

## MSCS-4-02T: Research Methodology and IPR

Total Marks: 100  
External Marks: 70  
Internal Marks: 30  
Credits: 4  
Pass Percentage: 40%

### INSTRUCTIONS FOR THE PAPER SETTER/EXAMINER

1. The syllabus prescribed should be strictly adhered to.
2. The question paper will consist of three sections: A, B, and C. Sections A and B will have four questions from the respective sections of the syllabus and will carry 10 marks each. The candidates will attempt two questions from each section.
3. Section C will have fifteen short answer questions covering the entire syllabus. Each question will carry 3 marks. Candidates will attempt any ten questions from this section.
4. The examiner shall give a clear instruction to the candidates to attempt questions only at one place and only once. Second or subsequent attempts, unless the earlier ones have been crossed out, shall not be evaluated.
5. The duration of each paper will be three hours.

### INSTRUCTIONS FOR THE CANDIDATES

Candidates are required to attempt any two questions each from the sections A and B of the question paper and any ten short questions from Section C. They have to attempt questions only at one place and only once. Second or subsequent attempts, unless the earlier ones have been crossed out, shall not be evaluated.

<b>Course: Research Methodology and IPR</b>	
<b>Course Code: MSCS-4-02T</b>	
<b>Course Outcomes (COs)</b> After the completion of this course, the students will be able to:	
<b>CO1</b>	Illustrate research problem formulation.
<b>CO2</b>	Analyze research related information and research ethics
<b>CO3</b>	Summarize the present day scenario controlled and monitored by Computer and Information Technology, where the future world will be ruled by dynamic ideas, concept, creativity and innovation.
<b>CO4</b>	Explain how IPR would take such important place in growth of individuals & nation, to summarize the need of information about Intellectual Property Right to be promoted among student community in general & engineering in particular.
<b>CO5</b>	Relate that IPR protection provides an incentive to inventors for further research work and investment in R & D, which leads to creation of new and better products, and in turn brings about economic growth and social benefits.

## Detailed Contents:

Module	Module Name	Module Contents
<b>Section-A</b>		
<b>Module I</b>	<b>Research Methodology: An Introduction</b>	Meaning of research problem, Sources of research problem, Criteria and Characteristics of a good research problem, Errors in selecting a research problem, Scope and objectives of research problem. Approaches of investigation of solutions for research problem, data collection, analysis, interpretation, Necessary instrumentations.
<b>Module II</b>	<b>Literature Survey and Ethics</b>	Effective literature studies approaches, analysis Plagiarism, Research ethics.
<b>Section-B</b>		
<b>Module III</b>	<b>Interpretation and Report Writing</b>	Effective technical writing, how to write a report, Paper Developing a Research Proposal, Format of research proposal, presentation and assessment by a review committee.
<b>Module IV</b>	<b>Footnotes, Endnotes and Intellectual Property</b>	Nature of Intellectual Property: Patents, Designs, Trade and Copyrights. Process of Patenting and Development: technological research, innovation, patenting, development. International Scenario: International cooperation on Intellectual Property, Procedure for grants of patents, Patenting under PCT

## References

<ol style="list-style-type: none"><li>1. Kompal Bansal &amp; Parshit Bansal, "Fundamentals of IPR for Beginner's", 1<sup>st</sup> Ed., BS Publications, 2016.</li><li>2. Kothari, C. R., "Research Methodology", 3<sup>rd</sup> Ed., New Age International, 2017.</li><li>3. Ranjit Kumar, "Research Methodology – A Step by Step for Beginner's", 2<sup>nd</sup> Ed., Pearson, Education, 2016.</li><li>4. Ramappa,T., "Intellectual Property Rights Under WTO", 2<sup>nd</sup> Ed., S Chand, 2015</li></ol>
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