HallTicketNo						Question Paper Code:BCSB31
2000						

## **INSTITUTE OF AERONAUTICAL ENGINEERING**

(Autonomous)

Dundigal, Hyderabad - 500 043

## MODEL QUESTION PAPER - II

M.TechIII Semester End Examinations (Regular), November – 2019 Regulations: R18

### **RESEARCH METHODOLOGY AND IPR**

(Common to CSE, ECE, ME)

### **Time:3hours**

Max. Marks:70

Answer ONE Question from each Unit All Questions Carry Equal Marks All parts of the question must be answered in one place only

### UNIT – I

- a) What is the necessity of defining a research problem, Explain with suitable example [7M]
   b) Explain the techniques of interpretation describing both qualitative and quantitative [7M] methods.
- 2. a) Research is much concerned with proper fact finding, analysis and evaluation. [7M] Do you agree with this statement? Give reasons in support of your answer?
  - b) What are the various sources of primary and secondary data?. Discuss data collection [7M] and data analysis in the context of research.

#### $\mathbf{UNIT}-\mathbf{II}$

3.	a)	List the techniques to prepare literature studies and explain briefly avoiding ethical issues in research.	[7M]
	b)	List the types of plagiarism and explain ethical standard of research	[7M]
4.	a)	What are the approaches for literature review and why is ethics important in society and discuss in detail.	[7M]
	b)	What is ethics in research and why is it important?	[7M]
		UNIT – III	
5.	a)	<ul><li>Write short notes on following</li><li>i. Characteristics of good research report</li><li>ii. Bibliography and its importance in context of research</li></ul>	[7M]
	b)	Mention the different types of interpretations particular pointing out the difference of a report and the interpretation?	[7M]

- 6. a) write the different types of reports, particularly pointing out the difference between a **[7M]** technical report and a popular report
  - b) Write about logical analysis of the subject matter? [7M]

## UNIT – IV

7.	a) b)	Write the Fundamental of Copyrights laws was formulated. Explain why agencies are responsible for Intellectual Property registration with any two examples.	[7M] [7M]
8.	a) b)	Explain the practical aspects of IP audits and process of conducting audit? How monopoly nature of owner is controlled by Patent Trademark Organization?	[7M] [7M]
		$\mathbf{UNIT} - \mathbf{V}$	
9.	a) b)	What are the new developments in IPR? Compare patent rights and IPR.	[7M] [7M]
10.	a)	<ul><li>Explain new developments in the copyright protection for following:</li><li>a) Computerprograms</li><li>b) Videogames</li></ul>	[7M]
	b)	Describe the new development in patent law relating for the: a) Software patents b) Biotechnology patents.	[7M]



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### **COURSE OBJECTIVES:**

### The course should enable the students to:

The co	The course should enable the students to:					
Ι	Identify an appropriate research problem in their interesting domain.					
II	Understand ethical issues					
III	Understand the Preparation of a research project thesis report.					
IV	Understand the law of patent and copyrights.					
V	Understand the adequate knowledge on IPR					

### **COURSE OUTCOMES (COs):**

CO 1	Understand the research problem and research process.
CO 2	Understand research ethics
CO 3	Prepare a well -structured research paper and scientific presentation.
CO 4	Explore on various IPR components and process of filing
CO 5	Understand the adequate knowledge on patents and rights

## COURSE LEARNING OUTCOMES (CLOs):

BCSB31.01	Understand the characteristics, objects of a good research problem.
BCSB31.02	Understand the selection, approaches of research problem
BCSB31.03	Understand concepts of data collection, analysis.
BCSB31.04	Understand the principles of ethics and ethical issues in science and engineering.
BCSB31.05	Understand the analysis Plagiarism.
BCSB31.06	Understand research ethic concepts.
BCSB31.07	Understand significance, effective technical writing and report.
BCSB31.08	Paper developing a research proposal and report.
BCSB31.09	Understand writing a research report as per format.
BCSB31.10	Report presentation and assessment by a review committee
BCSB31.11	Understand the techniques of interpretation, and making scientific presentation
BCSB31.12	Understand the patent laws, patent and searching process.
BCSB31.13	Understand International cooperation on intellectual property
BCSB31.14	Understand the patent laws, patent and searching process, patent data base.

BCSB31.15	Understand the patent rights and transfer of technology.
BCSB31.16	Study of new developments in IPR.

## MAPPING OF SEMESTER END EXAMINATION TO COURSE LEARNING OUTCOMES:

SEE Question Number			Course Learning Outcomes	Course Outcomes	Blooms Taxonomy Level
	а	BCSB31.01	What is the necessity of defining a research problem, Explain with suitable example	CO 1	Understand
1	b	BCSB31.02	Explain the techniques of interpretation describing both qualitative and quantitative methods.	CO1	Understand
2	a	BCSB31.03	Research is much concerned with proper fact finding, analysis and evaluation. Do you agree with this statement? Give reasons in support of your answer?	CO1	Analyse
	b	BCSB31.04	What are the various sources of primary and secondary data?. Discuss data collection and data analysis in the context of research.	CO1	Understand
3	а	BCSB31.05	List the techniques to prepare literature studies and explain briefly avoiding ethical issues in research.	C02	Understand
-	b	BCSB31.06	List the types of plagiarism and explain ethical standard of research	CO2	Remember
4	а	BCSB31.07	What are the approaches for literature review and why is ethics important in society and discuss in detail.	CO2	Understand
	b	BCSB31.08	What is ethics in research and why is it important?	CO2	Understand
5	a	BCSB31.09	<ul> <li>Write short notes on following <ol> <li>Characteristics of good research report</li> <li>Bibliography and its importance in context of research</li> </ol> </li> </ul>	C03	Understand
	b	BCSB31.10	Mention the different types of interpretations particular pointing out the difference of a report and the interpretation?	CO3	Understand
6	a	BCSB31.01	write the different types of reports, particularly pointing out the difference between a technical report and a popular report	CO3	Remember
	b	BCSB31.02	Write about logical analysis of the subject matter?	CO3	Analyze
7	а	BCSB31.03	Write the Fundamental of Copyrights laws was formulated.	CO4	Understand
,	b	BCSB31.04	Explain why agencies are responsible for Intellectual Property registration with any two examples.	CO4	Understand
	а	BCSB31.05	Explain the practical aspects of IP audits and process of conducting audit?	CO4	Understand
8	b	BCSB31.06	How monopoly nature of owner is controlled by Patent Trademark Organization?	CO4	Understand
9	a	BCSB31.07	What are the new developments in IPR?	CO5	Understand

	b	BCSB31.08	Compare patent rights and IPR.	CO5	Understand
10	a	BCSB31.09	Explain new developments in the copyright protection for following: a) Computerprograms b) Videogames	CO5	Understand
	b	BCSB31.10	Describe the new development in patent law relating for the: a) Software patents b) Biotechnology patents.	CO5	Understand

### Signature of Course Coordinator

HOD, ME