

FACULTY OF ENGINEERING
S.E. (M/P) Examination - Jan - 2015
Production Processes-I (Revised)

[Time: THREE Hours]

[Max. Marks: 80]

“Please check whether you have got the right question paper.”

- N.B** 1) Q. NO1 & Q.No6 are compulsory
 2) Attempt two questions from remaining questions from each section A & B

SECTION A

- Q.1 Solve any “Five” from the following 10
- 1) What is a binder used in molding sand? List the different binders used in sand molding
 - 2) What are the materials used in the patterns?
 - 3) Explain what is cope drag and cheeks in sand molding.
 - 4) Name the different electric furnaces stating their working principle, used in melting of metals for casting
 - 5) What is the difference between a power hammer & forging press used in forging?
 - 6) What is the difference between hot extrusion and cold extrusion?
 - 7) What is the difference between cold forging and hot forging ?
 - 8) What are the different types of sheet metals used in manufacturing?
 - 9) Name the sheet metal operations used in shaping the sheet metal.
 - 10) What are the sheet metal working dies? Where are they used?
- Q.2 A What are the different types of patterns used in molding? Explain each of them by neat sketch. 08
 B What are the different types of moulds? Explain in detail shell moulding. 07
- Q.3 A With neat labeled sketch explain the cold chamber pressure die casting process. State its application. 08
 B With neat sketch explain the semi centrifugal casting method. 07
- Q.4 A Name the various hot working processes and explain in detail? The process used for manufacturing of seam less pipes. 08
 B What is cold forging? Explain with neat sketch rotary swaging. 07
- Q.5 A Explain the sheet metal processes bending, flanging, ribbing, hemming, lancing, curling and edge formation 08
 B With a block diagram explain the working principle & application of a hydraulic power press. 07
- SECTION B
- Q.6 Solve any “Five” from the following 10
- 1) Name the most commonly used plastic polymers and additives.
 - 2) What is the difference between plastic forming and fabrication processes?
 - 3) What is weldability of a material ?what is its impact on selection of appropriate welding process?
 - 4) What is straight and reverse polarity in arc welding?
 - 5) What in a plasma are used in the plasma arc welding?
 - 6) What is a shielding gas used in welding? What are the different – gases used for shielding?
 - 7) What are the safety devices used in arc welding?
 - 8) What is the difference between electroplating and galvanizing?
 - 9) Name the different surface cleaning and finishing methods?
 - 10) What is blow moulding? Explain in brief.
- Q.7 A With neat sketch explain the transfer moulding. State its application advantages & disadvantages. 07
 B What are the different methods of lamination? Explain the process of manufacturing a component using glass fiber reinforced plastic. 08
- Q.8 A What is oxy- acetylene gas welding? Draw neat sketch explain the construction of the high pressure welding torch and the different types of gas flames used in gas welding stating their application. 09
 B With neat sketch explain the wire feed mechanism used in the continuously wire fed welding process like the MIG welding process. 06
- Q.9 A With neat sketch explain the electroslog welding process. State its advantages. Disadvantages and the application. 08
 B What is seam welding? With neat sketch explain its working. 07
- Q.10 A What are the methods of mechanical cleaning? And chemical cleaning? Why chemical cleaning is essential before coating a surface? 07
 B What is metal spraying? Explain a method of metal spraying, in detail. 08