

Second Term Evaluation - 2025

Grade

13

Information and Communication Technology

3 hours

නම/NAME:-.....

Structured Essay – Part A

- Answer **all the four** questions in **this paper itself**.

1. (a) i. Write the appropriate words and tags in the spaces of the provided HTML code to get the following output.

Explore Our ICT Courses!

```
<html>
<head>
  <title>ICT Course Advertisement
</title>
</head>
<body>
```

Global IT Learning Center	Our Top ICT Courses: <ul style="list-style-type: none">• Introduction to IT• Networking and Cybersecurity• Web Development	Enroll Now
Flexible schedules and expert instructors		
Contact us: info@example.com		

```
<h1>Explore Our ICT Courses!</h1>
```

```
<table .....='2'>
  <.....>    <td>          <b>.....</b>      </td>
    <td>
      <strong>Our Top ICT Courses:</strong>
      <.....>    <li>Introduction to IT</li> <li>Networking and Cybersecurity</li>
        <li>Web Development </li>
      <.....>    </td>
    <td>
      <.....="https://www.example.com/ict-courses"target="_blank">.....</a>
    </td>
  </tr>
  <tr>    <td .....="3">Flexible schedules and expert instructors</td>    </tr>
  <tr>    <td .....="3">Contact us: info@example.com</td>    </tr>
</td></table>
</body>
</html>
```

(05 marks)

- ii. Explain the use of "**target="_blank"**" in the above HTML code.

(02 marks)

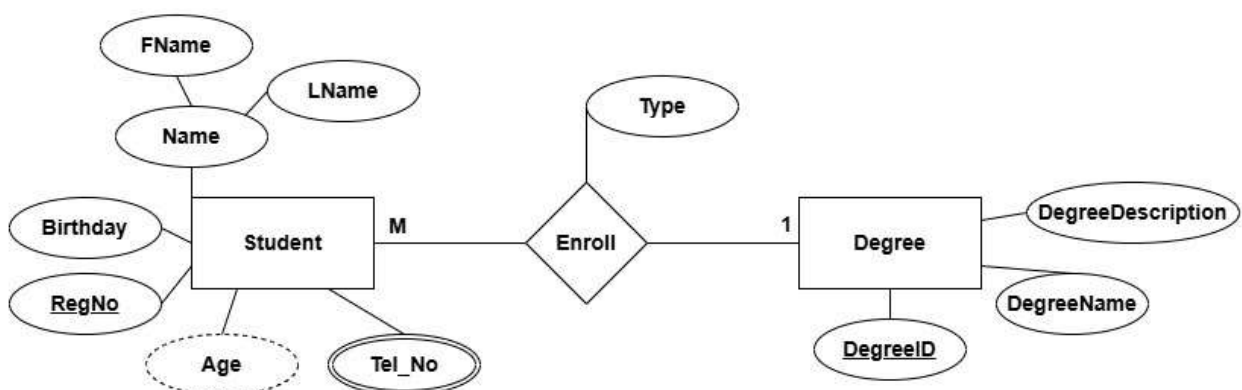
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- iii. Draw the expected output from the following HTML code fragment. (Consider the edges of the given box as the part that will be displayed in the web browser.) (03 marks)

```
<html><head><title>Static Output with List and Link</title> </head>
<body>
<h2>Simple Math Output</h2> <p>5 + 3 = 8</p> <p>10 - 2 = 8</p>
<p>4 * 2 = 8</p> <p>16 / 2 = 8</p> <h3>Topics Covered:</h3>
<ul>
<li>Addition</li> <li>Subtraction</li> <li>Multiplication</li>
<li>Division</li>
</ul>
<p><a href="https://www.example.com">Visit Example Website</a></p>
</body>
</html>
```

02. a) Write the relevant relational schema for the following ER diagram. (03 marks).



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b) Consider the table below “carsale”.

