Rajiv Gandhi University of Health Sciences, Karnataka

III semester Bachelors in Hospital Administration Degree Examination – OCT-2019

Time: Three Hours   **Max. Marks: 80 Marks**

Bio Statistics (Operations Research & Research Methodology)
Q.P. CODE: 1310

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. What are the six steps in scientific process? Explain various steps of planning any research study.

2. What is meant by Research Design? Explain any three designs.

3. What is operation research? Explain different steps in undertaking Operations research.

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

4. Calculate standard error of mean for the following data

    15, 16, 18, 10, 18, 14, 13, 12, 18, 16

5. Briefly describe Normal distribution and its applications.

6. It is desired to conduct a survey to estimate the patient satisfaction in a hospital with an error of 5% in the estimate. It is assumed that the satisfaction would be about 80% Calculate the adequate sample size for the study.

7. What is Queuing Theory? What at are different indicators which can be calculated from this Theory?

8. Describe different steps in writing of a Research report.

9. Describe different methods of Operation research.

10. What is Critical path method and explain the terms Slack time, Earliest start time for an activity and Bottleneck activities.

11. Explain Linear programming technique with an example.

12. Describe uses of Games theory.

13. Describe any two methods of Random sampling technique.

SHORT ANSWERS (Answer any ten)   **10 x 2 = 20 Marks**

14. Qualitative type of data.

15 Sampling variation.

16. Purposive sampling.

17. Secondary type of data.

18. Zero sum games.

19. Mante Carlo technique.

20. Census enumeration.

21. Case study method of data collection.

22. Confidence interval for an estimate.

23. Hypothesis in a research study.

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24. Simple random sampling.

25. Questionnaire method of data collection.

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