

Code No: R20A0015

MALLA REDDY COLLEGE OF ENGINEERING & TECHNOLOGY

(Autonomous Institution – UGC, Govt. of India)

III B.Tech II Semester (Honors) Regular Examination, June 2024**Research Methodology****(ME, ECE, CSE & AE)**

Roll No									
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Time: 3 hours**Max. Marks: 70**

Note: This question paper Consists of 5 Sections. Answer **FIVE** Questions, Choosing **ONE** Question from each SECTION and each Question carries 14 marks.

			BCLL	CO(s)	Marks
<u>SECTION-I</u>					
1	<i>A</i>	Distinction between the terms "research method" and "research methodology"	L3	CO-I	[7M]
	<i>B</i>	Describe the different steps involved in a research process.	L3	CO-I	[7M]
OR					
2	<i>A</i>	Describe the different types of research. Distinguish between an experiment and a survey	L3	CO-I	[7M]
	<i>B</i>	What key stages or milestones characterize the progression of the research from inception to completion?	L2	CO-I	[7M]
<u>SECTION-II</u>					
3	<i>A</i>	How do you carry Literature Review? Describe its significance	L2	CO-II	[7M]
	<i>B</i>	How do the formulated objectives address the identified gaps or issues in the literature?	L2	CO-II	[7M]
OR					
4	<i>A</i>	How do these hypotheses relate to the identified variables and research objectives?	L3	CO-II	[7M]
	<i>B</i>	What are the main variables or factors under investigation in the research problem?	L1	CO-II	[7M]
<u>SECTION-III</u>					
5	<i>A</i>	Explain the meaning and significance of research design	L2	CO-III	[7M]
	<i>B</i>	Distinguish between Primary Data and Secondary Data	L3	CO-III	[7M]
OR					
6	<i>A</i>	Evaluate the different methods of Collecting Secondary data	L3	CO-III	[7M]
	<i>B</i>	What ethical considerations are involved in the collection of data for research purposes?	L1	CO-III	[7M]
<u>SECTION-IV</u>					
7	<i>A</i>	Why probability sampling is generally preferred in comparison to non-probability sampling?	L2	CO-IV	[7M]
	<i>B</i>	What is the central limit theorem, and why is it important in statistical inference?	L2	CO-IV	[7M]
OR					
8	<i>A</i>	Distinguish between Null and alternative hypothesis.	L3	CO-IV	[7M]
	<i>B</i>	Describe the different methods or formulas used for calculating sample size?	L2	CO-IV	[7M]

SECTION-V

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| 9 | A | Describe the process of setting up null and alternative hypotheses for a research study? | L2 | CO-V | [7M] |
| | B | What is analysis of variance (ANOVA), and how does it differ from other hypothesis tests? | L2 | CO-V | [7M] |
- OR
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|-----------|--|--|-----------|-------------|--------------|
| 10 | | Explain the purpose of research report? What are various stages of report writing and explain criteria for good research report. | L2 | CO-V | [14M] |
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Code No: R20A6609

MALLA REDDY COLLEGE OF ENGINEERING & TECHNOLOGY

(Autonomous Institution – UGC, Govt. of India)

III B.Tech II Semester (Honors) Regular Examination, June 2024**Natural Language Processing**

(CSE)

Roll No									
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Time: 3 hours**Max. Marks: 70**

Note: This question paper Consists of 5 Sections. Answer **FIVE** Questions, Choosing **ONE** Question from each SECTION and each Question carries 14 marks.

			BCLL	CO(s)	Marks
<u>SECTION-I</u>					
1	A	Illustrate with suitable examples the different levels on NLP	L2	CO-I	[7M]
	B	List and explain the challenges of Natural Language Processing.	L2	CO-I	[7M]
OR					
2	A	Explain the role of transformational rules in transformational grammar with the help of an example.	L1	CO-I	[7M]
	B	Explain lexicon, lexeme and the different types of relations that hold between lexemes.	L2	CO-I	[7M]
<u>SECTION-II</u>					
3		Design CYK algorithm. Tabulated the sequence of states created by CYK algorithm while parsing "A pilot likes fling planes". Consider the following simplified grammar in CNF S → NP VP NN → Pilot VBG → flying NP → DT NN NNS → planes NP → JJ NNS JJ → flying VP → VBG NNS DT → a VP → VBZ NP VBZ → likes	L4	CO-II	[14M]
OR					
4	A	Explain Tree Banks and its role in parsing.	L1	CO-II	[7M]
	B	With the help of neat diagram, explain the representation of syntactic structure.	L2	CO-II	[7M]
<u>SECTION-III</u>					
5	A	Explain Unigram, Bi-gram, and Tri-gram concepts using an example sentence: "This is a sentence".	L3	CO-III	[7M]
	B	Write a short note on Language Model Adaptation?	L2	CO-III	[7M]
OR					
6	A	Differentiate between Bi-gram and Tri-gram	L2	CO-III	[7M]
	B	Illustrate different types of language modelling?	L2	CO-III	[7M]
<u>SECTION-IV</u>					
7	A	Explain word sense disambiguation in brief.	L1	CO-IV	[7M]
	B	Write about supervised learning algorithm for semantic passing.	L2	CO-IV	[7M]
OR					
8	A	Describe nearest neighbour algorithm for Word Sense Disambiguation.	L3	CO-IV	[7M]
	B	Give the example of bag-of-words model	L2	CO-IV	[7M]

SECTION-V

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|----|---|---|-----------|-------------|-------------|
| 9 | A | Write about shallow semantic passing. | L1 | CO-V | [7M] |
| | B | Illustrate the structure of a predicate argument? | L2 | CO-V | [7M] |
| | | OR | | | |
| 10 | A | Differentiate between supervised and unsupervised Discourse Segmentation. | L2 | CO-V | [7M] |
| | B | Explain Reference Resolution task with an example. | L1 | CO-V | [7M] |
