

SERIES: A

QP CODE: 24900084

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Reg No:.....

Name:.....

MAHATMA GANDHI UNIVERSITY, KOTTAYAM
FIRST SEMESTER MGU-UGP (HONOURS) REGULAR
EXAMINATION NOVEMBER 2024

First Semester

**Multi-Disciplinary Course - MG1MDCECT101 - FOUNDATION OF AI
AUTOMATION**

(2024 ADMISSION ONWARDS)

Duration: 1 Hours

Maximum Marks: 35

**Remember (K), Understand (U), Apply (A), Analyse (An), Evaluate (E), Create (C), Interest (I),
Appreciation (Ap), and Skill (S)**

*Students should attempt atleast one question from each course outcome to enhance their overall
outcome attainability.*

[Learning Domain][CO No(s)]

Part A

Multiple Choice Questions

Answer any 35 questions. Each question carries one mark

- 1 What is Narrow AI primarily designed to do? [U] [1]
- a) General problem solving b) Specific tasks
- c) Human-like reasoning d) Creative thinking
- 2 What is a neural network? [U] [1]
- a) A set of algorithms to recognize b) A type of biological brain
 patterns
- c) A hardware component in d) A collection of data structures
 computers
- 3 What is the main function of a biological neuron? [A] [1]
- a) To transmit information b) To store information

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- c) To create memories d) To send electrical signals
- 4 What did Norbert Wiener develop in the 1940s? [K] [1]
- a) Cybernetics b) The Turing Test
- c) Machine Learning d) Deep Learning
- 5 Which AI system can improve over time by learning from data? [A] [1]
- a) Supervised Learning b) Unsupervised Learning
- c) Reinforcement Learning d) Deep Learning
- 6 Which of the following is an application of AI? [K] [1]
- a) Social Media b) Mobile Apps
- c) Weather Forecasting d) Messaging Apps
- 7 Which early AI program was developed for natural language processing? [U] [1]
- a) MYCIN b) Logic Theorist
- c) Perceptron d) ELIZA
- 8 Which is a key characteristic of AI systems? [U] [1]
- a) Self-awareness b) Decision making
- c) Problem-solving ability d) Learning from mistakes
- 9 What is the goal of natural language processing? [U] [1]
- a) Mimic human emotions b) Understand human language
- c) Recognize speech d) Translate human speech
- 10 What is the purpose of training a neural network? [U] [1]
- a) To test its performance b) To initialize random weights
- c) To minimize the loss function d) To increase network size
- 11 ChatGPT can assist in writing code in which programming language? [U] [2]
- a) python b) javascript
- c) c++ d) all of the above
- 12 Who developed ChatGPT? [K] [2]
- a) Google b) Microsoft

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- | | | | | |
|----|---|---|-----|-----|
| | c) OpenAI | d) IBM | | |
| 13 | What is Playground AI primarily used for? | | [A] | [2] |
| | a) Text generation | b) Image generation | | |
| | c) Audio editing | d) Video creation | | |
| 14 | What is DALL-E primarily used for? | | [K] | [2] |
| | a) Text editing | b) Image generation | | |
| | c) Video editing | d) Data analysis | | |
| 15 | Which AI technique is commonly used in algorithmic trading? | | [K] | [2] |
| | a) Decision Trees | b) Convolutional Neural Networks (CNNs) | | |
| | c) Reinforcement Learning | d) Support Vector Machines | | |
| 16 | Which AI application is used for analyzing text-based data like financial reports and news? | | [U] | [2] |
| | a) Support Vector Machines (SVM) | b) Natural Language Processing (NLP) | | |
| | c) Convolutional Neural Networks (CNNs) | d) K-Means Clustering | | |
| 17 | How does AI assist with vehicle-to-everything (V2X) communication? | | [K] | [2] |
| | a) By allowing vehicles to communicate with infrastructure and other vehicles | b) By increasing vehicle emissions | | |
| | c) By replacing human drivers with robots | d) By reducing the need for wireless networks | | |
| 18 | What AI technology helps detect anomalies in transportation systems for security purposes? | | [K] | [2] |
| | a) Anomaly detection algorithms | b) Human inspection | | |
| | c) Time series forecasting | d) Blockchain technology | | |
| 19 | Which of the following is crucial for tool compatibility? | | [K] | [2] |
| | a) Ease of use | b) Technical support | | |

