

## Model Question Paper

### Fourth Semester BE Degree Examination

### Research Methodology & Intellectual Property Rights

**Time: 2.5 Hours**

**Max. Marks: 100**

*Note: 1. Answer any FIVE full questions, choosing ONE full question from each module.*

*2. M: Marks, L: RBT (Revised Bloom's Taxonomy) level, C: Course outcomes.*

Module - 1			M	L	C
Q1	a.	Describe on research and discuss the various motivations that influence engineers to undertake research.	10	L2	CO1
	b.	Describe, how can bibliographic database search techniques be utilized effectively, and what is their significance in enhancing research quality?	10	L2	CO2
OR					
Q2	a.	Enumerate the different ways engineers do research, and how do they differ from each other?	10	L2	CO1
	b.	Explain the importance of note taking and methods of note-taking during prior art.	10	L2	CO2
Module- 2					
Q3	a.	Discuss the techniques involved in defining a research problem.	10	L2	CO1
	b.	Compare and contrast different types of research designs, highlighting their advantages and limitations	10	L2	CO1
OR					
Q4	a.	Describe the key features of a good research design and explain why it is necessary	10	L2	CO1
	b.	Explain the basic principles of experimental designs and illustrate their application in engineering research.	10	L2	CO1
Module - 3					
Q5	a.	Describe the different types of unethical practices in research.	10	L2	CO2
	b.	Explain the structure of a journal paper using the IMRaD format and explain the importance of each section	10	L2	CO2
OR					
Q6	a.	Discuss various ethical issues related to authorship in engineering research. Why is ethical conduct important?	10	L2	CO2
	b.	Explain how COPE guidelines improve the reputation and the overall quality of the content they disseminate.	10	L2	CO2
Module - 4					
Q7	a.	Explain the role of Intellectual Property (IP) in fostering economic and cultural development.	10	L2	CO3
	b.	Compare and distinguish copyrights and patents with suitable examples.	10	L2	CO3
OR					

Q8	a.	Explain the concepts of trademarks and industrial designs, providing relevant examples.	10	L2	CO3
	b.	Explain the procedure for registration of GI and give suitable GI examples for handicrafts, agricultural, foodstuffs and manufactured items of Karnataka state.	10	L2	CO3
<b>Module - 5</b>					
Q9	a.	Explain the key patent application forms to be filed while applying for the patenting.	10	L2	CO4
	b.	Discuss the steps involved in the patenting process, from filing to Grant of a Patent.	10	L2	CO4
<b>OR</b>					
Q10	a.	Discuss the significance of conducting a prior art search during the patenting process.	10	L2	CO4
	b.	Explain briefly the following processes of Patenting: (i) Validity of Patent Protection, (ii) Post-grant Opposition, (iii) Commercialization of a Patent.	10	L2	CO4

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