

## MGM UNIVERSITY

University department of Information Technology and communication Technology

Academic Year -2023-2024- Part 2

IOT NETWORKING

Class: TY IT-Div1 &amp;2

Date: 05.01.2024, 3 to 3.45 Pm

Time: 45 min.

Note: 1) Attempt any two

2) Each Question carries 5 marks

Class Test: CA1

Total Marks: 10

| Attempt Any two  | Difficulty level | CO |
|--|------------------|----|
| Q1. Explain in brief Arduino controller with neat sketch   | Simple           | 1  |
| Q2. How to prepare Arduino to connect with ethernet<br>Explain with Arduino Sketching.               | Moderate         | 1  |
| Q3. Write a program for Wi-Fi connectivity with Arduino for<br>real time data transmission using C++ | Moderate         | 1  |
| Q4. Write a Logic to read the data from DHT sensor in serial<br>monitor on Arduino IDE               | Moderate         | 1  |

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| Q3. Write a program for Wi-Fi connectivity with Arduino for<br>real time data transmission using C++ | Moderate         | 1  |
| Q4. Write a Logic to read the data from DHT sensor in serial<br>monitor on Arduino IDE               | Moderate         | 1  |

18 MAR 2024 | TY/IT-AIML/CA-1/P2/2023-24

**University Department of Information and Communication Technology  
Academic Year (2023-24) Part II**

**Class:** TY (IT)

**Class Test:** CA1

**Date:**05/02/2024

**Total Marks:** 10

**Time:** 1 Hour

**Subject:** IOT COMMUNICATION

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**Note:** 1) Attempt Any Two

2) Each Question is of 5 Marks

3) Rightly drawn Diagrams indicate full Marks

| <b>Attempt Any Two</b>                                       | <b>Level</b> | <b>Co</b> |
|--|--------------|-----------|
| 1) Define Sensors and Actuators, also Differentiate the same | L            | 1         |
| 2) Explain any five Sensor Characteristics                   | L            | 1         |
| 3) Describe the Temperature Sensor in brief                  | M            | 1         |
| 4) Explain M2M Communication                                 | M            | 1         |

**University Department of Information and Communication Technology  
Academic Year (2023-24) Part II**

**Class:** TY (IT)

**Class Test:** CA1

**Date:**05/02/2024

**Total Marks:** 10

**Time:** 1 Hour

**Subject:** IOT COMMUNICATION

---

**Note:** 1) Attempt Any Two

2) Each Question is of 5 Marks

3) Rightly drawn Diagrams indicate full Marks

| <b>Attempt Any Two</b>                                       | <b>Level</b> | <b>Co</b> |
|--|--------------|-----------|
| 1) Define Sensors and Actuators, also Differentiate the same | L            | 1         |
| 2) Explain any five Sensor Characteristics                   | L            | 1         |
| 3) Describe the Temperature Sensor in brief                  | M            | 1         |
| 4) Explain M2M Communication                                 | M            | 1         |

18 MAR 2024 | TY | IT - AIML | CA-1 | P2 | 23-24

**MGM UNIVERSITY**

**University Department of Information and Communication Technology**

**CA – I Examination – Feb - 2024**

**Class: T.Y. B. Tech AIML**

**Sem: VI**

**Test: CA-I**

**Subject Name: EL-II- Cyber Security & Computer Forensics**

**Subject Code: BTAM3207B**

**Date: 05/02/2024**

**Time: 03:00 p.m. to 03:45 p.m.**

**Total Marks: 10**

| Sr. No. | Question   | CO  | Marks |
|---------|--|-----|-------|
| 1       | Solve any ONE of the following Questions                           | CO1 | 1 * 5 |
|         | a. Differentiate between Cyber Security and Information Security   |     |       |
|         | b. Give a classification of Cybercrimes in detail.                 |     |       |
| 2       | Solve any ONE of the following Questions                           | CO1 | 1 * 5 |
|         | a. Enlighten: "The legal perspectives on cyber security in India." |     |       |
|         | b. Write a short note on "Cloud Computing and Cybercrime"          |     |       |

