9 & -2 & 17 & 8 & -15 \\ 9 & 16 & -19 & -8 & -7 \\ 9 & -10 & 10 & 18 & 16 \end{bmatrix}$



File

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D

$$\begin{bmatrix} -21 & -16 & 14 & -5 & -2 & 17 & -20 \\ -23 & -1 & -20 & -19 & 25 & -25 & -2 \\ 22 & -13 & -3 & -12 & -19 & 2 & 9 \\ 2 & -26 & -5 & -12 & 10 & -26 & -16 \\ -10 & 17 & -11 & 2 & 5 & 30 & -11 \\ 25 & -16 & -5 & -18 & 21 & 18 & 2 \\ -27 & 5 & 17 & -9 & -3 & 10 & 1 \end{bmatrix}$$

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Final

Time

$$\begin{bmatrix} 17 & 10 & 13 & -18 & 10 & 5 & 3 \\ 10 & -14 & -7 & 5 & -7 & 8 & -8 \\ 13 & -7 & 20 & 1 & 15 & -20 & -7 \\ -18 & 5 & 1 & -15 & 9 & 16 & -6 \\ 10 & -7 & 15 & 9 & 18 & -11 & 3 \\ 5 & 8 & -20 & 16 & -11 & -3 & 11 \\ 3 & -8 & -7 & -6 & 3 & 11 & 20 \end{bmatrix}$$

- None of the above

Next page

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R20651060 Sirikumara K.D

Online Exams

Sri Lanka Institute of Information Technology

5
answered
1 out of
question

Select the symmetric matrix from the following choices.

Select one:

$\begin{bmatrix} 14 & 19 & -17 & 12 & -2 & -1 & -14 \\ 3 & 15 & 13 & -4 & 13 & 3 & -5 \\ -14 & 20 & -4 & 8 & -20 & 18 & 12 \\ -7 & 16 & 5 & 13 & 12 & -11 & -9 \\ -14 & 20 & -4 & 8 & -20 & 18 & 12 \\ 3 & 15 & 13 & -4 & 13 & 3 & -5 \\ 14 & 19 & -17 & 12 & -2 & -1 & -14 \end{bmatrix}$

$\begin{bmatrix} 15 & 14 & -14 & 0 & -14 & 14 & 15 \\ -7 & 13 & -11 & -13 & -11 & 13 & -7 \\ 10 & -12 & 18 & 11 & 18 & -12 & 10 \\ 18 & -15 & -5 & -19 & -5 & -15 & 18 \end{bmatrix}$

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Sri Lanka Institute of Information Technology

Answered
of
question

Find the determinant of A.

$$A = \begin{bmatrix} -5 & -8 & 8 \\ 7 & 9 & -4 \\ 6 & 5 & 6 \end{bmatrix}$$

Answer: 6 I

Next page

≡ Quiz navigation

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EXAM QUESTIONS

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19	20	21	22	23
25	26	27	28	I

Activate Windows
Go to Settings to activate Windows
Finish attempt ...

Time left 1:25:01



Consider the following linear system.

$$x - y + z = -1$$

$$x + y - 5z = 5$$

$$3x - 2y + 6z = 0$$

$$x = \frac{|A_1|}{|A|} \quad y = \frac{|A_2|}{|A|} \quad z = \frac{|A_3|}{|A|}$$

Find the following.

$$|A_1| = : \boxed{}$$

$$|A_2| = : \boxed{}$$

$$|A_3| = : \boxed{}$$

$$|A| = : \boxed{}$$

$$x = : \boxed{}$$

$$y = : \boxed{}$$

$$z = : \boxed{}$$



Find the determinant of A.

$$A = \begin{bmatrix} 9 & 8 & 5 \\ 7 & -9 & 7 \\ 7 & 5 & -5 \end{bmatrix}$$

Answer:



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Select the symmetric matrix from the following choices.

Select one:

$$\begin{bmatrix} -13 & 6 & 13 & 2 & -17 \\ 6 & 19 & 17 & 14 & -7 \\ 13 & 17 & 7 & -10 & -13 \\ 2 & 14 & -10 & -6 & -15 \\ -17 & -7 & -13 & -15 & 4 \end{bmatrix}$$

$$\begin{bmatrix} 5 & 19 & 8 & 19 & 5 \\ 13 & -9 & -8 & -9 & 13 \\ 3 & -15 & 17 & -15 & 3 \\ 16 & -16 & -7 & -16 & 16 \\ 12 & -20 & 3 & -20 & 12 \end{bmatrix}$$
 ↗

$$\begin{bmatrix} 10 & -34 & 2 & 14 & -4 \\ -25 & 19 & 2 & 5 & -13 \\ -5 & -6 & 1 & -15 & -35 \\ 5 & -4 & -7 & 24 & 1 \\ 3 & -6 & -26 & 9 & -2 \end{bmatrix}$$

DELL

Select the symmetric matrix from the following choices.

Select one:

$$\begin{bmatrix} -12 & 16 & 13 & 19 & 26 & 0 & 2 \\ 24 & 5 & -19 & 29 & -19 & 16 & -10 \\ 21 & -26 & 16 & 13 & -17 & 16 & 7 \\ 12 & 20 & 4 & 22 & 18 & -3 & -12 \\ 17 & -26 & -9 & 10 & -15 & 6 & 11 \\ -9 & 23 & 8 & 6 & -3 & 8 & 8 \\ 10 & -18 & 0 & -21 & 19 & 15 & 4 \end{bmatrix}$$

$$\begin{bmatrix} 18 & 8 & 19 & -18 & 16 & 9 & -1 \\ -13 & 12 & 13 & 17 & -19 & -13 & 15 \\ -15 & -14 & -19 & -5 & 9 & 19 & -8 \\ 10 & 1 & -9 & -10 & 18 & 13 & 13 \\ -15 & -14 & -19 & -5 & 9 & 19 & -8 \\ -13 & 12 & 13 & 17 & -19 & -13 & 15 \\ 18 & 8 & 19 & -18 & 16 & 9 & -1 \end{bmatrix}$$

$$\begin{bmatrix} 4 & -16 & 6 & -2 & 6 & -16 & 4 \\ 0 & -11 & 3 & 3 & 3 & -11 & 0 \\ 12 & 2 & -7 & 13 & -7 & 2 & 12 \\ 7 & -13 & -18 & -17 & -18 & -13 & 7 \\ -10 & -17 & 15 & 12 & 15 & -17 & -10 \end{bmatrix}$$



