
 <p style="text-align: center;">පළාත් අධ්‍යාපන දෙපාර්තමේන්තුව - උතුරු මැද පළාත மாகாணக் கல்வித்திணைக்களம்- வடமத்திய மாகாணம் Department of Education – North Central Province</p>		
Grade 13	Third Term Test - 2024	Time :
Information & Communication Technology - I		
Subject :-		
School Name :-		
Index Number :-		

Part 1 Answers

Q	A	Q	A	Q	A	Q	A	Q	A
1	4	11	2	21	3	31	1	41	3
2	5	12	2	22	3	32	3	42	4
3	5	13	3	23	4	33	3	43	2
4	3	14	1	24	3	34	4	44	1
5	2	15	4	25	3	35	3	45	5
6	3	16	5	26	4	36	2	46	3
7	5	17	2	27	5	37	4	47	5
8	1	18	4	28	2	38	1	48	5
9	4	19	5	29	1	39	3	49	1
10	1	20	4	30	5	40	4	50	2

Grade - 13 , Third Term Test

Information & Communication Technology - II

Part 2 Answers

1.

a)

all purpose flour			
baking soda			
cornstrach	butter	vanilla	large eggs
brown sugar			

04 Marks

b) p, h1, h2 {color:Red; font-family: Calibri; }
p, h2{text-align:center;}

03 Marks

c)

```
<? php
$con=new mysqli ('localhost','root', 'Chamindi@123',' School ');
if ($con-> connect_error) {
die("connection error" . $conn->connect_error);
}
$sql ="SELECT empno, salary FROM employee WHERE name=' Chamindi' ";
$result= $con-> query($sql);
while ($row= $result-> fetch_assoc())
{
echo "employee id: " . $row['empno'] . " <br> salary :". $row['salary'];
}
$con-> close();
?>
```

03 Marks

2.

(a)

1. E-advertising
2. Preliminary process
3. Online service provider
4. E-Education
5. G2C

04 Marks

(b)

ගණදෙකුව	ව්‍යාපාර වර්ගය	හේතුව
(i) Ishini develops and sells a website to a company	Brick & Click	There is a building where the site will be developed. This business can also be built online
(ii) Ashani posts an ad about her mobile phone on a website and sells it to Vimukti	Pure Click	100% internet is used and there is no building or location

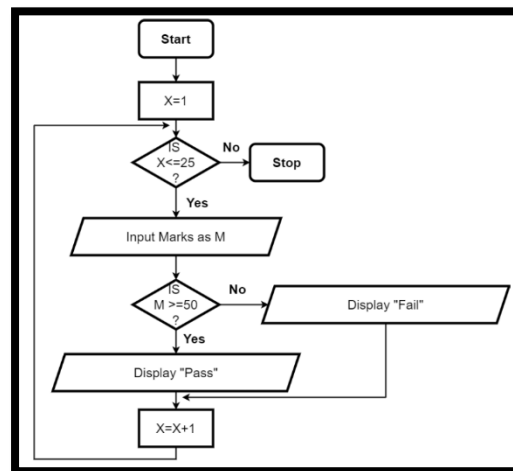
02 Marks

- (c) A – user Interface
 B – Inference Engine
 C – Knowledge Base
 D – Advice / Response

04 Marks

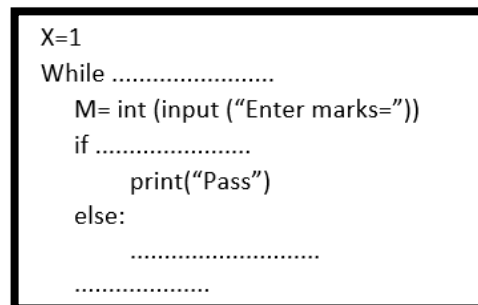
3. (i) P - $X \leq 25$
 Q - M
 R - 50
 S - Display "Fail"
 T - Display "Pass"
 U - $X = X + 1$

