The due date for submitting this assignment has passed. Due on 2018-02-14, 23:59 IST.

Submitted assignment

Questions 1-5 are based on the following case:

A manufacturer of television sets is interested in the effect of tube conductivity of four different types of coating for color picture tubes. The following conductivity data are obtained (Use $\alpha=0.05$)

<table>
<thead>
<tr>
<th>Coating Type</th>
<th>Conductivity</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>143</td>
</tr>
<tr>
<td>2</td>
<td>152</td>
</tr>
<tr>
<td>3</td>
<td>134</td>
</tr>
<tr>
<td>4</td>
<td>129</td>
</tr>
<tr>
<td></td>
<td>141</td>
</tr>
<tr>
<td></td>
<td>149</td>
</tr>
<tr>
<td></td>
<td>136</td>
</tr>
<tr>
<td></td>
<td>127</td>
</tr>
<tr>
<td></td>
<td>150</td>
</tr>
<tr>
<td></td>
<td>137</td>
</tr>
<tr>
<td></td>
<td>132</td>
</tr>
<tr>
<td></td>
<td>129</td>
</tr>
</tbody>
</table>

1) The mean square of the model is

- (i) 281.56
- (ii) 844.69
- (iii) 19.69
- (iv) 236.25

No, the answer is incorrect.

Score: 0

Accepted Answers:

(i) 281.56

2) Degree of freedom of the model is

- (i) 12
- (ii) 3
- (iii) 13
- (iv) 4

No, the answer is incorrect.

Score: 0

Accepted Answers:

(ii) 3

3) Degree of freedom of the error is

- (i) 12
- (ii) 3
- (iii) 13
- (iv) 4
No, the answer is incorrect.
Score: 0
Accepted Answers:
(i) 12

4) The mean square of the error is 2 points
   - (i) 281.56
   - (ii) 844.69
   - (iii) 19.69
   - (iv) 236.25

No, the answer is incorrect.
Score: 0
Accepted Answers:
(ii) 19.69

5) Treatment effect for the first coating type is 2 points
   - (i) 7.3125
   - (ii) 7.0625
   - (iii) 7.0178
   - (iv) 7.5423

No, the answer is incorrect.
Score: 0
Accepted Answers:
(ii) 7.0625

Questions 6-10 are based on the following case:

The response time in milliseconds was determined for three different types of circuits that could be used in an automatic valve shutoff mechanism. The results are shown in the following table. (Use α=0.01)

<table>
<thead>
<tr>
<th>Circuit Type</th>
<th>1</th>
<th>2</th>
<th>3</th>
</tr>
</thead>
<tbody>
<tr>
<td>Response Time</td>
<td>9</td>
<td>20</td>
<td>6</td>
</tr>
<tr>
<td></td>
<td>12</td>
<td>21</td>
<td>5</td>
</tr>
<tr>
<td></td>
<td>10</td>
<td>23</td>
<td>8</td>
</tr>
<tr>
<td></td>
<td>8</td>
<td>17</td>
<td>16</td>
</tr>
<tr>
<td></td>
<td>15</td>
<td>30</td>
<td>7</td>
</tr>
</tbody>
</table>

6) The sum-square total of the data set is 2 points
   - (i) 271.80
   - (ii) 16.90
   - (iii) 746.40
   - (iv) 202.80

No, the answer is incorrect.
Score: 0
Accepted Answers:
(iii) 746.40

7) The mean square value of the error is 2 points
   - (i) 271.80
   - (ii) 16.90
   - (iii) 543.60
   - (iv) 202.80
8) The degree of freedom of the circuit type is
   (i) 2
   (ii) 12
   (iii) 14
   (iv) 3

No, the answer is incorrect.
Score: 0
Accepted Answers:
(ii) 16.90

9) The degree of freedom of the error is
   (i) 2
   (ii) 12
   (iii) 14
   (iv) 3

No, the answer is incorrect.
Score: 0
Accepted Answers:
(i) 2

10) The mean square value of the circuit type is
    (i) 271.80
    (ii) 16.90
    (iii) 543.60
    (iv) 202.80

No, the answer is incorrect.
Score: 0
Accepted Answers:
(i) 271.80