SaleID	CarID	CarBrand	CarModel	EngineType	SalePrice	SaleDate
001	C01	Toyota	Corolla	Petrol	4,500,000	2024-03-12
002	C02	Nissan	Sunny	Diesel	3,800,000	2024-04-05
003	C03	Toyota	Prius	Hybrid	6,200,000	2024-04-05
004	C01	Toyota	Corolla	Petrol	4,600,000	2024-05-01
005	C04	Honda	Civic	Petrol	5,000,000	2024-05-15
006	C03	Toyota	Prius	Hybrid	6,250,000	2024-06-02

i. Write down the normal form of this table? Justify your answer. (02 marks)

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ii. Convert the above table to the next normal form. (It is not necessary to write the data in the table.) (03 marks)

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c) Consider the following tables among the tables contained in a database.

EmployeeProjectWork

EmpID	ProjectID	HoursWorked
E01	P01	35
E02	P02	40
E04	P03	38
E01	P03	25
E02	P01	18

Employee

EmpID	EmpName	DeptName
E01	Amal	IT
E02	Kamal	HR
E03	Nadeesha	IT
E04	Sunil	Finance

i. Based on the above data, write a SQL statement to select the names of the employees working in the HR department. (01 mark)

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ii. Write a SQL statement to select the name and number of hours worked by employees who work more than 35 hours. (02 marks)

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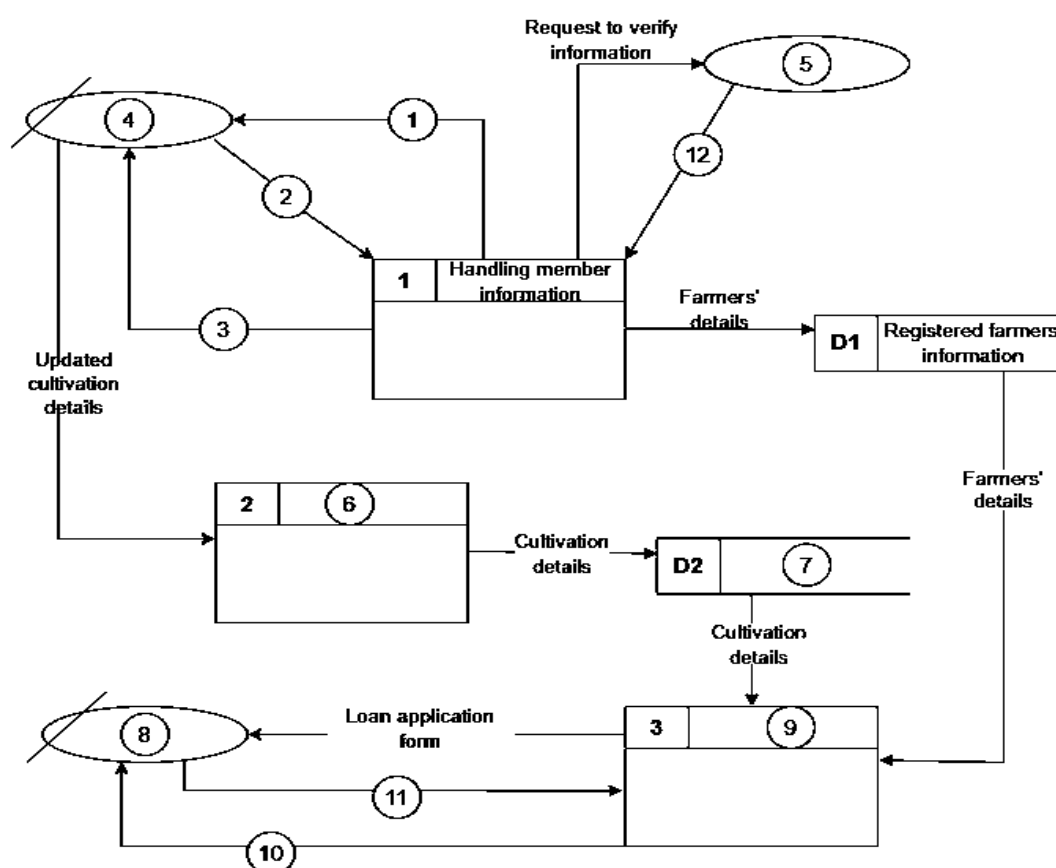
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03. i. Registration of farmers and crops at a certain agricultural service center is done online and farmers must complete an online application for the registration.

