



FWC

G.C.E. A/L Examination November - 2017

Conducted by Field Work Centre, Thondaimanaru

In Collaboration with

Provincial Department of Education Northern Province.

ICT		Grade :- 13 (2018)		Marking scheme																																																			
<div><div>Part - I</div><table><tr><td>1) 2</td><td>11) 2</td><td>21) 5</td><td>31) 2</td><td>41) 4</td></tr><tr><td>2) 5</td><td>12) 1</td><td>22) 1</td><td>32) 3</td><td>42) 4</td></tr><tr><td>3) 2</td><td>13) 2</td><td>23) 4</td><td>33) 1</td><td>43) 1</td></tr><tr><td>4) 3</td><td>14) 1</td><td>24) 3</td><td>34) 5</td><td>44) 5</td></tr><tr><td>5) 3</td><td>15) 4</td><td>25) 1</td><td>35) 3</td><td>45) 2</td></tr><tr><td>6) 4</td><td>16) 5</td><td>26) 5</td><td>36) 1</td><td>46) 5</td></tr><tr><td>7) 2</td><td>17) 3</td><td>27) 5</td><td>37) 5</td><td>47) 2</td></tr><tr><td>8) 4</td><td>18) 3</td><td>28) 2</td><td>38) 4</td><td>48) 4</td></tr><tr><td>9) 4</td><td>19) 5</td><td>29) 2</td><td>39) 1</td><td>49) 2</td></tr><tr><td>10) 3</td><td>20) 3</td><td>30) 3</td><td>40) 5</td><td>50) 3</td></tr></table><div>(50x2=100 Marks)</div></div>						1) 2	11) 2	21) 5	31) 2	41) 4	2) 5	12) 1	22) 1	32) 3	42) 4	3) 2	13) 2	23) 4	33) 1	43) 1	4) 3	14) 1	24) 3	34) 5	44) 5	5) 3	15) 4	25) 1	35) 3	45) 2	6) 4	16) 5	26) 5	36) 1	46) 5	7) 2	17) 3	27) 5	37) 5	47) 2	8) 4	18) 3	28) 2	38) 4	48) 4	9) 4	19) 5	29) 2	39) 1	49) 2	10) 3	20) 3	30) 3	40) 5	50) 3
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<div><div>Part – IIA</div><div><div>1) a. Elements : HTML documents are defined by HTML elements. Content of the html documents starts with a valid tag and terminated with valid ending tag. Attributes : These are provided additional information about elements.</div><div><div>b. (i) img - src (ii) a - href (iii) table – border</div><div><div>c. <!DOCTYPE html> <body> <h2>Programming</h2> <p>Following is a list of subjects</p></div></div></div></div></div>					<div><div>2 Marks</div><div>3Marks</div></div>																																																		
Grade - 13 (2018) – November 2017 F.W.C																																																							
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ICT -Answer																																																							

<pre> C++ Pascal Java Programming Theory <hr/> <h4>Web designing</h4> <p>Following is a list of subjects</p> <ul type="square"> HTML5 CSS Javascript PHP </body> </html> </pre>	5 Marks
<p>2) a. Yes</p> <p>Program in execution is called process. When a program execute by two or more times, that will create two or many processes.</p> <p>b. Terminated Blocked Ready</p> <p>c. i) File operations (open, close, rename, copy ,) ii) File security (Access rights, Password)</p> <p>d. i) Used store the current state of the running process. ii) Read and load the state of the process to be continuing to the CPU.</p>	<p>1 Mark</p> <p>2 Mark</p> <p>3 Marks</p> <p>2 Marks</p> <p>2 Marks</p>

- 3) a) B2B – Business to Business
Purchase and sale between two business parties through online or Internet with some agreements. (Eg: www.alibaba.com....)

2 Marks

C2C – Consumer to Consumer
Purchase and sale between two consumers via online or internet.
(Eg: www.ebay.com.....)

