


Name:			
Enrolment No:			
<b>UNIVERSITY OF PETROLEUM AND ENERGY STUDIES</b> <b>End Semester Examination, May 2022</b>			
<b>Course: B. Tech (Biotechnology)</b> <b>Program: Workshop Practices</b> <b>Course Code: MEPD1003</b>		<b>Semester: 2<sup>nd</sup></b> <b>Time: 03 hrs.</b> <b>Max. Marks: 100</b>	
<b>Instructions: Section-A Attempt all questions</b> <b>Section-B Attempt all questions, in Q9 answer any one</b> <b>Section-C Attempt all questions, in Q11 answer any one</b> <b>Make suitable assumptions whenever necessary</b>			
<b>SECTION A</b> <b>(5Qx4M=20Marks)</b>			
<b>S. No.</b>		<b>Marks</b>	<b>CO</b>
<b>Q 1</b>	Name different types of hammers.	<b>04</b>	<b>CO1</b>
<b>Q 2</b>	Discuss non-conventional machining processes and its needs.	<b>04</b>	<b>CO1</b>
<b>Q 3</b>	A shaft of 26mm basic size of given as $26 \pm 0.02$ mm. Find the tolerance.	<b>04</b>	<b>CO1</b>
<b>Q 4</b>	What are the different types of tools used in carpentry shop?	<b>04</b>	<b>CO1</b>
<b>Q 5</b>	What are the engineering applications of sheet metal work?	<b>04</b>	<b>CO1</b>
<b>SECTION B</b> <b>(4Qx10M= 40 Marks)</b>			
<b>Q 6</b>	Write a short note on (i) limits (ii) fits (iii) tolerance.	<b>10</b>	<b>CO1</b>
<b>Q 7</b>	Discuss the sand properties required for mould making.	<b>10</b>	<b>CO1</b>
<b>Q 8</b>	With a neat sketch, explain the structure of wood. Differentiate between hard wood and soft wood.	<b>10</b>	<b>CO2</b>
<b>Q 9</b>	Differentiate between soldering, brazing and welding based on their operations and applications. <p style="text-align: center;"><b>or</b></p> What is hot and cold working? Explain in detail and name all the process of hot & cold working.	<b>10</b>	<b>CO2</b>