06 Marks

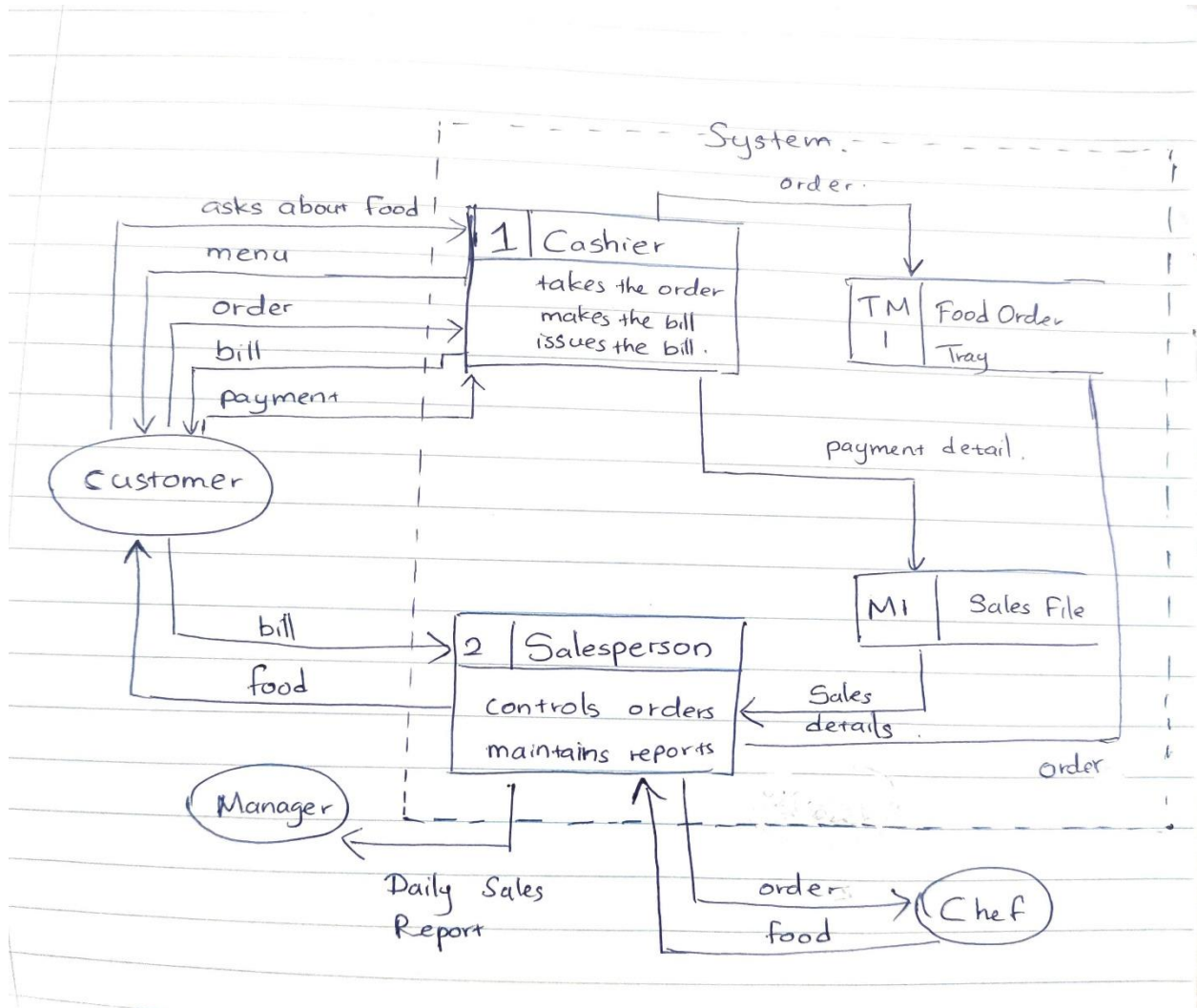


- (ii) X=1
 While (X<=25):
 M= int (input ("Enter marks="))
 if M>=50:
 print("Pass")
 else:
 print("Fail")
 X=X+1

04 Marks



4.



10 Marks

B - කොටස

5.

(i)

A - Confirmation of data by first supervisor

B - Confirmation of data by second supervisor

A	B	C	F
0	0	0	0
0	0	1	0
0	1	0	0
0	1	1	0
1	0	0	0

C - Confirmation of data by the security officer

F - A car passes through the second gate and enters the car park

(ii) $F(\text{pos}) = (A+B+C).(A+B+C').(A+B'+C).(A+B'+C').(A'+B+C)$ 04 Marks

04 Marks

(iii)

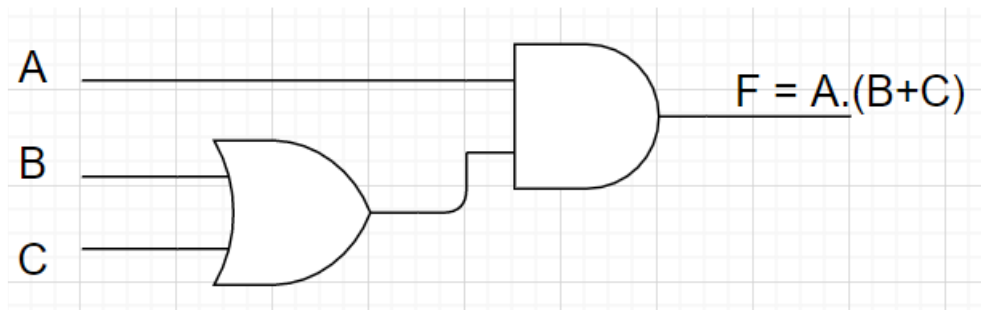
A B	00	01	11	10
C				
0	0	0	1	0
1	0	0	1	1