2 Marks

b)

Front end	Back end
Website interface	Supplier
Display item Description	Send items via post
Select the items and order it	Payment gateway

3 Marks

c) 10

15

1 Mark

d) `print(S[0:6])` or
`print(S.split()[0])`

2 Marks

4) a) Input, Process, Output

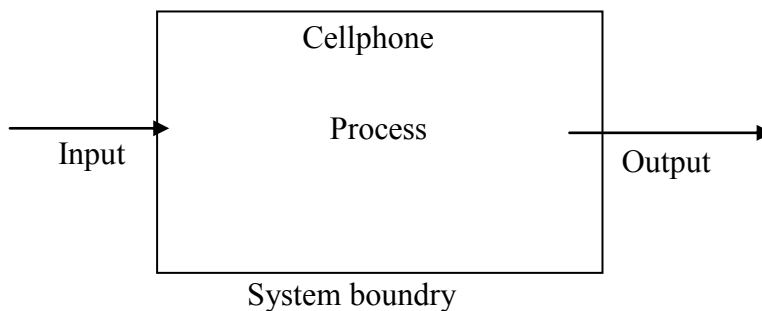
2 Mark

b) Open system

Inputs are getting from outside environment,
processing it and produce the output to same outside environment.

2 Marks

c)



3 Marks

d. House (HouseNo , HouseName)
School (SchoolNo, SchoolName)
Student (AdNo , stuName, HouseNo, SchoolNo)

3 Marks

Part – IIB

1. a) Red LED – R
Green LED – G
Blue LED – B
Detect the cash note – X

Define columns

1 Mark

R	G	B	X
0	0	0	1
0	0	1	0
0	1	0	0
0	1	1	0
1	0	0	1
1	0	1	1
1	1	0	1
1	1	1	1

Correct input columns 2 Marks

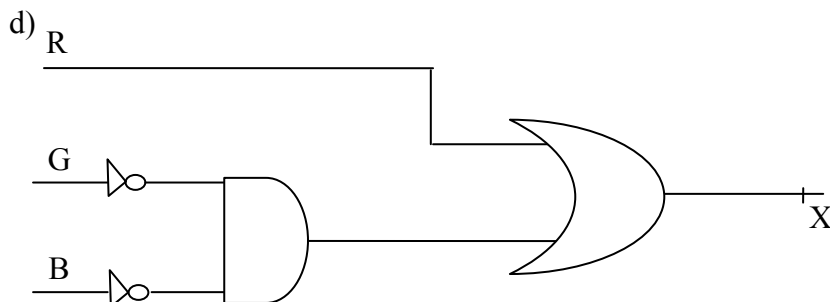
Correct output columns 3 Marks

b. $X = R\bar{G}\bar{B} + R\bar{G}B + RG\bar{B} + RGB + R\bar{G}\bar{B}$

Boolean expression 2 Marks

c. $R\bar{G}(\bar{B} + B) + RG(\bar{B} + B) + \bar{R}\bar{G}\bar{B} - (\text{Distribute Law})$
 $R\bar{G} + RG + \bar{R}\bar{G}\bar{B} - (\bar{B} + B = 1 \text{ Compliment Law})$
 $RG + \bar{G}(R + \bar{R}\bar{B})$
 $RG + \bar{G}(R + \bar{B}) - (A + \bar{A}B = A + B)$
 $RG + R\bar{G} + \bar{G}\bar{B}$
 $R(G + \bar{G}) + \bar{G}\bar{B}$
 $R + \bar{G}\bar{B}$

Simplification with at least two correct rules 4 Marks



Circuit 3 Marks

2. a) Differences

ISDN	ADSL
End to end connection	Point to point connection
Synchronous	Asynchronous
Upload, download speed are same	Download speed is faster than upload speed

2 Marks

Similarities

ISDN and ADSL both are digital communication and transfer data and voice

1 Mark

b) Reduction of signal strength during transmission.

Use an amplifier to reduce the attenuation in media.

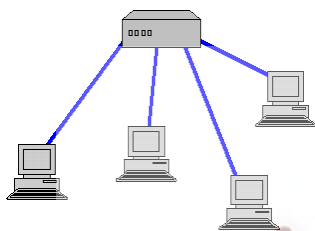
1 Marks

1 Mark

c) Star topology

A star topology is a topology for a Local Area Network (LAN) in which all nodes are individually connected to a central connection point, like a hub or a switch. Used in Computer lab, office network....

1 Mark



Diagram

1 Mark

Mesh topology

Mesh topology is a type of networking where all nodes cooperate to distribute data amongst each other.