Online Exams

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Question 4

Not yet answered

Marked out of
4.00

Flag question

Let $A = \begin{bmatrix} 1 & 0 \\ -5 & 3 \end{bmatrix}$ and $B = \begin{bmatrix} 3 & 0 \\ -1 & 7 \end{bmatrix}$

Find $D = B^2 + AB - I$

$$D = \begin{bmatrix} a & b \\ c & d \end{bmatrix}$$

a = :

b = :

c = :

d = :

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EXAM 0

1 2

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Next page

Finish attempt

Time left: 1:47:3



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Question 3

Not yet answered

Marked out of
4.00

Flag question

Following adjacency matrix represents a graph.

$$\begin{bmatrix} 1 & 0 & 1 & 0 \\ 1 & 1 & 0 & 1 \\ 0 & 1 & 0 & 1 \\ 0 & 1 & 0 & 0 \end{bmatrix}$$

Find the following.

This graph is a

- Undirected Graph
- Directed Graph

Number of Loops = :

Number of Edges = :

Number of Vertices = :



Online Exams

Sri Lanka Institute of Information Techno

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stion

Let $A = \begin{bmatrix} 0 & 2 \\ -5 & 4 \end{bmatrix}$ and $B = \begin{bmatrix} 3 & 0 \\ -1 & 7 \end{bmatrix}$

Find $D = B^2 + AB - I$

$$D = \begin{bmatrix} a & b \\ c & d \end{bmatrix}$$

a = :

b = :

c = :

d = :

Sri Lanka Institute of Information Technology

Select the symmetric matrix from the following choices.

Select one:

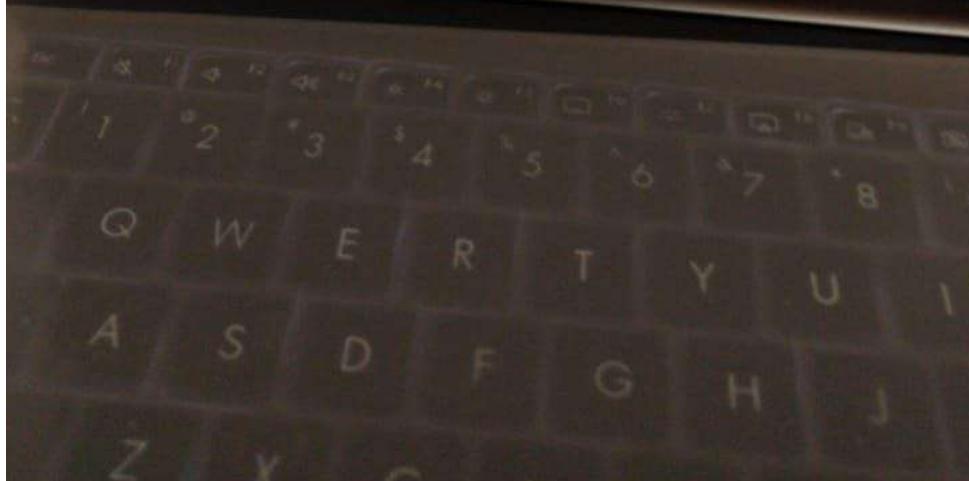
$$\begin{bmatrix} -7 & 16 & -4 & 18 & 4 & 1 \\ 16 & -6 & 3 & 9 & 11 & 18 \\ -4 & 3 & -17 & 3 & -18 & -3 \\ 18 & 9 & 3 & 0 & 4 & 1 \\ 4 & 11 & -18 & 4 & -4 & -6 \\ 1 & 18 & -3 & 1 & -6 & 16 \end{bmatrix}$$

$$\begin{bmatrix} -26 & 11 & 16 & 17 & -4 & -1 \\ 20 & -22 & -2 & 9 & 8 & -17 \\ 24 & 7 & -19 & 4 & -19 & 2 \\ 9 & 2 & -4 & 8 & 21 & 5 \\ 5 & -1 & -27 & 14 & -14 & -1 \\ 6 & -8 & 10 & -3 & -9 & 6 \end{bmatrix}$$

$$\begin{bmatrix} -2 & 5 & -10 & -10 & 5 & -2 \\ 8 & -3 & -2 & -2 & -3 & 8 \\ 5 & -14 & 7 & 7 & -14 & 5 \\ 18 & -17 & -16 & -16 & -17 & 18 \\ -10 & -4 & -2 & -2 & -4 & -10 \\ -11 & -15 & -13 & -13 & -15 & -11 \end{bmatrix}$$

$$\begin{bmatrix} -10 & 0 & -17 & -20 & -13 & 18 \\ 18 & 1 & -11 & -16 & 14 & -15 \end{bmatrix}$$

ASUS VivoBook





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on 4

answered
out of

question

Let $A = \begin{bmatrix} 1 & 0 \\ -5 & 3 \end{bmatrix}$ and $B = \begin{bmatrix} 3 & 0 \\ -1 & 7 \end{bmatrix}$

Find $D = B^2 + AB - I$

$$D = \begin{bmatrix} a & b \\ c & d \end{bmatrix}$$

a = :

b = :

c = :

d = :



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Following adjacency matrix represents a graph.

$$\begin{bmatrix} 1 & 0 & 0 & 2 \\ 1 & 1 & 0 & 1 \\ 0 & 1 & 0 & 1 \\ 0 & 0 & 0 & 1 \end{bmatrix}$$

Find the following.

This graph is a

- Undirected Graph
- Directed Graph

Number of Loops = :

Number of Edges = :

Number of Vertices = :



Online Exams

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estion

Let $A = \begin{bmatrix} 1 & 0 \\ -5 & 3 \end{bmatrix}$ and $B = \begin{bmatrix} 3 & 0 \\ -1 & 7 \end{bmatrix}$

Find $D = B^2 + AB - I$

$$D = \begin{bmatrix} a & b \\ c & d \end{bmatrix}$$

a = :

b = :

c = :

d = :



Online Exams

Sri Lanka Institute of Information T

Following adjacency matrix represents a

$$\begin{bmatrix} 1 & 0 & 1 & 0 \\ 1 & 1 & 0 & 1 \\ 0 & 1 & 0 & 1 \\ 0 & 1 & 0 & 0 \end{bmatrix}$$

Find the following.