A

$F = A.(B+C)$

04 Marks

iv)



03 Marks

6.

a)

(i) Any IP address from 192.168.11.193 – 192.168.11.254

01 Mark

(ii) First address 192.168.11.193

01 Mark

The last address is 192.168.11.254

01 Mark

(iii) 62

(iv) For 2 points such as,

- ✓ Consists of 32 bits.
- ✓ Consists of 04 segments of 08 bits each.
- ✓ Represented in decimal notation.
- ✓ Divided into classes based on the value of the original category.
- ✓ A unique number for a computer in a computer network.
- ✓ There are two modes static and dynamic

01 Mark

b)
(i)

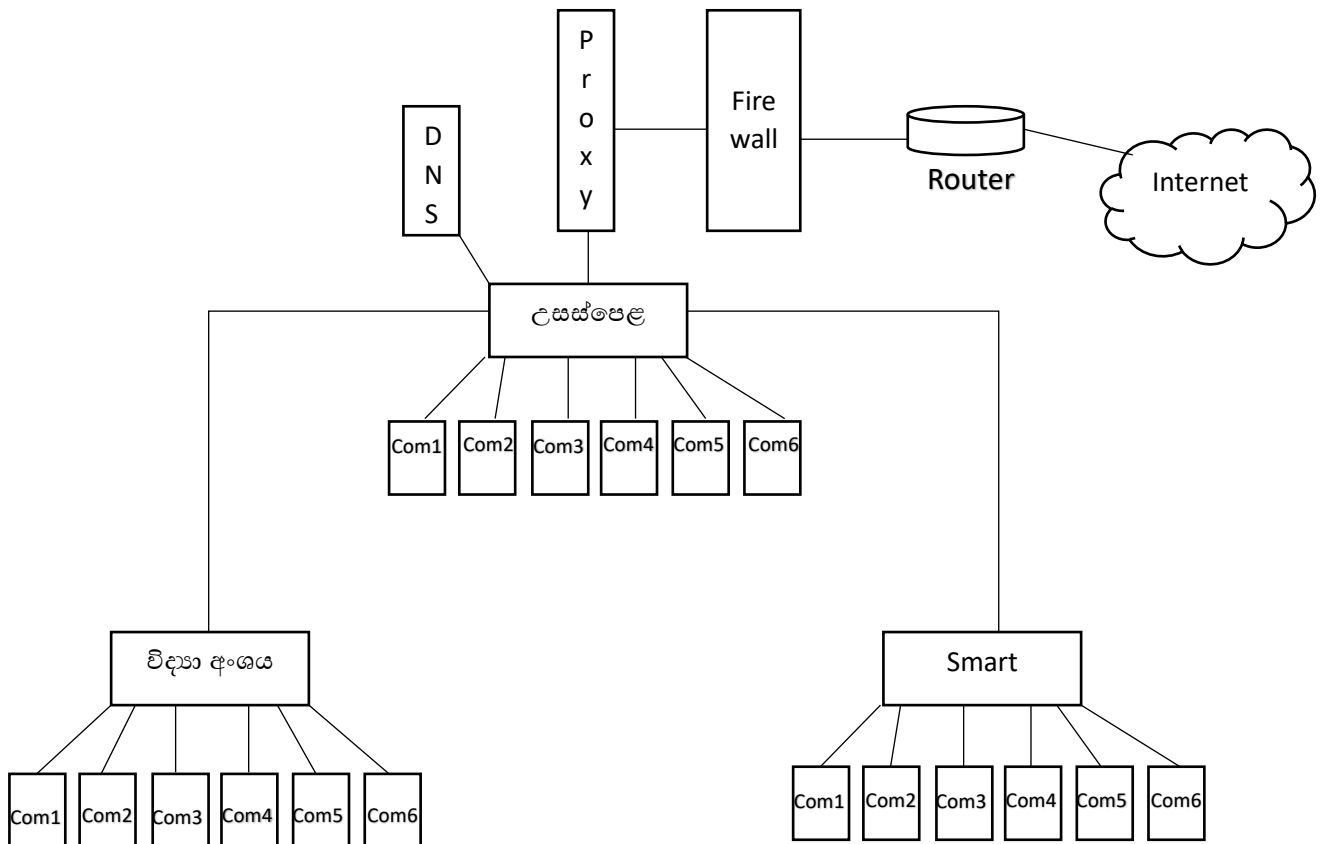
Sector	Network address	Broadcast address	Subnet coverage	The range of usable IP addresses
Smart class	212.210.11.192	212.210.11.255	255.255.255.192	212.210.11.193 - 212.210.11.254
A/L ICT	212.210.11.128	212.210.11.159	255.255.255.192	212.210.11.129 - 212.210.11.158
Science Department	212.210.11.160	212.210.11.291	255.255.255.192	212.210.11.161 - 212.210.11.190

