Rajiv Gandhi University of Health Sciences, Karnataka

VIII Semester Bachelor of Occupational Therapy Degree Examination – 29-Oct-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. Solve the problem – A sample of 100 tires are taken from a lot. The mean life of tires found to be 39350 kms with a standard deviation of 3260. Could the come from a population with mean life of 40,000 kms. Establish 99% confidence limits within which the mean life of tires is expected to lie?

SHORT ESSAYS (Answer any Ten) **10 x 5 = 50 Marks**

4. Describe methods of census taking
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 method of mortality
10. Purpose of vital statistic
11. Importance of vital statistics research methodology
12. Importance of sampling in research methodology
13. Uses of vital statistic
14. Fisher's extract test
15. Solve this problem – A feeding experiment conducted on 100 experimental samples showed an average increase in weight of 5kg and the standardized deviation of 1kg. Test the hypothesis that the expected increase in 4 kg 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 census
17. Define steps involve in designing an experiment
18. Define KAPLAN – MEIER method in research analysis
19. Define neonatal mortality rate
20. Types of life table
21. What is human factors in medical rehabilitation brief shortly
22. Discuss characteristics of good sampling
23. Define health surveys
24. Discuss methods of a research study
25. Describe – z – test
26. Discuss errors in sample research
27. Define infant mortality rate

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