Assignment 9

The due date for submitting this assignment has passed. As per our records you have not submitted this assignment.

Due on 2018-10-03, 23:59 IST.

The first 2 questions require application of the equations and concepts mentioned in the class videos.

1) In a large estate electric cables are relatively old and failures are often reported. Detection of faults and repair takes on an average 6 hours resulting in estimated hourly disruption cost of Rs. 5000/-. However, data from a similar estate nearly as old showed that when one inspects regularly the number of failures/year reduces exponentially with number of inspection. For no inspection average number of failure is 10/year. For average 2.3 inspection/year number of failure is 1. The cost of each emergency repair is estimated to be Rs.20000/-. Cost of one cycle of complete inspection requires 14400/- in addition to a disruption cost of Rs. 4000/-. Optimally, how many number of inspections shall be done in a year? (From the answers choose the range)

Hint: Calculate the corresponding costs and judge basis which is more economical overall.

No, the answer is incorrect.
Score: 0
Accepted Answers:
3-4

2) In a hotel, the maintenance records over a number of years exhibit the following average replacement pattern for hot water taps. What is the average service life?

Hint: Plot the mortality curve for the values to calculate service life based on number retired.

Choose the range from the answers.

<table>
<thead>
<tr>
<th>Age interval</th>
<th>% retired during interval</th>
</tr>
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<tbody>
<tr>
<td>0-1</td>
<td>1</td>
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<tr>
<td>1-2</td>
<td>2</td>
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<td>4-5</td>
<td>12</td>
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<td>5-6</td>
<td>20</td>
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<td>6-7</td>
<td>18</td>
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<td>10</td>
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<td>9-10</td>
<td>65</td>
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<td>11-12</td>
<td>0</td>
</tr>
<tr>
<td>12-13</td>
<td>0</td>
</tr>
</tbody>
</table>

No, the answer is incorrect.
Score: 0

Accepted Answers:
3-4
3) Which of the following is not a maintenance generator? [3 points]
- Location of the building
- Climatic conditions
- Changing standards
- None of the above

No, the answer is incorrect.

Score: 0

Accepted Answers:
None of the above

4) Repair is performed for? [3 points]
- Complete structure
- To restore functional performance to acceptable levels
- Upgrade to currently acceptable standards
- None of the above

No, the answer is incorrect.

Score: 0

Accepted Answers:
To restore functional performance to acceptable levels

5) Rehabilitation is performed for? [3 points]
- Complete structure
- To restore functional performance to acceptable levels
- Upgrade to currently acceptable standards
- None of the above

No, the answer is incorrect.

Score: 0

Accepted Answers:
Complete structure

6) Retrofit is performed for? [3 points]
- Complete structure
- To restore functional performance to acceptable levels
- Upgrade to currently acceptable standards
- None of the above

No, the answer is incorrect.
Score: 0
Accepted Answers:
Upgrade to currently acceptable standards