

II B. Tech I Semester Supplementary Examinations, September - 2021
PRODUCTION TECHNOLOGY
(Mechanical Engineering)

Time: 3 hours

Max. Marks: 75

Answer any **FIVE** Questions each Question from each unit
All Questions carry **Equal** Marks
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- 1 a) Write short note on (i) three piece pattern (ii) flow board pattern. [8M]  
b) Explain the importance of different materials used as pattern materials. [7M]
- Or
- 2 a) Write about (i) draft allowance (ii) shake allowance. [8M]  
b) Explain the properties of molding sand? [7M]
- 3 a) With a neat sketch describe the working principle and steps involved in Shell casting. [8M]  
b) Explain the construction of cupola furnace with a neat diagram. [7M]
- Or
- 4 a) What are the considerations that should be given weightage while designing a gating system? Describe them in detail. [8M]  
b) With a neat sketch describe the construction and working of Semi Centrifugal casting process. [7M]
- 5 a) Explain submerged arc welding with neat sketch. [8M]  
b) Sketch the three types of gas welding flames and give differences between them. [7M]
- Or
- 6 a) With the help of a neat diagram explain the process of electro slag welding. [8M]  
b) Describe the method of oxy-acetylene cutting. [7M]
- 7 a) Using neat sketch describe briefly the method of extruding a hollow round collapsible tube with help of drawing process. [8M]  
b) What are different types of forging defects and give the causes and remedies for forging defects. [7M]
- Or
- 8 a) Explain the working of Drop Forging process with a sketch. [8M]  
b) Differentiate between hot working and cold working. [7M]
- 9 a) What are the different stages in shearing action? Explain with a diagram. [8M]  
b) Write any four differences between punching and blanking. [7M]
- Or
- 10 a) Explain about the explosive forming process. [8M]  
b) Describe about nibbling and trimming operations in brief. [7M]

