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MANIPAL INSTITUTE OF TECHNOLOGY
MANIPAL

I SEMESTER M.TECH. (COMMON TO ALL)

END SEMESTER MAKE-UP EXAMINATIONS- APRIL 2022

**SUBJECT: RESEARCH METHODOLOGY AND TECHNICAL
COMMUNICATION [HUM 5151]**

REVISED CREDIT SYSTEM

Time: 3 Hours

MAX. MARKS: 50

Instructions to Candidates:

- ❖ Answer **ALL** the questions.
- ❖ Missing data may be suitably assumed.

- 1A)** Explain in detail the essential Communication skills for an effective Technical presentation. **(04)**
- 1B)** Briefly explain the different phases in a research process. **(04)**
- 1C)** Explain the difference between Quantitative and Qualitative Research approaches. **(02)**
- 2A)** You are asked to collect the opinion about services rendered by a multi-specialty hospital. Discuss the ethical issues involved in data collection and reporting. **(03)**
- 2B)** Explain the concept of 'reliability'. How is reliability measured in quantitative research? **(03)**
- 2C)** Buying behaviour of students of engineering towards a newly launched two-wheeler need to be understood. As a researcher you are asked to collect the following details **(04)**
- a) Preferred colour
 - b) Preferred price range
 - c) Intension to buy (buying or not buying)
 - d) Preferred mode of payment

Write the appropriate question to be asked for collecting the above details.

- 3A)** In a research work, the research scholar has referred the following sources of information for writing a report. Cite the same as references as per Harvard referencing techniques. **(04)**
- a) Journal paper titled “Campus response to a student gunman” authored by K. J. ASMUSSEN AND J, W, Cresswell in the journal of Higher Education 1995. Issue number 9, page number 445 to 53. Volume number 5.
 - b) Book titled Human Resource Management Theory and Practice: John Bratton and Jeffrey Gold, New York, (2008). 3rd Edition, Palgrave Macmillan Publication.
- 3B)** What should be the ideal structure of a research report? What are the elements of the structure defined by you? **(04)**
- 3C)** Briefly describe fundamental and applied research. **(02)**
- 4A)** List and explain the 7 steps of formulating a research problem. **(04)**
- 4B)** List and explain, with the help of suitable examples, the four types of measurement scales. **(04)**
- 4C)** State any four important characteristics of a hypothesis. **(02)**
- 5)** Consider any problem/ issue you have researched for your RMTC course. **(10)**
- a) Present the Problem statement, Research Gap (RG) you had identified, Research Questions (RQ) and Research Objectives (RO). Please state a minimum of 2 points each for RG, RQ and RO.
 - b) Map the RGs with the RQs, and RQs with ROs.