

Code No: RT22033

R13**SET - 1****II B. Tech II Semester Supplementary Examinations, April/May – 2019****PRODUCTION TECHNOLOGY**

(Common to ME and AME)

Time: 3 hours

Max. Marks: 70

Note: 1. Question Paper consists of two parts (**Part-A** and **Part-B**)2. Answer **ALL** the question in **Part-A**3. Answer any **THREE** Questions from **Part-B**

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**PART – A**

1. a) What are the constituent materials used in foundry sand and what percentage.  
b) What is directional solidification?  
c) What is the basic principle of Arc welding?  
d) Differentiate soldering & brazing process.  
e) Differentiate between casting and pattern.  
f) Describe the coining & spinning methods.  
(4M+3M+4M+4M+3M+4M)

**PART – B**

2. Describe the types of patterns used and its use in various applications. (16M)
3. Sketch and explain investment casting. Also mention its applications. (16M)
4. Describe the characteristic features of TIG welding and its applications. (16M)
5. Explain any two of the following  
a) Laser welding  
b) Electron beam welding. (8M+8M)
6. a) Differentiate hot working & cold working process.  
b) What is strain hardening? (12M+4M)
7. a) What is a bending operation? What is spring back & its remedies.  
b) What are the forces and power requirement in sheet metal forming operations?  
(6M+10M)