

Rajiv Gandhi University of Health Sciences, Karnataka

II semester Bachelors in Hospital Administration Degree Examination – APRIL-2019**Time: Three Hours****Max. Marks: 80 Marks****Business Statistics****Q.P. CODE: 1306****(QP contains two pages)**

Your answers should be specific to the questions asked

Draw neat, labeled diagrams wherever necessary

LONG ESSAYS (Answer any Two)**2 x 10 = 20 Marks**

1. Following are the prices and quantities purchased on five items of medicines in a hospital during two years. Calculate Index number for the year 2012 with 2010 as the base year by Laspeyres method.

Type of medicines	Quantity marketed in base 2010	Price per unit quantity in 2010	Price per unit quantity in 2012
1	20500	3.41	5.32
2	15100	4.15	8.22
3	15500	7.66	9.24
4	18500	8.36	10.48
5	31500	9.32	16.48

2. Describe applications of Statistical Methods in Hospital Management.
3. Briefly describe different measures of Dispersion illustrating their applicability in different situations.

SHORT ESSAYS (Answer any Eight)**8 x 5 = 40 Marks**

4. What are the considerations in constructing Index numbers and list all the different types of Index numbers?
5. Describe Percentiles and Quartiles.
6. Describe the difference between Arithmetic Average and Geometric Average and their uses.
7. Illustrate Graphical methods of presentation of data.
8. Describe Least Square Method of fitting Trends.
9. Describe formula for calculation of Pearsonian Correlation and Regression of a set of data.
10. Calculate the Weighted Average of the marks obtained by a student with the following data.

Marks obtained in four examinations	65	60	72	70
Weight given for each examination	1.0	2.0	2.5	3.0

11. Describe different types of Trends in understanding Time Series Analysis.
12. Describe calculation of Spearman's Rank Correlation.
13. Following are the data on income generated in different years of a hospital. Calculate three year Moving Averages for the data.

Year	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010
Income	2911	2829	2685	2865	2888	2777	2798	2858	2973	3000

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SHORT ANSWERS (Answer any ten)

10 x 2 = 20 Marks

14. Proportional Bar diagram
15. Geometric Mean
16. Pie chart
17. Weighted Mean
18. Inter Quartile Range
19. Secular trend
20. Role of market for assessing calculation of Index numbers
21. Role of Mean and Median as Measures of Central Tendency
22. Cyclic Trends
23. Role of Pearsonian Correlation and Regression in Hospital Administration
24. Co-efficient of Variation
25. Index numbers
