B.VOC DEGREE REGULAR/REAPPEARANCE EXAMINATIONS, MARCH 2025

Sixth Semester

B.Voc Renewable Energy Management

REMTG603 - GRID INTEGRATION

2018 Admission Onwards

B105B4F2

Time: 3 Hours   Max. Marks : 80

Part A

*Answer any **ten** questions.*

*Each question carries **2** marks.*

1. What is a grid?

2. Define synchronization.

3. How is the solar module earthed?

4. List any two class of a lightning protection system.

5. What is a net meter?

6. Write a note on Micro inverters.

7. List out any four personal protective equipment.

8. What is the purpose of personal protective equipments?

9. Define genco.

10. What are the different types of hybrid systems?

11. Draw a neat sketch of PV wind hybrid system.

12. Write a note on Solar-cum-Biomass dryer Hybrid system.

(10×2=20)

Part B

*Answer any **six** questions.*

*Each question carries **5** marks.*

13. What are the classifications of the substations according to the operating voltage?

14. Explain Lightning Arrestors.

15. Briefly explain about String Junction Box.

16. List out any three KSERC regulations for metering of a rooftop solar PV power plant.

17. Write a note on the harmonic number.

18. What are the safety factors in solar PV worksite?

19. Compare wind PV hybrid system with micro hydel hybrid system.

20. Draw a neat sketch of Biogas-Solar thermal hybrid system.

21. Briefly explain hydrogen powered Electric Vehicles.

(6×5=30)

Part C

*Answer any **two** questions.*

*Each question carries **15** marks.*

22. What are the different types of electrical faults in a three phase power system?

23. Explain about Lightning protection of the rooftop solar PV power plant.

24. i) What are the safety measures adopted while handling batteries? ii) What are the safety measures adopted while handling the Solar module?

25. With the help of a neat sketch explain Biomass diesel hybrid system.

(2×15=30)