Answer **ALL** Questions

Time allowed: 02 Hours

1) An experiment was conducted to investigate the effect of different concentrations (mg/l) of hormone (H_1, H_2, H_3 and H_4) on yield of Tomato using RCBD with 5 blocks. The yield recorded from plots are given below

	Yield (kg/plot) recorded from the experiment			
Block	H_1	H_2	H_3	H_4
1	3.5	4.6	4.5	5.8
2	4.7	5.3	5.9	6.0
3	3.2	3.2	4.1	4.5
4	2.8	3.2	3.9	4.6
5	4.8	5.8	6.8	6.9

  i.   Perform ANOVA for the above experiment
 ii.   Interpret the results

2) A field experiment was conducted to study the effect of weed density and variety on paddy yield. Three levels of weed density (W_1, W_2 and W_3) and two varieties (V_1 and V_2) were used in the experiment. The results recorded from the experiment are given below

	The yield (kg/plot) recorded from the experiment					
Block	$W_1 V_1$	$W_1 V_2$	$W_2 V_1$	$W_2 V_2$	$W_3 V_1$	$W_3 V_2$
1	6.8	3.2	8.9	7.5	3.2	4.1
2	3.4	2.8	8.1	6.3	2.9	4.1
3	7.5	3.4	8.9	8.1	3.5	4.4

  i.   Perform ANOVA for the above factorial experiment
 ii.   Interpret the results

Please Turn Over

3) An experiment was analyzed using CRD with 7 treatments and 4 replicates. The ANOVA and means of the treatments are given below.

Block	Df	SS	MS	F
Treatment	6	5,587,174	931,196	9.83[**]
Error	21	1,990,238	94,773	
Total	27	7,577,412		

Treatments	Mean
T_1	2,127
T_2	2,678
T_3	2,552
T_4	2,128
T_5	1,796
T_6	1,681
T_7	1,316

i) Calculate the LSD and show what means are significantly different at 5% significant level.

4) Describe the different methods of transformation which are used to increase the precision of the results obtained in a field experiments.