

**Rajiv Gandhi University of Health Sciences, Karnataka**  
**VIII Semester Bachelor of Occupational Therapy Degree Examination – 29-May-2026**

**Time: Three Hours**

**Max. Marks: 100**

**BIostatistics and Research Methodology – RS**

**Q.P. CODE: 3442**

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. Define variability. Discuss types of variability and measures of variability
2. Describe in details introduction and applications of chi-square test
3. Describe sampling and its characteristics. Discuss sampling technique with examples

**SHORT ESSAYS (Answer any Ten)**

**10 x 5 = 50 Marks**

4. Discuss used applications of life table
5. Analyse measures of vital statistics in shortly
6. Describe computers in medicine shortly
7. Sampling distribution process
8. What is study designing describe?
9. Define student's t-test?
10. What is research methodology?
11. Importance of life table in research methodology
12. Importance of sampling in research methodology
13. Advantages and disadvantages of simple random sampling strategy
14. Fisher's exact test
15. Solve this problem – A feeding experiment conducted on 100 experimental samples showed an average increase in weight of 5 kg and the standardized deviation of 1kg. Test the hypothesis that the expected increase in 4kg. against the alternative that it is more at the 0.05 level of significance

**SHORT ANSWERS (Answer any Ten)**

**10 x 3 = 30 Marks**

16. Discuss uses of life table
17. Define steps involve in designing an experiment
18. Define KAPLAN –MEIER method in research analysis
19. Discuss factors affecting size of sample
20. Advantages of multi stage random sampling
21. What is human factors in medical rehabilitation brief shortly?
22. Discuss characteristics of good sampling
23. Define LOGRANK TEST in research
24. Discuss methods of a research study
25. Describe T –test
26. Discuss errors in sample research
27. Define learning environment

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