



Regulation R18

Subject code: 206CA

TKR COLLEGE OF ENGINEERING AND TECHNOLOGY

(Autonomous, Accredited by NAAC with 'A+' Grade)

B.Tech VI Semester Supplementary Examinations, February 2024

NUCLEAR POWER GENERATION AND SUPPLY

(Mechanical Engineering)

Maximum Marks: 70

Date: 22.02.2024

Duration: 3 Hours

- Note:**
1. This question paper contains two parts A and B.
 2. Part A is compulsory which carries 20 marks. Answer all questions in Part A.
 3. Part B consists of 10 questions. Answer any 5 questions which carries 10M.
 4. Each question carries 10 marks and may have a, b, c, d as sub questions.

Part-A		CO	Bloom Tx
All the following questions carry equal marks (10x2M=20 Marks)			
1	What do you mean by uranium mining?	CO1	L1
2	What are the applications of reflector?	CO1	L1
3	What is the function of control rods?	CO2	L1
4	What is radioactivity?	CO2	L1
5	Differentiate the shielding and coolant.	CO3	L1
6	What are the advantages of moderator?	CO3	L1
7	What is reactor regulating system?	CO4	L1
8	What is the loss of coolant in Boiled water reactor?	CO4	L1
9	What is the difference between Boiled water reactor and pressurized water reactor?	CO5	L2
10	What do you mean radioactive waste management?	CO5	L1
Part-B			
Answer all the questions (5X10M=50Marks)			
11	Explain the schematic components of a nuclear power cycle 10M	CO1	L2
	OR		
12	Compare the fuel, coolant and moderator? 10M	CO1	L2
13	Briefly describe about shield cooling process. 10M	CO2	L2
14	Explain about loss of coolant accident? 10M	CO2	L2
15	Describe the operation of a boiling water reactor with a schematic sketch? 10M	CO3	L2
	OR		
16	Explain about radiation protection? 10M	CO3	L2
17	Explain about radiation waste management? 10M	CO4	L2
	OR		
18	Explain about primary cooling system in reactor core? 10M	CO4	L2
19	Explain materials of moderator? 10M	CO5	L2
	OR		
20	Explain about shut down process in nuclear power plant? 10M	CO5	L2

