

ANURAG Engineering College

(An Autonomous Institution)

II B. Tech. I Semester Supplementary Examinations, June/July – 2024

POWER SYSTEMS-I

(ELECTRICAL AND ELECTRONICS ENGINEERING)

Time: 3 Hours**Max.Marks:75****Section – A (Short Answer type questions)****(25 Marks)****Answer All Questions**

	Course Outcome	B.T Level	Marks
1. What is the use of condenser in thermal power station?	CO1	L1	2M
2. How to do shielding and safety precautions in nuclear power station?	CO1	L2	3M
3. Why do hydro- electric stations have high transmission and distribution costs?	CO2	L2	2M
4. List the components of gas power station	CO2	L1	3M
5. List out the classifications of sub-stations	CO3	L2	2M
6. What are the merits of Gas insulated substations?	CO3	L2	3M
7. Compare DC distribution with AC distribution system	CO4	L1	2M
8. Outline the line diagram of radial distribution system	CO4	L1	3M
9. Define diversity factor.	CO5	L2	2M
10. Define tariff.	CO5	L1	3M

Section B (Essay Questions)**Answer all questions, each question carries equal marks.****(5 X 10M = 50M)**

11. A) Draw a diagram of the thermal power stations overall layout and explain the purpose and working of each component in detail.	CO1	L3	10M
OR			
B) Explain with a simple block diagram working of a nuclear power station.	CO1	L3	10M
12. A) Explain the working of pumped storage plants.	CO2	L3	10M
OR			
B) Explain the functions of different components of a Gas turbine power plant with a neat block diagram	CO2	L3	10M
13. A) Give the comparison of outdoor and indoor substations. What are the factors which are to be considered for a selection of a site of a substation?	CO3	L3	10M
OR			
B) Explain Gas insulated substation with single line diagram	CO3	L3	10M
14. A) List out the Comparisons between AC and DC distribution systems	CO4	L3	10M
OR			
B) Derive an expression for the voltage drop for a uniformly loaded d.c distributor fed at one end.	CO4	L4	10M
15. A) Define and explain the importance of the following terms in generation: i) Connected load ii) demand factor iii) average load	CO5	L3	10M
OR			
B) i) Distinguish between two part and three part tariff ii) What are the desirable characteristics of tariff?	CO5	L3	5M 5M