



PAPER ID-311707

Printed Page: 1 of 2

Subject Code: KMC101

Roll No:

--	--	--	--	--	--	--	--	--	--	--	--	--	--	--

**BTECH**  
**(SEM I) THEORY EXAMINATION 2023-24**  
**AI FOR ENGINEERING**

**TIME: 3HRS****M.MARKS: 25**

**Note: 1.** Attempt all Sections. If require any missing data; then choose suitably.

**SECTION A****1. Attempt all questions in brief.**

Q no.	Question	Marks	CO
a.	Define Artificial Intelligence.	2	1
b.	Explain the term Big Data.	2	2
c.	Explain the concept of K- Mean clustering algorithm.	2	2
d.	What is machine translation?	2	3
e.	Define speech recognition and provide an example of a real-life application where speech recognition technology is utilized.	2	3
f.	What are some limitations of RNNs.	2	4
g.	What is deep learning, and how does it differ from traditional machine learning approaches?	2	4
h.	Discuss future prospects and opportunities for the integration of AI technologies in healthcare.	2	1
i.	Explain the concept of feature extraction in object recognition.	2	5
j.	What are the common image file formats used for storing images on computers?	2	5

**SECTION B****2. Attempt any three of the following:**

Q no.	Question	Marks	CO
a.	Explain the relationship between AI, Machine Learning, and Deep learning.	10	1
b.	Explain the need for data processing, Explain various stages in data processing.	10	2
c.	What are chatbots? Explain its advantage	10	3
d.	Discuss the architecture of a convolutional neural network (CNN), highlighting its applications and advantages.	10	4
e.	Define a robot and explain its fundamental characteristics.	10	5

**SECTION C****3. Attempt any one part of the following:**

Q no.	Question	Marks	CO
a.	Explain the concept of feature extraction in object recognition.	10	1
b.	How artificial intelligent systems are different from traditional systems? Explain with example	10	1



PAPER ID-311707

Printed Page: 2 of 2

Subject Code: KMC101

Roll No:

--	--	--	--	--	--	--	--	--	--	--	--	--	--	--

**BTECH**  
**(SEM I) THEORY EXAMINATION 2023-24**  
**AI FOR ENGINEERING**

**TIME: 3HRS****M.MARKS: 25****4. Attempt any one part of the following:**

Q no.	Question	Marks	CO
a.	Explain Linear regression with an example.	10	2
b.	Explain in detail various data visualization techniques used in data science.	10	2

**5. Attempt any one part of the following:**

Q no.	Question	Marks	CO
a.	Explain the role of natural language processing in enhancing the accessibility of differently abled persons.	10	3
b.	What are Large Language Models (LLMs), J}uqfrs%ymjn%uwr fw-%uzwutxj %smj %nj q %k %fyzwf %fslzflj %Uwthjxxrl3	10	3

**6. Attempt any one part of the following:**

Q no.	Question	Marks	CO
a.	Describe the architecture and training process of a Generative Adversarial Network	10	4
b.	Explain the Universal Approximation Theorem (UAT) in the context of neural networks.	10	4

**7. Attempt any one part of the following:**

Q no.	Question	Marks	CO
a.	Discuss the advantages and challenges of face recognition systems in real life.	10	5
b.	Define computer vision, Describe the key components of a computer vision system	10	5