



Avinashilingam Institute for Home Science and Higher Education for Women
(Deemed to be University Estd. u/s 3 of UGC Act 1956, Category 'A' by MHRD)
Re-accredited with 'A++' Grade by NAAC. Recognised by UGC Under Section 12B
Coimbatore - 641 043, Tamil Nadu, India

Continuous Internal Assessment II – April 2025
Semester- IV

Class: II UG
Major: All Major

Time : 2 Hrs.
Max. Marks: 60

23BCAGE6 Introduction to Artificial Intelligence

Course Outcomes:

1. Explore the need of Artificial Intelligence
2. Learn the components of AI and algorithms to solve real world problems
3. Acquire knowledge on AI Project cycle
4. Learn AI related terminologies
5. Understand the subset of AI-Expert Systems

Part A

Choose the correct answer

6 x 1 = 6

1. Which stage in AI development involves identifying the problem and setting goals?
a) Data Collection b) Problem Scoping c) Model Training d) Model Evaluation CO3K1
2. Which of the following is a common tool used for Data Visualization in AI?
a) MS Word b) Matplotlib c) Notepad d) Antivirus Software CO3K1
3. Which of the following is an application of Artificial Intelligence?
a) Self-driving cars b) Calculators c) Typewriters d) Manual record-keeping CO4K2
4. Which programming language is most commonly used for AI development?
a) Python b) HTML c) CSS d) PHP CO4K3
5. What type of reasoning is used in Expert Systems?
a) Forward and backward chaining b) Linear regression c) Sorting algorithms d) Random guessing CO5K1
6. Which of the following is a component of an Expert System?
a) Knowledge Base b) Web Browser c) Spreadsheet d) Operating System CO5K1

Part B

Answer all questions

3 x 6 = 18

Answer should not exceed 400 words or two pages

- 7.a. Explain the role of modeling and evaluation in the AI project cycle. Why is evaluation important in AI development? CO3K1
(or)
- 7.b. What is computer vision? Describe its applications and challenges in real-world scenario. CO4K3
- 8.a. Define robotics and discuss its significance in modern industries. What are the key components of a robotic system? CO4K1
(or)
- 8.b. What is speech recognition? Briefly explain its working principles and applications in AI. CO4K4

- 9.a. Define an expert system. Why are expert systems needed, and what are their key characteristics? CO5K1
- (or)
- 9.b. What are expert system tools? How do they help in the development and implementation of expert systems? Provide examples. CO5K3

Part C

3 x 12 = 36

Answer all questions

Answer should not exceed 800 words or four pages

- 10.a. What is data visualization in AI? How does it help in understanding AI-driven insights and decision-making? CO3K2
- (or)
- 10.b. What is a facial recognition system? Explain its working principles and applications in AI. CO4K2
- 11.a. How do programming languages contribute to AI development? Discuss the importance of Python, Java, and other languages in AI applications. CO4K3
- (or)
- 11.b. List and explain some major applications of AI across different industries. How does AI impact daily life? CO4K2
- 12.a. Describe the architecture of an expert system. What is the role of knowledge engineering in developing expert systems? CO5K1
- (or)
- 12.b. What are the different phases of the expert system life cycle? How does each phase contribute to building an effective expert system? CO5K2

Faculty Name: J. Sangeetha Priya
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