

**BIRLA INSTITUTE OF TECHNOLOGY, MESRA, RANCHI  
(END SEMESTER EXAMINATION)**

**CLASS: B.TECH  
BRANCH: MECHANICAL ENGG.**

**SEMESTER : VI  
SESSION : SP/2023**

**SUBJECT: ME359 POWER PLANT ENGINEERING**

**TIME: 3Hours**

**FULL MARKS: 50**

**INSTRUCTIONS:**

1. The question paper contains 5 questions each of 10 marks and total 50 marks.
  2. Attempt all questions.
  3. The missing data, if any, may be assumed suitably.
  4. Before attempting the question paper, be sure that you have got the correct question paper.
  5. Tables/Data hand book/Graph paper etc. to be supplied to the candidates in the examination hall.
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Q.1(a)	Describe the energy scenario in India.	[5]	CO	BL
Q.1(b)	List the advantages and disadvantages of steam power plant.	[5]	CO-1	L-2
Q.2(a)	Explain with neat sketch working principle of tubular type air pre heater.	[5]	CO-1	L-1
Q.2(b)	Explain with neat sketch deaeration method of feed water treatment plant.	[5]	CO-2	L-1
Q.3(a)	Explain with neat sketch working principle of open cycle gas turbine.	[5]	CO-2	L-1
Q.3(b)	How are hydraulic power plant classified?	[5]	CO-3	L-2
Q.4(a)	Explain with neat sketch working principle of geothermal power plant.	[5]	CO-3	L-1
Q.4(b)	Explain with neat sketch working principle of tidal power plant.	[5]	CO-4	L-1
Q.5(a)	List the advantages of combined cycle power plant.	[5]	CO-4	L-1
Q.5(b)	Differentiate between base load and peak load power plant.	[5]	CO-5	L-4

:27/04/2023:M