**SREE NARAYANA COLLEGE,PUNALUR**

**DEPARTMENT OF PHYSICS**

Model Test **2018**

PY1551.5 –Energy Physics (Open Course)

Time: 3 Hours Marks: 80

**Section A** *[Answer* ***ALL*** *questions. Each bunch carries one mark]*

1. Describe the non-conventional resources of energy.

2. Explain solar cooker.

3. What is fuel cell?

4. What is power coefficient?

5. What is meant by gasification?

6. How the wind power is extracted using wind mill?

7. What are the constituents of Natural gas?

8. Define OTEC system.

9. What is the principle of WECS?

10. Name varies models of bio gas plant.

**SECTION B [***Answer any eight questions. Each question carries* ***TWO*** *marks****]***

11. Explain conversion of bio mass energy.

12. What are the merits and limitations of waves as a source of energy?

13. Explain the working of solar furnaces.

14. What are the advantages and limitations of renewable energy sources?

15. Explain the principle of working of a battery.

16. Draw schematic diagrams of a wind mill.

17. Explain photosynthesis.

18. Write a short note on solar constant.

19. Write about global warming.

20. How thermal energy is got from ocean.

21. Mention merit and demerit of tidal power generation.

22. Explain green house effect.

**SECTION C** *[Answer any SIX questions. Each question carries* ***FOUR****]*

23. Explain geo thermal energy. What are their limitations?

24. Distinguish between renewable and non renewable energy resources.

25. Describe fossil fuel.

26. Compare Horizontal and vertical axis machines.

27. Write a short note on chemical energy.

28. Write down the environmental consequences about the increased use of energy.

29. Explain energy collectors of wind mill

30. Explain the factors affecting the power of the wind.

31. How ethanol is got from wood?

**SECTION D** *[Answer any TWO questions. Each question carries a mark of* ***FOUR****]*

32. Explain different methods biomass energy conversion.

33. Explain the principle of wind energy conversion systems.

34. Describe the pattern of energy conception in various sectors in India?

35. Draw and explain the working of any one fuel cell. Give its advantages.