

Name:	
Enrolment No:	

UNIVERSITY OF PETROLEUM AND ENERGY STUDIES

Online End Semester Examination, December 2020

Programme Name: B.Tech Mechatronics Engineering

Semester : V

Course Name : Manufacturing Technology

Time : 03 hrs

Course Code : MEPD 3010

Max. Marks : 100

Nos. of page(s) : 2

SECTION A

Answer all the questions

S. No.		Marks	CO
Q 1	Recognize the process as per the statement given below and name them a) Liquid metal is poured into the cavity to give the final shape b) A wire spool is used as an electrode in the process c) Material is removed from the surface by to and fro motion of cutting tool d) Diameter of the job is reduced to produce the final shape e) Flame form by the burning of acetylene is used for the joining of the parts	5	CO-1
Q 2	List out the functions of electrode coating in arc welding process	5	CO-1
Q 3	Marks true or false in below mentioned statements a) In the shaper machine, cutting velocity is given to the job while feed is given to the table. b) Lathe is a cutting tool c) Chip thickness will always less than uncut chip thickness d) Tool should always be harder than the job for performing the cutting operation e) The shear plane is actually a shear zone in reality.	5	CO-2
Q 4	Enlist the advantages of investment casting over sand casting technique	5	CO-2
Q-5	Distinguish between tolerance and allowance.	5	CO-1
Q-6	For turning a job of length 200 mm and diameter 50 mm by lathe machine at 300 rpm, feed of 0.3 mm/rev is used. Enter the value of cutting velocity and machining time.	5	CO-3

SECTION B

Answer all questions

Q 7	Describe the geometry of single point cutting with help of neat sketch. Explain the significance of all angles.	10	CO2
Q 8	a) Explain the Cain's principle of riser design in the metal casting. b) Explain the effect of type of gating system on the pouring time in metal casting process	10	CO4
Q 9	Two metallic sheets each of which 2mm thickness are welded by in lab joint	10	CO3

