

Code No: 114DM

JAWAHARLAL NEHRU TECHNOLOGICAL UNIVERSITY HYDERABAD**B.Tech II Year II Semester Examinations, November/December - 2015****PRODUCTION TECHNOLOGY****(Common to ME, MCT, AME, MSNT)****Time: 3 Hours****Max. Marks: 75****Note:** This question paper contains two parts A and B.

Part A is compulsory which carries 25 marks. Answer all questions in Part A.

Part B consists of 5 Units. Answer any one full question from each unit. Each question carries 10 marks and may have a, b, c as sub questions.

PART- A**(25 Marks)**

- 1.a) State the various defects in casting processes. [2M]
- b) What are the materials generally used for preparing patterns? [3M]
- c) What is neutral flame? Write down its temperature. [2M]
- d) List out the advantages of gas welding? [3M]
- e) Write short notes on heat affected zone in welding. [2M]
- f) State the different welding defects. [3M]
- g) Give list of some cold working processes? [2M]
- h) What are the advantages and disadvantages of hot working processes? [3M]
- i) Write short notes on forward extrusion process? [2M]
- j) Explain about smith forging? [3M]

PART-B**(50 Marks)**

- 2.a) Define the following terms as related to casting,
i) Cope ii) Drag iii) bottom board
- b) Briefly explain the procedure to be followed for making a sand mould.
- c) Briefly discuss draft allowance is important for patterns. [3+3+4]

OR

- 3.a) Describe the types of risers and their uses with suitable sketches.
- b) Specify the advantages of the precision investment casting process over the other casting processes.
- c) Is it possible to obtain a sound casting of a solid bar by centrifugal casting? Give reasons in support of your answer. [3+3+4]

- 4.a) Explain the classification of welding processes.
- b) What is brazing? Describe briefly two methods of brazing. [5+5]

OR

- 5.a) Explain the types of welded joints.
- b) Write short notes on the following,
i) Gas cutting ii) Soldering [5+5]

- 6.a) Briefly explain the Inert Gas welding.
- b) Briefly explain the Induction welding. [5+5]

- 7.a) Briefly explain the TIG welding.
b) Briefly explain the Explosive welding. [5+5]

- 8.a) Write the advantages and disadvantages of forging? [5+5]
b) Explain the following terms,
i) Stamping ii) forming

OR

- 9.a) Write short notes on rolling stand arrangement? [5+5]
b) Explain the following terms,
i) Blanking ii) piercing

- 10.a) Write advantages and limitations of extrusion processes. [5+5]
b) Explain the following processes,
i) Pipe making ii) Hydrostatic extrusion

OR

- 11.a) Write comparison between forward and backward extrusion processes.
b) Explain various forging operations. [5+5]

