Seat No.: _____   Enrolment No._____

GUJARAT TECHNOLOGICAL UNIVERSITY
MBA (International Business) – SEMESTER 2 – EXAMINATION – SUMMER 2019

Subject Code:1529301   **Date:09/05/2019**
Subject Name: Research Methodology & Applied Statistics
Time:10:30 AM To 01:30 PM   **Total Marks: 70**
Instructions:
  1. **Attempt all questions.**
  2. **Make suitable assumptions wherever necessary.**
  3. **Figures to the right indicate full marks.**

Q. No.			Marks

Q.1   Explain following terms   **14**
   (a) Depth Interview
   (b) Type-1 and Type-2 Error
   (c) Ordinal Scale
   (d) Double-Barrelled Questions
   (e) Completion Task of Projective Technique
   (f) Quota Sampling
   (g) Parametric Test

Q.2 **(a)** What is the importance of Validity of the data collection instrument in business research? Discuss different types of Validity in detail.   **07**

(b) Define Primary & secondary data and explain the methods of secondary data collection in brief.   **07**

OR

(b) "Research is a Tool for Facilitating Learning and Building Knowledge which will be helpful to the society at large" – Do you agree with the statement? Briefly discuss the steps of business research   **07**

Q.3 **(a)** "Exploratory research design is not conclusive in nature" – Comment on the statement and briefly explain Focus Group and Expert Interview methods.   **07**

(b) Marks scored by the students of the two different subjects in the Internal Exam of Master's Program of Management of one of the reputed PG School is given below. The PG school assumes that the marks of the students is normally distributed with equal variance in the two different subjects taken for the study. Estimate the difference in the population means taking 95% as the confidence level.   **07**
Marks in 1st Subject:

15	17	18	17	17	19	22	21
16	17	18	19	21	15	16	17

Marks in 2nd Subject:

10	9	11	12	11	10	11	12	10
11	10	9	8	10	7	9	10	11
10	12							

OR

Q.3 **(a)** Use the data given in the table for determining whether the observed frequencies represent a uniform distribution. Use α=5% **07**

Category	1	2	3	4	5	6	7	8	9	10
Observed Value	19	15	12	17	20	21	22	15	14	13

(b) Briefly discuss the techniques of Multiple item scales under Measurement Scales. **07**

Q.4 **(a)** It is observed that the average monthly Income of a family during the economic boom is Rs. 75,000 per month. A researcher is conducting a study on the impact of economic recession in 2008. The researcher believes that the economic recession may have an adverse impact on the average monthly income. For verifying his belief, the researcher has taken a random sample of 20 families and computed their average income during the recession period. The average income of these 20 graduates is computed as Rs. 60,000. The sample standard deviation is computed as Rs. 3000. Use α=5% to test the hypothesis that average income of sample and population are equal. **07**

(b) Write a note on Non-Parametric Test and explain any one non-parametric test with hypothetical examples. **07**

OR

Q.4 **(a)** A Kitty-Party club arranged a special training program for girls on cooking. The club wants to measure the time taken (in minutes) by female participants i.e. before the training and after the training. The club has selected a random sample of 10 girls. The scores obtained by these participants are given in below table. Use α=10% to determine whether there is a significant change in time taken. **07**

Before Training	32	30	32	34	32	28	25	30	25	28
After Training	25	26	28	22	20	30	22	20	21	24

(b) Briefly discuss the random sampling methods. **07**

Q.5 A researcher wants to carryout a research on **"A Study on Use of IT and ICT in Higher Education: A comparative study of Commerce and Management Aspirants".** The study focuses on habits of the students of using Information Technology for their study purposes.

(a) Prepare a Research Proposal on the above-mentioned research title considering all the components of ideal Research Proposal. **14**

OR

Q.5 (a) Based on the title given above, you are required to prepare a questionnaire for data collection. The questionnaire must be divided into two segments i.e. Demographic Questions and Study based Questions. **14**

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