

**1656****Code : 15EE32T****Register  
Number**

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**III Semester Diploma Examination, April/May-2019**  
**ELECTRICAL POWER GENERATION**

**Time : 3 Hours ]****[ Max. Marks : 100**

- Instruction :** (i) Answer any six questions from PART – A. Each question carries 5 marks.  
(ii) Answer any seven full questions from PART – B. Each question carries 10 marks.

**PART – A**

1. List out the factors to be considered for the site selection of hydro electric plant. **5**
2. List any five merits and demerits of thermal power plant. **5**
3. With sketch explain the working of nuclear reactor. **5**
4. Compare thermal power plant and nuclear power plant. **5**
5. With neat sketch explain construction and working of solar cell. **5**
6. List the merits and demerits of biomass plant. **5**
7. List the advantages of fuel cell. **5**
8. Explain the stand alone type photovoltaic power plant with block diagram. **5**
9. List the causes of low power factor **5**

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## PART – B

10. Draw the general layout of high head hydroelectric power plant and explain. 10
11. (a) Draw the neat diagram of thermal power plant. 5  
(b) Explain water hammering effect. 5
12. (a) Explain with neat diagram gas turbine power plant. 7  
(b) List the fuel material used in nuclear plant. 3
13. (a) List the advantages and disadvantages of diesel power plant. 5  
(b) List the environmental impact of thermal power plant. 5
14. (a) Explain the construction and working of horizontal axis wind power plant with diagram. 7  
(b) List the factors to be considered for the site selection of wind plant. 3
15. (a) Classify the tidal power plant. 5  
(b) Explain with diagram single basin system. 5
16. (a) Explain with neat diagram movable drum type biogas plant. 7  
(b) List the merits of biogas plant. 3
17. (a) Explain the working of phosphoric acid fuel cell. 7  
(b) List the different types of fuel cells. 3
18. (a) Explain with neat diagram of PV. Diesel hybrid system. 7  
(b) List any three applications of fuel cells. 3
19. (a) List the effects of low power factor. 5  
(b) Explain the methods of improvement of power factor. 5

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