

Seat No.: _____

SANKALCHAND PATEL UNIVERSITY

Ph.D. COURSE WORK EXAMINATION – MARCH 2017

Subject Name: Research Methodology and Statistics

Date: 27 / 03 / 2017

Time: 3 Hrs.

Total Marks: 100

Instructions:

1. Attempt Any **FIVE** Questions.
2. Make suitable assumptions wherever necessary.
3. Figures to the right indicate full marks.

- Q.1** Answer following Questions **20**
- (A) Research process starts from problem definition to preparation of the report. Briefly describe the different steps involved in a research process.
- (B) What are the four basic levels of measurement? Explain each with suitable example.
- Q.2** Answer following Questions **20**
- (A) Explain different types of research designs in brief.
- (B) What is the role of SPSS in data analysis?
- Q.3** Answer following Questions **20**
- (A) What is meant by testing of hypothesis? Draw a flow chart for executing hypothesis testing procedure with a suitable example.
- (B) Explain Type I and Type II error
- Q.4** Answer following Questions **20**
- (A) Explain briefly probability & non probability sampling techniques.
- (B) What do you mean by the term "Plagiarism"? How a researcher can avoid plagiarism?
- Q.5** Answer following Questions **20**
- (A) Explain the importance of literature review in a research proposal.
- (B) Discuss various data collection methods with suitable examples.
- Q.6** Answer following Questions **20**
- (A) Define and explain difference between z-test and t-test.
- (B) Write a note on "Reliability and Validity of scales".
- Q.7** Answer following Questions **20**
- (A) A smart phone handset manufacturing company wants to study the satisfaction level of its customers. The company launched this product in January 2016, however, it is selling this product exclusive through flipkart. The selling price of the smart phone is Rs. 12,000. The company appoints you as researcher for this project. Prepare a questionnaire for conducting this survey (Maximum 2 page).
- (B) What is likert scale? Develop the 5 point likert scale about any five different attributes of 1.5 Ton Split Air Conditioner.

- (A) Explain which test would be applied in each of the following and justify it.
- A social scientist wants to predict whether the effectiveness of an AIDS awareness campaign varies depending on the geographical location, campaign media and usage of celebrities in the campaigns.
 - An international business researcher wants to establish if the performance (categorized as loss, breakeven and profit) of a firm is dependent on the country (categorized as low, middle and high income) it is located in.
- (B) The Diet drink manufacturer in the study finds that young women are more health conscious and are looking at low calories options. Thus, any communication or advertisement for the product has to emphasize the health aspect. The purchase probability is also influenced by their education level and the nature of their profession. Other factors such as available brands, celebrity endorsement and dieticians recommendations also have an impact on them.
- Identify your research problem and hypothesis.
 - Identify and classify the variables under study.
 - Is it possible to generate a theoretical framework for the study?
