

Code No: RR410309

RR

Set No. 2

IV B.Tech I Semester Examinations, NOVEMBER 2010

UN-CONVENTIONAL MACHINING PROCESS

Common to Mechanical Engineering, Production Engineering

Time: 3 hours

Max Marks: 80

Answer any FIVE Questions

All Questions carry equal marks

1. (a) Explain the Ultrasonic Machining Process and write its applications. [8]
(b) What are the various thermal machining processes. [8]
2. (a) Explain the general requirements of liquid forging facility. [8]
(b) Explain the general requirements of confined explosive forming facility. [8]
3. (a) Trace the developments of Chemical Machining and indicate early applications. [8]
(b) How are the deficiencies observed with the early applications of Chemical Machining overcome subsequently? [8]
4. Describe the working of LBM with neat sketch. State the applications, advantages, disadvantages, limitations of LBM. Also discuss about the economics of LBM. [16]
5. Explain how the following parameters influence the metal removal rate in abrasive jet machining. [4 × 4]
 - (a) Abrasive flow rate
 - (b) Velocity of abrasives
 - (c) Nozzle tip distance
 - (d) Gas pressure.
6. Describe the effect of various process parameters on Tool wear in EDM. [16]
7. (a) What are the functions of abrasive particles in ECG. [8]
(b) What is the need for Electrochemical Deburring? Explain its process. [8]
8. What are the various E.D. M. Parameters that influence metal removal rate. Discuss them in detail. [16]

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Set No. 4

IV B.Tech I Semester Examinations, NOVEMBER 2010

UN-CONVENTIONAL MACHINING PROCESS

Common to Mechanical Engineering, Production Engineering

Time: 3 hours

Max Marks: 80

Answer any FIVE Questions

All Questions carry equal marks

1. Describe the working of LBM with neat sketch. State the applications, advantages, disadvantages, limitations of LBM. Also discuss about the economics of LBM. [16]
2. Describe the effect of various process parameters on Tool wear in EDM. [16]
3. What are the various E.D. M. Parameters that influence metal removal rate. Discuss them in detail. [16]
4. Explain how the following parameters influence the metal removal rate in abrasive jet machining. [4 × 4]
 - (a) Abrasive flow rate
 - (b) Velocity of abrasives
 - (c) Nozzle tip distance
 - (d) Gas pressure.
5. (a) Explain the Ultrasonic Machining Process and write its applications. [8]
 - (b) What are the various thermal machining processes. [8]
6. (a) What are the functions of abrasive particles in ECG. [8]
 - (b) What is the need for Electrochemical Deburring? Explain its process. [8]
7. (a) Trace the developments of Chemical Machining and indicate early applications. [8]
 - (b) How are the deficiencies observed with the early applications of Chemical Machining overcome subsequently? [8]
8. (a) Explain the general requirements of liquid forging facility. [8]
 - (b) Explain the general requirements of confined explosive forming facility. [8]

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RR**Set No. 1****IV B.Tech I Semester Examinations, NOVEMBER 2010****UN-CONVENTIONAL MACHINING PROCESS****Common to Mechanical Engineering, Production Engineering****Time: 3 hours****Max Marks: 80****Answer any FIVE Questions****All Questions carry equal marks**

1. Describe the working of LBM with neat sketch. State the applications, advantages, disadvantages, limitations of LBM. Also discuss about the economics of LBM. [16]
2. What are the various E.D. M. Parameters that influence metal removal rate. Discuss them in detail. [16]
3. (a) Explain the Ultrasonic Machining Process and write its applications. [8]
(b) What are the various thermal machining processes. [8]
4. (a) Explain the general requirements of liquid forging facility. [8]
(b) Explain the general requirements of confined explosive forming facility. [8]
5. (a) Trace the developments of Chemical Machining and indicate early applications. [8]
(b) How are the deficiencies observed with the early applications of Chemical Machining overcome subsequently? [8]
6. (a) What are the functions of abrasive particles in ECG. [8]
(b) What is the need for Electrochemical Deburring? Explain its process. [8]
7. Describe the effect of various process parameters on Tool wear in EDM. [16]
8. Explain how the following parameters influence the metal removal rate in abrasive jet machining. [4 × 4]
 - (a) Abrasive flow rate
 - (b) Velocity of abrasives
 - (c) Nozzle tip distance
 - (d) Gas pressure.

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Set No. 3

IV B.Tech I Semester Examinations, NOVEMBER 2010

UN-CONVENTIONAL MACHINING PROCESS

Common to Mechanical Engineering, Production Engineering

Time: 3 hours

Max Marks: 80

Answer any FIVE Questions

All Questions carry equal marks

1. Describe the effect of various process parameters on Tool wear in EDM. [16]
2. (a) Trace the developments of Chemical Machining and indicate early applications. [8]
(b) How are the deficiencies observed with the early applications of Chemical Machining overcome subsequently? [8]
3. (a) What are the functions of abrasive particles in ECG. [8]
(b) What is the need for Electrochemical Deburring? Explain its process. [8]
4. (a) Explain the general requirements of liquid forging facility. [8]
(b) Explain the general requirements of confined explosive forming facility. [8]
5. Describe the working of LBM with neat sketch. State the applications, advantages, disadvantages, limitations of LBM. Also discuss about the economics of LBM. [16]
6. What are the various E.D. M. Parameters that influence metal removal rate. Discuss them in detail. [16]
7. Explain how the following parameters influence the metal removal rate in abrasive jet machining. [4 × 4]
 - (a) Abrasive flow rate
 - (b) Velocity of abrasives
 - (c) Nozzle tip distance
 - (d) Gas pressure.
8. (a) Explain the Ultrasonic Machining Process and write its applications. [8]
(b) What are the various thermal machining processes. [8]
