2016/8/29 (4:30)

Information and Communication Technology(20 E)

Part I

2016

Q.No	Answer		Q.No	Answer
1	5		26	4
2	3		27	2
3	2		28	1
4	5		29	4
5	4		30	2
6	3		31	2
7	3		32	3
8	2		33	1
9	2		34	5
10	2		35	4
11	2		36	1
12	3		37	1
13	4		38	4
14	1		39	3
15	1		40	4
16	2		41	5
17	1		42	4
18	3		43	2
19	4		44	4
20	3		45	3
21	3		46	2
22	2		47	4
23	5		48	1,2
24	2		49	2
25	2		50	4

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Part II A

2016

Q.No	Model Answer	Marks
1 (a)	(i) When clicked on 'Cover Page', the image named 'coverPage.jpg' is displayed on a new page/tab Or Displays a page with the content **Cover Page** which is a hyper link	1
	(ii) When clicked on 'Content' the document 'content.html' is displayed on the same page/tab overwriting the content on that page or Displays a page with the content **Content**, which is a hyper link.	1
	(iii) When clicked on the image 'figures.jpg' the document 'figures.html' is displayed on the same page/tab overwriting the content on that page or Displays an image, which is a hyper link	2
1 (b)	External style sheets	1
1 (c)	<style type="text/css">	1
	h2{	2
	color: red; text-align: center;	
	}	
	p{	2
	font-family:"Courier New"; font-size: 14px;	
	}	
	</style>	

2 (a)	C2C: An individual seller selling the camera online to another individual buyer B2C: Using the Paypal service	1 1
2 (b)	To securely complete the online payment process and Ensure that the seller received the money for the item sold.	2 2
2 (c)	It may not be possible to inspect the item on sale before agreeing to buy There is a doubt that the item may not arrive even though the payment is done	2 2

3 (a)	Closed System	1
	(1) Inputs (Water) is available within the system	2
	(2) Outputs (Oxygen and Hydrogen) release to the system.	2
3 (b)		
	(1) Accuracy	2
	(2) Efficiency	1
3 (c)	I-P-O similar	1
	Human brain is more intelligent than an information system Or any other acceptable reason	1
4 (a)	(i)	
	Nothing	1
	It has a never-ending(infinite) loop	1

	(ii)
	total = 0
	i = 1
	while (i <= 10):
	  total = total + i
	  i = i + 1
	print(total)
		3

4 (b)	Address bus width = 16 bit	1
	Address size = 16 bit	1
	Max number of unique addresses possible = 2^{16}	1
	Max number of bytes addressable = 2^{16}	1
	Max usable size of memory = $2^{16} = 2^6 \times 2^{10}$ = 64 KB	1

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Part II B

2016

Q.No	Model Answer	Marks
1	Truth table	4

K1	K2	K3	L
0	0	0	0
0	0	1	0
0	1	0	0
0	1	1	1
1	0	0	0
1	0	1	1
1	1	0	1
1	1	1	1

1

Boolean expression

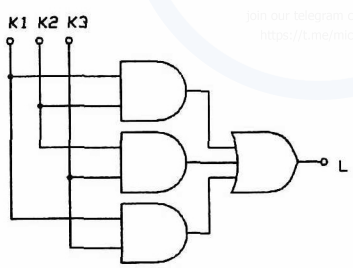
L = K1'.K2.K3 + K1.K2'.K3 + K1.K2.K3' + K1.K2.K3 — 2

