

Total No. of Questions – [06]

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MAY 2022 - ENDSEM EXAM
FINAL YEAR B. TECH. (COMPUTER ENGINEERING)
(SEMESTER - II)
COURSE NAME: PROFESSIONAL ELECTIVE-V
[NATURAL LANGUAGE PROCESSING]
COURSE CODE: CSUA40182C
(PATTERN 2018)

Time: [1 Hr]

[Max. Marks: 30]

Instructions to candidates:

- 1) Answer Q.1 OR Q.2, Q.3 OR Q.4, Q.5 OR Q.6.
- 2) Figures to the right indicate full marks.
- 3) Use of scientific calculator is allowed
- 4) Use suitable data where ever required

Q.1 a	Identify correct lexical relations in the following examples. 1)Happy, joyful, glad 2)Happy, sad 3) world record, a record of conversation 4) book ticket, bring me a book	4	CO4	Level 3- Apply
Q.1 b	Classify relation between word meanings and give example for each.	6	CO4	Level 4- Analyze
OR				
Q.2 a	Illustrate an example to explain the Distributional Semantic Model (DSM).	4	CO4	Level 3- Apply
Q.2 b	Explain Word Sense Disambiguation (WSD) for word 'bark' in following example. "Cinnamon comes from the bark of the Cinnamon tree." and "The dog barked at the stranger."	6	CO4	Level 4- Analyze
Q.3 a	Model Regex for finding phone number and email	4	CO5	Level 3- Apply
Q.3 b	Write at least two features of Bootstrapping and Supervised Relation Extraction. Construct any real time example for one of the approach.	6	CO5	Level 6- Create

OR				
Q.4 a	Apply the Latent Dirichlet Allocation [LDA] on any real time application.	4	CO5	Level 4- Apply
Q.4 b	Suppose you have various photographs (documents) with captions (words). You want to display them in a gallery so you decide to categorize the photographs on various themes (topics) based on which you will create different sections in your gallery. Assume category as k=2 (nature and city). Find out category of sentence "The tree is in front of the building and behind a car". Assume suitable data wherever required	6	CO5 CO3	Level 6- Create
OR				
Q.5 a	Analyze the impact of NLP in Education Sector	4	CO6	Level 4- Analyze
Q.5 b	"Cross Lingual Information Retrieval represent information in same way though are in different languages". Justify.	6	CO6	Level 5- Evaluate
OR				
Q.6 a	Identify at least four applications of NLP used in Education Sector	4	CO6	Level 4- Analyze
Q.6 b	"Semantic web describes the relations among data (i.e., resources) on the Web". Justify.	6	CO6	Level 5- Evaluate