



**NAVRACHANA  
UNIVERSITY**  
a UGC recognized University

**School:** School of Engineering and Technology  
**Program/s:** BTech  
**Year:** 4<sup>th</sup> **Semester:** 7<sup>th</sup>  
**Examination:** End Semester Examination  
**Examination year:** December - 2021

**Course Code:** CS401 **Course Name:** Research Methodology  
**Date:** 01/12/2021  
**Time:** 02:30 pm to 04:30 pm

**Total Marks:** 40  
**Total Pages:** 02

**Instructions:**

- Write each answer on a new page.
- Use of a calculator not permitted.
- It is strictly forbidden to write anything on the question paper.
- Write your enrollment number in the space provided for it.
- \* COs=Course Outcome mapping. # BTL=Bloom's Taxonomy Level mapping

Q. No.	Details	Marks	COs*	BTL#
Q.1	TEN MCQs carrying ONE marks each <b>I.</b> Which of these is not a method of data collection. a. Questionnaires b. Interviews c. Experiments d. Observations <b>II.</b> The important components of research responsibility is _____ a. Data collection b. Plagiarism c. Writing the thesis d. Research techniques <b>III.</b> Penalties for plagiarism can lead to a. Withdrawal of published paper b. Rejection of your research work c. Suspension/termination from a job d. All of the above <b>IV.</b> In research simple random sampling cannot be used in _____ a. Homogeneous population b. Heterogeneous population c. Survey d. Population <b>V.</b> Article published in research journal are a. Reference sources b. Secondary sources c. Primary sources d. Tertiary sources <b>VI.</b> The collection of all the Units refer to a study is called a. Frame b. sub unit's c. Sample d. Population <b>VII.</b> An overall survey of population is known as a. Report b. Case study c. Qualitative research d. Census <b>VIII.</b> Identify the sample in which research has freedom to choose a sample as per his desire. a. Purposive sampling b. Convenient sampling c. Quota sampling d. Snowball technique. <b>IX.</b> Normal Distribution is symmetric is about _____ a. Variance b. Mean c. Standard deviation d. Covariance <b>X.</b> Non-Sampling error is decreased by	10	CO1 CO3 CO6 CO1 CO2 CO1 CO2 CO3 CO2 CO2	BT1, BT2, BT2, BT2, BT3, BT2, BT1, BT1, BT1, BT1

	a. Increasing Sample Size b. Decreasing Sample Size c. Reducing the Amount of Data d. None of these			
<b>Q.2</b>	<b>One-line questions (Answer in one line only)</b> <b>A.</b> What is secondary data? <b>B.</b> What is primary Data? <b>C.</b> Secondary data can be obtained quicker than Primary data. (Justify the statement) <b>D.</b> Sample is a representative unit of the population. (Justify the statement) <b>E.</b> What is the purpose of conducting sampling in any research?	<b>5</b>	C01 C02 C03 C05, C06	BT1, BT3, BT3 BT2 BT2
<b>Q.3</b>	<b>SEVEN long questions carrying FIVE marks each. (Attempt any 5)</b> <b>A.</b> Explain the various methods of data collection in Engineering. <b>B.</b> Explain the meaning and significance of a Research design. <b>C.</b> Discuss the structure of research report writing. <b>D.</b> Explain in detail about Time series analysis and Forecasting. <b>E.</b> Discuss probability and non-probability sampling. <b>F.</b> Explain the measures of Dispersion. <b>G.</b> Explain various reference management systems used in engineering.	<b>25</b>	C03 C06 C07 C06 C02 C02 C07	BT1 BT2 BT2 BT2 BT2 BT1 BT2

\*\*\*\*\*End of Question Paper\*\*\*\*\*