This graph is a

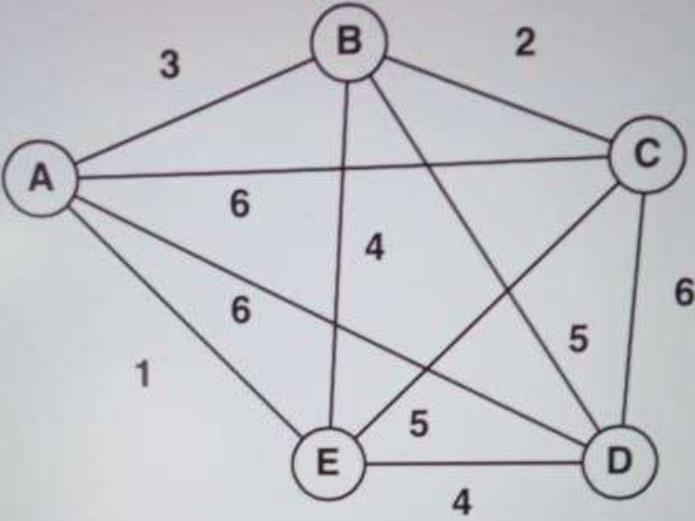
- Undirected Graph
- Directed Graph

Number of Loops = : [

Number of Edges = :

Number of Vertices = :

Consider the following graph.



Determine whether the above graph has the followings.

Hamiltonian Path	Yes
Hamiltonian Circuit	Yes
Euler Path	No
Euler Circuit	Yes



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Let $A = \begin{bmatrix} 0 & 2 \\ -5 & 4 \end{bmatrix}$ and $B = \begin{bmatrix} 3 & 0 \\ -1 & 7 \end{bmatrix}$

Find $D = B^2 + AB - I$

$$D = \begin{bmatrix} a & b \\ c & d \end{bmatrix}$$

$$a = : 6$$

$$b = : 14$$

$$c = : -29$$

$$d = : 176$$



3

answered

out of

question

Following adjacency matrix represents a graph.

$$\begin{bmatrix} 1 & 0 & 1 & 1 \\ 1 & 1 & 0 & 1 \\ 0 & 1 & 0 & 1 \\ 0 & 0 & 0 & 0 \end{bmatrix}$$

Find the following.

This graph is a

- Undirected Graph
- Directed Graph

Number of Loops = :

Number of Edges = :

Number of Vertices = :

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Online Exams

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Question 4

Not yet answered

Marked out of
4.00

Flag question

Let $A = \begin{bmatrix} 1 & 2 \\ -5 & 4 \end{bmatrix}$ and $B = \begin{bmatrix} 3 & 0 \\ -1 & 7 \end{bmatrix}$

Find $D = B^2 + AB - I$

$$D = \begin{bmatrix} a & b \\ c & d \end{bmatrix}$$

$$a = : \boxed{}$$

$$b = : \boxed{}$$

$$c = : \boxed{}$$

$$d = : \boxed{}$$

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EXAM QUE

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Finish exam

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Online Exams

Sri Lanka Institute of Information Technology

Question 1

Not yet answered

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0.00

Flag question

Simplify the following boolean expression.

$$(A + B)(\overline{C} + B + \bar{C})(B + (\bar{C} + B + C)) + A + B + C$$

Select one:

- B
- A+B+C
- 1
- A(B+C)
- None of the above

Next page

Question 3

Not yet answered

Marked out of
4.00

Flag question

Following adjacency matrix represents a graph.

$$\begin{bmatrix} 1 & 0 & 1 & 0 \\ 1 & 1 & 0 & 1 \\ 0 & 1 & 0 & 1 \\ 0 & 1 & 0 & 0 \end{bmatrix}$$

Find the following.

This graph is a

- Undirected Graph
- Directed Graph

Number of Loops = : 2

Number of Edges = : 8

Number of Vertices = : 4

← → × C | 0 | □



Online Exams

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Question 1

Not yet answered

Marked out of
1.00

Flag question

Simplify the following boolean expression.

$$(A + B)(C + B)(B + (B + C)) + A + B + C$$

Select one:

- B
- A+B+C
- 1
- A(B+C)
- None of the above



Online Exams

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Question 3

Not yet answered

Marked out of
4.00

Flag question

Following adjacency matrix represents a graph.

$$\begin{bmatrix} 1 & 0 & 1 & 1 \\ 1 & 1 & 0 & 1 \\ 0 & 1 & 0 & 1 \\ 0 & 0 & 0 & 0 \end{bmatrix}$$

Find the following.

This graph is a

Undirected Graph

Directed Graph

Number of Loops = :

Number of Edges = :

Number of Vertices = :

Next page

ASUS



Online Exams

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Following adjacency matrix represents a graph.

$$\begin{bmatrix} 1 & 0 & 0 & 2 \\ 1 & 1 & 0 & 1 \\ 0 & 1 & 0 & 1 \\ 0 & 0 & 0 & 1 \end{bmatrix}$$

Find the following.

This graph is a

- Undirected Graph
- Directed Graph

Number of Loops = :

Number of Edges = :

Number of Vertices = :

Online Exams

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3
answered
out of
question

Following adjacency matrix represents a graph.

$$\begin{bmatrix} 1 & 0 & 1 & 1 \\ 1 & 1 & 0 & 1 \\ 0 & 1 & 0 & 1 \\ 0 & 0 & 0 & 0 \end{bmatrix}$$

Find the following.

