GEOGRAPHY

Paper: GGY-1054

(Practical on Geomorphology, Climatology and Economic Geography)

Time: Five Hours   Full Marks: 80

The figures in the margin indicate full marks for the questions.

1. Prepare a slope map from the toposheet supplied to you by using Smith's Relative Relief method and interpret the same.   11+2=13

2. Carryout morphometric analysis of the given drainage basin in respect of the following: 6+5+2=13
   a. Stream ordering with Strahlers's method
   b. Calculation of Bifurcation Ratio
   c. Interpretation of your results

3. Prepare a hypsometric curve and calculate the hypsometric integral from the given basin map and interpret the same with respect to geomorphological characteristics.   13

4. Prepare a Rainfall Dispersion Graph for the data set given below and interpret the same with respect to monthly rainfall characteristics.   10+3=13

Distribution of June, July and August Rainfall of a place during 1996-2015

| Month	Amount of Rainfall (in cm)
June	12.3, 17.5, 21.8, 10.4, 29.3, 14.0, 17,3, 17.5, 11.7, 10.9, 16.4, 13.7, 14.7, 20.5, 14.7, 14.6, 17.2, 18.3, 13.5, 17.1
July	19.2, 22.2, 29.7, 32.6, 26.2, 18.0, 21.4, 22.6, 24.6, 21.9, 27.1, 24.8, 20.2, 27.3, 19.9, 19.2, 22.3, 27.3, 22.0, 20.9
August	16.3, 19.4, 21.9, 22.9, 24.8, 25.0, 25.7, 24.5, 27.2, 19.8, 34.3, 29.4, 21.2, 23.5, 27.1, 30.7, 29.3, 20.6, 23.3, 24.7

5. Carry out Time Series Analysis using Least Squares Method to show the trend of wheat production in India for the data set given below and estimate the production for the year 2016. **5+6+2=13**

Yearly Production of Wheat in India (in thousand MT) during 1991-2015

Year	Production	Year	Production	Year	Production
1995	65,470	2002	72,766	2009	80,679
1996	62,097	2003	65,761	2010	80,804
1997	69,350	2004	72,156	2011	86,874
1998	66,350	2005	68,637	2012	94,882
1999	71,288	2006	69,355	2013	93,506
2000	76,369	2007	75,807	2014	95,850
2001	69,681	2008	78,570	2015	86,530

6. Evaluation of Practical Note Book **10**

7. Viva-voce **5**

Area - Above 700 m - 5.86 sq km
Above 600 m - 14.18 sq km
Above 500 m - 32.93 sq km
Above 400 m - 44.16 sq km
Above 300 m - 50.63 sq km
Total area of the basin 51.63 sq km

Contour

Spot Height