

**Government College of Engineering, Aurangabad**  
 (An Autonomous Institute of Government of Maharashtra)  
**M. E. (Production) Examination**  
 End Semester Examination NOV 2016

**ME 576 Advance manufacturing Technique (REV)**

Time: Three Hours

Max. Marks: 60

128 NOV 2016

“Verify the Course Code and check whether you have got the correct question paper”

**N.B:-**

1. Section A is compulsory. Attempt any three in section B and Attempt any two from Section C
2. Figures to the right indicate full marks
3. Assume suitable data if necessary and state it clearly
4. Use of non-programmable calculator is allowed

**Section A (10 x 2=20)**

1. Explain Metal removal Procedure for EDM. State the function spark generator. Why proper flushing is very important in EDM
2. Calculate the total cost of CI component shown in fig 1 following are the data

Cost of molten metal iron at cupola spout Rs 30 per KG  
 Process scrap 17 % of net wt. Of casting  
 Process scrap return value Rs 5 per Kg  
 Administrative overhead charges Rs 2 per Kg of metal poured  
 Density of material 7.2gms/cc

Process	Time per piece	Labour charges per hr.	Shop overheads per hour
Moulding pouring	10 min	Rs 30	Rs 30
Casting removal gate cutting etc	4 min	Rs 10	Rs 30
Fettling and inspection	6min	Rs 10	Rs 30

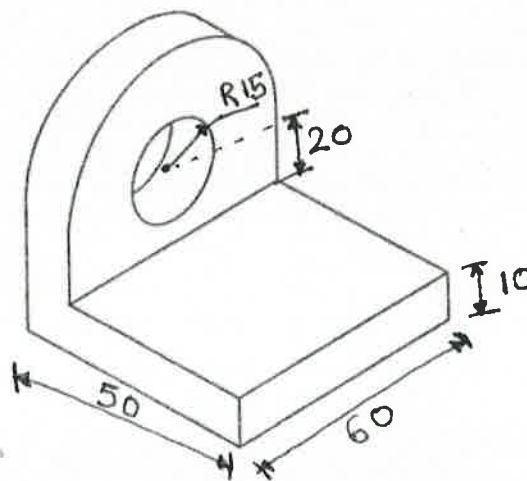


Fig 1 All dimensions are in mm

**Section B ( 8 x 3=24)**

- 1) Explain with neat figure heat generation in orthogonal machining process**
- 2) Characteristic of thermal spray coating and explain its application**
- 3) Describe with neat figure working principle of MAF process how the magnetic abrasive force affected on MRR.**
- 4) Compare CVD and PVD**

**Section C (8 x 2=16)**

- 1) Describe Design rules of electroplating and application of electroplating**
- 2) Describe major guidelines to increase castability. What are the different parameters of junction that affect its solidification time**
- 3) Write note on Extrusion cold moulding, Thermo forming**