# INT426 (Generative AI)

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

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

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

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

1. **What advantages can be derived from the implementation of Generative AI?**
A) Generative AI enables the development of novel and innovative products and services.
B) Generative AI has the potential to enhance the quality of life for individuals with disabilities.
C) Generative AI can help address intricate problems that are presently beyond the capabilities of human intelligence.
D) All of the above

**2   What is the operational principle behind generative AI?**
A) Utilizing a neural network to acquires knowledge from a huge dataset.
B) It employs a generic algorithm to iterate through a population of models until discovering one capable of generating the desired output.
C)Utilizing the internet to replicate responses for frequently asked questions.
D)Employing a rule-based system, it generates output according to a set of predefined rules.

**3 . What does the story of RB-34 (Herbie) from Isaac Asimov's "Liar" and the example of Gree Electric's chairwoman highlight about AI?**
A)The inherent flaw in AI models that causes them to hallucinate and misidentify individuals
B)The need for a pseudo-mathematical solution to rectify the shortcomings in AI algorithms.
C)The potential risk of AI systems generating false information that could harm individuals.

D)The importance of contextualization in AI applications and the possibility of unintended consequences.

**4. BERT stands for**
A) Bidirectional Encoder Representations from Transformers.
B) Biconvictional Encoder Representations From Transformers
C) Bidirectional Encoder Representations from Translator
D) Biconvictional Encoder Representations From Translator

**5.What is the primary purpose of integrating external APIs or services in the process of building a humorous chatbot using Generative AI?**
A) To enhance the efficiency of Natural Language Processing (NLP) frameworks.
B) To gather user feedback and improve the chatbot's conversational abilities.
C) To access additional sources of jokes, puns, and comedic content.
D) To monitor and evaluate the chatbot's performance in real-time comedy trials.

**6.   A   transformer   models   consists   of _____?**
   A) Encoders
   B) decoders
   C) Both encoders and decoders
   D) Neither encoder nor decoder

**7. What do hallucinations refer to in the context of transformers?**

A) Nonsensical or grammatically incorrect outputs
B) Accurate predictions
C) Low training error
D) Efficient processing

**8. In the context of generative AI and prompt engineering, what does the "persona pattern" primarily involve?**

A) Teaching the model to predict the next word in a sentence.
B) Replicating real-world experiences by instructing the model to act as a specific persona.
C) Using explicit details to program the model for specific tasks.
D) Validating and versioning the output generated by the model.

**9. What is the primary focus of prompt engineering in the context of generative AI?**

A) Programming explicit details for specific tasks.

B) Replicating real-world experiences with personas.

C) Predicting missing words in sentences.

D) Designing prompts to generate specific high-quality responses.

**10. What is the purpose of a language model in Generative AI?**

A. To generate new text that is indistinguishable from human-created text.
B. To automate tasks that are currently done by humans, such as writing emails or generating reports.
C. To learn from a large dataset of text and use that data to generate new examples.
D. To classify existing text into one of a set of categories.

**11. What is the primary function of artificial neural networks in deep learning?**

A) Data labelling
B) Image classification.
C) Processing complex patterns
D) Supervised learning

**12. Which type of model is used for text-to-task applications, such as navigating a web UI or making changes through the GUI?**

A) Text-to-text model
B) Text-to-image model
C) Text-to-video model
D) Text-to-task model

**13.) What is the significance of transformers in generative AI, particularly in large language models?**

A) Transformers are only relevant to discriminative models.
B) Transformers enable the processing of complex patterns in natural language.
C) Transformers are used for unsupervised learning exclusively.
D) Transformers have no impact on generative AI.

**14) The effectiveness of large language models (LLMs) typically increases with the addition of more data and parameters.?**

a) False
b) True
c) neither True nor False
d) None

**15) In the context of image generation using diffusion models, what is the fundamental role of supervised learning?**

A) To randomly select pixels in an image for noise addition.

B) To predict the next word in a given text prompt.

C) To learn from noisy images and generate cleaner versions.

D) To create a dataset with unrelated images for model training.