

Seat No :

**Day and Date: .....day, .../.../2022**

**Time: ----- to -----**

**Max. Marks- 50**

**Instructions:**

- All Questions are compulsory.
- Figure to the right indicate full marks.
- Assume suitable data if necessary.

BT	CO's	Q. No.		Marks	Weightage
		<b>Q. 1</b>	<b>Attempt the following</b>	<b>20</b>	
<b>1</b>	<b>CO1</b>	<b>a</b>	What are the characterizations of solid particles?	7 Marks	<b>40%</b>
<b>3</b>	<b>CO2</b>	<b>b</b>	A crushing roll 1m in dia. are set so that the crushing surface are 12.5 mm apart & the angle of nip is $31^0$ , what is maximum permissible size of particle which should be fed to rolls?	7 Marks	
<b>2</b>	<b>CO3</b>	<b>c</b>	Explain ribbon blender with diagram.	6 Marks	
		<b>Q. 2</b>	<b>Attempt the following</b> <b>** Optional question shall be given to either sub-question 'a' or sub-question 'b'</b>	<b>15</b>	
<b>1</b>	<b>CO4</b>	<b>a</b>	Sate the classification of filtration with examples & explain in detail.	7 Marks	<b>60%</b>
<b>2</b>	<b>CO5</b>	<b>b</b>	Explain free & hindered settling. Or Derive stokes law	8 Marks	
		<b>Q. 3</b>	<b>Attempt the following</b> <b>** Optional question shall be given to either sub-question 'a' or sub-question 'b'</b>	<b>15</b>	
<b>1</b>	<b>CO4</b>	<b>a</b>	Define sedimentation, classifier & clarifier.	7 Marks	<b>Unit: 4, 5 &amp; 6</b>
<b>2</b>	<b>CO6</b>	<b>b</b>	Explain cyclone separator with	8 Marks	

			industrial applications. <b>Or</b> Explain fabric filter.			