1 Mark



Diagram

1 Mark

d)

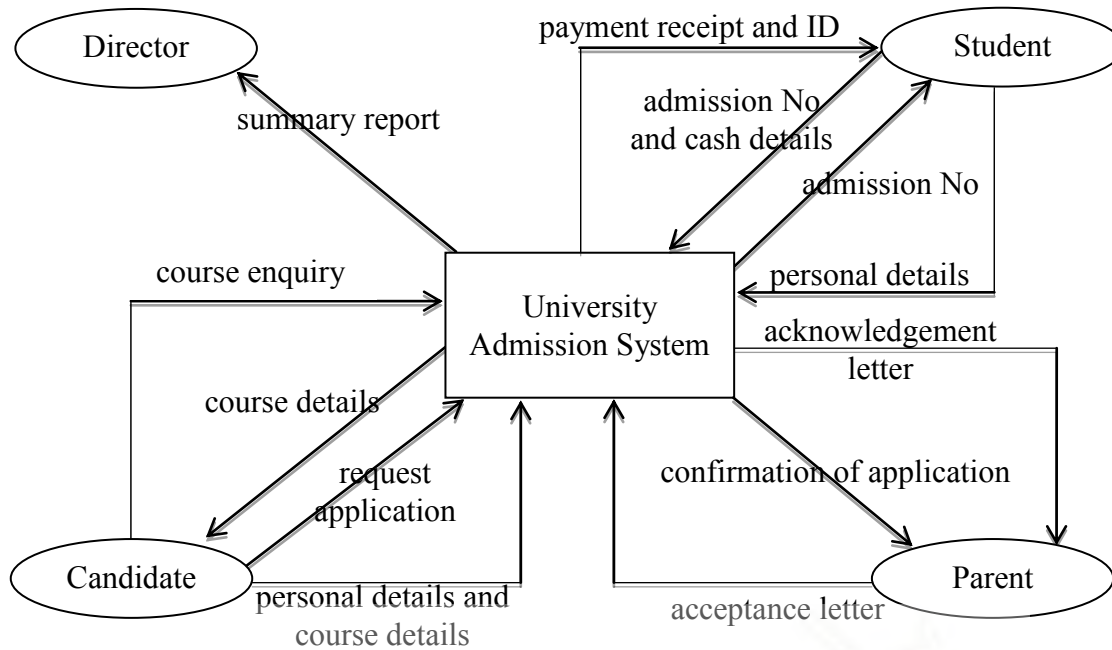
Client server network	Peer to peer network
Centralized network management	Distributed network management
Maintenance is difficult	Easy to maintain
High data security	No data security
Need additional hardware and network OS	No need additional hardware and network OS

4 Marks

e) RTT - The time required for a network communication to travel a packet from the source to the destination and back.

2 Mark

3.



External entities (0.5 x 4)

1 Mark for rest of other components

2 Marks

13 Marks

15

4. a)

Compiler	Interpreter
It converts whole code at a time	It converts the code line by line
Errors are displayed after entire program is checked	Errors are displayed for every instruction interpreted
Requires more memory	Requires less memory

3 Marks

<p>b)</p> <pre> graph TD Start([Start]) --> Init[Count = 1 OddTotal = 0 EvenTotal = 0] Init --> Cond1{Count <= 10?} Cond1 -- No --> Display[/Display OddTotal, EvenTotal/] Display --> End([End]) Cond1 -- Yes --> Input[/Input a number (n)/] Input --> Cond2{Balance of n/2 = 1?} Cond2 -- Yes --> CalcOdd[OddTotal = OddTotal + n] Cond2 -- No --> CalcEven[EvenTotal = EvenTotal + n] CalcOdd --> IncCount[Count = Count + 1] CalcEven --> IncCount IncCount --> Cond1 </pre> <p>c)</p> <pre> count=1 evenTotal=0 oddTotal=0 while count<=10: n=int(input("Enter a number")) if n%2==1: oddTotal=oddTotal+n else: evenTotal=evenTotal+n count=count+1 print(oddTotal) print(evenTotal) </pre>	<p>Start/End 1</p> <p>Initiate variables 1</p> <p>Repetition condition 1</p> <p>Input 1</p> <p>Output 1</p> <p>Selection condition 1</p> <p>Calculation 1</p> <p style="text-align: center; border: 1px solid black; border-radius: 50%; width: 30px; margin: 0 auto;">7</p> <p>5 Marks</p>
<p>5. a) B2C – Business to Consumer</p> <p>b) Yes.</p> <p>Customers who are living around the island/world can be order via online.</p>	<p>1 Mark</p> <p>1 Mark</p> <p>1 Mark</p>
<p>Grade - 13 (2018) – November 2017 F.W.C 7 ICT -Answer</p>	

c) Customers payment details may be hack from outsiders.
Company data may be leak to others.

