Total No. of Questions : 8]

SEAT No. :

PF4828

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S.E. (Automobile & Mechanical/Automation & Robotics)

MANUFACTURING PROCESSES

(2019 Pattern) (Semester - IV) (202050)

Time : 2½ Hours] *[Max. Marks : 70*

Instructions to the candidates:

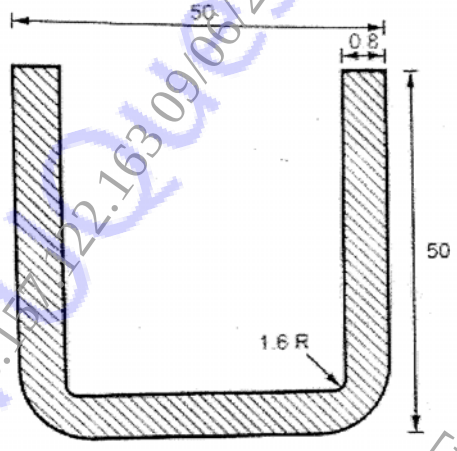
1) ***Answer Q1 or Q2, Q3 or Q4, Q5 or Q6, Q7 or Q8.***
2) ***Neat diagrams must be drawn wherever necessary.***
3) ***Figures to the right indicate full marks.***
4) ***Assume suitable data wherever necessary.***

Q1) a) Explain strip layout with suitable sketch. Explain with example how to calculate Center of pressure? **[10]**

b) Explain with sketch the of strippers used in sheet metal working. **[7]**

OR

Q2) a) The symmetrical cup workpiece shown in figure to be made from cold rolled steel 0.8mm thick with tensile strength 410 MPa. Make the necessary calculations for designing the drawing die for this part. **[10]**



All Dimension is in mm

b) With schematic sketches differentiate the compound & progressive dies. **[7]**

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Q3) a) Sketch & explain various types of flame used in gas welding. **[9]**

b) Explain with sketch Gas Tungsten Arc Welding (GTAW). State the advantages & limitation of the process. **[9]**

OR

Q4) a) State any five welding defects with their causes & remedies. **[10]**

b) Explain with Sketch edge preparation in welding. **[8]**

Q5) a) Describe ram type injection moulding Process. **[9]**

b) Compare the thermosetting plastics & thermoplastic. State general properties & application. **[8]**

OR

Q6) a) Explain pressure forming polymer processing with sketch. **[9]**

b) Write a short note on extrusion process in making film & cable. **[8]**

Q7) a) What are the advantages, disadvantages & application of composite. **[9]**

b) With neat sketch Pultrusion process. **[9]**

OR

Q8) a) Explain vacuum bag moulding composite manufacturing process. **[9]**

b) Compare ceramic matrix & polymer matrix composite. **[9]**



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