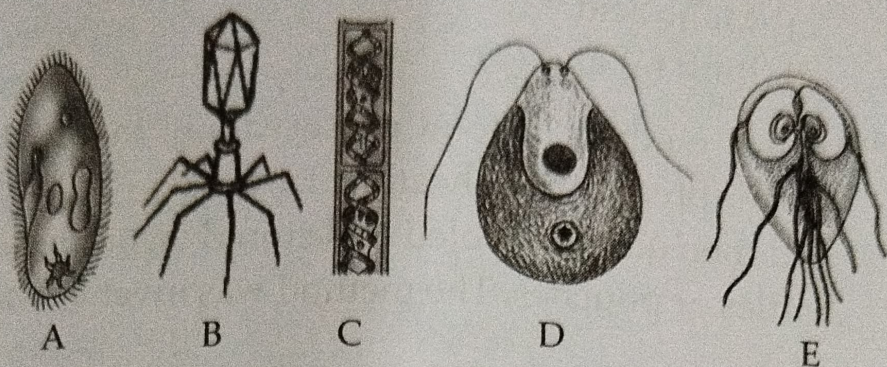


(c) Fungus

(d) Virus

Case III : Identify the microorganisms given below and answer the following questions.



A

B

C

D

E

1. Select the option that correctly identifies the microbes A–E.

(a) A - *Spirogyra*, B - *Penicillium*,
C - *Chlamydomonas*, D - *Paramecium*,
E - *Giardia*

(b) A - *Chlamydomonas*, B - *Trypanosoma*,
C - *Penicillium*, D - *Giardia*,
E - *Paramecium*

(c) A - *Spirogyra*, B - TMV virus,
C - *Chlamydomonas*, D - *Giardia*,
E - *Paramecium*

(d) A - *Paramecium*, B - Bacteriophage,
C - *Spirogyra*, D - *Chlamydomonas*,
E - *Giardia*

2. Which of the following microorganisms belong to the group protozoa?

(a) B and C

(b) D and E

(c) A and E

(d) A and D

3. Select the incorrect statements among the following.

(i) A exhibits heterotrophic nutrition.

(ii) C does not show any characteristic of living things outside the host organism.

(iii) The genetic material of B is surrounded by a protein coat.

(iv) E is smallest of all organisms.

(a) (i) and (iii)

(b) (i), (ii) and (iv)

(c) (iii) only

(d) (ii) and (iv)

4. Select the incorrectly matched pair.

(a) B – Unicellular

(b) C – Multicellular alga

(c) D – Unicellular alga

(d) A – Unicellular protozoan

5. How many among the following are the diseases caused by the group to which the microorganism A belongs?

Dysentery, Typhoid, Malaria, Tuberculosis,
Influenza, Chicken pox, Polio, Cholera, Hepatitis A

(a) 4

(b) 5

(c) 2

(d) 8

Case IV : Various microorganisms are used in preparing food and beverages for domestic and industrial uses. Some microbes are also used in agriculture. Refer to the reactions given below and answer the following questions.

Milk $\xrightarrow{\text{A}}$ Curd

Sugar $\xrightarrow{\text{Yeast cell}}$ B
(Glucose)

$\text{N}_2 \xrightarrow[\text{(Leguminous plants)}]{\text{C}} \text{NH}_3 \xrightarrow[\text{bacteria}]{\text{Nitrifying}} \text{Nitrates}$

1. Identify A, B and C in the given reactions.
 - (a) A-*Saccharomyces*, B-Alcohol, C-*Rhizobium*
 - (b) A-*Clostridium*, B-Ethanol, C-*Acetobacter*
 - (c) A-*Lactobacillus*, B-Alcohol, C-*Rhizobium*
 - (d) A-*Acetobacter*, B-Acetic acid, C-*Chlorella*
2. Which of the following microbes converts B into vinegar?
 - (a) Seaweeds
 - (b) Yeast
 - (c) Bacteria
 - (d) All of these
3. The manufacture of beer and wine involves alcoholic fermentation of glucose. Which of the following statements concerning this process are incorrect?
 - I. It takes place in the presence of oxygen.
 - II. During the conversion of sugar into alcohol, H_2 is evolved.
 - III. Beer is produced by fermentation of sugar in germinating barley.

IV. Wine is produced by fermentation of sugar in grapes.

- (a) I, III and IV
- (b) I and II
- (c) III and IV
- (d) III only

4. The nitrates from the soil are absorbed by plants and then converted into plant proteins by the process known as

- (a) nitrogen fixation
- (b) ammonification
- (c) nitrogen assimilation
- (d) nitrification.

5. Which among the following statements is true for A?

- (a) It converts maltose in the milk into glucose and galactose.
- (b) It helps in setting of curd rich in vitamin D.
- (c) It involves production of cheese by curdling of milk.
- (d) It promotes the growth of disease causing microorganisms.