2 Marks

d) Functional requirements

- System shall give the facility to search a product by category.
- Customer shall be able to register their details and join as a user.
- Customer shall be able to order an item.
- The system shall be able to accept an online payment.

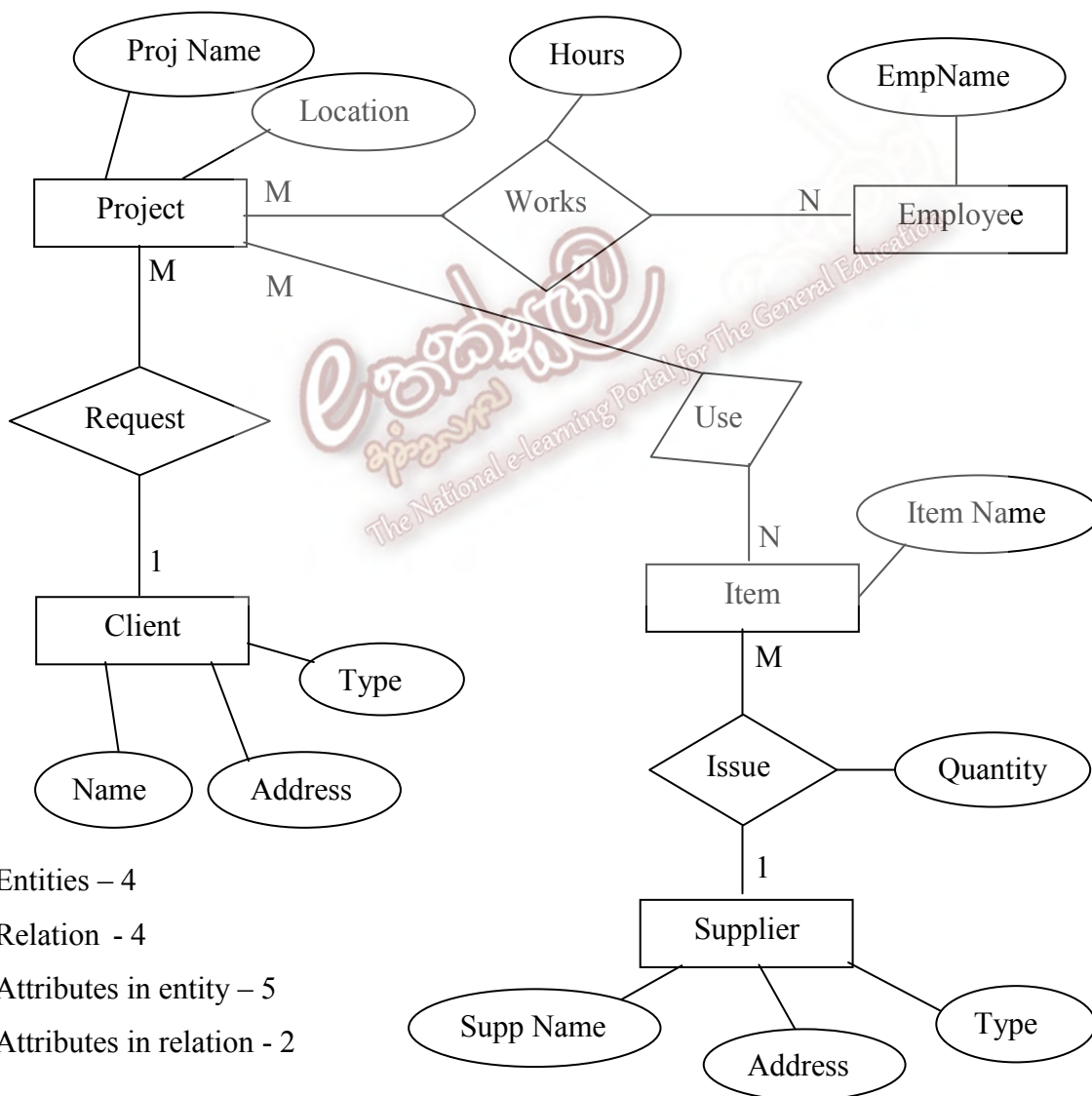
6 Marks

Non-functional requirements

- System shall give the less response time to access the website.
- System shall give the user friendly web pages to customer.
- Web page shall be display in three languages.

4 Marks

6.



15 Marks

Part –I = 100 Marks

Part –IIA = 40 Marks

Part – IIB = 60 Marks

Final Marks = (Part-I + Part-IIA + Part-IIB)/2