



Question 17

Not yet answered

Marked out of 10.00

Flag question

a) List the array elements in the order of the index number when the Max Build Heap() algorithm is applied to the following array elements.

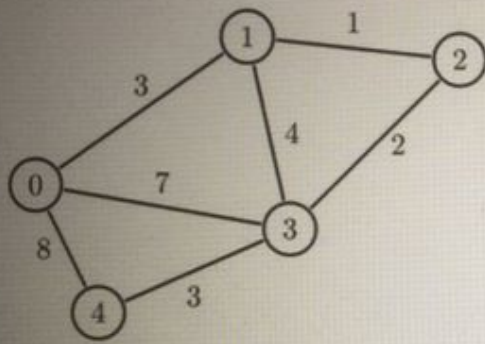
1	2	3	4	5	6	7	8
10	20	30	40	50	60	70	80

b) One of the main tasks of the operating system (OS) is to schedule processes for Input Output (IO) devices. When there are several request for IO devices from several processes, OS can create a queue and insert processes into the queue. Assume the queue implemented by the OS is a **priority queue** and numbers are assigned to each process to represent priority with the high number means high priority. Currently there are 8 processes waiting for the IO devices in the priority queue with the priority given below at time t_0 .

Process Number	1	2	3	4	5	6	7	8
Priority	80	50	70	20	30	40	10	5

- Which process will get the IO device first?
- Who will be the next process to work with IO device after finished the first process?
- If a new process has come to the queue at the time t_0 with the priority number of 60, represent the process in the order in the queue.

- a. Find the minimum cost for the spanning tree of the graph using Kuskal's or Prim's algorithm. Illustration is not required to get the answer.
- b. Find the shortest distance from vertex 0 to vertex 2 using the Dijkstra's algorithm. Illustration is not required to get the answer.



- c) Calculate the running time of the following program fragment assuming a RAM model of computation.

```
j ← 1
while j ≤ 5
  j ← j + 1
  a ← 1
  while a ≤ 5
    a ← a + 1
```

Question 23

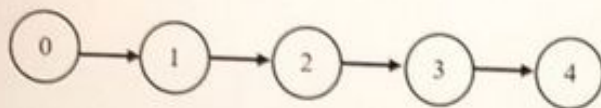
Not yet answered

Marked out of 10

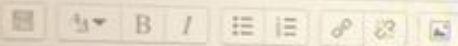
Flag question

a) If modulo value is $q = 100$, how many spurious hits and valid hits do the Rabin-Karp matcher encounter in the text $T = 4005002001050$ when looking for pattern $P = 500$?

b) Consider the following incomplete state transition diagram for a string-matching automation for the pattern $P = obob$ and take the input alphabet as $\{a, b\}$. The following incomplete table represents the input versus states for the state transition diagram. Find the missing states for the p, q, r, s, t, u, v and w to accept the given pattern.



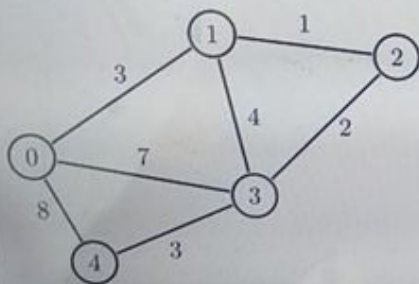
State	Inputs	
	a	b
0	1	0
1	p	q
2	r	s
3	t	u
4	v	w



9

answered
out of
question

- a. Find the minimum cost for the spanning tree of the graph using Kuskal's or Prim's algorithm. Illustration is not required to get the answer.
- b. Find the shortest distance from vertex 4 to vertex 2 using the Dijkstra's algorithm.. Illustration is not required to get the answer.



- c) Calculate the running time of the following program fragment assuming a RAM model of computation.

```
j ← 1
while j ≤ 6
  j ← j + 1
  a ← 1
  while a ≤ 6
    a ← a + 1
```

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1	2	3	4
8	9	10	11
15	16	17	18
22	23	24	

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Finish attempt...