This graph is a

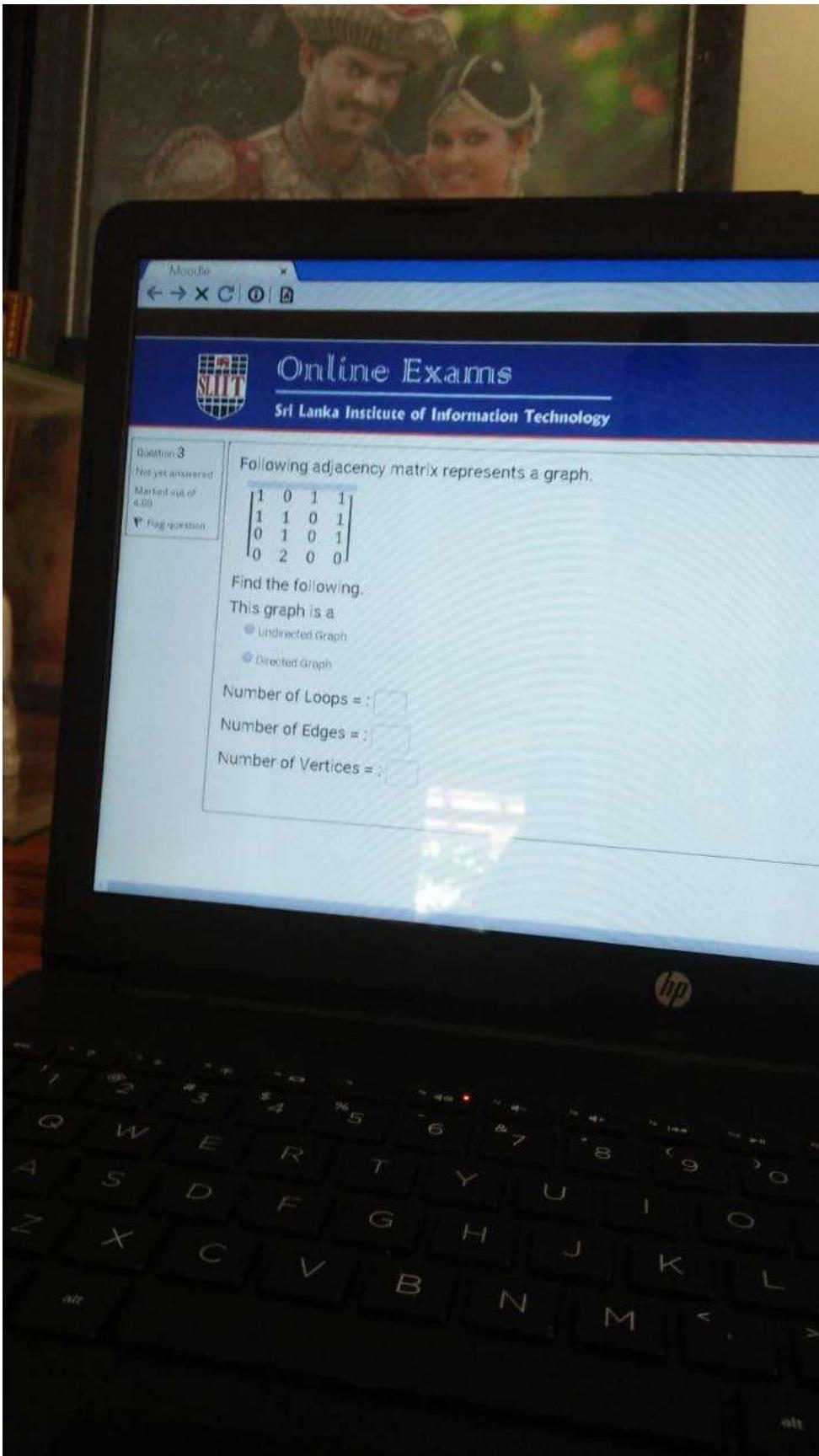
Undirected Graph

Directed Graph

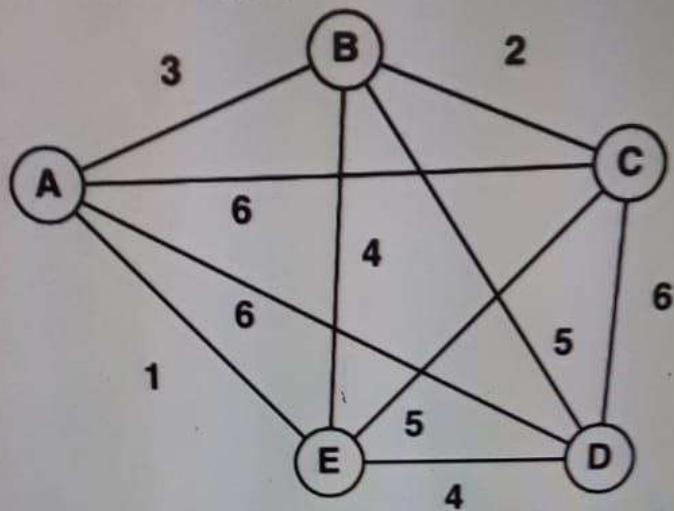
Number of Loops = :

Number of Edges = :

Number of Vertices = :

