

**DIPLOMA OF VOCATION**  
**Mechanical Manufacturing**  
**Subject: Industrial Best Practices**  
**Subject Code: MC-402**  
**Semester: Third**  
**January 2021**  
**Theory (External): 70 Marks**  
**Time: 03 Hours**

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**Instructions to the Students**

1. This Question paper consists of two Sections. All sections are compulsory.
2. Section A comprises 10 questions of objective type in nature. All questions are compulsory. Each question carries 2 marks.
3. Section B comprises 8 essay type questions out of which students need to do any 5. Each question carries 10 marks.
4. Read the questions carefully and write the answers in the answer sheets provided.
5. Do not write anything on the question paper.
6. Wherever necessary, the diagram drawn should be neat and properly labelled

| <b>Roll Number</b> |  |  |  |  |  |  |  |  |  |
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**SECTION -A (SHORT/OBJECTIVE TYPE QUESTIONS)**  
**(10x2=20 Marks)**

- A. Which of the following is primary function of maintenance department?
- a) Maintenance of existing plant and equipments
  - b) Inspection and lubrication of equipments
  - c) Proper distribution of utility service
  - d) All of above
- B. Equipment history cards are meant to record
- a) The way equipment behaves
  - b) Total down time of the equipment
  - c) The rate at which different components wear off
  - d) All of the above
- C. Which of the following material is not added to iron for improving its oxidation resistance?
- a) Nickel
  - b) Chromium
  - c) Aluminum
  - d) Silicon
- D. Which of the following absorptive treatment can be used to cover the interior of a box to prevent the reverberant sound?
- a) Open cell foam
  - b) Glass fiber mat
  - c) Both a and b
  - d) None of the above
- E. Benefits of lean production may include:
- a) It enables a company to deliver on demand
  - b) Minimize inventory, maximize the use of multi-skilled employees
  - c) Flatten the management structure and focus resources where they are most effective
  - d) All of the above

- F. Which of the following is not associated with Agile Manufacturing?
- a) Operational Flexibility
  - b) Bottom-up innovation
  - c) Operator augmentation
  - d) Slow approach
- G. The sequence of a typical manufacturing supply chain management is
- a) Storage–Supplier–manufacturing–storage–distributor–retailer–customer
  - b) Supplier–Storage–manufacturing–storage–distributor–retailer–customer
  - c) Supplier–Storage–manufacturing– distributor–storage–retailer–customer
  - d) Supplier–Storage–manufacturing–storage– retailer–distributor–customer
- H. The major decision areas in supply chain management are
- a) Location, production, distribution, inventory
  - b) Planning, production, distribution, inventory
  - c) Location, production, scheduling, inventory
  - d) Location, production, distribution, marketing
- I. Which of the following can be recycled many times?
- a) Plastic
  - b) Wood
  - c) Organic materials
  - d) Aluminum
- J. Which of the following is not a common idea between lean manufacturing and agile manufacturing?
- a) Productivity
  - b) Empowering people
  - c) Response to customer demands
  - d) Reduction in waste

**SECTION –B (ESSAY TYPE QUESTIONS)**  
**(5x10=50 Marks)**

1. How condition monitoring is carried out online? What are its main advantages and disadvantages? Discuss in detail with suitable data and diagrams.
2. What are the benefits of maintenance? How maintenance is related with reliability? What is the difference between predictive and preventive maintenance? Explain with suitable examples.
3. What is corrosion? How it can be prevented? What is the role of corrosion in the failure of any component and instrument? What are the common methods to control the corrosion? Explain with neat and clean diagrams.
4. What is the difference between agile manufacturing and mass manufacturing? What are their advantages and disadvantages? Discuss with suitable data and examples.
5. What is lean manufacturing? What are the main advantages and limitations of lean manufacturing over traditional manufacturing? Discuss while concentrating on economic aspects also.
6. What do you understand from supply management? How it is used to improve the economic health of an organization? What are the different tools and techniques used to achieve proper and effective supply chain management?
7. In modern manufacturing system, economy is very important factor. How the economic health of an organization can be improved using best practices? What are various methods and techniques used to improve economic health of an organization? Discuss in detail.
8. How supply chain management is integrated in maintenance and repair services sector? Discuss in detail with some case study. Also explain why predictive maintenance is critical to supply chain management?

**‘END OF PAPER’**