Simplified Boolean expression

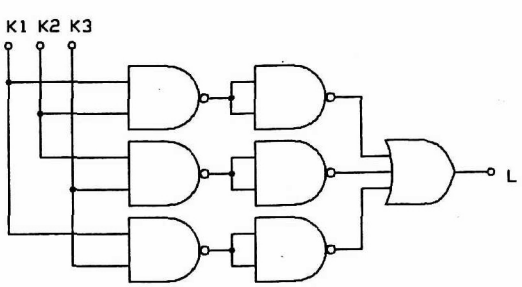
L = K1.K2 + K2.K3 + K3.K1 — 5

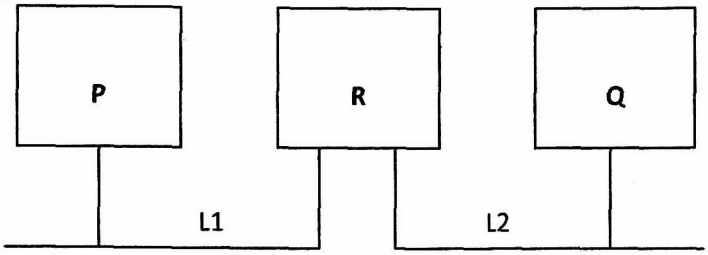
Note : Correct rules must be given for 4 marks

Circuit using basic gates (not necessary for the answer)

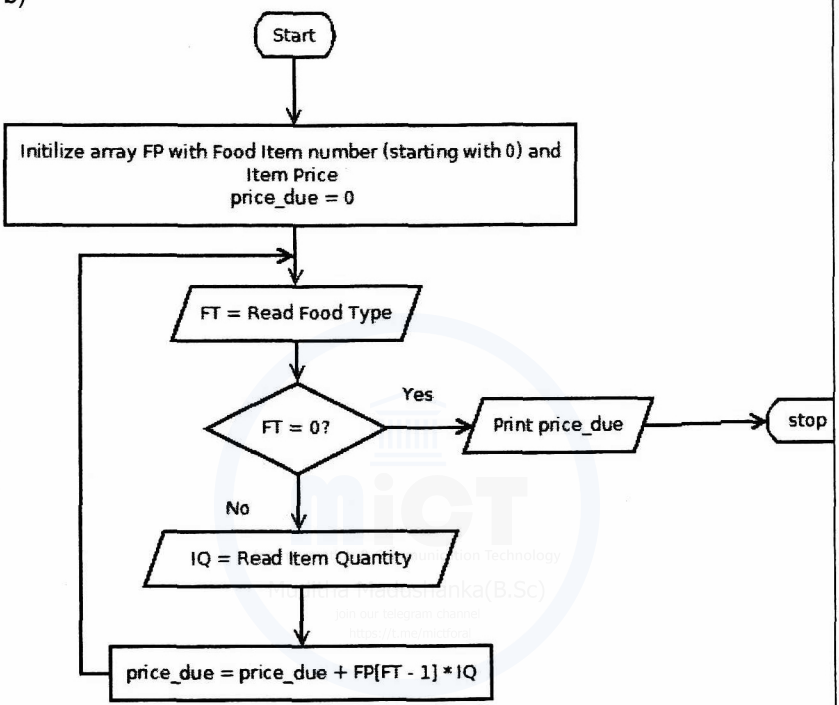


Circuit using given gates — 3



2	a)  	5
	b) Q. IP address indicates the final destination and it does not specify the intermediate routers/gateways.	5
	c) R. The frame F2 is originated at the router R and therefore the source MAC address in frame F2 is the MAC address of R.	5

3	a)	B2E – An online service provided by the bank to its employees	2 or 0
	b)		
		• Manage their personal activities need to be done during work hours without leaving the workplace	2
		• Get information better and faster, easily	2
	c)	Yes.	2
		It is expected to enhance their efficiency and satisfaction as it enhances the balance between the employees' work and personal life	4
	d)		
		• Content selection and suggestion	1
		• Content prioritization	1
		• Alerting	1

4	a) Inputs i) Input to indicate end of food items ii) Food Type iii) Number of items of the food type Output Payment due for the tray.	1 1 1 1
	b)  	1 1 1 1 1 1

