

## DEPARTMENT OF HUMANITIES & SOCIAL SCIENCES

### Programme: B. Tech (Minor in Psychology)

#### Course Title: Artificial Intelligence: Psychological Perspectives

Course Category: Minor

Internal: 50 Marks

Course Code: HSMP 306

Theory: 50 Marks

Credits: 3 (L-3)

Total: 100 Marks

Semester: 6<sup>th</sup>

Time: 3 hrs

#### Course Objectives

To analyze and evaluate psychological perspectives on Artificial Intelligence and to understand the interaction and ethical considerations associated with AI systems.

#### Instructions for Examiner

The number of questions to be set will be five, one from each unit. The examinees will be required to attempt all five questions. All questions shall carry equal marks.

#### Unit I

Definition of Artificial Intelligence, History and Evolution of Artificial Intelligence in Psychology, Theoretical Foundations and Applications of Artificial Intelligence in Psychology.

#### Unit II

Comparison of Artificial Intelligence and Human Intelligence, Cognitive Processes and AI Systems, Impact of Artificial Intelligence on Human Cognition and Decision Making. Critical thinking skills to compare human intelligence and artificial intelligence and their impact on humans. Human-AI Collaboration and Augmentation.

#### Unit III

Cognitive Psychology and Artificial Intelligence: Perception, Attention, Memory. Social Psychology and Artificial Intelligence: Human-like Interactions, Emotions, Trust. Ethical Considerations and Biases in Artificial Intelligence.

#### Unit IV

Classification of AI Systems: Weak AI, Strong AI, Artificial Super Intelligence. Artificial Intelligence in Mental Health Care, Education, Synthetic Psychology, and Other Psychology Domains. Benefits and Risks of AI Adoption in Society.

#### Course Outcomes

At the end of the course, student will be able to critical thinking skills to compare human intelligence and artificial intelligence and their impact on humans.

#### References

1. Russell, S., Russell, S. J., Norvig, P. & Davis, E. (2010). *Artificial Intelligence: A Modern Approach*. Prentice Hall.
2. Tegmark, M. (2017). *Life 3.0: Being Human in the Age of Artificial Intelligence*. Knopf (US) Allen Lane (UK).
3. Bostrom, N. (2016). *Super intelligence: Paths, Dangers, Strategies*. Oxford University Press, USA.
4. Sternberg RJ (2019). *Cognitive Psychology*. Cambridge University Press University Press