Electrical Safety
Mr. Connors
CMS-5

FINAL Study Sheet

Name_____
Class_____ Date_____

1 b
2 d
*3 C
*4 a
5 b
*6 a
*7 a
8 C
9 a
10
11 C
*12 a
*13 b
14 C
15 a
16 C
17 d
18 a
19 d
20 b
21 46,281 A
22 61,703A
23 77,117A
24 a
25 39,431A
26 15,559 A
27 25,409 A
28 16,597A
29 11,573A
30 a
31 9810A
32 b
33 16460A

* Final Questions #3, 4, 6, 7 12 & 13

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Most Important Chapter Ideas and LMS QUESTIONS

CHAP 3 OSHA Considerations

Final Quest. → LMS-3 Questions # 1, 5, 9, 13-15, 17-22, 25, 28, 29, 31, 36-38

CHAP 3 Ideas

- OSHA, OSH ACT OF 1970 Purpose
- General Duty Clause (employer and employee duties)
- Employer responsibilities, ex. PPE, training
  - Hazard Analysis
- Protection From electrical HAZARDS
  - No live work except, LOTO
- SAFETY Related work Practices
- 1926 - Construction, 1910 General Industry

CHAP 4 Intro to LOTO and Control of HAZARDOUS ENERGIES

Final Questions → LMS-4 Questions #1, 3, 5, 7 (Rewrite as T or F) 3, 9, 14-17, 21,

CHAP 4 Ideas

- LOTO For electrical and other HAZARDOUS energies
- OSHA 1926.417 & 1910.147, 1910.333.b.2.i
- NFPA 70E Article 120
- Electrically SAFE Work Condition
- Safety Related WORK practices

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P2

CHAP 4 Ideas

OSHA general duty clause
Qualified person
NFPA 70E & OSHA definitions
Temporary protective grounding equipment
Employer must train employees.
LOTO - Not control devices
VERIFY FOR Voltage
LMS-4 Quest 24 How to test For Voltage
Meter or Voltage ~~tester~~ Safety Rating

CHAP 5 Introduction to NFPA 70E

CHAP 5 Ideas

Not OSHA it's an NFPA Standard but is cited by OSHA T is Therefore part of Thier regulations
It's purpose is to provide a safe working area for employees relative to the hazards arising from The use of electricity

Electrical Safety related Work Practices
Electrical Safety Program
* Electrically Safe Work Condition
Verification of an Electrically Safe Work Condition
* LOTO
Energized Work Permit

Final Questions → CHAPTER Review Questions - # 1, 4, 6, 7

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CHAP 8 Fundamentals of 3 Phase Bolted Fault Currents

LMS-5 Questions # 3, 4, 6, 7, 12, 13

CHAP 8 IDEAS

A 3 phase bolted fault is a worse case scenario where all 3 phases are bolted together. This would have the lowest impedance and thus the highest fault current possible, This is the maximum fault current the system or parts of the system would face

Short Circuit Current Study of entire electrical system

You Need the available fault current (The bolted Fault maximum current) to comply OSHA, NEC and NFPA 70E

example - Arc Flash Risk Assessment
Arc Flash Boundary, PPE etc
OCPD's interrupting Ratings
MAXIMUM Fault Current Labels on Electrical Equipment