15-05-2026 FE SEM-II CHEMICAL (NEP-2020) ICE QP CODE: 20010080

Time: 2 Hours **Total Marks: 60**

N.B.

1. Question No. 1 is Compulsory.
2 Attempt any **Three** Questions from remaining **Five** Questions
3. Assume Suitable Data if needed and Justify the Same
4. Figures to the right indicate full marks.

Q.1	a)	What are the different types of industries based on size? Give examples	[04]
	b)	Write short note on Cyclone Separator	[04]
	c)	Explain Dehydration and Sulphonation with example	[04]
	d)	Explain Personal Protective Equipments (PPE).	[03]
Q.2	a)	Sodium Chloride weighing 12 kg is mixed with 36 kg Potassium Chloride. Find the composition of the mixture in a) Weight % b) Mole %	[08]
	b)	Explain in Detail Blake Jaw Crusher with neat Sketch	[07]
Q.3	a)	Explain in detail Sulfuric Acid Production by DCDA Process	[10]
	b)	Define Oxidation, Nitration and Chlorination. Give one examples of each	[05]
Q.4	a)	Explain Mercury Thermometer and U tube manometer in detail	[06]
	b)	Give Difference between fire tube and water tube boilers	[05]
	c)	4 grams of NaOH dissolved in 500 mL of solution. Calculate the normality of the NaOH solution	[04]
Q.5	a)	Explain Construction and working of Locomotive Boiler with neat sketch	[08]
	b)	What is sedimentation and explain Batch Sedimentation	[07]
Q.6		Write short note on	[15]
	a)	Redwood Viscometer	
	b)	Components of boiler	
	c)	Distillation Column	

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