**MGM UNIVERSITY**

**University Department of Information and Communication Technology**

**CA – I Examination – Feb - 2024**

**Class: T.Y. B. Tech AIML**

**Sem: VI**

**Test: CA-I**

**Subject Name: EL-II- Cyber Security & Computer Forensics**

**Subject Code: BTAM3207B**

**Date: 05/02/2024**

**Time: 03:00 p.m. to 03:45 p.m.**

**Total Marks: 10**

| Sr. No. | Question   | CO  | Marks |
|---------|--|-----|-------|
| 1       | Solve any ONE of the following Questions                           | CO1 | 1 * 5 |
|         | a. Differentiate between Cyber Security and Information Security   |     |       |
|         | b. Give a classification of Cybercrimes in detail.                 |     |       |
| 2       | Solve any ONE of the following Questions                           | CO1 | 1 * 5 |
|         | a. Enlighten: "The legal perspectives on cyber security in India." |     |       |
|         | b. Write a short note on "Cloud Computing and Cybercrime"          |     |       |

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**University Department of Information and Communication Technology**

**CA – I Examination – Feb - 2024**

**Class: T.Y. B. Tech AIML**

**Sem: VI**

**Test: CA-I**

**Subject Name: EL-II- Cyber Security & Computer Forensics**

**Subject Code: BTAM3207B**

**Date: 05/02/2024**

**Time: 03:00 p.m. to 03:45 p.m.**

**Total Marks: 10**

| Sr. No. | Question   | CO  | Marks |
|---------|--|-----|-------|
| 1       | Solve any ONE of the following Questions                           | CO4 | 1 * 5 |
|         | a. Differentiate between Cyber Security and Information Security   |     |       |
|         | b. Give a classification of Cybercrimes in detail.                 |     |       |
| 2       | Solve any ONE of the following Questions                           | CO5 | 1 * 5 |
|         | a. Enlighten: "The legal perspectives on cyber security in India." |     |       |
|         | b. Write a short note on "Cloud Computing and Cybercrime"          |     |       |

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**MGM University**  
**University Department of Information and Communication Technology**  
*Class Test –I (Academic year – Part-2)*

Subject: Data Visualization

Class: Third Year (AIML)

Marks: 10 Marks

Duration: 45 Min.

Note: Solve any **TWO** of the following.

|     | Question  | Marks | CO |
|-----|---|-------|----|
| Q1. | Compare and contrast between Exploratory vs. explanatory analysis with example. | 5     | 1  |
| Q2. | Explain data visualization components with suitable example.                    | 5     | 1  |
| Q3. | With suitable diagrams, explain types of visualization techniques.              | 5     | 1  |
| Q4. | Write a short note on Importance of data visualization with example.            | 5     | 1  |

You are more productive by doing fifteen minutes of visualization than from sixteen hours of hard labor. "ABRAHAM HICKS, American Author

**MGM University**  
**University Department of Information and Communication Technology**  
*Class Test –I (Academic year – Part-2)*

Subject: Data Visualization

Class: Third Year (AIML)

Marks: 10 Marks

Duration: 45 Min.

Note: Solve any **TWO** of the following.

|     | Question  | Marks | CO |
|-----|---|-------|----|
| Q1. | Compare and contrast between Exploratory vs. explanatory analysis with example. | 5     | 1  |
| Q2. | Explain data visualization components with suitable example.                    | 5     | 1  |
| Q3. | With suitable diagrams, explain types of visualization techniques.              | 5     | 1  |
| Q4. | Write a short note on Importance of data visualization with example.            | 5     | 1  |

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**MGM University**  
**University Department of Information and Communication Technology**  
*Class Test –I (Academic year – Part-2)*

Subject: Data Visualization

Class: Third Year (AIML)

Marks: 10 Marks

Duration: 45 Min.

Note: Solve any **TWO** of the following.

|     | Question  | Marks | CO |
|-----|---|-------|----|
| Q1. | Compare and contrast between Exploratory vs. explanatory analysis with example. | 5     | 1  |
| Q2. | Explain data visualization components with suitable example.                    | 5     | 1  |
| Q3. | With suitable diagrams, explain types of visualization techniques.              | 5     | 1  |
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18 MAR 2024 | TY | IT - AIML | CA-1 | P2 | 23-24

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University Department of Information and Communication Technology

Continues Assessment I

Class: B Tech Third Year (AIML)

