PRESIDENCY UNIVERSITY, BENGALURU

SCHOOL OF ENGINEERING

Weightage: 40%   Max Marks: 80   Max Time: 2 hrs.   14 May 2018, Monday

END TERM FINAL EXAMINATION MAY 2018

Even Semester 2017-18   Course: **MEC 219 Industrial Safety**   VI Sem. Mechanical

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Instructions:

(i) Read the questions properly and answer accordingly.
(ii) Question paper consists of **3 parts,** answer specifying the **Question numbers clearly**.
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Part A

(4 Q x 5M = 20 Marks)

1. Bring out the safety precautions to be observed while working on mechanical machines.

2. Enumerate the safe practices during a precision drilling operation.

3. Explain the effects of electrical current on human body at different amperage.

4. List out the DO's & Don'ts while working on electrically powered equipment.

Part B

(6 Q x 5 M = 30 Marks)

5. Indicate the general causes of electrical accidents in big assembly line.

6. Explain the fundamentals of electrical hazards while working on large cable unit.

7. Enumerate the fundamentals of hazards due to Voltage, Amperage, Impedance & grounding in a high voltage system.

8. Bring out the safety aspects to be followed while working on a NC lathe machine.

9. Provide information on interlocking and adjustable guards in a robotic controlled welding.

10. Enlist the safe guarding aids used in machining industry.

Part C

(2 Q x 15 M = 30 Marks)

11. Bring out the details of a safe working system involving gears, coupling and belt driven machines. Provide the details of the suitable PPEs in a painting bay of an automobile finishing line. You may support answer with necessary line diagrams.

12. You are employed as an industrial safety officer in a large assembly line, bring out ten main safety factors electrical accidents. Enlist the salient features in your view to protect against electric shock & harmful radiation environment.

PRESIDENCY UNIVERSITY, BENGALURU
SCHOOL OF ENGINEERING

Weightage: 20%   Max Marks: 40   Max Time: 1 hr.   02 April Monday 2018

TEST – 2   SET B

Even Semester 2017-18   Course: **MEC 219 Industrial Safety**   VI Sem. Mechanical

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Instructions:

(i) Read the questions properly and answer accordingly.
(ii) Question paper consists of 3 parts answer specifying the Q. No clearly.

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Part A

(4 Q x 4M = 16 Marks)

1. Enumerate the classification table of different types of fire in industry & explain.

2. Explain the role of fire hazard analysis in a fire accident for assessment of damage & injuries.

3. Provide the pattern of variation of temperature against time after fire initiation & explain the process.

4. What are the preventive measures of fire in a large machining plant?

Part B

(2Q x 8 M = 16 Marks)

5. Explain the heat sensitive detector cable detection system with the help of a sketch.

6. Enumerate the details of photo electric call type fire detector with a neat sketch.

Part C

(1 Q x 8 M = 8 Marks)

7. Bring out the details of sequence of events after the occurrence of a fire in a plant with a block diagram explaining importance.

OR

Explain any two different types of fire extinguishers used to fight fire with sketches.

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Weightage: 20 %   Max Marks: 40   Max Time: 1 hr.   23 Feb Friday 2018

TEST – 1

Even Semester 2017-18   Course: **MEC 219** **Industrial Safety**   VI Sem. Mechanical

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Instructions:

(i) Read the questions properly and answer accordingly.
(ii) Question paper consists of 3 parts answer specifying Q No clearly.

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Part A   (4 Q x 4M = 16 Marks)

1. Why do the accidents occur in engineering industry? Bring out the factors which contribute to the accidents.

2. With the help of a block diagram explain the stages in an accidents in engineering processes.

3. What are the personal safety devices used in a manufacturing industry? Explain the importance of precautions while setting up an industry.

4. Explain the terms slip, trip and fall with respect to machining & chemical industry.

Part B   (2Q x 8 M = 16 Marks)

5. Explain the Material Safety Data Sheet (MSDS) and Occupational Health & Safety Act (OSHA).

6. Explain the terms lock out and tag out procedures also bring out the safety aspects to be observed while handling toxic materials during storage.

Part C   (1 Q x 8 M = 8 Marks)

7. Bring out the details of a case study of an accident with introduction of events, details of contributory factors and remedial measures that can be adopted to avoid recurrence of such events future. What are your personal views keeping safety in mind?