**INT426 (Gen AI) CA-1 Set 2**

\*\*Bloom Level 1: Remembering (CO1)\*\*

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

- a) Data analysis

- b) Model training

- c) Model generation

- d) Algorithm optimization

\*\*Bloom Level 2: Understanding (CO1)\*\*

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

\*\*Bloom Level 4: Analyzing (CO2)\*\*

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 behavior

- 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 behavior

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

\*\*Bloom Level 5: Evaluating (CO2)\*\*

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.

\*\*Answer Key:\*\*

1. c, 2. b, 3. b, 4. a, 5. b, 6. a, 7. b, 8. c, 9. c, 10. c, 11. c, 12. b, 13. c, 14. c, 15. c