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Question Paper Code:U3S01

M.E. DEGREE EXAMINATION, APRIL 2024

First Semester

Communication Systems

21PGM701- RESEARCH METHODOLOGY AND IPR

(Regulations 2021)

(Common to All Branches)

Duration: Three hours   Maximum: 100 Marks

Answer ALL Questions

PART - A (5 x 20 = 100 Marks)

1. (a) "Empirical research in India in particular creates so many   CO2- App   (20)
         problems for the researchers". State the problems that are usually
         faced by such researchers.

                                    Or

    (b) A research scholar has to work as a judge and derive the truth and   CO2- App   (20)
         not as a pleader who is only eager to prove his case in favor of his
         plaintiff. Discuss the statement pointing out the objectives of
         research.

2. (a) Belinda is publishing her first article that builds on the research of   CO4- Ana   (20)
         a similar project she did three years prior with her colleague,
         Isaiah. In Belinda's current article she has placed a graph from the
         article she and Isaiah co- authored about their previous research.
         Isaiah created the original graph. Does Belinda have to cite the
         previous article? Analyze in this scenario with self-plagiarism and
         plagiarism.

                                    Or

    (b) Analyze the differences plagiarism checking and fit the suitable   CO4- Ana   (20)
         one for your work for relate 4 plagiarism checking software used
         and Highlight the advantages of any 2-plagiarism checking
         software used in India.

3. (a) Set up ANOVA table for the following information relating to three drugs testing to judge the effectiveness in reducing blood pressure for three different groups of people: CO4- Ana   (20)
        1. Do the drugs act differently?
        2. Are the different groups of people affected differently? Is the interaction term significant?
        3. Answer the above questions taking a significant level of 5%.
        4. Analyze the results in comparing the significant level of 5% and 10%.

Amount of Blood Pressure Reduction in Millimeters of Mercury			
Group of People	X	Y	Z
A	14	10	11
A	15	9	11
B	12	7	10
B	11	8	11
C	10	11	8
C	11	11	7

Or

(b) How will you differentiate between descriptive statistics and inferential statistics? Analyze the important statistical measures often used to summarize the survey/research data.   CO4- Ana   (20)

4. (a) Analyze the different steps involved in developing a narrate research proposal. Suggest a case study of sample proposal.   CO4- Ana   (20)

Or

(b) Analyze why tabulation is considered essential in a research study based on the characteristics of a good table   CO4- Ana   (20)

5. (a) Apply based on the patent information and patent databases to develop an unique patent in your research area incorporating innovative methods and design.   CO2- App   (20)

Or

(b) Apply the various international collaboration method to filing patent applications and grant of patents.   CO2- App   (20)

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