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BRAINWARE UNIVERSITY

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Term End Examination 2025-2026
Programme – M.Tech.(CSE)-AIML-2025
Course Name – Generative AI
Course Code - MTA20407B
(Semester II)

Full Marks : 60

Time : 2:30 Hours

[The figure in the margin indicates full marks. Candidates are required to give their answers in their own words as far as practicable.]

Group-A

(Multiple Choice Type Question)

1 x 15=15

1. Choose the correct alternative from the following :

- (i) The availability of GPUs significantly reduced the training time of deep neural networks...
 - a) Increased memory only
 - b) Reduced training time
 - c) Removed overfitting
 - d) Eliminated data needs
- (ii) Machine translation and speech recognition are core applications of _____.
 - a) Computer vision
 - b) Robotics
 - c) NLP
 - d) Database systems
- (iii) Transfer learning is especially effective when target data is _____.
 - a) Requires large data
 - b) Independent of data size
 - c) Effective with limited data
 - d) Avoids fine-tuning
- (iv) Generative AI models are primarily designed to create new content by
 - a) memorizing training data
 - b) learning patterns from existing data
 - c) executing predefined rules
 - d) optimizing hardware resources
- (v) Diffusion models generate data by
 - a) predicting next tokens
 - b) compressing inputs
 - c) iterative denoising of noise
 - d) adversarial competition
- (vi) VAEs encourage smooth latent representations through
 - a) hard clustering
 - b) deterministic encoding
 - c) probabilistic regularization
 - d) attention scores
- (vii) LSTM gating mechanisms mainly contribute to
 - a) faster inference
 - b) memory retention control
 - c) parallel processing
 - d) noise reduction
- (viii) Central Limit Theorem supports approximate normality of _____ for large samples.
 - a) Data augmentation
 - b) Feature scaling
 - c) Parameter estimation
 - d) Sample mean distribution

