**INT426 (Generative-AI)**

**Section: K2LE CA: 1(SET-A) Roll No:**

**Max Marks: 30 Duration: 40 mins**

Choose the correct answer and write in the cell given below.

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| **Q1** |  | **Q6** |  | **Q11** |  |
| **Q2** |  | **Q7** |  | **Q12** |  |
| **Q3** |  | **Q8** |  | **Q13** |  |
| **Q4** |  | **Q9** |  | **Q14** |  |
| **Q5** |  | **Q10** |  | **Q15** |  |

1. What is Generative AI?
2. Generative AI is a type of artificial intelligence (AI) that can only create new content, such as text, images, audio, and video by learning from new data and then using that knowledge to predict a discrete, supervised learning output.
3. Generative AI is a type of artificial intelligence (AI) that can only create new content, such as text, images, audio, and video by learning from new data and then using that knowledge to predict a classification output.
4. Generative AI is a type of artificial intelligence (AI) that can create new content, such as text, images, audio, and video. It does this by learning from existing data and then using that knowledge to generate new and unique outputs.
5. Generative AI is a type of artificial intelligence (AI) that can create new content, such as discrete numbers, classes, and probabilities. It does this by learning from existing data and then using that knowledge to generate new and unique outputs.
6. What is a common application of Generative AI in the field of art and design?

a. financial forecasting

b. Image synthesis

c. Speech recognition

d. Network security

1. What are foundation models in Generative AI?
2. A foundation model is a small AI model pretrained on a small quantity of data that was "designed to be adapted” (or fine-tuned) to a wide range of downstream tasks, such as sentiment analysis, image captioning, and object recognition.
3. A foundation model is a large AI model post-trained on a vast quantity of data that was "designed to be adapted” (or fine-tuned) to a wide range of downstream tasks, such as sentiment analysis, image captioning, and object recognition.
4. A foundation model is a large AI model pretrained on a vast quantity of data that was "designed to be adapted” (or fine-tuned) to a wide range of downstream tasks, such as sentiment analysis, image captioning, and object recognition.
5. A foundation model is a large AI model both post and pre-trained on a vast quantity of data that was "designed to be adapted” (or fine-tuned) to a wide range of downstream tasks, such as sentiment analysis, image captioning, and object recognition.

4. How does Generative AI impact organizational efficiency?

1. By optimizing decision-making processes
2. By reducing the need for human supervision
3. By increasing data storage capacity
4. By automating repetitive tasks

5. What distinguishes Generative AI from other types of AI algorithms, such as discriminative algorithms?

1. Generative AI is based on reinforcement learning, while discriminative algorithms are based on unsupervised learning.
2. Generative AI uses unsupervised learning, while discriminative algorithms use supervised learning.
3. Generative AI is only used in computer vision applications, while discriminative algorithms are used in natural language processing.
4. Generative AI focuses on generating new data, while discriminative algorithms focus on classifying existing data.

6. How do Generative Pre-trained Transformers (GPTs) differ from traditional search engines?

a. GPTs rely on pre-trained language models, while search engines use keyword matching

b. Search engines can generate text, while GPTs perform keyword-based searches

c. GPTs and search engines function identically

d. None of the above

7. In healthcare, how can Generative AI be applied?

a. Generating non-medical reports

b. Diagnosing diseases

c. non-Identifying potential drug candidates

d. All of the above

8. What is the primary difference between supervised learning and generative models?

a. Supervised learning focuses on classification, while generative models create new data instances

b. Supervised learning only deals with structured data, while generative models handle unstructured data

c. Both are identical in their approach

d. None of the above

9. What is the full form of GPT:

1. Generative Post-trained Transformer
2. Generative Pre-trained Text
3. Generative Pre-planned Transformer
4. Generative Pre-trained Transformer

10. What characterizes the Flipped Interaction Pattern?

a. It reverses the typical user-to-model interaction flow

b. It discourages interaction with the model

c. It involves complex and convoluted questions

d. All of the above

11. Which design principle does the Template Pattern emphasize?

A. Encapsulation

B. Inheritance

C. Polymorphism

D. Abstraction

12. How does a transformer model attend to different parts of the input sequence simultaneously?

A. Through convolutional layers

B. Through self-attention mechanism

C. Through pooling layers

D. Through recurrent layers

13. LLM models are subset of:

A. Supervised learning

B. Unsupervised learning

C. Semi-supervised learning

D. Deep learning

14. Identify the example of LLM model:

A. Pathways Language Model (PaLM)

B. Path Lexical Model (PaLM)

C. Pathways Lexical Model (PaLM)

D. None of the above

15. What is the primary objective of a Dialog Tuned language model?

A. Generating random numbers

B. Predicting stock market trends

C. Engaging in a conversation by predicting the next response

D. Predicting the weather

**INT426 (Generative-AI)**

**Section: K2LE CA: 1(SET-B) Roll No:**

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1. What is an example of both a generative AI model and a discriminative AI model?
2. A generative AI model could be trained on a dataset of images of cats and then used to cluster images of cats. A discriminative AI model could be trained on a dataset of images of cats and dogs and then used to predict as either cats or dogs.
3. A generative AI model could be trained on a dataset of images of cats and then used to classify new images of cats. A discriminative AI model could be trained on a dataset of images of cats and dogs and then used to predict new images as either cats or dogs.
4. A generative AI model could be trained on a dataset of images of cats and then used to generate new images of cats. A discriminative AI model could be trained on a dataset of images of cats and dogs and then used to classify new images as either cats or dogs.
5. A generative AI model does not need to be trained on a dataset of images of cats and then used to generate new images of cats, because the images were already generated by using AI. A discriminative AI model could be trained on a dataset of images of cats and dogs and then used to classify new images as either cats or dogs.

