B.TECH. DEGREE EXAMINATION, MAY 2015

Eighth Semester

Branch : Electrical and Electronics Engineering

EE 010 805 G06 – DISTRIBUTED POWER SYSTEMS (Elective IV) [EE]

(New Scheme – 2010 Admission onwards)

[Regular/Supplementary]

Time : Three Hours   Maximum : 100 Marks

Part A

Answer **all** *questions.*

Each question carries 3 *marks.*

1. Explain solar energy system in fuel cells.

2. Define power performance in embedded generation.

3. List out diesel systems on isolated generation.

4. What is the power quality issues associated with distributed generation?

5. Describe operating conflicts in fault clearing requirements.

(5 × 3 = 15 marks)

Part B

Answer **all** *questions.*

Each full question carries 5 *marks.*

6. Explain the characteristics of equivalent circuit in Photo voltaic.

7. Briefly explain about wind driven induction Generators.

8. Explain any *four* types of rotors used for wind power generation with neat diagram.

9. Briefly describe the geo thermal energy conversion.

10. Define distributed generators on low voltage networks in integrating technique.

(5 × 5 = 25 marks)

Part C
Answer **all** *questions.*
Each question carries 12 *marks.*

11. Briefly explain about photo voltaic for battery charging.

Or

12. Explain the limitation of equipments and systems in fuel cells.

13. Define wind source and explain how the force developed by blades in wind turbines.

Or

14. Describe about the control and monitoring system in wind driven induction generators.

15. Describe the permanent magnet alternators in isolated generators.

Or

16. Define solar systems and also explain the steady state equivalent circuit.

17. Explain about micro Hyde electric systems in scheme layout.

Or

18. Briefly explain with a schematic diagram the anaerobic digestion system.

19. Explain power quality issues in voltage regulation and harmonics.

Or

20. Describe about networking operation in interconnection issues.

(5 × 12 = 60 marks)