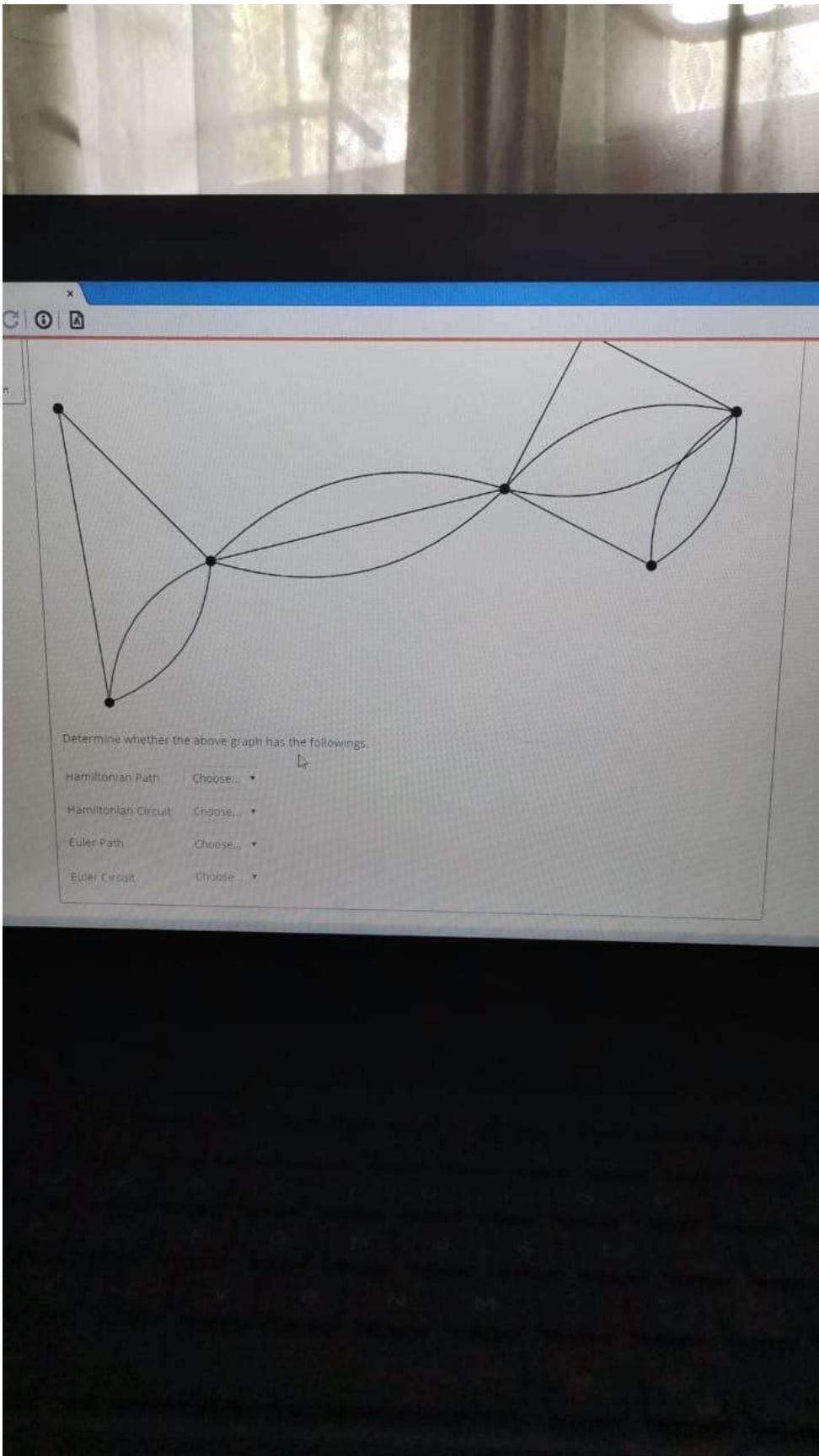


Consider the following graph.



Determine whether the above graph has the followings.

Hamiltonian Path	<input type="button" value="Yes"/>
Hamiltonian Circuit	<input type="button" value="Yes"/>
Euler Path	<input type="button" value="No"/>
Euler Circuit	<input type="button" value="Yes"/>



Question 2
Not yet answered
Marked out of
4.00
 Reg question

Consider the following graph.

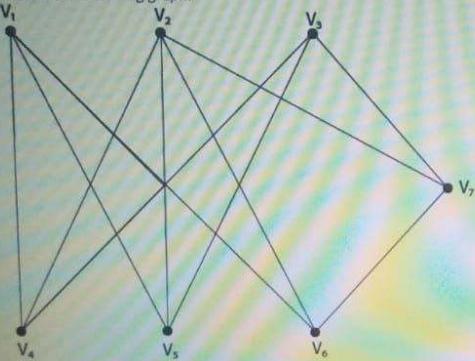


Fig: G₂

Determine whether the above graph has the followings.

Hamiltonian Path: Choose... ▾

Hamiltonian Circuit: Choose... ▾

Euler Path: Choose... ▾

Euler Circuit: Choose... ▾

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Online Exams

Sri Lanka Institute of Information Technology

Following adjacency matrix represents a graph.

$$\begin{bmatrix} 1 & 0 & 1 & 0 \\ 1 & 1 & 0 & 1 \\ 0 & 1 & 0 & 1 \\ 0 & 1 & 0 & 0 \end{bmatrix}$$

Find the following.

This graph is a

- Undirected Graph
- Directed Graph



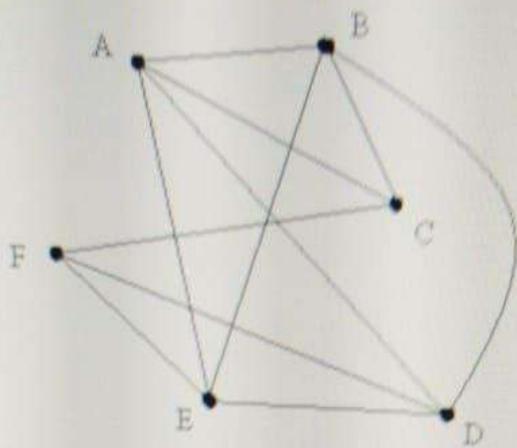
Number of Loops = :

Number of Edges = :

Number of Vertices = :



Consider the following graph.

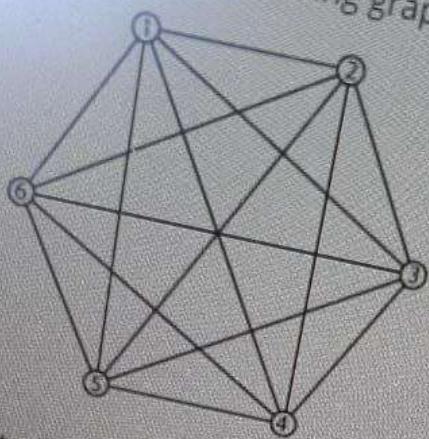


Determine whether the above graph has the followings.

- | | |
|---------------------|------------------------------------|
| Hamiltonian Path | <input type="button" value="Yes"/> |
| Hamiltonian Circuit | <input type="button" value="Yes"/> |
| Euler Path | <input type="button" value="Yes"/> |
| Euler Circuit | <input type="button" value="No"/> |

Scored
out of
question

Consider the following graph.



Determine whether the above graph has the followings.

Hamiltonian Path

Yes

Hamiltonian Circuit

No

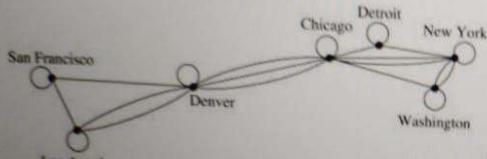
Euler Path

Yes

Euler Circuit

No

Consider the following graph.



Determine whether the above graph has the followings.

Hamiltonian Path

Choose... ▾

Hamiltonian Circuit

Choose... ▾

Euler Path

Choose... ▾

Euler Circuit

Choose... ▾

[Next page](#)



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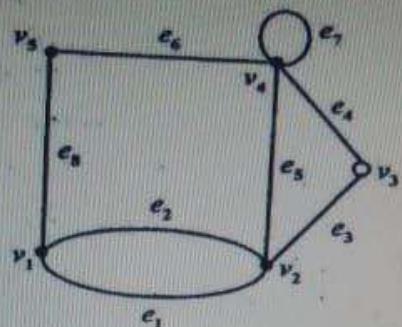
Question 2

Not yet answered

Marked out of
4.00

Flag question

Consider the following graph.



