

CBSE Sample Paper - 2007

Class: X

Science and Technology

General Instructions:

1. The question paper consists of two **sections A and B**. You are to attempt both the sections and all questions are compulsory.
2. The candidates are advised to attempt all the questions of **section A** separately and **section B** separately.
3. Marks allocated to every question are indicated against it.
4. Question no. **1- 4 in section A** and **17 and 18 in section B** are to be answered in one word or one sentence.
5. Question no: **5-8 in section A** and **19 and 20 in section B** are to be answered in 30-40 words each.
6. Question no: **9-14 in section A** and **21- 23 in section B** are to be answered in 40 to 50 words each.
7. Question no: **15 and 16 in section A** and **24 in section B** are to be answered in 70 words each.

SECTION-A

- 1) What do mean by titration?
- 2) What is thermite process?
- 3) What is concrete?
- 4) What do mean by batch?
- 5) What is the pole of a convex mirror?
- 6) Manganin is used for making standard resistors . WHY ?
- 7) Relate kWh and joule.
- 8) What is polarization? How do we overcome this problem in a electrochemical cell?
- 9) What do you mean by liquation method & oxidative refining method ?
- 10) What is common ION effect? What is effect of adding an acid & alkali to water?
- 11) Why does short – circuit lead to the fuse wire burning?
- 12) Describe the final stages in the life cycle of the star of the size of the sun?
- 13) What is functional group ? Define its characteristics of it?
- 14) Give chemical reactions of following with the water:-
 - (a) iron
 - (b) aluminium
 - (c) potassium.

15) What are the different kinds of nuclear *fission*? How can you relate sunlight and nuclear *fusion*?

or

Which physical parameters are conserved during a nuclear reaction? What are the two major kinds of nuclear reactions? Give examples of each?

16) Draw the structural diagram of

- 1) Methanal
- 2) Propane
- 3) Hexanoic acid
- 4) Butanol
- 5) Methyl carbinol

OR

Give suitable balanced and labelled chemical equations for the following :-

- (a) Ammonia is oxidised using Pt as a catalyst.
- (b) Iron oxide is reduced by Aluminium powder during thermite welding.
- (c) Ethanol is oxidised by Acetobacter bacteria.

SECTION – B

17) What is complimentary pairing?

18) Who coin the term gene?

19) Name any two organs that are homologous to human hand. To which category of organs would you place wings of birds and wings of insects?

20) Give one word for the following -

- (a) Cell structure that produces ATP during light reaction in plants.
- (b) The mode of obtaining food in amoeba. (c) Production of fruits without fertilization
- (d) Stoppage of menstrual flow in females at elder age.

21) Which type of pollination is more likely to promote variation? Why? Give two major agents engaged in pollination and give two disadvantages of this method of pollination.

OR

What does PUC stand for? State any four methods which can be applied to reduce the pollution level in the

surroundings.

22(a) Give two effective methods of population control

(b) What are venereal diseases? How are they transmitted? Explain giving one example.

23. With the help of a neat and labelled diagram explain the mechanism of nerve impulse transfer from one neuron to the other.

24. Explain what happens during light reaction of photosynthesis? Draw the outline scheme of dark reaction and point

out- **(a)** The compound considered as CO_2 acceptor

(b) The Co-enzyme which is reduced during glucose formation

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OR

With the help of neat and labelled diagram explain the process of cardiac cycle in human being.