04 Marks

(ii) Star Topology

01 Mark

(iii)



06 Marks

7.

a)

- A - Reset Button
- B - USB Jack
- C - External Power Jack
- D - Digital Input / Output Pins
- E - Main Controller (Processor / CPU)

05 Marks

b)

- (i) This gives the direction and pin number of the inputs and outputs.
- (ii) This command is used to change the voltages of the current output through the input and output pins of the Arduino circuit.
- (iii) This command is used to change the time frame of any action.
- (iv) This code is used to give the amount of bits to be transmitted per second (baud rate) in data transmission to a communication device.
- (v) serial.begin(speed)

10 Marks

8.

(i)

```
max=-1
n=0
while n<100:
    x=int(input("enter number: "))
    if x==-1:
        break
    else:
        if x>max:
            max=x
    n+=1
print(max)
```

10 Marks

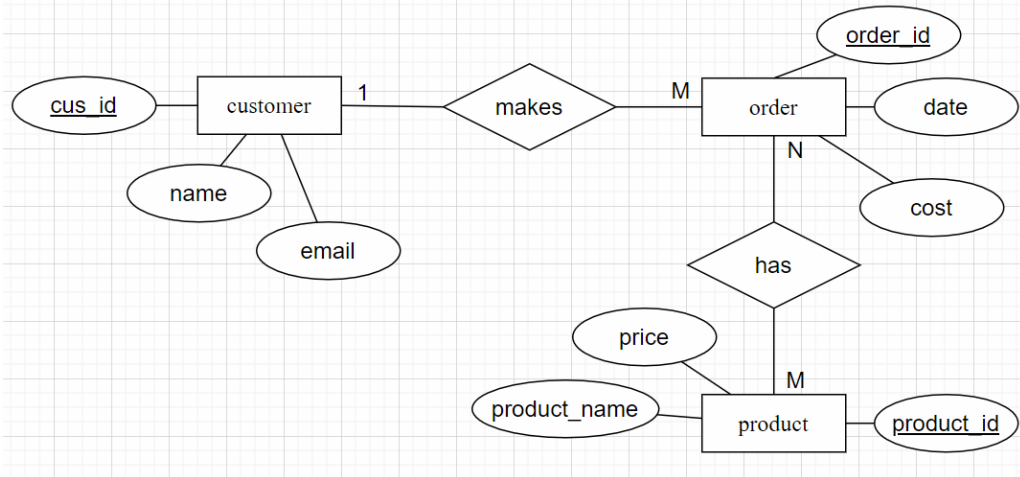
(ii) 89

05 Marks

9.

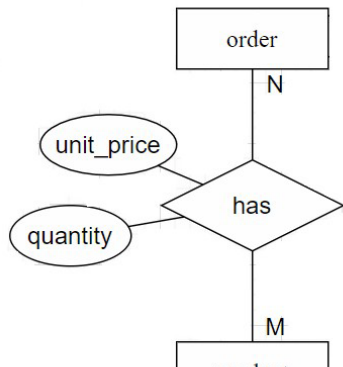
a)

i)



ii)

