D3BPS2103

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Reg. No.....

Name: .....

THIRD SEMESTER B.Sc. DEGREE EXAMINATION, NOVEMBER 2022

(Regular/Improvement/Supplementary)

PSYCHOLOGY

GPSY3C06T: PROBABILITY DISTRIBUTIONS AND PARAMETRIC TESTS

Time: 2 Hours **Maximum Marks: 60**

SECTION A: Answer the following questions. Each carries *two* marks.
(Ceiling 20 Marks)

1. Define sampling.
2. What is random number table?
3. What do you mean by convenience sampling?
4. Comment on word stratum.
5. What is p - value?
6. Define best critical region for $\alpha = 2\%$.
7. What is the level of significance?
8. Define large sample test.
9. What are the assumptions for large sample test?
10. Comment on the term proportion in testing.
11. What is the test statistics for equality of proportion for two series of data?
12. Define the test for correlation.

SECTION B: Answer the following questions. Each carries *five* marks.
(Ceiling 30 Marks)

13. Discuss the differences between SRSWR and SRSWOR.
14. Heights of 1000 students are found to be normally distributed with mean 66 inches and SD 5 inches. Find the number of students with heights,
    i.) between 65 and 70 inches
    ii.) more than 72 inches
15. If X follows $B(8, p)$, and 4 $P(X = 5) = P(X = 3)$. Find P?
16. Differentiate random and non random sampling.
17. Elaborate on two types of errors in testing.
18. Differentiate between critical and best critical region.
19. Write an account on paired and unpaired t tests.

SECTION C: Answer any *one* question. Each carries *ten* marks.

20. Define normal distribution. What is the importance of normal distribution? Discuss the properties of normal distribution
21. Two random samples from two normal populations are given below. Test whether the variances of the populations differ significantly with a significance level 0.05.

Sample I:	20	16	26	27	23	22	8	24	25	19		
Sample II:	17	23	32	25	22	24	28	16	31	33	20	27

(1 × 10 = 10 Marks)