2. What phase of the project lifecycle involves defining the scope, objectives, and requirements of a Generative AI project?

a. Planning

b. Development

c. Testing

d. Deployment

3. What is a prompt?

1. A prompt is a short piece of text that is given to the small language model (SLM) as input, and it can be used to control the output of the model in many ways.
2. A prompt is a short piece of text that is given to the large language model as input, and it can be used to control the input of the model in many ways.
3. A prompt is a short piece of text that is given to the large language model as input, and it can be used to control the output of the model in many ways.
4. A prompt is a long piece of text that is given to the large language model as input, and it cannot be used to control the output of the model.

4. Which of the following is a key consideration for implementing ethical aspects of Generative AI?

1. Avoiding data privacy regulations
2. Ensuring unbiased model outputs
3. Prioritizing profitability over fairness
4. Maximizing computational power

5. Which of the following statements best describes the fundamental concept of Generative AI?

1. Generative AI aims to generate new data based on patterns learned from existing data.
2. Generative AI focuses on training models to classify and categorize data accurately.
3. Generative AI utilizes reinforcement learning algorithms for training models.
4. Generative AI is primarily concerned with optimizing decision-making processes.

6. What are large language models (LLMs)?

1. Generative AI is a type of artificial intelligence (AI) that only can create new content, such as text, images, audio, and video by learning from new data and then using that knowledge to predict a classification output.
2. Generative AI is a type of artificial intelligence (AI) that only can create new content, such as text, images, audio, and video by learning from new data and then using that knowledge to predict a discrete, supervised learning output.
3. Generative AI is a type of artificial intelligence (AI) that can create new content, such as discrete numbers, classes, and probabilities. It does this by learning from existing data and then using that knowledge to generate new and unique outputs.
4. An LLM is a type of artificial intelligence (AI) that can generate human-quality text. LLMs are trained on massive datasets of text and code, and they can be used for many tasks, such as writing, translating, and coding.

7. How can Generative AI assist in natural language processing tasks in software applications?

a. Generating human-like responses in chatbots

b. Compiling code automatically

c. Optimizing database queries

d. None of the above

8. What does the term "prompt tuning" refer to in the context of large language models?

a. Adjusting the physical components of the model

b. Ignoring prompts for better model performance

c. Optimizing the training process of the model based on prompt variations

d. All of the above

9. What is the purpose of the Audience Persona Pattern in the interaction with a language model?

a. To exclude certain audience groups

b. To add relevant detail

c. To limit user engagement

d. To customize questions based on the intended audience

10. What is a common characteristic of Large Language Models regarding their training data?

a. They are trained only on labeled data

b. They require minimal data for training

c. They are trained on vast amounts of diverse text data

d. All of the above

11. What is the primary architecture used in Large Language Models like GPT-3?

A. LSTM

B. GRU

C. Transformer

D. CNN

12. How does a transformer model attend to different parts of the input sequence simultaneously?

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**INT426 (Generative-AI)**

**Section: K2LE CA: 1(SET-C) Roll No:**

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1. What is the primary objective of a Dialog Tuned language model?

A. Generating random numbers

B. Predicting stock market trends

C. Predicting the weather

D. Engaging in a conversation by predicting the next response

1. Which learning focus on finding similar pattern in the data:
2. Supervised learning
3. Unsupervised learning
4. Semi-supervised learning
5. Deep learning
6. What distinguishes Generative AI from other types of AI algorithms, such as discriminative algorithms?
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2. Both are identical in their approach
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4. All of the above

10. What is the significance of prompt patterns in working with large language models?

1. They provide a structured way to input instructions to the model
2. They are used for hardware optimization
3. They are part of the ACHIEVE framework
4. All of the above

11. What role does fine-tuning play in adapting Large Language Models to specific applications?

1. It restricts the model to specific domains only
2. It adjusts the model for better generalization to various tasks
3. It optimizes hardware performance
4. All of the above

12. In which design of prompt, perspective for GPT to mimic is assigned:

A. Few shot prompt

B. Chain of the thought prompt

C. Role prompt

D. B and C only

13. Identify which factors GPT learns from huge data:

A. Patterns, Reasoning, Context, Grammar

B. Patterns, Re-occurrence, Context, Grammar

C. Patterns, Reasoning, Content, Grammar

D. Patterns, Re-occurrence, Content, Grammar

14. Which of the following statements best describes the fundamental concept of Generative AI?

1. Generative AI focuses on training models to classify and categorize data accurately.
2. Generative AI utilizes reinforcement learning algorithms for training models.
3. Generative AI is primarily concerned with optimizing decision-making processes.
4. Generative AI aims to generate new data based on patterns learned from existing data.

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2. It involves complex and convoluted questions
3. It reverses the typical user-to-model interaction flow
4. All of the above