

R16

Code No: 134BK

JAWAHARLAL NEHRU TECHNOLOGICAL UNIVERSITY HYDERABAD

B.Tech II Year II Semester Examinations, July/August - 2021

MANUFACTURING PROCESS

(Mechanical Engineering)

Time: 3 hours

Max. Marks: 75

Answer any five questions

All questions carry equal marks

- 1.a) State the typical applications of casting process as used in the automobile sector.
b) Explain the formation of shrinkage cavities in steel casting. How do you eliminate/reduce them? [7+8]
- 2.a) Write a short note on the following with sketches
i) cope and drag pattern ii) skeleton pattern.
b) With the help of a diagram, explain the working of a cupola. [8+7]
- 3.a) Explain the following welding joints:
Butt, Lap, Tee, Corner and Plug joints. [8+7]
b) Explain forge welding and resistance welding.
- 4.a) Explain the various methods available for oxy-acetylene gas cutting in industrial practice.
b) Explain Thermit welding process and its applications. [8+7]
- 5.a) Write a brief note on friction welding and induction welding.
b) Distinguish between brazing and soldering and give the applications. [7+8]
- 6.a) Explain explosion welding process and its applications.
b) What are the defects that are generally found in welding? Describe their cause and remedies. [7+8]
- 7.a) What are the different types of rolling mills? Explain their applications.
b) Describe the equipment used for wire drawing and tube drawing. [7+8]
- 8.a) Describe the extrusion equipment in tube extrusion and pipe making.
b) Explain how forging improves the mechanical properties of the components. [7+8]

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