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SUBJECT:- PHYSICS

CLASS:- XTH

DATE:03/06/XX

SUBJECT TEACHER:- MR. NEEL NIRANJAN

CHAPTER 3. SOURCES OF ENERGY(NCERT QUESTIONS & ANSWERS)

10. What are the environmental consequences of the increasing demand for energy? What steps would you suggest to reduce energy consumption?

Ans. Due to increasing demand of energy the available sources of energy are depleting at fast rate. The use of fuels on large scale is releasing lot of gases and unwanted particles in the air. The gases like SO_2 , NO_2 are causing acid rain that is destroying monuments, iron articles, bridges etc. The CO_2 released in air is causing green house effect that is leading to global warming which will melt the ice and sea-level will increase submerging coastal areas and islands. To reduce energy consumption we should look for alternative source of energy which can help us to overcome all these problems.

11. Calorific value and ignition temperature of fuel X are 75 kJ/g and 20°C respectively. These values for fuel Y are 50 kJ/g and 75°C respectively. On burning, the fuel Y produces only CO_2 while fuel X produces CO_2 and CO. Which of the two is a better fuel? Give two reasons to support your answer.

Ans. Fuel Y is a better fuel because

- (i) it has a moderate ignition temperature of 75°C .
- (ii) it produces no harmful gases like CO on burning.

13. Write a short note on the pollution caused by burning fossil fuels.

Ans. Burning of fossil fuels leads to the production of many acidic gases like sulphur-dioxide and nitrogen dioxides. These gases causes acid rain which damages trees, plants and buildings, reduces fertility of soil, and poses danger to aquatic life. The burning of fossil fuels puts a poisonous gas carbon monoxide in air. It also produces large amount of CO_2 gas which damages the environment in the long run by increasing the greenhouse effect. Also, burning of fossil fuels produces smoke and a lot of ash.

14. Why is LPG considered a good fuel?

Ans. LPG is considered as good fuel because it has a high calorific value gives a smokeless flame.