

# P P SAVANI UNIVERSITY

Seventh Semester of B.P.T. Examination

February 2022

SPPT 4040 RESEARCH METHODOLOGY & BIostatISTICS

02.02.2022, Wednesday

Time: 09:30 a.m. To 12:30 p.m.

Maximum Marks: 70

**Instructions:**

1. The question paper comprises of two sections.
2. Section I and II must be attempted in separate answer sheets.
3. Make suitable assumptions and draw neat figures wherever required.
4. Use of scientific calculator is allowed.

**SECTION - I**

- Q - 1** Essay Question(Any One) [10]
- (i) Discuss the steps involved in the research process in detail.
- (ii) Define research problem. Describe the components of a Research Problem.
- Q - 2 (a)** Short Note(Any Two) [10]
- (i) Methods of data collection.
- (ii) Different types of sampling design.
- (iii) Clinical Study Designs.
- Q - 3** Very Short Notes(Any Five) [15]
- (i) Randomization.
- (ii) Errors in measurement.
- (iii) Difference between questionnaires & schedules.
- (iv) Sampling distributions.
- (v) Survey research.
- (vi) Components of a research article.
- (vii) Research methods Vs Methodology.

**SECTION - II**

- Q - 1** Essay Question(Any One) [10]
- (i) What is the need for measures of central Tendency? Define and calculate the mean, meadian and mode for a grouped data.
- (ii) Methods of presentation of data.
- Q - 2 (a)** Short Note(Any Two) [10]
- (i) Types of Correlation with examples
- (ii) Descriptive and inferential statistics in research
- (iii) Steps in Hypotheses testing
- Q - 3** Very Short Notes(Any Five) [15]
- (i) Parameters and Estimates.
- (ii) Type I & II errors.
- (iii) Skewness & Kurtosis.
- (iv) Normal distribution.
- (v) Linear regression.
- (vi) Statistical software in research.
- (vii) Measurement scales.

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