The Member Information Handling Unit sends an email to the Grama Niladhari of that area to verify their information, and the Grama Niladhari verifies the information and sends an email back to the Agricultural Service Center. Then, the farmers are notified via SMS that they have been registered.

The information of the registered farmers is stored in a database and the farmers have to contact the cultivation section of this system via a phone call to update the information about their crops. Information about these crops is then stored in the relevant crop data database, and through this system, farmers can apply for loans to obtain the funds needed to carry out their crops. After receiving the application form from the loan department, completing the relevant application form and submitting it to the loan department, the loan department checks the details from the farmers' information database and the cultivation details database and informs the farmers by telephone whether the loan has been approved or not.



According to the above description, choose and write the suitable English letters from the list below for the contents related to the numbers 1 to 12 in the given incomplete data flow diagram. (06 marks)

A	farmer	F	Cultivation details
B	Grama Niladhari	G	Loan Section
C	Application Form	H	Loan Approved or not
D	Filled Application Form	I	Cultivation section
E	Registration confirmed	J	Information verified email message

- | | | |
|----------|----------|----------|
| 1. | 2. | 3. |
| 4. | 5. | 6. |
| 7. | 8. | 9. |
| 10. | 11. | 12. |

ii. It has been decided to use the waterfall model to design the system described above.

Indicate two difficulties that will be faced in using this model.

(02 marks)

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iii. Mention two disadvantages of using commercial off-the-shelf (COTS) software.

(02marks)

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04. a) Consider the following Python code.

```
N=int(input("Enter positive No:"))
y=1
if N>0:
    for i in range(1,N+1):
        y=y*i
    print("%d! =%d"%(N,y))
```

i. What will be the output, if 5 is given as input to the above code?

(02 marks)

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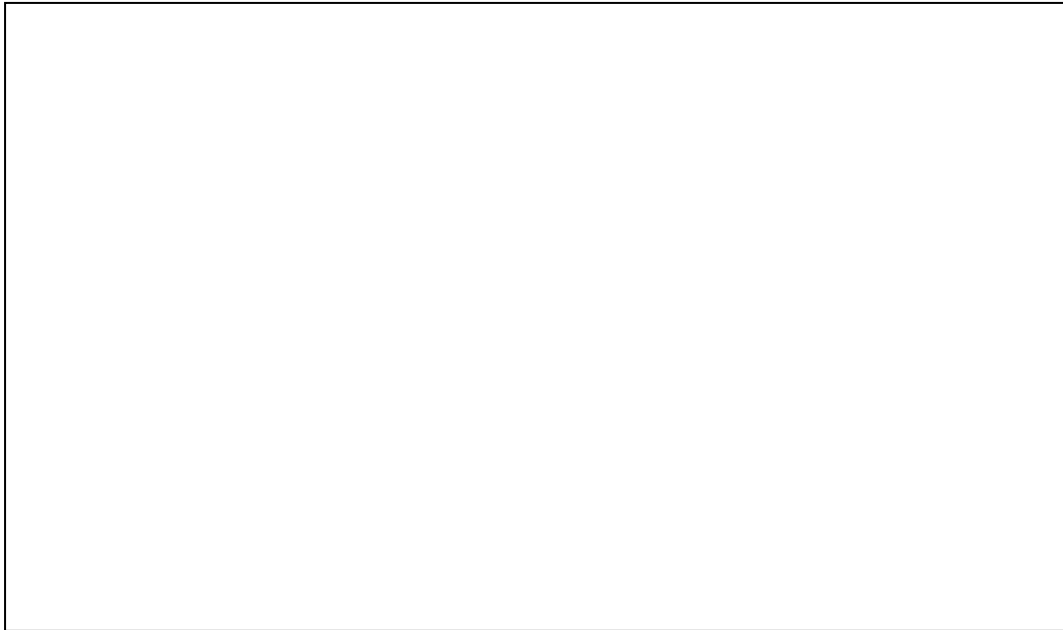
ii. Rewrite the above code using a “**while loop**”.

(02 marks)

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iii. Draw the flowchart for the Python code in (ii) above.

(04 marks)



b) Write the output of the following Python code.

(02 marks)

```
def stars(n):  
    for i in range(n, 0, -1):  
        print("*" * i)  
  
stars(6)
```

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