

Roll No.

Total No. of Pages : 01

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**M.Tech.(CSE Engg.)/ECE (Wireless Communication)/(ECE)/Electrical
(Power System)/(EE)/(Power System) (2018 Batch) (Sem.-1)**

RESEARCH METHODOLOGY AND IPR

Subject Code : MTRM-101-18

Paper ID : [75161]

Time : 3 Hrs.

Max. Marks : 60

INSTRUCTIONS TO CANDIDATES :

1. Attempt any FIVE questions out of EIGHT questions.
2. Each question carries TWELVE marks.

- Q1) Define research problem and its sources. Mention the criteria characteristics of a good research problem.
- Q2) a) Why is data collection an important aspect of research process? Distinguish the terms analysis and interpretation of datasets.
b) Describe the different approaches of conducting an effective literature review. How plagiarism is important in research?
- Q3) Outline key characteristics of technical writing and its contribution in research. Take a case study or sample hypothesis and prepare a template of research proposal.
- Q4) What is patent information? Briefly explain the significance of using the patent information. How does a patent document help in R&D?
- Q5) a) Discuss the steps of patenting and development process in detail.
b) What is licensing and transfer of technology? Why is it important under IPR?
- Q6) What is sampling in research process? Explain the various factors that should be considered in decision making of a sampling method.
- Q7) Assume a real-world problem, formulate a hypothesis and describe the experimental designs that can be used for validation of data sets.
- Q8) Write short notes on the following :
- a) Patenting under PCT
 - b) New Developments in IPR