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Question 19

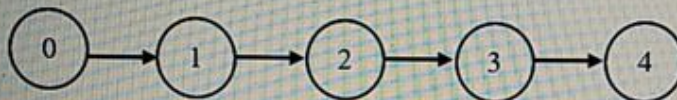
Not yet answered

Marked out of 10.00

Flag question

a) If modulo value is $q = 100$, how many spurious hits and valid hits do the **Rabin-Karp matcher** encounter in the text $T = 600200200100$ when looking for pattern $P = 200$?

b) Consider the following incomplete state transition diagram for a string-matching automation for the pattern $P = aabb$ and take the input alphabet as $\{a, b\}$. The following incomplete table represents the input versus states for the state transition diagram. Find the missing states for the p, q, r, s, t, u, v and w to accept the given pattern.



State	Inputs	
	a	b
0	p	o
1	q	r
2	s	t
3	u	v
4	w	

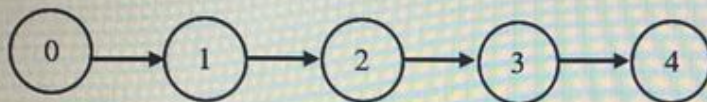
on 14

t answered
d out of

g question

a) If modulo value is $q = 100$, how many spurious hits and valid hits do the **Rabin-Karp matcher** encounter in the text $T = 4005002001050$ when looking for pattern $P = 500$?

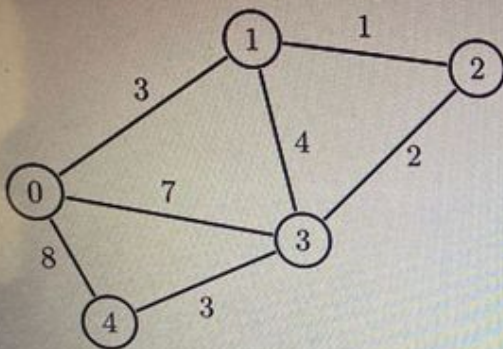
b) Consider the following incomplete state transition diagram for a string-matching automation for the pattern $P = abab$ and take the input alphabet as $\{a, b\}$. The following incomplete table represents the input versus states for the state transition diagram. Find the missing states for the p, q, r, s, t, u, v and w to accept the given pattern.



State	Inputs	
	a	b
0	1	0
1	p	q
2	r	s
3	t	u
4	v	w

A) number of spurious hits - 2
number of valid hits - 1

- a. Find the minimum cost for the spanning tree of the graph using Kruskal's or Prim's algorithm. Illustration is not required to get the answer.
- b. Find the shortest distance from vertex 0 to vertex 2 using the Dijkstra's algorithm.. Illustration is not required to get the answer.



- c) Calculate the running time of the following program fragment assuming a RAM model of computation.

```

j ← 1
while j ≤ 5
    j ← j + 1
    a ← 1
    while a ≤ 5
        a ← a + 1
    
```

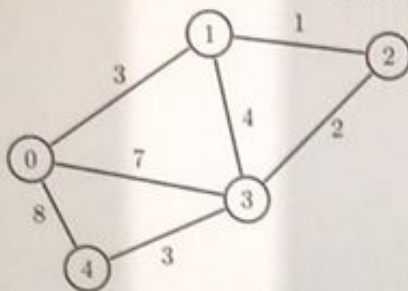

Question 14

Not yet answered

Marked out of 10.00

Flag question

- a. Find the minimum cost for the spanning tree of the graph using Kuskal's or Prim's algorithm. Illustration is not required to get the answer.
- b. Find the shortest distance from vertex 4 to vertex 2 using the Dijkstra's algorithm.. Illustration is not required to get the answer.



- c) Calculate the running time of the following program fragment assuming a RAM model of computation.

