

BIRLA INSTITUTE OF TECHNOLOGY, MESRA, RANCHI
(MID SEMESTER EXAMINATION SP2024)

CLASS: B.Tech
BRANCH: Mechanical Engg.

SEMESTER : VI
SESSION : SP/2024

SUBJECT: ME359 POWER PLANT ENGINEERING

TIME: 2 Hours

FULL MARKS: 25

INSTRUCTIONS:

1. The question paper contains 5 questions each of 5 marks and total 25 marks.
 2. Attempt all questions.
 3. The missing data, if any, may be assumed suitably.
 4. Tables/Data handbook/Graph paper etc., if applicable, will be supplied to the candidates
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			CO	BL
Q.1(a)	Discuss the importance of central power station.	[2]	CO-1	L-2
Q.1(b)	What are the elements of modern power plant? Explain any two of them.	[3]	CO-1	L-1
Q.2(a)	Discuss the world energy scenario.	[2]	CO-1	L-2
Q.2(b)	State the advantages and disadvantages of thermal power plant.	[3]	CO-1	L-1
Q.3(a)	Define fuel? How are the fuel classified?	[2]	CO-1	L-1,L-2
Q.3(b)	Explain the properties of solid and liquid fuel?	[3]	CO-2	L-1
Q.4(a)	Describe the stages are involved in coal handling system.	[2]	CO-2	L-2
Q.4(b)	State the advantages and disadvantages of coal handling system.	[3]	CO-2	L-1
Q.5(a)	State the advantages of stoker firing.	[2]	CO-2	L-1
Q.5(b)	Explain with neat sketch working principle of air pre- heater.	[3]	CO-2	L-1 L-3

:::26/02/2024 M:::