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- c) Integration with existing systems d) Cost structure
- 20 What is the role of AI in video game development? [K] [2]
a) To automate game testing b) To create non-player characters (NPCs) with realistic behavior
c) To generate dynamic content d) All of the above
- 21 What type of AI model is DALL-E based on? [K] [2]
a) Generative Adversarial Network (GAN) b) Convolutional Neural Network (CNN)
c) Transformer model d) Recurrent Neural Network (RNN)
- 22 What command do you typically use to start generating an image in MidJourney? [A] [2]
a) /start b) /generate
c) /imagine d) /create
- 23 What type of language should users avoid when interacting with ChatGPT? [U] [2]
a) Professional language b) Inappropriate or offensive language
c) Casual language d) Technical jargon
- 24 What does POS tagging refer to in NLP? [U] [2]
a) Predicting the sentiment of a sentence b) Parsing and splitting paragraphs
c) Identifying parts of speech in a sentence d) Creating new words from a root word
- 25 What is Natural Language Generation (NLG) in content generation? [U] [2]
a) The process of generating human-like text from structured data b) Translating text between languages
c) Creating visual designs d) Analyzing the sentiment of text
- 26 What role does community support play in selecting an AI tool? [U] [2]
a) It enhances security b) It provides quicker resolutions to issues
c) It increases the tool's popularity d) It improves visual design

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- 27 In AI for healthcare, which of the following refers to the ethical issue of biased algorithms? [U] [2]
a) Patient confidentiality b) Algorithmic transparency
c) Fairness in predictions d) Data security
- 28 Which algorithm is used in supervised learning for classification? [U] [3]
a) Decision Tree b) K-means
c) PCA d) Random sampling
- 29 What is "training data"? [K] [3]
a) Data with known answers used to train the model b) Data used to test the model
c) Data that the model generates d) Data for cleaning the model
- 30 What is "exploitation"? [E] [3]
a) Trying something new b) Using what is already known
c) Making mistakes d) Ignoring rewards
- 31 What does fairness in AI mean? [E] [3]
a) Treating everyone the same, regardless of circumstances b) Ensuring equal outcomes for everyone
c) Treating people in a way that is just and unbiased d) Ignoring differences among people
- 32 What can happen if AI is not regulated? [E] [3]
a) Increased safety b) Unfair practices and misuse
c) Better decision-making d) More innovation
- 33 What is "responsible AI"? [U] [3]
a) AI that always makes the best choices b) AI that considers ethical implications in decisions
c) AI that operates without any rules d) AI that is difficult to understand
- 34 How can AI affect privacy? [K] [3]
a) By improving security b) By collecting excessive personal data
c) By minimizing data usage d) By enhancing user control

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- 35 What is "moral responsibility" in AI? [E] [3]
- a) Ignoring the consequences of AI actions b) Being accountable for the impact of AI
- c) Focusing only on profits d) Making decisions without considering ethics
- 36 What is the main challenge in Reinforcement Learning? [K] [3]
- a) Finding the right data b) Balancing trying new things and using known actions
- c) Collecting enough rewards d) Choosing the environment
- 37 How can AI create bias on social media? [E] [3]
- a) By promoting diverse content b) By favoring certain types of posts
- c) By increasing user interaction d) By filtering out all content
- 38 Which technique helps visualize data? [A] [3]
- a) Clustering b) Principal Component Analysis (PCA)
- c) Regression d) Classification
- 39 What is "targeted advertising"? [A] [3]
- a) Ads for everyone b) Ads aimed at specific user interests
- c) Random ads shown to users d) Ads based on location only
- 40 What does accountability mean in AI? [A] [3]
- a) Blaming users for errors b) Taking responsibility for AI actions
- c) Ignoring ethical concerns d) Increasing system complexity

(35 × 1 = 35)

END OF THE QUESTION PAPER

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Answer any 35 questions. Each question carries one mark

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b) To minimize the loss function

c) To initialize random weights

d) To test its performance
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