

(6 pages)

Reg. No. : .....

**Code No. : 30569 E      Sub. Code : SNPH 3 B**

U.G. (CBCS) DEGREE EXAMINATION,  
NOVEMBER 2020.

Third Semester

Physics

Non-Major Elective — APPLIED PHYSICS

(For those who joined in July 2017 onwards)

Time : Three hours

Maximum : 75 marks

PART A — ( $10 \times 1 = 10$  marks)

Answer ALL questions.

Choose the correct answer :

1. \_\_\_\_\_ is known as conventional energy sources.  
(a) Oil                                      (b) Wind  
(c) Bio-mass                              (d) Geo-thermal
2. \_\_\_\_\_ is an example of secondary energy sources.  
(a) Wind energy                      (b) Nuclear energy  
(c) Natural gas                      (d) Coal

3. Coal, Oil, Gas, Uranium and water are commonly known as \_\_\_\_\_ energy sources.
- (a) Conventional (b) Commercial  
(c) Non-Commercial (d) Both (a) and (b)
4. In Latin 'Igneous' means \_\_\_\_\_.
- (a) Wood (b) Fire  
(c) Earth (d) Rock
5. The average fermentation period for cow dung is \_\_\_\_\_ days.
- (a) 10 (b) 30  
(c) 100 (d) 150
6. 38% of energy is obtained from \_\_\_\_\_.
- (a) Uranium (b) Coal  
(c) Wood (d) Dung
7. Solar Cooker's are
- (a) used to heat water  
(b) used to heat air  
(c) used to cool water  
(d) used to cool air

8. Modern Solar cooker's are made up of \_\_\_\_\_.
- (a) Semiconductor materials
  - (b) Metals
  - (c) Indium
  - (d) Aluminium
9. The following is the thermal source
- (a) Valcono                      (b) Sand
  - (c) Clay                         (d) Earth quake
10. Energy in wind is
- (a) Solar Energy              (b) Tidal Energy
  - (c) Potential Energy        (d) Kinetic Energy

PART B — ( $5 \times 5 = 25$  marks)

Answer ALL questions, choosing either (a) or (b).

Each answer should not exceed 250 words.

11. (a) Write an essay about various forms of energies.

Or

- (b) Describe about conventional energy sources.

12. (a) Write the merits and demerits of Coal, Oil and natural gas.

Or

- (b) Write a short notes on Coal.

13. (a) Write the application of Bio-gas.

Or

- (b) State the advantages of Biomass as a energy.

14. (a) Enumerate the advantages and disadvantages of solar cell.

Or

- (b) Explain about Solar heater.

15. (a) What are the disadvantages of Geothermal energy?

Or

- (b) Write notes about energy from waves and tides.

PART C — (5 × 8 = 40 marks)

Answer ALL questions, choosing either (a) or (b).

Each answer should not exceed 600 words.

16. (a) State the advantages and limitation of renewable energy sources.

Or

- (b) Discuss about alternate energy sources can meet the defect due to world's energy sources.

17. (a) Write about the existence of Oil and gas resources and its application.

Or

- (b) Give the statistical details about availability of Coal, Oil and natural gas.

18. (a) Explain the construction and working of Deenbandhu model gas plant.

Or

- (b) Discuss about Bio-mass conversion process.

19. (a) Describe the construction and working of box type Solar cooker.

Or

- (b) Explain about :  
(i) Solar Pond  
(ii) Crop dryer.

20. (a) Explain in detail about Ocean Thermal Energy Conversion Technology.

Or

- (b) Discuss about the main consideration in selecting a site for wind generation.
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