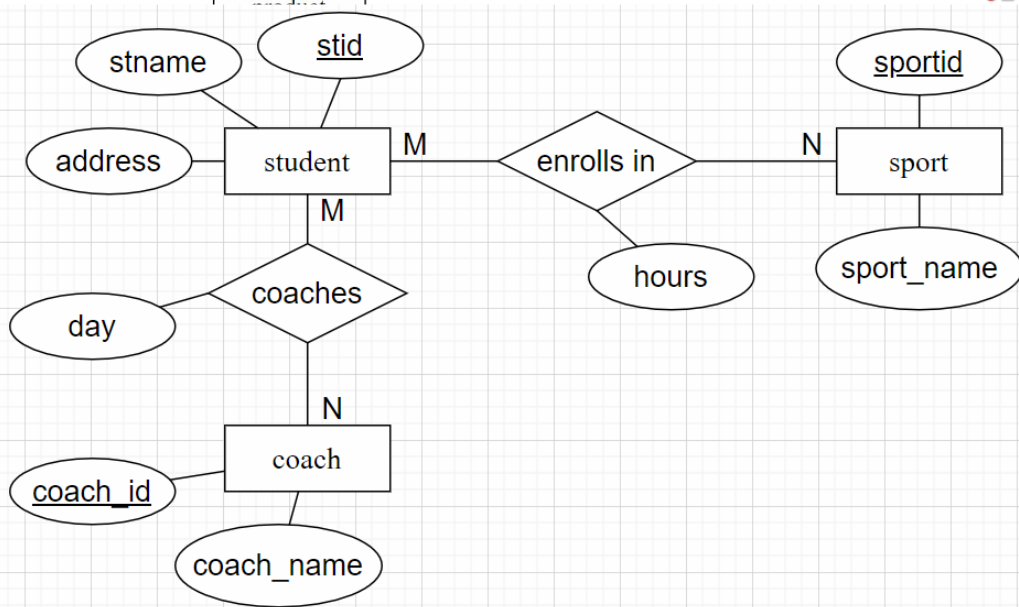
04 Marks



02 Marks

b)

i)

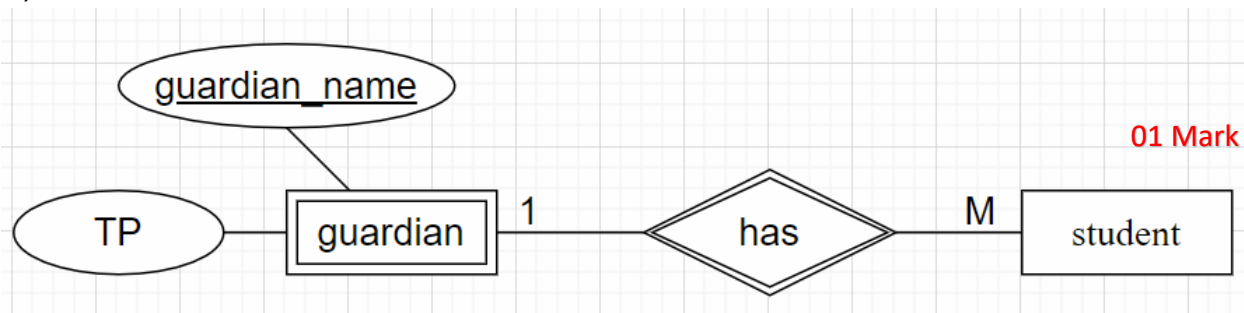


04 Marks

ii) UPDATE student s, sport sp, enroll e
 SET hours = 4
 WHERE s.stid = e.stid AND sp.sportid = e.sportid AND sport_name="volleyball" AND
 stname="gihan";

iii) CREATE TABLE guardian(02 Marks
 guardian_name varchar(20) NOT NULL ,
 TP varchar(10) NOT NULL ,
 stid char(5),
 PRIMARY KEY (guardian_name,stid)
 FOREIGN KEY (stid)
 REFERENCES student (stid)
); 02 Marks

iv)



10.

a)

- (i) Page table, virtual and physical memory addresses 01 Mark
- (ii) Moving pages in virtual memory to frames in physical memory is represented by matching page numbers and frame numbers in the page table and moving data from virtual memory to physical memory. 01 Mark
- (iii) Memory Management Unit 01 Mark
- (iv) Memory management unit is used for mapping between virtual memory and physical memory. 01 Mark
- (v) Paging is done in secondary storage to store memory. 01 Mark

b)

- (i) The data structure that stores the information required to control the operation is called the **Process Control Block (PCB)**.
 Information contained in the PCB
 - Operation no
 - Operation calculator
 - Input output information
 - Activity registers
 - Operational status

(ii) The hardware for mapping virtual memory addresses and physical memory addresses is called memory management unit. **02 Mark**

(iii) Ready State → completion of inputs outputs **02 Mark**

(iv) blocked state → temporary suspension **02 Mark**

a. The size of a memory frame = $8\text{GB} = \frac{8\text{GB}}{2^{20}} = \frac{2^3 \times 2^{10} \times 2^{10} \text{KB}}{2^{20}} = 8\text{KB}$ **02 Mark**

b.

1. No of Pages = $26 = 64$ **01 Mark**

2. No of offset = 214 **01 Mark**
