

B.E. (Mechanical Engineering) Eighth Semester (C.B.S.)
Elective-III : Advanced Manufacturing Techniques

P. Pages : 2

Time : Three Hours



NJR/KS/18/4726

Max. Marks : 80

- Notes :
1. All questions carry marks as indicated.
 2. Solve Question 1 OR Questions No. 2.
 3. Solve Question 3 OR Questions No. 4.
 4. Solve Question 5 OR Questions No. 6.
 5. Solve Question 7 OR Questions No. 8.
 6. Solve Question 9 OR Questions No. 10.
 7. Solve Question 11 OR Questions No. 12.
 8. Due credit will be given to neatness and adequate dimensions.
 9. Assume suitable data whenever necessary.

1. a) Write with neat sketch of Hot & cold machining process and also write application of it. 7
b) What is non-traditional machining process. Explain its need and classification in brief. 6

OR

2. a) Write with neat sketch about High speed grinding. Also write application of high speed grinding. 6
b) Discuss in details the historical development, economics and application of non-traditional machining process. 7
3. a) Explain the ultrasonic machining process, Also write mechanics of USM, Advantages and application. 7
b) Explain the process of water jet machining process with its advantages & applications. 6

OR

4. a) Explain with neat sketch Abrasive jet machining process with mechanics, advantages & application. 7
b) Explain the process parameters and control, effect of USM on materials. 6
5. a) Explain with neat sketch Electron Beam machining. Also Write advantages, disadvantages a application of it. 7
b) Write with neat sketch process of plasma Arc machining. Give its advantages and application. 7

OR

6. a) Explain with neat sketch Electrical discharge machining. Write its advantages and application. 7

- b) Explain the process of LASER Beam machining. Give its advantages and application. 7
7. a) Explain with neat sketch process of oxy acetylene pressure welding. Also explain different types of flames. Give its advantages & application. 7
- b) Explain the process of resistance welding with any two process of resistance welding. 7

OR

8. a) Write with neat sketch Atomic Hydrogen welding with advantages, disadvantages & application. 7
- b) Explain with neat sketch submerge Arc welding? Also give its advantages, disadvantages & Applications. 7
9. a) What do you mean by solid phase welding? Explain the process of friction welding with its limitations. 6
- b) Explain the process of Ultra sonic welding. Give its advantages & application. 7

OR

10. a) Explain the Economics and application of non-traditional welding process. 6
- b) Differentiate between solid phase welding with Arc welding. Write about recent development in friction welding. 7
11. a) Explain with neat sketch ceramic shell casting, write its application. 6
- b) Write with neat sketch centrifugal casting with its advantages & limitations. 7

OR

12. a) What do you mean by evaporative pattern casting? Explain the process with the neat sketch. Also write its applications. 7
- b) Explain the process of continuous casting with its limitations. 6
