

<b>Name:</b>	
<b>Enrolment No:</b>	

**UNIVERSITY OF PETROLEUM AND ENERGY STUDIES**  
**End Semester Examination, December 2018**

**Programme Name: B tech (Mechanical Engg, APE-UP, APE-Gas, Chemical Splz RE+CP)**

**Semester : I**

**Course Name : Workshop practices**

**Time : 03 hrs.**

**Course Code : MEPD 1002**

**Max. Marks : 100**

**Nos. of page(s) : 2**

**Instructions:**

**SECTION A**

S. No.		Marks	CO
Q 1	List out advantages of cold extrusion over hot extrusion	4	CO 2
Q 2	State the four types of weld defects and mention how they occur	4	CO 2
Q 3	Briefly discuss the importance of binders and additives in Sand molding	4	CO 2
Q 4	How does the characteristics of molding sand influence the performance during molding and casting	4	CO 3
Q 5	Distinguish between additive v/s subtractive manufacturing	4	CO2

**SECTION B**

Q 6	Explain the sequential procedure for making a T Joint in carpentry shop using relevant hand tools and their functions. .	10	CO3
Q 7	Make a list of different accessories and attachments of lathe machine. Describe any three with neat sketches	10	CO 3
Q 8	Differentiate between TIG welding & MIG welding process. Mention its applications advantages, disadvantages and limitations.	10	CO 3
Q 9	Explain the different defects in casting. How these defects can be identified using different techniques?  OR Explain the following foundry hand tools with sketches (i) Shovel (ii) trowel (iii) molding box, (iv) rammers	10	CO 1

**SECTION-C**

Q 10	(a) Explain briefly the following operations with sketches (i) Bending (ii) Forging (iii) Drawing (b) Write the short notes on the following tools :	(10+10)	CO 1
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	(i) V block (ii) hammers (iii) chisels (iv) Drill		
Q 11	<p>a) Discuss the gas welding process and the necessary equipment needed with suitable sketches.</p> <p>b) Explain the different types of Oxy-acetylene gas flames and their uses.</p> <p style="text-align: center;">OR</p> <p>a) Differentiate between soldering, brazing and welding based on their operations and applications</p> <p>b) Explain the working principle of electric arc welding and discuss the different types of electrodes used for arc welding.</p>	<p><b>(14+6)</b></p> <p><b>(10+10)</b></p>	<b>CO 3</b>