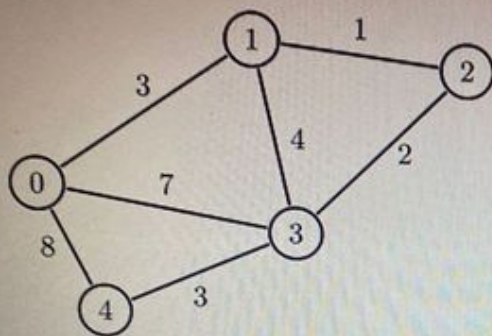
```
j ← 1
while j ≤ 6
  j ← j + 1
  a ← 1
  while a ≤ 6
    a ← a + 1
```



21

answered
out of
question

- Find the minimum cost for the spanning tree of the graph using Kruskal's algorithm. Illustration is not required to get the answer.
- Find the shortest distance from vertex 0 to vertex 2 using the Dijkstra's algorithm.. Illustration is not required to get the answer.



- Calculate the running time of the following program fragment assuming a RAM model of computation.

```

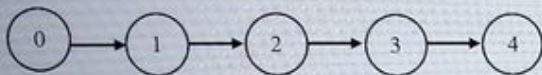
j ← 1
while j ≤ 5
    j ← j + 1
    a ← 1
    while a ≤ 5
        a ← a + 1
    
```



Online Exams

Sri Lanka Institute of Information Technology

- a) If modulo value is $q = 100$, how many spurious hits and valid hits do the **Rabin-Karp matcher** encounter in the text $T = 4005002001050$ when looking for pattern $P = 500$?
- b) Consider the following incomplete state transition diagram for a string-matching automation for the pattern $P = abab$ and take the input alphabet as $\{a, b\}$. The following incomplete table represents the input versus states for the state transition diagram. Find the missing states for the p, q, r, s, t, u, v and w to accept the given pattern.



State	Inputs	
	a	b
0	p	q
1	r	s
2	t	u
3	v	w



a. Spurious hits - 2
Valid hits - 1



Online Exams

Sri Lanka Institute of Information Technology

a) List the array elements in the order of the index number when the Max Build Heap() algorithms is applied to the following array.

1	2	3	4	5	6	7	8
10	20	30	40	50	60	70	80

b) One of the main tasks of the operating system (OS) is to schedule processes for input Output (IO) devices. When there are several processes for IO devices from several processes, OS can create a queue and insert processes into the queue. Assume the queue implemented by OS is a **priority queue** and numbers are assigned to each process to represent priority with the high number means high priority. Consider there are 8 processes waiting for the IO devices in the priority queue with the priority given below at time t_0 .

Process Number	1	2	3	4	5	6	7	8
Priority	80	50	70	20	30	40	10	5

- Which process will get the IO device first?
- Who will be the next process to work with IO device after finished the first process?
- If a new process has come to the queue at the time t_1 with the priority number of 60, represent the process in the order in the queue.



Question 6

Not yet answered

Marked out of 10.00

Flag question

a) if modulo value is $q = 100$, how many spurious hits and valid hits do the **Rabin-Karp matcher** encounter in the text $T = 4005002001050$ when looking for pattern $P = 500$?

b) Consider the following incomplete state transition diagram for a string-matching automation for the pattern $P = abab$ and take the input alphabet as (a, b) . The following incomplete table represents the input versus states for the state transition diagram. Find the missing states for the p, q, r, s, t, u, v and w to accept the given pattern.



State	Inputs	
	a	b
0	p	q
1	r	s
2	t	u
3	v	w



Question 22

yet answered
 0 out of 30

Flag question

a) List the array elements in the order of the index number when the Max Build Heap() algorithm is applied to the following array elements.

1	2	3	4	5	6	7	8
30	20	80	10	60	50	40	70

b) One of the main tasks of the operating system (OS) is to schedule processes for Input Output (IO) devices. When there are several request for IO devices from several processes, OS can create a queue and insert processes into the queue. Assume the queue implemented by the OS is a **priority queue** and numbers are assigned to each process to represent priority with the high number means high priority. Currently there are 8 processes waiting for the IO devices in the priority queue with the priority given below at time t_0 .