Sem: VI

Subject Name: Convolutional Neural Network

Subject Code: BTAM3201

| Que. 1 | Solve any TWO questions.   | CO  | Marks |
|--------|--|-----|-------|
| A      | What is perceptron? Explain in detail components of perceptron.                    | CO1 | 5     |
| B      | Explain back propagation with an example.  | CO1 | 5     |
| C      | What is a neural network? Differentiate between biological neural network and ANN. | CO1 | 5     |
| D      | What is the cost function? How cost function is useful to build neural networks.   | CO1 | 5     |

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University Department of Information and Communication Technology

Continues Assessment I

Class: B Tech Third Year (AIML)

Sem: VI

Subject Name: Convolutional Neural Network

Subject Code: BTAM3201

| Que. 1 | Solve any TWO questions.   | CO  | Marks |
|--------|--|-----|-------|
| A      | What is perceptron? Explain in detail components of perceptron.                    | CO1 | 5     |
| B      | Explain back propagation with an example.  | CO1 | 5     |
| C      | What is a neural network? Differentiate between biological neural network and ANN. | CO1 | 5     |
| D      | What is the cost function? How cost function is useful to build neural networks.   | CO1 | 5     |

18 MAR 2024 | TY | IT-AI ML | CA-1 | P2 | 23-24

**MGM University**  
**University Department of Information and Communication Technology**  
**Academic Year (2023-24) Part II**

**Class:** TY IT-1/TY-2/TY-AIML

**Class Test:** CA1

**Date:** 03/02/2024

**Total Marks:** 10

**Time:** 45 Min

**Subject:** Web Enabled Software Engineering

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**Note: 1) Attempt Any Two**

**2) Each Question Carry 5 Marks**

| <b>Attempt Any Two</b>                              | <b>Level</b> | <b>Co</b> |
|---|--------------|-----------|
| 1) Explain umbrella activities in software process. | L            | 1         |
| 2) Explain generic view of process                  | L            | 1         |
| 3) Draw and Explain The Spiral model                | M            | 1         |
| 4) Compare prototyping model and spiral model       | H            | 1         |

**MGM University**  
**University Department of Information and Communication Technology**  
**Academic Year (2023-24) Part II**

**Class:** TY IT-1/TY-2/TY-AIML

**Class Test:** CA1

**Date:** 03/02/2024

**Total Marks:** 10

**Time:** 45 min

**subject:** Web Enabled Software Engineering

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**Note: 1) Attempt Any Two**

**2) Each Question Carry 5 Marks**

| <b>Attempt Any Two</b>                              | <b>Level</b> | <b>Co</b> |
|---|--------------|-----------|
| 1) Explain umbrella activities in software process. | L            | 1         |
| 2) Explain generic view of process                  | L            | 1         |
| 3) Draw and Explain The Spiral model                | M            | 1         |
| 4) Compare prototyping model and spiral model       | H            | 1         |

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**MGM UNIVERSITY**

**University Department of Information and Communication Technology**

**CA-I**

**Class: BTECH (IT/AIML)**

**Sem: VI**

**Subject Name: CVPR**

**Subject Code: BTIT3202**

**Date: 03/02/2024 Time: 1:00p.m to 1:45p.m**

**Total Marks: 10**

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| Sr. No. | Solve any TWO of the following Questions.( Each question carries 5 Marks)                   | CO  | Marks |
|---------|---|-----|-------|
| 1       | Explains the geometry of image formation with a neat labeled diagram                        | CO1 | 5     |
| 2       | Explain in detail about the concept of the pinhole camera model with the help of a diagram. | CO1 | 5     |
| 3       | List and explain seven image pre-processing steps for optical character recognition.        | CO1 | 5     |

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**MGM UNIVERSITY**

**University Department of Information and Communication Technology**

**CA-I**

**Class: BTECH (IT/AIML)**

**Sem: VI**

**Subject Name: CVPR**

**Subject Code: BTIT3202**

**Date: 03/02/2024 Time: 1:00p.m to 1:45p.m**

**Total Marks: 10**

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| Sr. No. | Solve any TWO of the following Questions.( Each question carries 5 Marks)                   | CO  | Marks |
|---------|---|-----|-------|
| 1       | Explains the geometry of image formation with a neat labeled diagram                        | CO1 | 5     |
| 2       | Explain in detail about the concept of the pinhole camera model with the help of a diagram. | CO1 | 5     |
| 3       | List and explain seven image pre-processing steps for optical character recognition.        | CO1 | 5     |

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