

QP Code

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 Register Number

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VELALAR COLLEGE OF ENGINEERING AND TECHNOLOGY
(An Autonomous Institution, Affiliated to Anna University, Chennai)

Semester Examinations – April / May 2017 Regulations-2016

Programme: ME-CSE Semester: 2 Max. Marks: 100 Duration 3 Hrs

Course Code & Title: **16CPT23 RESEARCH METHODOLOGY**

(Chi Square, Z Table, T table Distributions Permitted)

Knowledge	K1 - Remembering	K3 - Applying	K5 – Evaluating
Levels (KL)	K2 - Understanding	K4 – Analysing	K6 – Creating

Part A - Answer ALL Questions. 10 x 2 = 20 Marks

No.	Question	KL
1.	What is primary data collection?	K1
2.	Specify the merits and demerits of observation methods in collecting information.	K1
3.	Define sampling.	K1
4.	List the characteristics of good measurement in research.	K1
5.	Differentiate one tailed and two tailed test.	K2
6.	What is type-I error & type-II error in testing of hypothesis?	K1
7.	What is the use of cross tabulation?	K1
8.	Define the term Reliability.	K2
9.	Compare oral report with written report.	K2
10.	Name the guidelines for reviewing the draft of a report.	K1

Part B - Answer ALL Questions. 5 x 13 = 65 Marks

No	Question	Marks	KL
11.	a Discuss various data collection methods with suitable examples.	13	K2
	OR		
	b Explain the steps of research process with examples.	13	K2
12.	a Write short notes on Likert and Q-sort scales with examples.	13	K2
	OR		
	b What do you mean by “Sample Design”? What points should be taken into consideration by a researcher in sample design for any research project.	13	K2

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| 13. | a | What is testing of hypothesis? Explain how it is useful for illustrating a research problem with two examples. | 13 | K2 |
| | | OR | | |
| | b | The weight of cement bags produced in a cement company follows normal distribution. The quality assistant at the final inspection section of the company feels that the variance of the weight of the cement bags has increased from a specified maximum variance of 0.81 kg which will lead to customer complaints. Hence, he has selected a sample of 10 cement bags and found that the variance of the sample is 0.64 kg. Check the intuition of the quality assistant at a significance level of 0.01. | 13 | K4 |
| 14. | a | Explain the various levels of measurement in research | 13 | K2 |
| | | OR | | |
| | b | Summarize the following | | |
| | | i) Univariate analysis | 7 | K2 |
| | | ii) Bivariate analysis | 6 | |
| 15. | a | Discuss in detail about the logical format for writing a research work. | 13 | K2 |
| | | OR | | |
| | b | Explain in detail about SPSS. | 13 | K2 |
| | | Part-C | | 1 x 15 = 15 Marks |
| 16 | a | Now that, the results of the XII standard examinations have arrived, prepare a questionnaire to determine the choice of courses of the students for their Undergraduate Studies. | 15 | K3 |
| | | OR | | |
| | b | Assume a research topic of your choice and give the complete format of its research report. | 15 | K3 |
