Statistics Software Lab Report - 11 (Outputs file)

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Solution for Problem-1

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# Solution for Porblem-1:
"Reject the Hypothesis that all means are significantly similar at
    significance level 0.1"

"Reject the Hypothesis that all means are significantly similar at
    significance level 0.05"

"Accept the Hypothesis that Brand A and Brand B are significantly similar at
    significance level 0.05"

"Reject the Hypothesis that Brand A and Brand C are significantly similar at
    significance level 0.05"

"Accept the Hypothesis that Brand B and Brand C are significantly similar at
    significance level 0.05"
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Solution for Problem-2

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# Solution  for Problem-2:
"Accept the Hypothesis that the average fertilizer effects are significantly
    similar at significance level 0.05"

"Reject the Hypothesis that the average yields are significantly similar at
    significance level 0.05"
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Solution for Problem-3

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# Solution  for Problem-3:
"Accept the Hypothesis that the means along rows are significantly similar
    at significance level 0.05"

"Accept the Hypothesis that the means along columns are significantly
    similar at significance level 0.05"

"Accept the Hypothesis that there is an interaction between rows and columns
    at significance level 0.05"
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Solution for Problem-4

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# Solution for Problem-4:
The sum of squares along rows is:  18.5
The sum of squares along columns is:  51.5
The sum of squares of treatments is:  72.5
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5   The sum of squares of error is:  10.5
6
7   The degrees of freedom along rows is:  3
8   The degrees of freedom along columns is:  3
9   The degrees of freedom of treatments is:  3
10  The degrees of freedom of error is:  6
11
12  The mean square along rows is:  6.166667
13  The mean square along columns is:  17.16667
14  The mean square of treatments is:  24.16667
15  The mean square of error is:  1.75
16
17  The F value along rows is:  3.52381
18  The F value along columns is:  9.809524
19  The F value of treatments is:  13.80952
20
21  "Accept the Hypothesis that the means along rows are significantly similar
        at significance level 0.05"
22
23  "Reject the Hypothesis that the means along columns are significantly
        similar at significance level 0.05"
24
25  "Reject the Hypothesis that the means of treatments are significantly
        similar at significance level 0.05"
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Solution for Problem-5

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1   # Solution for Exercise-4:
2   The sum of squares along rows is:  0.5
3   The sum of squares along columns is:  19
4   The sum of squares of treatments is:  95.5
5   The sum of squares of workplace is:  7.5
6   The sum of squares of error is:  27.5
7
8   The degrees of freedom along rows is:  3
9   The degrees of freedom along columns is:  3
10  The degrees of freedom of treatments is:  3
11  The degrees of freedom of workplace is:  3
12  The degrees of freedom of error is:  3
13
14  The mean square along rows is:  0.1666667
15  The mean square along columns is:  6.333333
16  The mean square of treatments is:  31.83333
17  The mean square of workplace is:  2.5
18  The mean square of error is:  9.166667
19
20  The F value along rows is:  0.01818182
21  The F value along columns is:  0.6909091
22  The F value of treatments is:  3.472727
23  The F value of workplace is:  0.2727273
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24
25   "Accept the Hypothesis that the means along rows are significantly similar
         at significance level 0.05"

26
27   "Accept the Hypothesis that the means along columns are significantly
         similar at significance level 0.05"

28
29   "Accept the Hypothesis that the means of treatments are significantly
         similar at significance level 0.05"

30
31   "Accept the Hypothesis that the means of workplace are significantly similar
          at significance level 0.05"
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