

**BIRLA INSTITUTE OF TECHNOLOGY, MESRA, RANCHI
(MID SEMESTER EXAMINATION SP/2023)**

CLASS: BTECH
BRANCH: BT/CIVIL/CP&P/PROD/CSE/EEE/IT

SEMESTER : VI
SESSION : SP/2023

SUBJECT: ME391 ELEMENTS OF NUCLEAR AND DIESEL POWER PLANTS
TIME: 02 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)	Outline the most contentious issues surrounding nuclear energy?	[2]	CO-1	BL
Q.1(b)	Discuss the main features of various types of renewable and non-renewable energy sources.	[3]	CO-1	L
Q.2(a)	Interpret how nuclear energy is created? How does it work?	[2]	CO-1	M
Q.2(b)	Illustrate how nuclear energy impacts the environment? Is using nuclear power really the answer to clean, environmentally friendly energy?	[3]	CO-1	M
Q.3(a)	Describe the main components of a nuclear power plant?	[2]	CO-2	L,M
Q.3(b)	Illustrate different types of reactors commonly used in nuclear power stations? Describe any one of them.	[3]	CO-2	M
Q.4(a)	How does a nuclear power plant work?	[2]	CO-2	L,M
Q.4(b)	How would you explain the process by which nuclear reactions can be controlled in any nuclear reactor?	[3]	CO-2	L,M
Q.5(a)	Define the term chain reaction as referred to nuclear power station.	[2]	CO-2	M
Q.5(b)	Outline the criteria which you would use for choosing a plant location for any Nuclear Power Plant?	[3]	CO-3	M,H

:27/02/2023:M