



Roll No

**PRESIDENCY UNIVERSITY  
BENGALURU**

**School Of Computer Science and Engineering & Information Science**

**End-Term Examinations, Aug 2024**

**Odd Semester: M.Tech 2023 - 24**

**Date: 13-08-2024**

**Course Code: CSE5012**

**Time: 9.30AM TO 12.30PM**

**Course Name: Artificial Intelligence in Cloud Computing**

**Max Marks: 100**

**Department: SOCSE**

**Weightage: 50%**

**Instructions:**

- (i) Read the all questions carefully and answer accordingly.  
(ii) Do not write any matter on the question paper other than roll number.

Q. No	Questions	Marks	CO	RBT
1	a. Mention the benefits of AI in cloud computing?	4	CO1	L1
	b. Draw a suitable diagram and explain AI building blocks	6	CO1	L2
	c. What is NLP API? Illustrate the various methods supported by NLAPI for performing analysis and annotation on text	10	CO1	L3

OR

2	a. Describe a simple Natural Language JSON Entity Analysis request	4	CO1	L1
	b. Discuss the response generated for the above request	6	CO1	L2
	c. Explain the features offered by the following AI platforms? i) Microsoft Cognitive Services ii) IBM Watson	10	CO1	L3

3	a. Describe the process of handling “out of vocabulary words”.	4	CO2	L1
	b. Illustrate how an n-gram character model can be used for language identification	6	CO2	L2
	c. Draw the architecture diagram for an Automatic Speech Recognition System. Use a suitable example and illustrate how HMM can be used in the acoustic model.	10	CO2	L3

OR

4	a. What is the difficulty faced by robot in following the shortest path sketched for it by deterministic path planner algorithms?	4	CO2	L1
	b. Explain the various measures undertaken to overcome these difficulties in following the shortest path sketched for it.	6	CO2	L2
	c. Given a corpus and query, rank the documents in corpus as per relevance to the query using tf-idf weighting Query: is Siri AI powered Corpus: Document 1: Alexa and Siri are virtual assistants Document 2: Virtual assistants are AI powered chatbots Document 3: Alexa and Siri are AI powered chatbots that enhance customer experience	10	CO2	L3

5	a. What is a chatbot? Describe the different types of chatbots mentioning at least one example for each type	4	CO3	L1
	b. Distinguish between task oriented chatbots and data driven predictive chatbots	6	CO3	L2
	c. Illustrate the steps in designing a chatbot for bus ticket reservation.	10	CO3	L3

OR

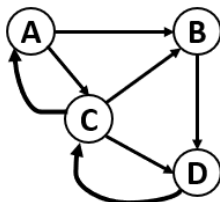
6	a. What are the advantages and disadvantages of adopting the pattern matching technique for developing chatbots?	4	CO3	L1
	b. List the two approaches of developing a chatbot? Explain each approach with suitable example	6	CO3	L2
	c. I need to design a chatbot to help one make a hotel reservation. Which type of chatbot do I choose to design? Why?	10	CO3	L3

7	a. Describe the support provided by IBM Cloud in hosting a web application	4	CO4	L1
	b. Explain the process of training, testing and deploying an AI model on Oracle cloud.	6	CO4	L2
	c. A python application “Spam Email Detector” is to be developed and deployed on IBM Cloud. Illustrate how this can be done	10	CO4	L3

OR

8	a. Explain the support provided by Amazon cloud for the converting text to speech	4	CO4	L1
	a. Illustrate the support provided by Google cloud platform for sentiment analysis	6	CO4	L2
	b. An application “Online Bus Pass System” is to be developed and deployed on Azure Cloud. Illustrate how this can be done.	10	CO4	L3

9	a. Describe the process of evaluating an IR system	4	CO2	L1
	b. What is a visibility graph? Explain the process of motion planning using visibility diagram	6	CO2	L2
	c. Apply Page Rank algorithm to evaluate the given network and rank the nodes. Perform 3 iterations	10	CO2	L3



OR

10	a. Mention the benefits of using chatbot in business	4	CO3	L1
	b. How are chatbots used in different industries? Explain	6	CO3	L2
	c. Draw a suitable diagram and explain the chatbot architecture	10	CO3	L3