

Total No. of Questions : 6]

SEAT No. :

P195

[Total No. of Pages : 2

BE/INSEM/APR-523

B.E. (Mechanical Engg.)

402050A : ADVANCED MANUFACTURING PROCESSES

(2015 Pattern) (Semester - II) (Elective - IV)

Time : 1 Hour]

[Max. Marks : 30

Instructions to the candidates :

- 1) All questions are compulsory.
- 2) Solve Q.1 or Q.2, Q.3 or Q.4, Q.5 or Q.6.
- 3) Neat diagrams must be drawn wherever necessary.
- 4) Figures to the right indicate full marks.

Q1) a) Explain principle, working & applications of Hydroforming process with neat sketch. **[6]**

b) List various micro forming processes. Explain micro bending process with line diagram. **[4]**

OR

Q2) a) List the types of explosive forming processes. Explain the working of unconfined explosive forming process with neat sketch. **[6]**

b) Explain working of Petro forge forming process in detail with neat sketch. Why this process is not used commercially in industries. **[4]**

Q3) a) Explain working of friction stir welding (FSW) process with neat sketch. What are various process parameters in this process? **[6]**

b) Write down 'two advantages and limitations' of 'EBW' & 'LBW' processes. **[4]**

OR

Q4) a) Explain principle, working & applications of Ultrasonic welding process with neat sketch. **[6]**

b) Explain in detail 'Thermal Spray Coating' with neat sketch. **[4]**

P.T.O.

- Q5) a)** Explain working of 'Abrasive flow finishing process' with neat sketch. Write down its applications. [6]
- b)** Write down working principle of 'Shaped Tube Electrolytic Machining (STEM)' with line diagram. [4]

OR

- Q6) a)** Write short notes on : [6]
- i) Electrochemical Grinding (ECG)
 - ii) Electrochemical Deburring (ECD)
- b)** Explain 'Wire electric discharge machining' in detail with its applications. [4]
