

5/18  
2/2  
S.E. (Electrical) SEM - III Choice base A-2017-18 May 2018  
Q. P. Code: 21839  
22/05/18  
[Marks: 80]

[Time: 3 Hours]

Please check whether you have got the right question paper.

- N.B:
1. Q.1 is compulsory.
  2. Attempt any three from remaining questions.
  3. All questions carry equal marks.

Q.1. Solve any four:

- 1) Explain Rankin Cycle.
- 2) Compare the nuclear fission and fusion.
- 3) What are advantages and disadvantages of hydro power plant?
- 4) Draw and Explain water tube and fire tube boiler.
- 5) Define a. Plant use factor b. Load factor c. Utilization factor d. demand factor e. diversity factor

Q.2

- a) Explain the working of PV cells with the neat diagram.
- b) Explain 1) Superheater 2) Economizer 3) Reheater 4) Air Preheater

Q.3

- a) Draw a neat layout of hydroelectric power plant and explain in brief.
  - a. Reservoir
  - b. Dam
  - c. Penstock
  - d. Surge tank
- b) Explain horizontal axis and vertical axis wind turbine.

Q.4

- a) Draw a neat diagram of nuclear reactors and explain in brief essential components of nuclear reactor.
- b) Write a short note on MHD.

Q.5

- a) Draw and explain the general layout of diesel power plant.
- b) State advantages and disadvantages of gas turbine power plant.