

BIRLA INSTITUTE OF TECHNOLOGY, MESRA, RANCHI  
(MID SEMESTER EXAMINATION SP2023)

CLASS: B.Tech  
BRANCH: MECHANICAL ENGG.

SEMESTER : VI  
SESSION : SP/2023

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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Q.1(a)	<i>Describe the principle types of power plant?</i>	[2]	CO-1	BL 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)	<i>How are the power plant classified?</i>	[2]	CO-1	L-2
Q.2(b)	State the advantages and disadvantages of hydro-electric power plant	[3]	CO-1	L-1
Q.3(a)	Explain the importance of central power station.	[2]	CO-1	L-1
Q.3(b)	<i>Differentiate between fire tube and water tube boiler.</i>	[3]	CO-2	L-4
Q.4(a)	How are the boiler classified?	[2]	CO-2	L-2
Q.4(b)	Explain briefly the different types of coal.	[3]	CO-2	L-1
Q.5(a)	State the steps/stages are involved in coal handling systems.	[2]	CO-2	L-1
Q.5(b)	<i>Explain with neat sketch working principle of spreader stoker.</i>	[3]	CO-2	L-1

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