

SUBJECT CODE NO:- 492
FACULTY OF ENGINEERING AND TECHNOLOGY
S.E.(Mech/Prod) Examination Nov/Dec 2015
Production Processes-I
(Revised)

[Time: Three Hours]

[Max. Marks: 80]

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

- N.B i) Q.No.1 Q.No.6 are compulsory. Solve two questions from remaining questions in each section.
 ii) Figures to the rights indicate full marks.

Section A

- Q.1 Solve any five out of the following: 10
 i) What is meant by the term ‘reserving’?
 ii) Define stop- off pieces in foundry.
 iii) List the various type in- gates normally used.
 iv) What is the function of runner in casting process?
 v) Define rotary swaging.
 vi) Define shot peening.
 vii) State the applications of cold extrusion.
 viii) Explain punching and blanking operation.
 ix) Define closed die forging operation.
 x) List the inspection methods for machine forging.
- Q.2 a) Sketch a cupola furnace and label the essential parts, also describe the operation of a cupola. 08
 b) Explain with the help of neat schematic diagram of a hot chamber die casting machine. 07
- Q.3 a) How direct extrusion differs from indirect extrusion Explain. 05
 b) What principle is involved in hot rolling? Explain. 06
 c) How tubes are manufactured. 04
- Q.4 a) What is upset on machine forging? Give an example of upset forging. 06
 b) Explain centrifugal casting process. 04
 c) List and explain various forging defects. 05
- Q.5 a) Describe working principle of roll bending with the of suitable block diagram. 05
 b) Explain wire and tube drawing process. 05
 c) Explain any five defects in castings. 05

Section B

- Q.6 Solve any five out of the following: 10
 i) List main types of arc welding.
 ii) Define flash butt welding.
 iii) Write principle of thermit welding.
 iv) Define the term polarity.
 v) What is a bead?
 vi) What are plastics?
 vii) List the common methods used for forming plastic sheets.
 viii) List two advantages of power metallurgy.
 ix) List the ways in which a metallic surface can be cleaned?
 x) What are the various organic coating on metals?

Q.7	a) State briefly electroplating with advantages and limitations.	07
	b) Write short note on:	08
	i) Electroless plating	
	ii) Galvanizing.	
Q.8	a) Explain the TIG and MIG systems of arc welding. Give application of each.	08
	b) Explain the following in detail.	07
	i) Blow moulding.	
	ii) Injection moulding.	
Q.9	a) Describe the types of flames obtained in an oxy- acetylene gas- welding process giving the applications.	08
	b) Explain the process of metal transfer in GMAW process with neat sketches.	07
Q.10	a) Explain in detail compression moulding.	04
	b) With neat sketch explain the mit welding.	04
	c) Discuss various welding defects.	07