Determine whether the above graph has the followings.

Hamiltonian Path

Yes

Hamiltonian Circuit

Yes

Euler Path

No

Euler Circuit

No



Question 1
Not answered
1 out of
1
Mark question

Simplify the following boolean expression.

$$(A + B)(B + C + \bar{B})(B + (\bar{B} + C + B)) + A(B + C)$$

Select one:

- B
- A+B+C
- 1
- A(B+C)
- None of the above

[Next page](#)

≡ Quiz navigation

DECLARATION



EXAM QUESTIONS





Answered

out of

question

Simplify the following boolean expression.

$$\overline{(A + B)}(\overline{C + B})(B + (\overline{B + C})) + A + B + C$$

Select one:

- B
- A+B+C
- 1
- A(B+C)
- None of the above



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Online Exams

Sri Lanka Institute of Information Technology

Question 14
yet answered
marked out of
Flag question

If $|A| = 43$ then find the cofactor matrix of A.

$$A = \begin{bmatrix} 1 & 2 & 7 \\ 4 & -3 & x \\ 2 & 2 & 5 \end{bmatrix}$$

C_{11} Choose... ▾

C_{12} Choose... ▾

C_{13} Choose... ▾

C_{21} Choose... ▾

C_{22} Choose... ▾



Online Exams

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$$k : \mathbb{R} \rightarrow \mathbb{R}; k(x) = 5^x$$

Is the function one to one ?

- Yes
- No

Is the function onto?

- Yes
- No

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Find the following definite integral.

$$\int_{2}^{4} |3x - 4| dx$$

(Please remove spaces from the answer)

Answer:

file x

Online Exams

Sri Lanka Institute of Information Techno

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$\mathbb{R} \rightarrow \mathbb{R}$, $p(x) = |1 - 3x|$.

Is the function one to one ?

Yes

No

Is the function onto?

Yes

No

Online Exams

Sri Lanka Institute of Information Technology

Find the following definite integral.

$$\int_{1}^{3} |5x - 4| dx$$

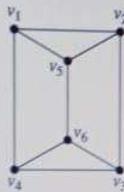
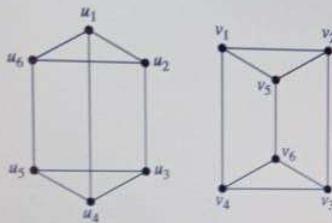
(Please remove spaces from the answer)

Answer:



Question 27
Not yet answered
Marked out of 1.00
 Flag question

What is the correct statement about the following 2 graphs.



Select one:

- Two graphs are isomorphic
- Two graphs are not isomorphic
- The two graphs have different degree sequences
- None of the above

Quiz navigation

DECLARATION

1

EXAM QUESTIONS

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15	16	17	18	19	20	21
22	23	24	25	26	27	28

Finish attempt...

Time left 0:06:46



Online Exams

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3
Answered
out of
question

Find the following definite integral.

$$\int_{-2}^0 |4x - 5| dx$$

Answer:



Online Exams

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18
Answered
out of
question

Find the following definite integral.

$$\int_{-1}^2 \left(\frac{1}{x^2} - 3x \right) dx.$$

Answer:

X

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Online Exams

Sri Lanka Institute of Information Technology

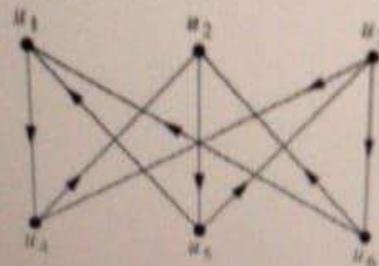
on 22

61 answered

66 out of

New question

Consider the following Directed Graph.



Number of Edges = :

Total indegree = :

Total Outdegree = :

ASUS VivoBook



Consider the following function.

$$f(x) = x^3 - 2x^2 + 5$$

1. Find $f'(-3)$: 39

2. Find the definite integral of $f(x)$ from -3 to 3 : -6



Sri Lanka Institute of Information Technology

Find the following definite integral.

$$\int_{-1}^2 \left(\frac{1}{x^2} - 3\right) dx.$$

(Keep your answer with a one decimal place)

Answer:



Let $A = \begin{bmatrix} 5 & -2 & 1 \\ 4 & 1 & 0 \\ 1 & -2 & 2 \end{bmatrix}$

and $B=3A$; $C=B+2A-5I$. Find matrix D such that $D=2A$

Assume I is the identity matrix.

$$D = \begin{bmatrix} a & b & c \\ d & e & f \\ g & h & i \end{bmatrix}$$

a = :

b = :

c = :

d = :

e = :

f = :

g = :

h = :

file x C | O | A

Online Exams

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17 Consider the following function.

$f(x) = x^3 - 2x^2 + 5$

1. Find $f'(-3)$: 

2. Find the definite integral of $f(x)$ from -3 to 3 :

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Question 16
Not yet answered
Marked out of
0.00
Flag question

$$\begin{bmatrix} 1 & 0 & 0 & 1 & -1 & 2 \\ 1 & 1 & 0 & -1 & 2 & 1 \\ 0 & 0 & 2 & 6 & -2 & 18 \end{bmatrix}$$

↓

$$\begin{bmatrix} 1 & 0 & 0 & 1 & -1 & 2 \\ 0 & 1 & 0 & a & b & c \\ 0 & 0 & 1 & d & e & f \end{bmatrix}$$

Find the values of a, b, c, d, e and f.

a = : -2
b = : 3
c = : 1
d = : 3
e = : 1
f = : 9

ASUS VivoBook

Sri Lanka Institute of Information Technology

Question 17
Not yet answered
Marked out of
2.00
Flag question

Consider the following function.

$$f(x) = x^5 + 2x^3 - 5$$

1. Find $f'(-2)$:

2. Find the definite integral of $f(x)$ from -2 to 2 :

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4 Answered out of 5 question

If $|A| = -35$ then find the cofactor matrix of A.

$$A = \begin{bmatrix} 1 & -2 & 2 \\ 3 & 4 & 5 \\ 2 & 1 & x \end{bmatrix}$$

C_{11} Choose... ▾

C_{12} Choose... ▾

C_{13} Choose... ▾

C_{21} Choose... ▾

C_{22} Choose... ▾

$$f(x) = \frac{x^2 + 1}{5x - 3}$$

Find $f'(-1)$.

Hint : Differentiate the function and Substitute -1 .

