

# Science & Technology : Part II

## Practice Paper - II

**Time : 2 Hours**

**Max. Marks : 40**

**Q. 1. (A) Answer the following :**

**[5 Marks]**

(1) Match the following.

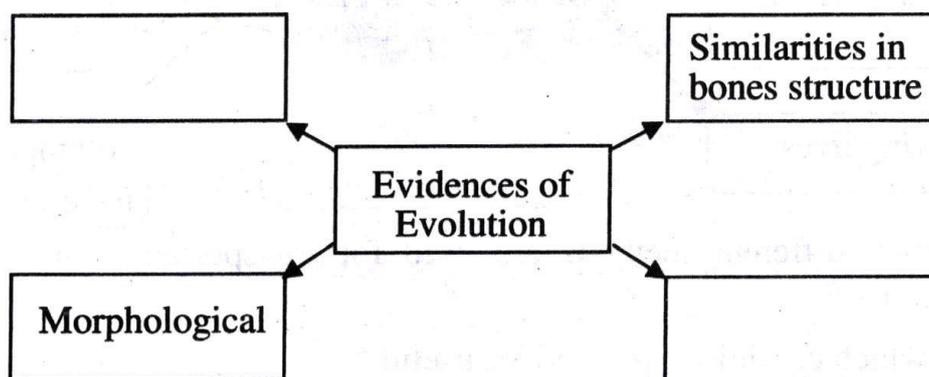
	Column - I		Column - II
(a)	Xylitol	(1)	To impart acidity
(b)	Citric acid	(2)	Microbial restrictor
		(3)	To impart sweetness
		(4)	Protein binding emulsifier

(2) State whether true or false :

Enzymes obtained by microbial process are mixed with detergents.

(3) Alcohol consumption mainly affects ..... system.

(4) Complete the following diagram.



(5) For formation of plasma membrane ..... molecules are necessary.

**(B) Select the correct options and rewrite the sentences.**

**[5 Marks]**

(1) The origin of the universe is explained by .....

- |                     |                     |
|---------------------|---------------------|
| (a) Darwin's theory | (b) Big-bang theory |
| (c) Speciation      | (d) Lamarckism      |

(2) Pollen grains from anther are transferred to the stigma. This is called as .....

- |                      |                    |
|----------------------|--------------------|
| (a) Fertilization    | (b) Pollination    |
| (c) Zygote formation | (d) None of these. |

(3) Women who have problems in implantation of embryo in uterus can take the help of modern remedial technique called as .....

- (a) Sperm bank
- (b) In-vitro fertilization
- (c) surrogacy
- (d) None of these

(4) Which of the following ingredients is important for nuclear power plant ?

- (a) Coal
- (b) Uranium
- (c) water reservoir
- (d) wind

(5) Bat is included in which class ?

- (a) Amphibia
- (b) Reptilia
- (c) Aves
- (d) Mammalia

**Q. 2. Answer the following. (Any Five)**

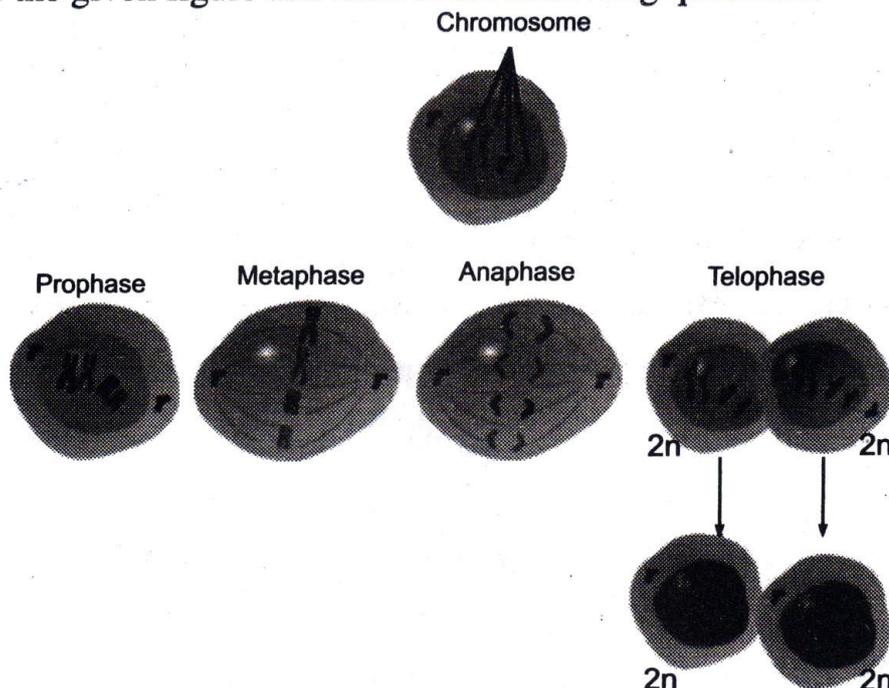
**[10 Marks]**

- (1) Distinguish between butterfly and bat with the help of four distinguishing properties.
- (2) What are the advantages of mixing ethanol in petrol and diesel ?
- (3) Explain the meaning of vaccination.
- (4) Which problems do the common man faces due to incidences of cyber crime ?
- (5) Write a short note on : Mock drill.
- (6) Give scientific reason :  
Fibers are one of the important nutrients.
- (7) Distinguish between : Human male reproductive system and human female reproductive system.

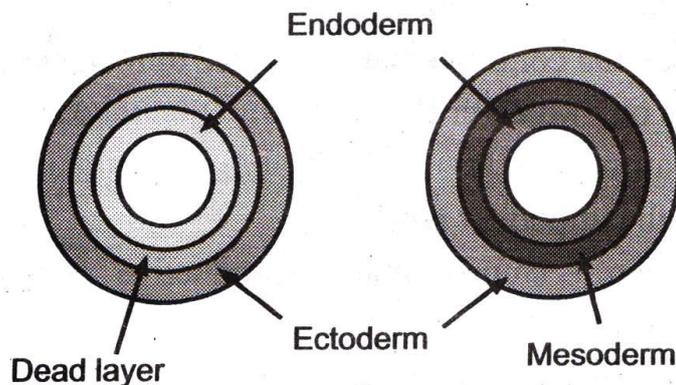
**Q. 3. Answer the following (Any Five)**

**[15 Marks]**

(1) Observe the given figure and answer the following questions.



- (a) What does the above figure show ?
- (b) Which are the two important stages of Mitosis ?
- (c) Which are the four steps in Karyokinesis ?
- (2) With the help of a neat diagram explain human female reproductive system.
- (3) What are reasons for endangering the many species of plants and animals ? How can we save those ?
- (4) Give your opinion about whether hydroelectric plants are environment friendly or not.
- (5) Explain the traditional method of animal classification. Write the characters of non-chordate animals.
- (6) Observe the given figure and answer the following questions.



- (a) In case of multi-cellular animals, does the germ layers forms ?
- (b) In most of the animals, which three germ layers are formed ?
- (7) Why is it necessary to ban the use of plastic bags ?

**Q. 4. Answer the following (Any One)**

**[ 5 Marks]**

- (1) Explain what is Biotechnology. What are the main areas included in biotechnology ? Write the benefits of biotechnology.
- (2) What is asexual reproduction ? Explain asexual reproduction in multicellular organisms.