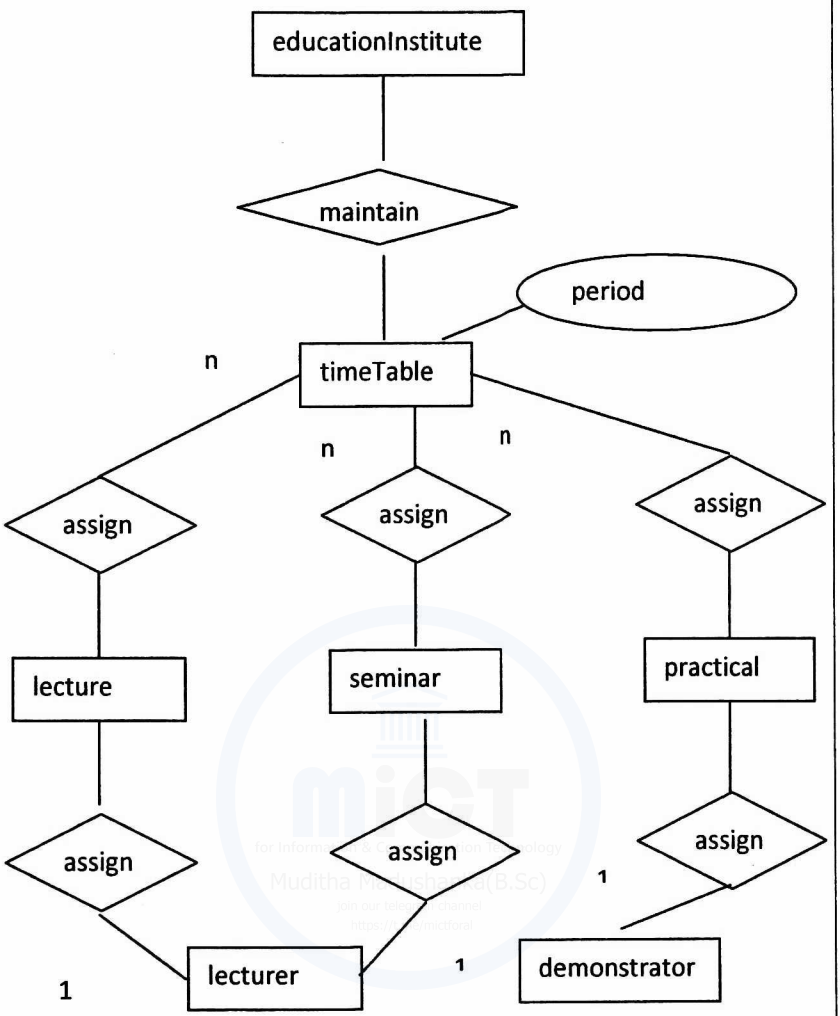
Star/end : 1 Mark
Correct Initialization : 1 Mark
Correct Inputs : 1 Mark
Correct Loop : 1 Mark
Correct Computation : 1 Marks
Output : 1 Mark

c)

```
price_due = 0.0
IP = [10.00,12.00,15.00,10.00,25.00,45.00,50.00,25.00,10.00,12.00]
FP = int(input("Enter food type : "))
while FT !=0:
        IQ = int(input("Enter item Quantity : "))
        price_due = price_due + FP[FT-1] * IQ
        FT = int(input("Enter food type : "))
print(price_due)
```

Note :
1 mark : price initialization
1 mark : array initialization
1 mark : input food type and Quantity
1 mark : correct loop
1 mark: correct computation

5


educationInstitute
maintain
period
timeTable
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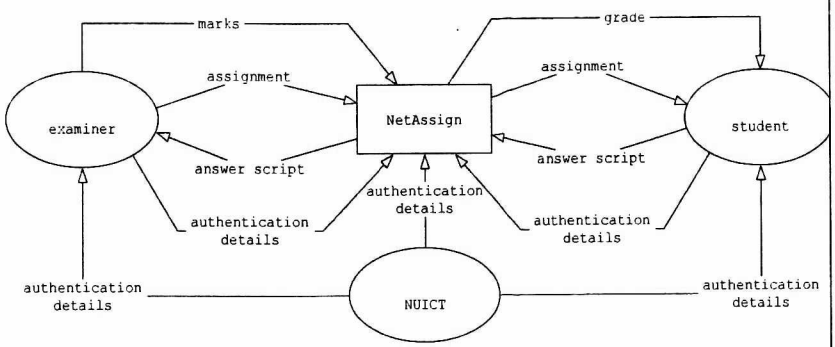
assign
assign
assign
lecture
seminar
practical
assign
assign
assign
1
1
1
lecturer
demonstrator

6



(1 mark for each component)