

**Code: 9A14401**

B.Tech II Year II Semester (R09) Supplementary Examinations December/January 2015/2016

**PRODUCTION TECHNOLOGY**

(Mechatronics)

Time: 3 hours

Max. Marks: 70

Answer any FIVE questions  
All questions carry equal marks

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- 1 (a) What do you understand by casting? Give a few applications of casting process.  
(b) Name the common materials used for the pattern. What are the advantages and limitations of wooden patterns when compared to metal patterns?
- 2 With a neat sketch, explain precision true and semi-centrifugal casting processes. List out various advantages, limitations and applications of this process.
- 3 Discuss the principle of resistance welding. With neat sketches explain about spot and seam welding processes.
- 4 (a) What is HAZ? What is its importance in welding?  
(b) What is the difference between soldering and brazing? Name the different methods of soldering.
- 5 (a) What is the importance of recrystallization temperature in metal forming?  
(b) What are the differences between hot working and cold working of metals? List down advantages and limitations of hot-working of metals.
- 6 With a neat sketch, write a short note on coining and spinning processes.
- 7 What are the different types of extrusion processes? With a neat sketch, explain Impact extrusion process.
- 8 (a) What special properties should be possessed by a forging die? Explain in brief.  
(b) Discuss special features of closed die forging. Where is it used?

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