[Total No. of Questions - 9] [Total No. of Printed Pages - 2]
(2068)

18215(M)

B. Tech 6th Semester Examination

Modern Manufacturing Processes (CBS)

ME-608

Time : 3 Hours **Max. Marks : 60**

The candidates shall limit their answers precisely within the answer-book (40 pages) issued to them and no supplementary/continuation sheet will be issued.

Note : 1. Attempt any one question each from section A, Section B, Section C, Section D.

2. Question No. 9 is compulsory.

3. Any missing data may be assumed appropriately.

SECTION - A

1. Classify modern manufacturing processes along with process parameters. (10)

2. With the help of a suitable diagram, explain the working of Ultrasonic Machining and also discuss the effect of various process parameters on material removal rate (MRR). (10)

SECTION - B

3. Explain the mechanism of Material removal in AJM. Elaborate the variables of AJM. (10)

4. Describe the setup of electrochemical machining. Explain the elements of the process. Name any three limitations. (10)

SECTION - C

5. What do you understand by electric discharge machining? Discuss briefly the methods of materials removal, process parameters and power sources employed in EDM giving a neat diagram. (10)

6. Explain with neat sketch the working of LBM. Write four advantages and limitations. (10)

SECTION - D

7. Describe the principle of working of Plasma arc machining process giving details of various elements of the process, sketch, applications and limitations of the process. (10)

8. Describe the working principle of main components of an EBM process with the help of a neat sketch and give its advantage, disadvantages and applications. (10)

SECTION - E

9. (a) What is difference between Conventional and Non-conventional machining process? Give examples.

(b) List the various applications of abrasive flow machining.

(c) What is chemical machining?

(d) List the advantages of ECM.

(e) What are the main dielectric fluid flushing methods used in EDM?

(f) What are the main types of Lasers?

(g) List elelctrode materials of EDM?

(h) What are the main electrolytes used in ECM?

(i) Describe the main applications of chemical machining?

(j) Write the process capabilities of EBM? (10×2=20)