(Write your answer as a fraction. Eg: 23/2
No spaces should be in the answer)

Answer:

16

answered

out of

3 question

$$\begin{bmatrix} 1 & 0 & 0 & 1 & -1 & 2 \\ 0 & 1 & -1 & -1 & 2 & 1 \\ 0 & 0 & -3 & 6 & -3 & 18 \end{bmatrix}$$



$$\begin{bmatrix} 1 & 0 & 0 & 1 & -1 & 2 \\ 0 & 1 & 0 & a & b & c \\ 0 & 0 & 1 & d & e & f \end{bmatrix}$$

Find the values of a, b, c, d, e and f.

$$a = : \boxed{I}$$

$$b = :$$

$$c = :$$

$$d = :$$

$$e = :$$

$$f = :$$

Online Exams

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$$f(x) = \frac{x^2 + 7}{3x - 1}.$$

Find $f'(-1)$.

Hint : Differentiate the function and Substitute -1.

Answer: -1



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Consider the following linear system of equations.

$$x + y - z = -3$$

$$2x + y + z = -1$$

$$x + 2y + az = 1$$

Find the value of a if the above system of equations have no solution.

Answer:

I

The image shows a screenshot of a web browser window displaying an online examination page. The header of the page features the logo of the Sri Lanka Institute of Information Technology (SLIIT) and the text "Online Exams". Below the header, there is a question prompt and two mathematical problems.

Consider the following function.

$$f(x) = x^5 + 2x^3 - 5$$

1. Find $f'(-2)$: 10

2. Find the definite integral of $f(x)$ from -2 to 2 :

 Online Exams

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Find the following definite integral.

$$\int_{-1}^2 \left(\frac{1}{x^3} - 3\right) dx.$$

(Keep your answer with three decimal places)

Answer: 2.625

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Consider the following function.

$$f(x) = x^3 - 2x^2 + 5$$

1. Find $f'(-3)$: 15

2. Find the definite integral of $f(x)$ from -3 to 3 : 10

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Question 12

Not yet answered

Marked out of 1.00

Flag question

Consider the following function.

$$g: R \rightarrow R \quad g(x) = \frac{(-x + 2)}{3}$$

Find $g^{-1}(-3)$

Hint : Find the inverse of g and substitute -3.

Answer:

Next page

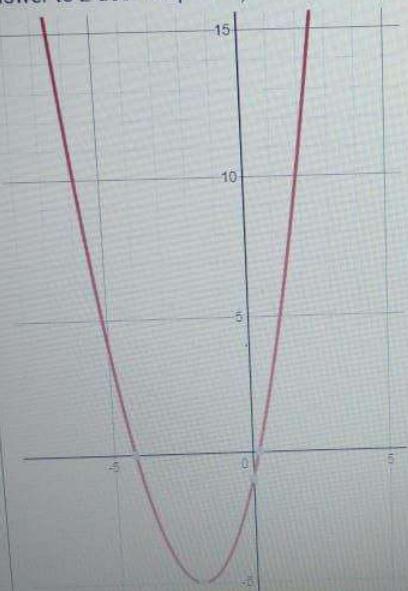
Question 13

Not yet answered

Marked out of 1.00

Flag question

Graph of $y = x^2 + 4x - 1$ is given below. Find the area under the curve from -2 to 5. (Round your answer to 2 decimal places)

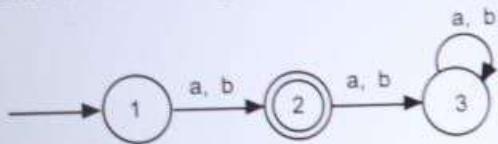


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Consider the following finite state Machine A.



What is the initial State?

To what state does A go if abbabaaba input to A in sequence starting from the initial state?

Find $N(2, a)$

Find $N(1, b)$

1
3
3
2

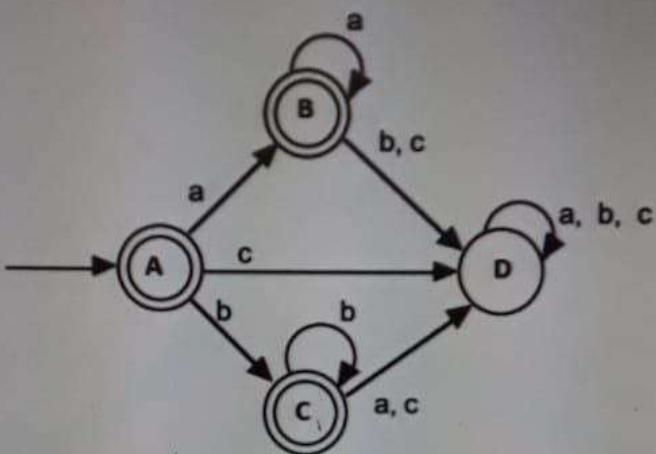
4

Next



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AI QUAD CAMERA

Consider the following finite state Machine A.



What is the initial State?

To what state does A go if abcacbac
input to A in sequence starting from
the initial state?

Find $N(C, a)$

Find $N(D, b)$

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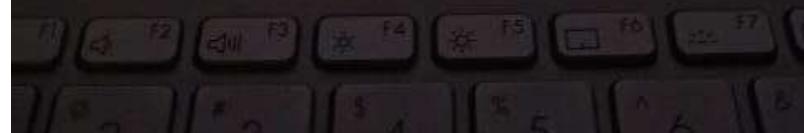
Consider the following function.

$$g: R \rightarrow R \quad g(x) = \frac{(5x - 5)}{4}$$

Find $g^{-1}(-5)$

Hint : Find the inverse of g and substitute -5.

