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NPTEL

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Courses » **Fire Protection, Services and Maintenance Management of Building**

Announcements   **Course**   Ask a Question   Progress   Mentor   FAQ

Unit 5 - Week 4

Course outline

How to access the portal

Week 1

Week 2

Week 3

Week 4

- Introduction to Lift Design
- Design of Lift systems
- Design of Lift systems: exepcted stops and floor of reversal
- Design of Lift systems: Different cases
- Design of Lift systems: Simulation and arrangement & Escalators
- PDF of lecture slides for week 4
- Quiz : Assignment 4

Assignment 4

The due date for submitting this assignment has passed.
As per our records you have not submitted this assignment.   **Due on 2018-09-05, 23:59 IST.**

A pair of lifts serve 16 floors above the main terminal at the ground floor. One lift stops at even floor and the other stops only at odd floors. Population of all the floors can be assumed to be equal. The height of the ground floor is 1.5 times the height of rest of the floors that is 3.5m. The lift reverses to the MT at the constant contract velocity while coming down. Following data may be made use of: Average time for transfer of one passenger in or out of the lift =1.2 sec. Average door opening time for the car=1.5 sec and the same for door closing is 2.5 sec. Acceleration time =1.5 sec and equals to deceleration time. Contract Speed is 1.75 m/s and the lift can carry 12 passengers at a time. Assume the lift is 80% full at all the time. Assume any other data necessary.

1) What is the expected floor of reversal for the lift?   *4 points*

- ○ 5.64
- ○ 6.64
- ○ 7.64
- ○ 8.64

No, the answer is incorrect.
Score: 0

Accepted Answers:
7.64

2) what is the expected number of stops for the lift?   *4 points*

- ○ 4.78
- ○ 5.78
- ○ 6.78
- ○ 7.78

Week 7

Week 8

Week 9

Week 10

Week 11

Week 12

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○ 62

○ 72

○ 82

○ 92

No, the answer is incorrect.
Score: 0

Accepted Answers:
92

4) What is the waiting interval   ***4 points***

○ 92

○ 46

○ 69

○ 23

No, the answer is incorrect.
Score: 0

Accepted Answers:
46

5) If the number of lifts are reduced to one and round trip time remains the same , what   ***4 points***
would be the waiting interval?

○ 62

○ 72

○ 82

○ 92

No, the answer is incorrect.
Score: 0

Accepted Answers:
92

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