

**B.Sc. RESPIRATORY THERAPY
FIRST YEAR
PAPER IV – BIO STATISTICS AND PHYSICS**

Q.P. Code: 802604

Time: Three Hours

Maximum : 100 Marks

Answer All questions

I. Elaborate on:

(3 x 10 = 30)

1. What is sampling? Explain the commonly used sampling methods.
2. Explain ANOVA and its applications. What are the different types of ANOVA?
3. Briefly explain various gas laws and derive Ideal gas equation.

II. Write Notes on:

(8 x 5 = 40)

1. Concepts of Correlation and Regression.
2. Calculate mean and median from the following ungrouped data relating to Hemoglobin percent in g/100 ml. 6.5, 6.0, 7.5, 8.2, 8.5, 8.7, 8.8, 8, 9, 9 and 9.5.
3. Write the properties of Normal distribution.
4. Calculate the standard deviation and co-efficient of variation using the following data; 25, 28, 30, 27, 25.
5. Measures of central tendency.
6. Different patterns of liquid flow.
7. Principle of Venturi meter.
8. Characteristics of good average.

III. Short Answers on:

(10 x 3 = 30)

1. Variance.
2. Test of significance.
3. Scatter diagram.
4. Measure of dispersion.
5. Quartiles.
6. States of matter.
7. Types of error.
8. Avogadro number.
9. Tabulation of data.
10. Define statistics.
