

Code No: R22DME52

MALLA REDDY COLLEGE OF ENGINEERING & TECHNOLOGY
(Autonomous Institution – UGC, Govt. of India)

M.Tech II Year I Semester Supplementary Examinations, August 2024

Industrial Safety

(MD)

Roll No										
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Time: 3 hours**Max. Marks: 60****Note:** This question paper contains two parts A and B

Part A is compulsory which carries 10 marks and Answer all questions.

Part B Consists of 5 SECTIONS (One SECTION for each UNIT). Answer **FIVE** Questions, Choosing ONE Question from each SECTION and each Question carries 10 marks.

PART-A (10 Marks)**(Write all answers of this PART at one place)**

- | | | | |
|---|---|--|------|
| 1 | A | Define accident? | [1M] |
| | B | How to extinguish fire? | [1M] |
| | C | What is the significance of explosive act 1884? | [1M] |
| | D | What are the reasons for fatigue? | [1M] |
| | E | What is hazard in industrial zone? | [1M] |
| | F | How the hydrostatic test signifies? | [1M] |
| | G | What is toxicity? | [1M] |
| | H | Give examples of chemical hazards? | [1M] |
| | I | Discuss about industrial welfare? | [1M] |
| | J | What are the provisions relating to hazardous processes? | [1M] |

PART -B (50 Marks)**SECTION-I**

- | | | | |
|---|---|--|------|
| 2 | A | Describe the class of fire and extinguishing medium? | [5M] |
| | B | Discuss the measurements of safety performance? | [5M] |

OR

- | | | | |
|---|---|---|------|
| 3 | A | Explain the objectives of safety management? | [5M] |
| | B | Explain about industrial noise and noise control? | [5M] |

SECTION-II

- | | | | |
|---|---|--|-------|
| 4 | | Describe safety aspects with respect to plant and machinery? | [10M] |
| | | OR | |
| 5 | A | Classify different hazards and explain in detailed? | [5M] |
| | B | Discuss pollution in some typical process industry? | [5M] |

SECTION-III

- 6 A Explain the safe working practices in an industry with examples? **[5M]**
 B Describe the medical analysis of electric shock and its effect? **[5M]**

OR

- 7 A Explain the safety instruction for welding in an industry? **[5M]**
 B Explain the working principle of gas welding equipment? **[5M]**

SECTION-IV

- 8 A Discuss about mechanical, chemical, environmental and radiation hazards? **[5M]**
 B What are the different environmental hazards? Explain? **[5M]**

OR

- 9 A Discuss various safety measures to avoid occupational diseases? **[5M]**
 B Explain the safety and risk analysis in an industry? **[5M]**

SECTION-V

- 10 A Explain Factories act 1948 Statutory authorities? **[5M]**
 B Discuss motor vehicle rules? **[5M]**

OR

- 11 A Describe mines act 1952? **[5M]**
 B Describe the employment of young persons in an industry? **[5M]**

Code No: R22D1517

MALLA REDDY COLLEGE OF ENGINEERING & TECHNOLOGY**(Autonomous Institution – UGC, Govt. of India)****M.Tech II Year I Semester Supplementary Examinations, August 2024****Design for Manufacture Assembly and Environment****(MD)**

Roll No									
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Time: 3 hours**Max. Marks: 60****Note:** This question paper contains two parts A and B

Part A is compulsory which carries 10 marks and Answer all questions.

Part B Consists of 5 SECTIONS (One SECTION for each UNIT). Answer **FIVE** Questions, Choosing ONE Question from each SECTION and each Question carries 10 marks.

PART-A (10 Marks)**(Write all answers of this Part at one place)**

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|---|---|--|------|
| 1 | A | What do you mean by datum feature? | [1M] |
| | B | Define Tolerance stack. | [1M] |
| | C | State the steps involved in material choice. | [1M] |
| | D | Mention the influence of materials on form design. | [1M] |
| | E | Distinguish between machinability and clamp ability. | [1M] |
| | F | List any two factors of Design for Assembly. | [1M] |
| | G | What are the barriers to implement Group Technology? | [1M] |
| | H | Name any two applications for DFMA. | [1M] |
| | I | State the main objectives of environmental design. | [1M] |
| | J | List out the procedural steps followed in recyclability. | [1M] |

PART -B(50 Marks)

- | | | |
|---|---|-------|
| 2 | Describe with neat sketch about the manufacturing datum, functional datum and change in datum in DFM. | [10M] |
|---|---|-------|

OR

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|---|---|-------|
| 3 | With suitable example, explain the design principles for manufacturability. | [10M] |
|---|---|-------|

SECTION-II

- | | | |
|---|---|-------|
| 4 | Explain in detail about the influence of material in form design. | [10M] |
|---|---|-------|

OR

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|---|---|-------|
| 5 | Illustrate the form design of welded and forged members with suitable examples. | [10M] |
|---|---|-------|

SECTION-III

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|---|---|-------|
| 6 | Explain the design features to facilitate machining of drills and end mill cutters with sketches. | [10M] |
|---|---|-------|

OR

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|---|---|-------|
| 7 | Enumerate the reduction of machined area by simplification by separation with suitable example. | [10M] |
|---|---|-------|

SECTION-IV

8 Briefly discuss the factors to be considered while selecting casting as a manufacturing process. **[10M]**

OR

9 Design and develop possible and portable parting line in casting process with suitable example. **[10M]**

SECTION-V

10 Discuss the steps involved in lifecycle assessment with suitable example. **[10M]**

OR

11 Summarize how the components are to be manufactured in the industries associated with regulation and standards. **[10M]**
