



Regulation R18

Subject code: 206CA

TKR COLLEGE OF ENGINEERING AND TECHNOLOGY

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

B.Tech VI Semester Supplementary Examinations, January 2023

NUCLEAR POWER GENERATION AND SUPPLY (Mechanical Engineering)

Maximum Marks: 70

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

All the following questions carry equal marks

(10x2M=20 Marks)

- 1 What do you mean by uranium mining?
- 2 What are the applications of reflector?
- 3 What is the function of control rods?
- 4 What is radioactivity?
- 5 Differentiate the shielding and coolant.
- 6 Differentiate between loss of coolant and shielding coolant?
- 7 What are advantages of gas cooled reactor?
- 8 Why shut down of plant is need?
- 9 Define radioactive?
- 10 How are nuclear wastes classified?

Part-B

Answer all the questions

(10MX 5=50Marks)

- 11 Explain the schematic components of a nuclear power cycle
OR
- 12 What is need for interim storage of spent fuels?
- 13 Explain neutron flux monitoring and control?
OR
- 14 Explain auxiliary cooling system in nuclear power plant?
- 15 What are the operator errors in nuclear power plant?
OR
- 16 Explain the CANDU reactor with neat diagram?
- 17 Explain about radiation waste management?
OR
- 18 Explain about primary cooling system in reactor core?
- 19 Explain materials of moderator?
OR
- 20 Explain about shut down process in nuclear power plant?