Answer:



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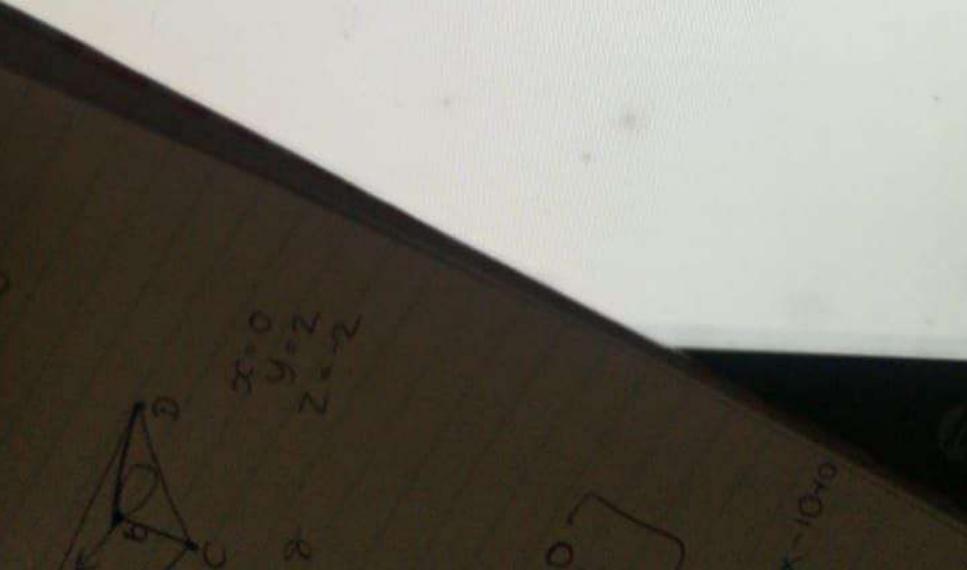
Consider the following function.

$$g: R \rightarrow R \quad g(x) = \frac{(10 - x)}{5}$$

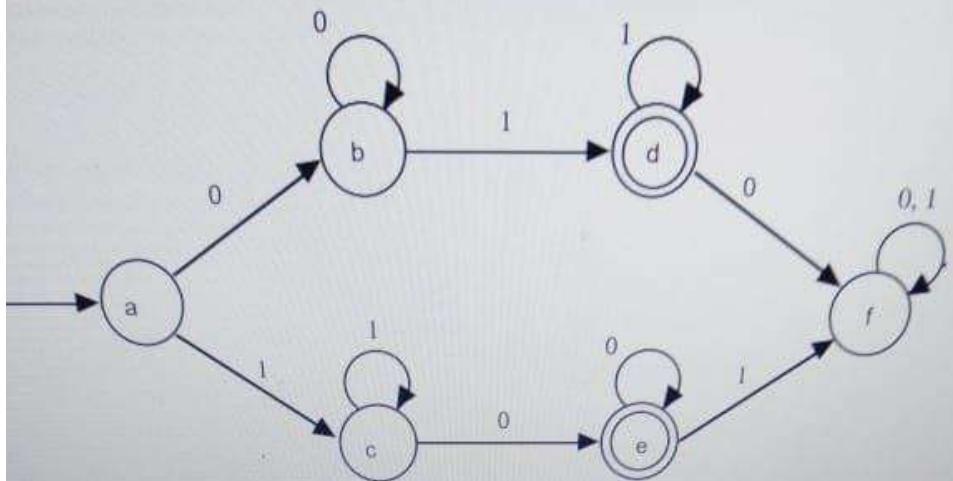
Find $g^{-1}(-3)$

Hint : Find the inverse of g and substitute -3.

Answer:



The following finite state Machine A.



What is the initial State?

a

Choose...

What state does A go if 1000111 input to A in sequence starting from the initial state?

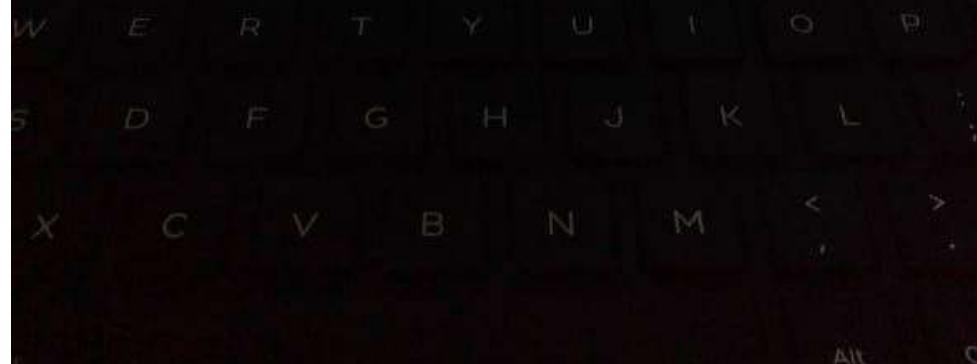
Choose...

Find N(d, 1)

Choose...

Find N(f, 0)

Choose...



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Consider the following finite state Machine A.

```
graph LR; Start(( )) --> s0((s0)); s0 -- 0 --> s1((s1)); s1 -- 1 --> s2(((s2))); s2 -- "0,1" --> s3((s3)); s3 -- "0" --> s2; s0 -- "1" --> s3;
```

M₂

What is the initial State?

To what state does A go if 100101001 input to A in sequence starting from the initial state?

What is the Accepting State?

Find N(s1, 0)

Choose...
Choose...
Choose...
Choose...

ASUS VivoBook

A laptop keyboard is visible at the bottom of the screen.



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Consider the following function.

$$g: R \rightarrow R \quad g(x) = \frac{(-x + 2)}{3}$$

Find $g^{-1}(-3)$

Hint : Find the inverse of g and substitute -3.

Answer:

Question 11

Not yet answered

Marked out of
6.00

Flag question

Find the values of the resulting matrix.

$$\begin{bmatrix} 1 & 0 & -1 & 1 & 1 & 0 \\ 0 & 1 & 1 & 2 & 1 & -1 \\ 0 & 0 & 1 & 1 & 0 & 1 \end{bmatrix}$$



$$\begin{bmatrix} 1 & 0 & 0 & a & b & c \\ 0 & 1 & 0 & d & e & f \\ 0 & 0 & 1 & 1 & 0 & 1 \end{bmatrix}$$

a =

b =

c =

d =

e =

Consider the following finite state Machine A.

```
graph LR; start(( )) --> 1((1)); 1 -- a --> 1; 1 -- b --> 2((2)); 2 -- a --> 2; 2 -- b --> 3((3)); 3 -- b --> 3; 3 -- a --> 4((4)); 4 -- "a, b" --> 4;
```

What is the initial State?

To what state does A go if abbabaaba input to A in sequence starting from the initial state?

Find $N(2, a)$

Find $N(3, b)$

Choose... ▾

Choose... ▾

Choose... ▾

Choose... ▾

☰ Quiz navigation

DECLARATION

EXAM QUESTIONS

1 2 3 4 5
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15 16 17 18 19
22 23 24 25 26

I

Finish attempt ...

Time left 0:56:09

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