

U.G. 3rd Semester Examination - 2020**PHYSICS****Course Code : BPHSSEHT305****Course Title : Renewable Energy and Energy Harvesting**

Full Marks : 50

Time : 2 Hours

The figures in the right-hand margin indicate marks.

Answer all the questions by choosing correct alternative:

2×25=50

1. In Santaldih, Purulia, there is a—
 - a) Nuclear Power Plant
 - b) Geothermal Power Plant
 - c) Thermal Power Plant
 - d) Wind Power Plant
2. Which is not correct about renewable energy?
 - a) plentifully available and abundant in nature
 - b) causes health problems to living beings on earth
 - c) obtained free of cost or at very low cost in nature
 - d) do not cause any climate change
3. Which is a fossil fuel?
 - a) coal
 - b) petroleum
 - c) natural gas
 - d) all the above
4. Gravitational force of falling water is utilised in—
 - a) Hydroelectric power generation
 - b) Tidal power generation
 - c) Geothermal power generation
 - d) Thermal power generation
5. The greatest part of energy produced in India is—
 - a) Thermal energy
 - b) Solar energy
 - c) Geothermal energy
 - d) Ocean energy
6. The temperature range of most of the geothermal spot is—
 - a) 0°C - 20°C
 - b) 35°C - 90°C
 - c) 350°C - 500°C
 - d) none of the above
7. Solar cell works on—
 - a) piezoelectric effect
 - b) photoelectric effect
 - c) photovoltaic effect
 - d) none of the above
8. Which is not a piezoelectric material?
 - a) Quartz
 - b) Common salt
 - c) Rochelle salt
 - d) PZT
9. Biomass is converted to biogas by—
 - a) Fission
 - b) Fusion
 - c) Aerobic digestion
 - d) Anaerobic digestion
10. In nuclear reactor raw material used is—
 - a) U^{235}
 - b) U^{238}
 - c) U^{239}
 - d) U^{237}
11. Conversion of UV rays to infrared rays is achieved in—
 - a) Solar pond
 - b) Solar water heater
 - c) Solar water distiller
 - d) Solar cooker

12. Which is a component of Wind Turbine?
 a) Boiler b) Moderator c) Rotor Blade d) None of the above
13. Electromagnetic induction is the principle behind—
 a) biogas generator b) solar cooker c) dry cell d) linear generator
14. CNG stands for—
 a) Compressed natural gas b) Cascade natural gas
 c) Corporate networks group d) Covering new ground
15. LPG stands for—
 a) Liquid propane gas b) Low pressure gas
 c) Liquid propellant gun d) Liquefied petroleum gas
16. What do you understand by energy intensity?
 a) $\frac{\text{Energy Consumption}}{\text{GDP}}$ b) $\frac{\text{Energy Absorption}}{\text{Time}}$
 c) $\frac{\text{GDP}}{\text{Energy Consumption}}$ d) $\frac{\text{Energy Consumption}}{\text{Area}}$
17. Which of the following gas has Green House Effect?
 a) O₂ b) O₃ c) H₂ d) CO₂
18. The forces responsible for determining the speed and direction of the global winds is—
 a) centripetal force b) centrifugal force
 c) coriolis force d) gravitational force
19. The molten mass of earth is called—
 a) magma b) molten salt c) aerosol gas d) colloids
20. Solar cell basically—
 a) a zener diode b) a transistor c) a schottky diode d) a p-n junction diode
21. Which of the material is suitable for the fabrication of solar cells?
 a) crystalline silicon b) fiber c) glass d) carbon
22. Which one is the example of solid fuel?
 a) Coal gas b) Petrol c) Wood d) LNG
23. The sun generates energy from a process is called—
 a) Nuclear fission b) Nuclear transmutation
 c) Nuclear transformation d) Nuclear fusion
24. LNG stands for—
 a) Liquefied natural gas b) Liquid natural gas
 c) Liquid nitrogen gas d) Liquid naphthalene
25. Piezoelectricity is the—
 a) generation of electric charges on certain materials due to applied mechanical stress
 b) generation of electric charges on certain materials due to solar energy
 c) generation of electric charges on certain materials due to hydro power
 d) generation of electric charges on certain materials due to electrochemical effects
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