

U.G. 6th Semester Examination - 2021**STATISTICS****[HONOURS]****Course Code : STAT-H-CC-13-P****(Design of Experiments)****[PRACTICAL]**

Full Marks : 25(20+5)

Time : 2 Hours

*The figures in the right-hand margin indicate marks.**Candidates are required to give their answers in their own words as far as practicable.**Notations and symbols have their usual meanings.*

1. The following table gives the yield of wheat per plot in a manurial experiment. The four manurial treatments are denoted by A, B, C and D in parenthesis. Analyze the data and find whether the effects of treatments differ significantly from one another or not. Also test whether column 3 differs from column 4 significantly.

Column \ Row	1	2	3	4
1	425(B)	442(C)	540(D)	340(A)
2	384(D)	512(A)	490(B)	408(C)
3	506(C)	508(D)	536(A)	600(B)
4	451(A)	568(B)	499(C)	347(D)

5

[Turn over]

2. Analyze the following 2^3 factorial design:

Replicate 1				
Block 1	1	nk	np	kp
	99	201	312	379
Block 2	npk	n	k	p
	408	98	260	306

Replicate 2				
Block 1	nk	np	1	kp
	308	352	100	412
Block 2	k	n	npk	p
	251	87	452	378

Replicate 3				
Block 1	np	nk	1	kp
	324	378	84	435
Block 2	n	npk	p	k
	135	456	378	272

Replicate 4				
Block 1	1	kp	nk	np
	152	278	296	372
Block 2	npk	p	k	n
	478	372	319	178

5

3. Practical Note Book	5
4. Viva Voce	5

[Internal Assessment: 5]
