RAMAKRISHNA MISSION VIDYAMANDIRA

(Residential Autonomous College under University of Calcutta)

SECOND YEAR
B.A./B.SC. THIRD SEMESTER PRACTICAL EXAMINATION, NOVEMBER 2013

Date : 28/11/2013   **STATISTICS (General)**
Time : 1.30 pm – 4.00 pm   **Paper – III**   Full Marks: 25

1. While conducting a practical test in Physics for determining the gravitational constant 'g' a student obtained the following set of observations from 20 experiments designed for the purpose:

   9·32   10·01   9·71   9·87   10·23   9·59   9·48   9·99   9·65   9·53   9·41   9·37   9·26

   9·78   9·52   9·69   9·63   9·74   9·46   9·70

   Design the most appropriate non-parametric test of location parameter for testing

   $H_0 : g = 9\cdot67$ against $H_1 : g \neq 9\cdot67$ [5]

2. In a sample of size 25 from a bivariate distribution, the correlation coefficient is found to be 0·6454. Use a large sample testing procedure to test whether it is significantly greater than 0·5.   [5]

3. The following data are the distances of the engineers from their home to their working area in meters of two types of engineers. Test whether there is a significant difference between the two types of engineers in respect of average distance from home to the working area.   [5]

Civil Engineer	Mechanical Engineer
1505	1799
1556	1618
1801	1604
1629	1655
1644	1708
1607	1675
1825	1728
1748	

4. Laboratory note book   [5]

5. Viva-voce   [5]

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