



R18 Regulation

Subject code:206CA

TKR COLLEGE OF ENGINEERING AND TECHNOLOGY

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

B.Tech VI Semester Supplementary Examinations, May 2025

NUCLEAR POWER GENERATION AND SUPPLY

(ME)

Maximum Marks: 70

Date: 23.06.2025

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 5 Units. Answer any one full question from each unit.
4. Each question carries 10 marks and may have a, b, c, d as sub questions.

Part-A

All the following questions carry equal marks (10X2M=20 Marks)		Marks	CO	BTL
1	Write about moderator?	2M	1	L1
2	Write about primary cooling system in nuclear power plant?	2M	1	L1
3	What is the reflector material?	2M	2	L1
4	Define Neutron flux.	2M	2	L1
5	Write about reactor design in terms of safety?	2M	3	L1
6	Differentiate between loss of coolant and shielding coolant?	2M	3	L1
7	What is the pressurizer?	2M	4	L1
8	What are the advantages of boiled water reactor?	2M	4	L1
9	Define radioactive?	2M	5	L1
10	How are nuclear wastes classified?	2M	5	L1

Part-B

Answer All the following questions. (5X10M=50Marks)		Marks	CO	BTL
11	What is meant by enrichment? How is uranium fuel enriched?	10M	1	L2
	OR			
12	Compare the fuel, coolant and moderator?	10M	1	L2
13	Briefly describe about shield cooling process.	10M	2	L2
	OR			
14	Explain auxiliary cooling system in nuclear power plant.	10M	2	L2
15	What are the operator errors in nuclear power plant?	10M	3	L2
	OR			
16	Explain the CANDU reactor with neat diagram.	10M	3	L2
17	What is the difference between thermal reactors and fast reactor breeders?	10M	4	L2
	OR			
18	Explain about pressurized heavy water reactor with neat diagram.	10M	4	L2
19	Explain about pressurized heavy water reactor with neat diagram.	10M	5	L2
	OR			
20	What are the different generations of nuclear reactors?	10M	5	L2

