



**(B) Solve the following questions**

**(5)**

i. Find out correlation and write in one word.

Skin : Keratin : Blood :

ii. Find the odd one out.

Fragmentation, regeneration, vegetative, propagation, binary fission.

iii. Give names of four vestigial organs.

**iv. Make pairs.**

**“A”**

**“B”**

a) Xylitol

1. Pigment

b) Citric acid

2. Imparts sweetness

3. Microbial resistor

4. Imparts acidity

**v) State whether the following statement is true/false and state why it is so.**

**Reptiles are cold blooded animals.**

**Q.2. (A) Give scientific reasons. (Any two)**

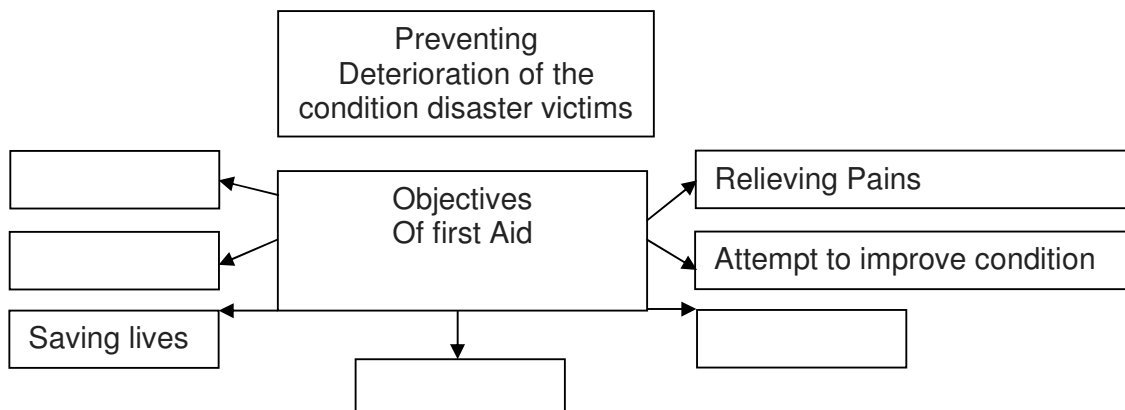
**(4)**

1. All vertebrates are chordates, but chordates are not vertebrates.
2. It is possible to produce energy from MW to MW using Solar photovoltaic cells.
3. Enzymes obtained by microbial process are mixed with detergent.

**(B) Solve the following questions. (Any three)**

**(6)**

- i. State the effect of watching cartoon films / playing video games continuously.
- ii. Distinguish between Binary Fission and Multiple Fission.
- iii. Which fuels are obtained from biomass ? Give examples.
- iv. Write a short note on – white revolution.
- v. Complete the chart.



**Q.3. Answer the following questions. (Any five)**

**(15)**

1. Redraw & label the diagram. Identify the organism and write its classification.



2. Use the appropriate words from the brackets and complete the paragraph.  
(Carbon dating, anthropology, C-14, Carbon, C-14 to C-12, Vertebrates, invertebrates)

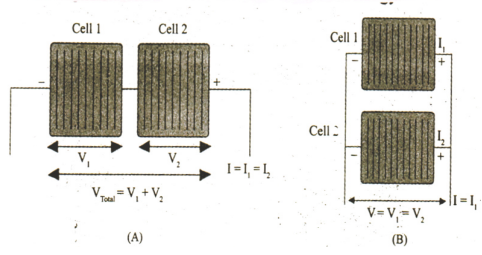
..... Consumption of animals and plants stops after their death and after that only decay of ..... takes place. As time passes after the death of a plant, or animal, the ratio of ..... present in their body changed continuously. The time passed since the death of a plant or animal can be calculated by measuring the radioactivity of C-14 and the ratio of C-14 to C-12 present in their body.

This is ..... method. It is used in palaeontology and ..... This study showed that ..... have been slowly originated from the invertebrates.

- iii) Write the beneficial and harmful effects of biotechnology.  
iv) What do these symbols indicate? Explain your opinion about them.



- v) Observe the connections of cells shown in the following images and answer the questions.  
a) Which connection will give maximum potential difference?  
b) Give advantages & disadvantages of this type of energy?



vi) Complete the table and answer the following questions.

Part	Function
1. Seminal Vesicles	1. <input type="text"/>
2. <input type="text"/>	2. Produce sperms
3. <input type="text"/>	3. Release oocytes
4. Uterus	4. <input type="text"/>
5. Cilia of oviduct	5. <input type="text"/>
6. <input type="text"/>	6. Fertilization of ovum

vii) Answer the question based on the pictures given below.



- What do these pictures indicate ?
- Which gadgets can be misused for these ?
- Give two examples of such events.

viii) Effective disaster management makes us well prepared for the future. Explain the statements.

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

**(5)**

1. Read the following paragraph and answer the questions based on it.

Paddy is cultivated on a large scale in various states of South India. Paddy fields are frequently attacked by grasshoppers. Similarly, frogs are also present in large numbers in the mud of Paddy fields, to feed upon grasshoppers and snakes are also present there to feed upon their favourite food frogs.

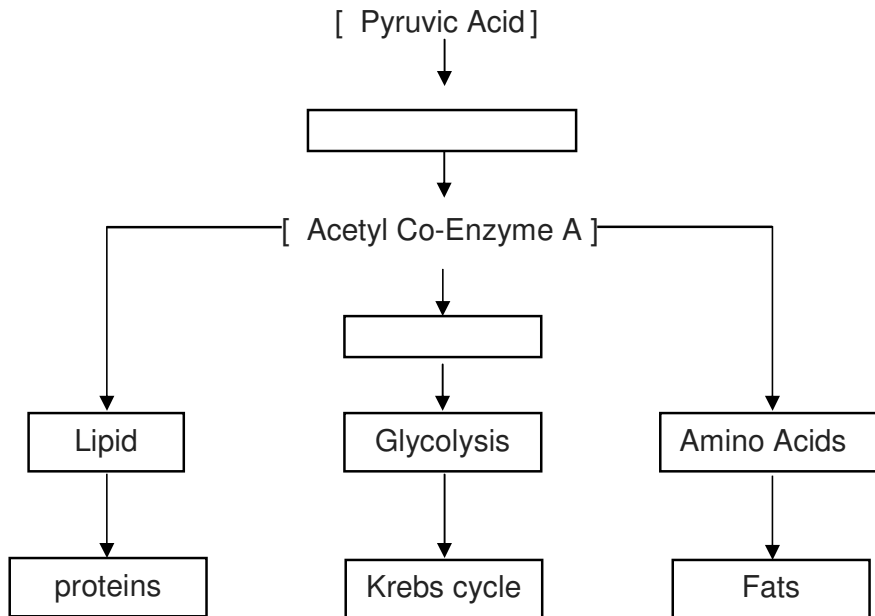
**Questions :**

- Name three states in India where Paddy is cultivated on large scale.
- At which trophic level are the grasshoppers in the above ecosystem ?
- If the population of frogs declines all the sudden what will be the effect on Paddy crop?
- Number of which consumers will decline and which will increase if population of frogs declines all of a sudden ?

5. What will be the overall effect of sudden decline in frog population on the above ecosystem ?

2. Redraw the flowchart with corrections.

Explain in brief the process of obtained energy through oxidation of carbohydrates, lipids and proteins.



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