



ABES ENGINEERING COLLEGE, GHAZIABAD
Department of Mechanical Engineering 2023-24
Fundamentals of Mechanical Engineering (BME-101)

Practice Sheet		Unit I
Topic	Varignon's Theorem	
Course	B. Tech	
Semester	I	
Date	02/11/2023	

Q. NO.	
1.	State and derive Varignon's theorem.
2.	<p>A horizontal line ABCD measuring 9 m is acted upon by forces of magnitude 400, 600, 400 and 200 N at points A, B, C and D respectively with downward direction. These points are so located that $AB = BC = CD = 3$ m. The lines of action of the forces are inclined at 90°, 60°, 45° and 30° respectively with AB. Make calculations for the magnitude, position and direction of the resultant.</p> <p>Hint:</p> 