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reviewer3@nptel.iitm.ac.in ▼

Courses » Fire Protection, Services and Maintenance Management of Building

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Unit 10 - Week 9

Course outline

How to access the portal

Week 1

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Week 9

- Planning for building maintenance
- Periodicity of maintenance management
- Estimation of repair cycle
- Cost profile of maintenance
- Lamp replacement

Assignment 9

The due date for submitting this assignment has passed. As per our records you have not submitted this **Due on 2018-10-03, 23:59 IST.** assignment.

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 **4 points** 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.

- 2-3
- 3-4
- 1-2
- 5-6

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 **4 points** 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.

| | | | | | | | | | | | | | |
|---------------------------|-----|-----|-----|-----|-----|-----|-----|-----|-----|------|-------|-------|-------|
| Age interval | 0-1 | 1-2 | 2-3 | 3-4 | 4-5 | 5-6 | 6-7 | 7-8 | 8-9 | 9-10 | 10-11 | 11-12 | 12-13 |
| % retired during interval | 1 | 2 | 4 | 5 | 12 | 20 | 18 | 13 | 10 | 8 | 65 | 2 | 0 |

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Quiz :
Assignment 9

Assignment 9
solution

Week 10

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Week 12

Score: 0

Accepted Answers:

6-7 yrs

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

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