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# B.M.S COLLEGE FOR WOMEN, AUTONOMOUS BENGALURU – 560004 SEMESTER END EXAMINATION – SEPTEMBER -2023

## Open Elective - II Semester ENERGY SOURCES

Course Code: PHY2OE02 Duration: 2 <sup>1</sup>/<sub>2</sub> Hours QP Code: 2212 Max marks: 60

### PART-A

#### Answer any TEN questions out of twelve. Each question carries ONE mark (1

(10X1=10)

- 1. What is biogas?
- 2. Name the device to measure wind speed?
- 3. Why is solar and wind energy considered as renewable source of energy?
- 4. Why tides are high on full moon day?
- 5. Explain the working principle of generator in energy conversion.
- 6. What is solar green house?
- 7. What is Tidal energy?
- 8. What is geo thermal energy?
- 9. Photovoltaic cell use which renewable source of energy for energy conversion.
- 10. Why sun tracking necessary in PV model?
- 11. Mention the unit of power.
- 12. Write one disadvantage of nuclear energy.

#### PART-B

#### Answer any TEN questions out of Twelve. Each question carries TWO marks (10X2=20)

- 13. Mention any two disadvantages of burning fossil fuel.
- 14. Write about future of nuclear energy.
- 15. What is hydroelectric power? Mention any one hydroelectric power station.
- 16. Write photovoltaic (PV) model diagram.
- 17. Can biomass be used as fuel? Explain.

- 18. How does solar still work?
- 19. Distinguish between cell and battery.
- 20. Write any two non convention energy resources.
- 21. What is green energy?
- 22. Write block diagram of hydroelectric power.
- 23. Write the main components of fuel cell system.
- 24. Mention the types of wind energy converter.

### PART - C

#### Answer any SIX questions out of Eight. Each question carries FIVE marks

(6X5=30)

- 25. Explain primary and secondary energy sources.
- 26. Explain the types of renewable sources of energy.
- 27. Explain the merits and demerits of solar cell.
- 28. Explain carbon capture technology.
- 29. Explain the types of fossil fuel.
- 30. Write a note on wave energy devices.
- 31. Explain the applications of solar energy.
- 32. Explain the need of power electronics

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