SHRI VAISHNAV VIDYAPEETH VISHWAVIDYALAYA, INDORE
Shri Vaishnav Institute of Information Technology
Department of Computer Science and Engineering

MST I

Subject Code: BTIBMC601   **Subject Name:** Artificial Intelligence and Applications   **Semester:** VI

Time: I Hour   **Total Marks:** 20

Note: All questions are compulsory. Assume suitable missing data

Question No.		Marks	Related CO
1	a) Explain Artificial Intelligence and its types.	3	CO1
	b) What is the evolution & History of Artificial Intelligence?	3	
	c) Write down ANN model building steps with syntax & explanation in Binary Classification like – [1- Import library, 2- Build ANN model, 3- Compile, 4-fit train test] (if x is 4)	4	
	OR		
	d) Write down ANN model building steps with syntax & explanation in Regression like – [1- Import library, 2- Build ANN model, 3- Compile, 4-fit train test] (if x is 4)		CO1
2	a) Explain AI Technologies.	3	
	b) Explain Perceptron with diagram.	3	
	c) What are the Applications of Artificial Intelligence?	4	CO2
	OR		
	d) Write down ANN model building steps with syntax & explanation in Multiclass Classification like – [1- Import library, 2- Build ANN model, 3- Compile, 4-fit train test] (if x is 4 & 7 classes in y)		CO3

CO1	Explore opportunities brought by the intersection between human expertise and Artificial Intelligence,
CO2	Understand AI technology building blocks, including: natural language processing, machine and deep learning, neural networks, virtual agents, autonomics and computer vision
CO3	Develop a deeper understanding of machine learning techniques and the algorithms that power those systems.

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MST II

Subject Code: BTIBMC601   **Subject Name:** Artificial Intelligence and Applications   **Semester:** VI

Time: 1 Hour   **Total Marks:** 20

Note: All questions are compulsory. Assume suitable missing data

Question No.		Marks	Related CO
1. a)	What is the difference between AI, ML & Deep Learning with example?	3	CO1
b)	What are the various types of algorithms which are commonly used in Machine Learning?	3	
c)	What is a Neural Network and why are neural networks important?	4	CO1
	or		
	How CNN is used for image classification?		
2. a)	What is NLP and give examples of its application in detail?	3	CO2
b)	What are tokenization, stemming and lemmatization? Explain these terms with examples.	3	CO2
c)	What is computer vision and How can we use computer vision in Business?	4	CO3
	or		
	What is a Virtual Agent and how does it work for Business?		

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CO3	Develop a deeper understanding of machine learning techniques and the algorithms that power those systems.

BTIBMC601

B. Tech. (CSE-CMCI / CSE-BDAI / CSE-AII / CSE-FSDI /CSE-DSI)
VI Semester Examination, June 2023
Artificial Intelligence and Applications
Choice Based Credit System (CBCS)

Duration: 3 Hrs.

Maximum Marks: 60

Minimum Pass Marks: 24

Note: All questions carry equal marks, out of which part 'A' and 'B' carry 3 marks and part 'C' carries 6 marks.
From each question, part 'A' and 'B' are compulsory and part 'C' has internal choice.
Draw neat diagram, wherever necessary.
Assume suitable data wherever necessary.

Q.1(A)	Describe artificial intelligence and its impact on today's world.	03
(B)	Explain the development of artificial intelligence on time scale.	03
(C)	Examine any AI Technology presently used in human welfare.	06

OR

Analyze the contribution of artificial intelligence technology within a modern learning environment.

Q.2(A)	What is the Artificial Intelligence impact on present Industries?	03
(B)	Draw general architecture of smart robots.	03
(C)	Draw block diagram for different agents used in Autonomous vehicles.	06

OR

Analyze how different industries are adopting themselves with AI revolution.

Q.3(A)	List down the future trends of AI in India.	03
(B)	Examine, any real-world problem that is difficult to solve today and may be solvable in the next five years.	03
(C)	Analyze the computation limitations of human and machines.	06

OR

Analyze the learning limitations of human and machines.

Q.4(A) List down the hyper parameters used in any deep learning algorithm. 03

(B) Differentiate machine learning and deep learning on basis of learning rate, performance, number of hyper parameter, and learning algorithms 03

(C) Examine the assumptions of simple linear regression. 06

OR

Examine the use cases of classification and predictions in machine learning.

Q.5(A) Explain Stop words, Tokenization, Lemmatization & stemming 03

(B) What are the different types of layers in CNN architectures? 03

(C) What are the various services or applications of Computer Vision used today? 06

OR

Explain computer vision tools and technologies mostly used currently in industries.

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