

[LH 0815]

AUGUST 2015

Sub.Code :2604

**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. A certain drug administered to 10 patients showed following additional hours of sleep;

-1.0	0.5	2.7	-0.6	1.2	1.8	1.6	3.5	0.2	-1.7
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Can it be concluded that the drug does produce additional hours of sleep?

2. Write brief notes on ANOVA.
3. Write briefly about states of matter. Discuss in detail about various gas laws and its clinical application.

II. Write Notes on:

(8 x 5 = 40)

1. Explain the procedure for doing chi-square test.
2. Write short notes on systematic and cluster sampling.
3. Find the mean deviation from median and mode from the following data:

C I	1-5	6-10	11-15	16-20	21-25	26-30	31-35	36-40	41-45	46-50
Frequency	7	10	16	24	23	28	17	7	2	1

4. Scatter diagram.
5. Why it that standard deviation is considered the most popular measure of dispersion?
6. Measure of mortality.
7. Oxygen dissociation curve.
8. Factors affecting gas diffusion across alveoli to blood.

III. Short Answers on:

(10 x 3 = 30)

1. What are the main purposes of tabulation?
2. The following data gives the per acre yield on wheat (kilogram) from 10 experimental farms

2020	2100	2040	2030	2070	2060	2080	2050	2110	2090
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3. Give different methods of collection of data.
4. Define measure of dispersion.
5. Type of population.
6. Types of error.
7. Define regression analysis.
8. Vital capacity.
9. Surfactant and its role.
10. Venturi principle.
