**INT426 (Gen AI)**

**Section: CA-1 Set 2 Roll No:**

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

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

|  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **Q1** |  | **Q6** |  | **Q11** |  | **Q16** |  | **Q21** |  | **Q26** |  |
| **Q2** |  | **Q7** |  | **Q12** |  | **Q17** |  | **Q22** |  | **Q27** |  |
| **Q3** |  | **Q8** |  | **Q13** |  | **Q18** |  | **Q23** |  | **Q28** |  |
| **Q4** |  | **Q9** |  | **Q14** |  | **Q19** |  | **Q24** |  | **Q29** |  |
| **Q5** |  | **Q10** |  | **Q15** |  | **Q20** |  | **Q25** |  | **Q30** |  |

**1. What is the primary focus of Generative AI?**

- a) Data analysis

- b) Model training

- c) Model generation

- d) Algorithm optimization

**2. Explain the foundational principles behind generative models.**

- a) Creating static datasets

- b) Learning from existing data to generate new content

- c) Enhancing computational efficiency

- d) Improving model interpretability

**3. Which type of AI model is associated with generative AI?**

- a) Supervised learning

- b) Unsupervised learning

- c) Reinforcement learning

- d) Semi-supervised learning

**4. How do generative models differ from discriminative models?**

- a) Generative models create new data, while discriminative models classify existing data.

- b) Generative models focus on classification, while discriminative models create new data.

- c) Both generative and discriminative models create new data.

- d) Both models are synonymous in their approach.

**5. What is the significance of understanding the foundations of generative models?**

- a) Only useful for theoretical purposes

- b) Enables effective prompt engineering

- c) Not applicable to practical AI applications

- d) Impacts only supervised learning models

**6. Define the term "prompt" in the context of Generative AI.**

- a) A command given to a model to generate specific content

- b) A static dataset used for training

- c) A pre-generated set of model parameters

- d) The output of a generative model

**7. Discuss the role of prompt engineering in shaping generative AI outcomes.**

- a) It has no impact on model performance.

- b) It influences the content generated by the model.

- c) Prompt engineering is specific to discriminative models.

- d) It is only relevant in supervised learning scenarios.

**8. How can prompt engineering contribute to model interpretability?**

- a) By making the prompts more complex

- b) By using random prompts

- c) By carefully crafting prompts to reveal specific aspects of model behaviour

- d) By avoiding prompt engineering altogether

**9. In what ways can prompt engineering address bias in generative AI models?**

- a) By amplifying existing biases

- b) By ignoring biases during prompt creation

- c) By carefully choosing prompts to mitigate biases

- d) Bias is unrelated to prompt engineering.

**10. Explain the iterative process of refining prompts for language models**.

- a) It is a one-time task with no need for revisions.

- b) Refinement is necessary only for discriminative models.

- c) Continuous adjustment based on model output and performance.

- d) Prompt refinement is irrelevant to generative models.

**11. How does prompt engineering contribute to the adaptability of generative models?**

- a) It has no impact on adaptability.

- b) By limiting the model's scope

- c) By providing a mechanism to guide and adapt model behaviour

- d) Adaptability is an intrinsic feature and doesn't involve prompt engineering.

**12. Critically assess the ethical implications of prompt engineering in generative AI.**

- a) Prompt engineering has no ethical implications.

- b) Ethical concerns arise due to the potential misuse of prompts.

- c) Ethical considerations are irrelevant in AI development.

- d) Only discriminative models pose ethical challenges.

**13. Evaluate the effectiveness of prompt engineering in mitigating generative model biases.**

- a) It exacerbates biases.

- b) It has no impact on biases.

- c) Effective prompt engineering can help mitigate biases.

- d) Biases are inherent and cannot be addressed through prompt engineering.

**14. Assess the role of prompt engineering in improving the robustness of generative models.**

- a) It has no impact on robustness.

- b) By introducing vulnerabilities

- c) Through careful design, it enhances robustness.

- d) Robustness is unrelated to prompt engineering.

**15. Evaluate the potential limitations of relying solely on prompt engineering for improving model performance.**

- a) Prompt engineering is the only factor influencing performance.

- b) It is ineffective in improving performance.

- c) Prompt engineering is one of many factors; other aspects also play a role.

- d) Performance improvements are solely due to the model architecture.