

(6 pages)

Reg. No. :

Code No. : 20398 E Sub. Code : CNPH 32

U.G. (CBCS) DEGREE EXAMINATION,
NOVEMBER 2022.

Third Semester

Physics

Non Major Elective — APPLIED PHYSICS

(For those who joined in July 2021 onwards)

Time : Three hours

Maximum : 75 marks

PART A — (10 × 1 = 10 marks)

Answer ALL questions.

Choose the correct answer.

1. Which of the following is an example for primary energy source?

(a) Solar energy
(b) Wind energy
(c) Coal energy
(d) None

2. Conventional energy source are also known as

(a) Conventional (b) Non-commercial
(c) Non-conventional (d) None

3. Fossil fuel is also known as

(a) Lubricating fuel (b) Liquid fuel
(c) Solid fuel (d) Mineral fuel

4. The percentage of global fossil fuel reserves are found in India is

(a) 20% (b) 17%
(c) 6.85% (d) 4%

5. Biomass is a ————— energy source.

(a) Renewable (b) Non renewable
(c) Thermal (d) None

6. In biogas mixture containing —————% of CO₂.

(a) 30 to 40 (b) 10 to 15
(c) 5 (d) 2



7. Which of the following is not a green house

- (a) CO_2 (b) CH_4
(c) CFC (d) H_2

8. Solar radiation consists of

- (a) Infra-red region
(b) Ultraviolet region
(c) Both (a) and (b)
(d) None of these

9. "Earth day" is celebrated on

- (a) 1st December
(b) 5th June
(c) 22nd April
(d) 1st January

10. Taj Mahal at Agra may be damaged by

- (a) Sulphur dioxide (b) Chlorine
(c) Hydrogen (d) Oxygen

PART B — ($5 \times 5 = 25$ marks)

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

Each answer should not exceed 250 words.

11. (a) Describe about conventional energy source.

Or

(b) Write down the advantages of renewable energy source.

12. (a) Describe the types of power in Fossil fuels.

Or

(b) Write briefly statistical details in fossil fuels.

13. (a) Write a short note on Biomass energy.

Or

(b) Write any five advantages and disadvantages of biomass energy.

14. (a) Describe the operations of a solar pond.

Or

(b) Write the principle for a solar cell.



15. (a) Explain the advantages of geothermal energy.

Or

- (b) State the principle of wind energy conversion.

PART C — (5 × 8 = 40 marks)

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

Each answer should not exceed 600 words.

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

Or

- (b) Write an essay about renewable and conventional energy sources.

17. (a) Discuss about the various availability of energy resources.

Or

- (b) Write briefly application of fossil fuels.

18. (a) Write an essay about the generation of biomass energy.

Or

- (b) Explain about Deena Bandhu model gas plant.

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19. (a) Write briefly notes for applications of solar energy.

Or

- (b) Explain its merits and limitations for a solar cooker.

20. (a) Write an essay about geo thermal energy.

Or

- (b) Describe the principle and working of OTEC system.

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