Semester: 5th sem	Department of ECE & ECS	AY: 2026-27
Course Code: BRMK557	Course Name: Research Methodology & IPR	

Question Bank

Q.	Module-01	M	L	C
1.	Define research and explain the essential components of starting a research cycle.	8	L2	CO1
2.	Explain, in detail, the diverse objectives of engineering research.	6	L2	CO1
3.	Compare between the following types of Engineering Research. a) Descriptive research and Analytical research b) Fundamental and Applied Research c) Quantitative and Qualitative Research	10	L2	CO1
4.	Explain the intrinsic and extrinsic types of motivations. Provide examples of how both types of motivations can influence an engineer's involvement in research.	8	L2	CO1
5.	Explain the attributes of a worthwhile research problem.	6	L2	CO1
6.	Discuss why ethical considerations are crucial in engineering research practices.	8	L2	CO1
7.	Explain how ethical principles are applied in the practice of engineering research.	8	L2	CO1
8.	Explain how issues related to authorship can impact the credibility of research.	8	L2	CO1
9.	Define and elaborate on the types of research misconduct, including fabrication, falsification, and plagiarism.	8	L2	CO1
10.	Discuss the consequences of research misconduct on the scientific community.	8	L2	CO1
	Module-02			
11.	Explain the essential steps in analyzing and synthesizing prior art during literature review	8	L2	CO2
12.	Explain the role of bibliographic databases in academics and research? Provide examples.	8	L2	CO2

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13.	Explain how acknowledging and attributing work in the academic world affect the knowledge flow?	10	L2	CO2
14.	Discuss the role of following tools in research. 1) Web of Science, 2) Google & Google Scholar	8	L2	CO2
15.	Explain the significance of Critical and Creative Reading research.	8	L2	CO2
16.	Explain the basic search operators to narrow down the search results	6	L2	CO2
17.	Explain the three main functions of citation.	6	L2	CO2
18.	Explain the types of citation.	8	L2	CO2
19.	Explain the role of effective note-taking in the context of research literature, em-phasizing its significance as a bridge between reading and writing.	8	L2	CO2
20.	Explain the steps involved in Reading Mathematics and Algorithms	8	L2	CO2
21.	Examine the different categories of acknowledgment in academic publications.	7	L2	CO2
22.	Explain the impact of title and keywords on citations be determined	8	L2	CO2
23.	Explain the effects of citing datasets in research	6	L2	CO2
24.	Discuss the importance of a literature review in research. How does it contribute to the understanding of existing knowledge and the formulation of new ideas.	8	L2	CO2
25.	Explain technical reading and skimming process.	8	L2	CO2

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***Note:**

1. All modules should contain a minimum of **10** questions each and the total number of questions must be **50**.
2. Questions can carry marks of 06, 07, 08, 09, 10 and for problems: 04 or 05.
3. Follow the RBTL as per the keywords used to frame the questions.
4. Maintain the Course Outcomes (COs) as per the syllabus.
5. M: Marks, L: RBTL, C:COs.