Process Number	1	2	3	4	5	6	7	8
Priority	200	190	180	50	80	120	90	10

- Which process will get the IO device first?
- Who will be the next process to work with IO device after finished the first process?
- If a new process has come to the queue at the time t_0 with the priority number of 100, represent the process in the order in the queue.

[B] [I] [U] [L] [E] [P] [S] [Q] [A]



Question 16

Not yet answered
Marked out of
10.00

Flag question

a) List the array elements in the order of the index number when the Max Build Heap() algorithm is applied to the following array elements.

1	2	3	4	5	6	7	8
30	20	80	10	60	50	40	70

b) One of the main tasks of the operating system (OS) is to schedule processes for Input Output (IO) devices. When there are several request for IO devices from several processes, OS can create a queue and insert processes into the queue. Assume the queue implemented by the OS is a **priority queue** and numbers are assigned to each process to represent priority with the high number means high priority. Currently there are 8 processes waiting for the IO devices in the priority queue with the priority given below at time t_0 .

Process Number	1	2	3	4	5	6	7	8
Priority	200	190	180	50	80	120	90	10

- Which process will get the IO device first?
- Who will be the next process to work with IO device after finished the first process?
- If a new process has come to the queue at the time t_0 with the priority number of 100, represent the process in the order in the queue.

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Quiz navigation

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Finish attempt...

Time left 0:43:21

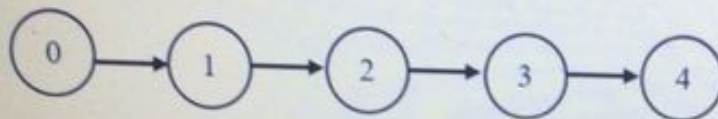


Online Exams

Sri Lanka Institute of Information Technology

a) If modulo value is $q = 100$, how many spurious hits and valid hits do the **Rabin-Karp matcher** encounter in the text $T = 400500200$ when looking for pattern $P = 500$?

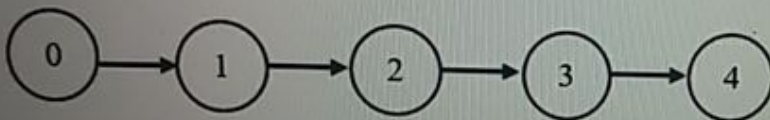
b) Consider the following incomplete state transition diagram for a string-matching automation for the pattern $P = abab$ and take the alphabet as (a, b) . The following incomplete table represents the input versus states for the state transition diagram. Find the missing values for the p, q, r, s, t, u, v and w to accept the given pattern.



State	Inputs	
	a	b
0	p	q
1	r	s
2	t	u
3	v	w

a) If modulo value is $q = 100$, how many spurious hits and valid hits do the **Rabin-Karp matcher** encounter in the text $T = 40050020$ when looking for pattern $P = 500$?

b) Consider the following incomplete state transition diagram for a string-matching automation for the pattern $P = abab$ and take alphabet as $\{a, b\}$. The following incomplete table represents the input versus states for the state transition diagram. Find the missing for the p, q, r, s, t, u, v and w to accept the given pattern.



State	Inputs	
	a	b
0	p	q
1	r	s
2	t	u
3	v	w
4		

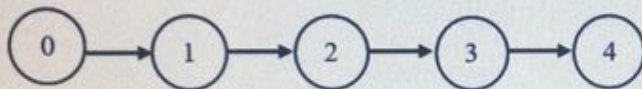


16

answered
out of
question

a) If modulo value is $q = 100$, how many spurious hits and valid hits do the **Rabin-Karp matcher** encounter in the text $T = 600200200100$ when looking for pattern $P = 200$?

b) Consider the following incomplete state transition diagram for a string-matching automation for the pattern $P = aabb$ and take the input alphabet as $\{a, b\}$. The following incomplete table represents the input versus states for the state transition diagram. Find the missing states for the p, q, r, s, t, u, v and w to accept the given pattern.



State	Inputs	
	a	b
0	p	q
1	r	s
2	t	u
3	v	w
4		