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B.TECH. DEGREE EXAMINATION, MAY 2015

Eighth Semester

Branch: Mechanical Engineering

ME 010 803—PRODUCTION ENGINEERING (ME)

(New Scheme—2010 Admission onwards)

[Regular/Supplementary]

Time: Three Hours

Maximum: 100 Marks

Part A

Answer all questions.

Each question carries 3 marks.

- 1. Explain the effects of friction in machining process.
- 2. What is machinability?
- 3. What are the needs of powder metallurgy?
- 4. Write a note on composites.
- 5. Write a note on EDM.

 $(5 \times 3 = 15 \text{ marks})$

Part B

Answer all questions.
Each question carries 5 marks.

- 6. Differentiate oblique and orthogonal cutting.
- 7. Explain the structure and composition of HSS.
- 8. Explain the micromachining process.
- 9. Explain phase diagram of Al₂O₃.
- 10. Write a note on LIGA process.

 $(5 \times 5 = 25 \text{ marks})$

Part C

Answer all questions.

Each question carries 12 marks.

11. In an orthogonal cutting operation, the following data have been observed:

Uncut chip thickness = 0.127 mm. Width of cut = 6.35 mm.

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B.TECH. DEGREE EXAMINATION, MAY 2015

Eighth Semester

Branch: Mechanical Engineering/Automobile Engineering
AU 010 802/ME 010 802—OPERATIONS MANAGEMENT (AU, ME)

(New scheme—2010 Admission onwards)

[Regular/Supplementary]

Time: Three Hours

Maximum: 100 Marks

Part A

Answer all questions.

Each question carries 3 marks.

- 1. What are the objectives of operation management?
- 2. What is product structure?
- 3. Differentiate scheduling and sequencing.
- 4. Explain the need for replacement.
- 5. Define supply chain.

 $(5 \times 3 = 15 \text{ marks})$

Part B

Answer all questions.
Each question carries 5 marks.

- 6. Explain different types of decisions with example.
- 7. Write a note on DRP.
- 8. Explain Johnson's algorithm.
- 9: Distinguish individual and group replacement policies.
- 10. Write a note on ERP.

 $(5 \times 5 = 25 \text{ marks})$

Part C

Answer all question.

Each question carries 12 marks.

11. Compute the adjusted exponential forecast for the first week of March for a firm with the following

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