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UG/4th Sem/Stat/19(Pr.)

2019

B.Sc.

4th Semester Examination

STATISTICS (Honours)

Paper - C10P

[Practical]

Full Marks : 20

Time : 3 Hours

*The figures in the margin indicate full marks.
Candidates are required to give their answers
in their own words as far as practicable.*

Answer all questions.

1. Temperature reading of a chemical process taken at are minute intervals are given below :

110.7, 118.0, 112.8, 108.6, 112.3, 112.2, 116.0,
111.7, 113.0, 111.5, 116.8, 114.1, 112.8, 115.7,
114.8, 113.0.

Smooth the series using exponential smothing with smoothing constant 0.5 and compare with original series.

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[Turn Over]

2. The following table gives the serial correlation r_k of a specified time series. Find an appropriate model to represent the series below :

k	1	2	3	4	5	6	7	8
r_k	0.8	0.6399	0.512	0.4086	0.328	0.362	0.21	0.17
k	9	10	11	12	13	14	15	
r_k	0.139	0.1075	0.086	0.069	0.054	0.043	0.03	

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3. The number of e-mail posted by a certain company on each working day in a period of your consecutive weeks are recorded below.

Week No.	No of emails posted					
	Mon	Tues	Wed	Thurs	Fri	Sat
1	161	153	154	143	161	112
2	179	164	156	178	192	126
3	154	162	172	175	176	132
4	164	168	162	164	152	105

Calculate the indices of daily variation within a week.

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4. Viva and Note book.

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