



# **BIOLOGY**

# **BOOKS - TRUEMAN BIOLOGY**

# NCERT Exemplar Questions +1 (MINERALS NUTRITION)



**1.** Which one of the following roles is not characteristic of an essential element?

A. Being a component of biomolecules

- B. Changing the chemistry of soil
- C. Being-a structural component of energy

related chemical compounds

D. Activation or inhibition of enzymes

Answer: b

2. Which one of the following statements can best explain the term critical concentration of an essential element?

A. Essential element concentration below which plant growth is retarded. B. Essential element concentration below which plant growth becomes stunted C. Essential element concentration below which plant remains in the vegetative

phase

D. None of the above

#### Answer: a

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**3.** Deficiency symptoms of an element tend to appear first in young leaves. It indicates that the element is relatively immobile. Which one of the following elemental deficiency would show such symptoms?

A. Sulphur

B. Magnesium

C. Nitrogen

D. Potassium

Answer: a

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## 4. Which one of the following symptoms is not

due to manganese toxicity in plants?

A. Calcium translocation in shoot apex is

inhibited

B. Deficiency of both Iron and Nitrogen is

induced

C. Appearance of brown spot surrounded

by chlorotic veins

D. None of the above

Answer: b

5. Reaction carried out by  $N_2$  fixing microbes include

 $2NH_3+3O_2 o 2NO_2^-+2H^++2H_2O$  ...(i) $2NO_2^-+O_2 o 2NO_3^-$  ....(ii)

Which of the following statements about these equations is not true?

A. Step(i) is carried out by Nitrosomonas

B. Step (ii) is carried out by Nitrobacter

C. Both steps (i) and (ii) can be called ni-

trification

D. Bacteria carrying out these steps are

usually photoautotrophs

Answer: d

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6. With regard to the biological nitrogen fixation by Rhizobium in association with soy bean, which one of the following statement/statements does not hold true? A. Nitrogenase may require oxygen for its

functioning

B. Nitrogenase is Mo - Fe protein

C. Leg-hemoglobin is a pink coloured

pigment

D. Nitrogenase helps to convert  $N_2$  gas

into two molecules of ammonia

Answer: a

**7.** Match the element with its associated functions/roles and choose the correct option

among given below

| A        | Boron        | i.        | Splitting of H <sub>2</sub> O to   |
|----------|--------------|-----------|--|
| в.       | Manganese    | ii.       | liberate O <sub>2</sub> during<br>photosynthesis<br>Needed for<br>synthesis of<br>auxins |
| C.       | Molybdenum   | iii.      | Component of   |
| D.<br>E. | Zinc<br>Iron | iv.<br>v. | Nitrogenase<br>Pollen germination<br>Component of<br>ferredoxin                          |

A. A-i, B-ii, C-iii, D-iv, E-v

B. A-iv, B-i, C-iii, D-ii, E-v

C. A-iii, B-ii, C-iv, D-v, E-i

D. A-ii, B-iii, C-v, D-i, E-iv

Answer: b

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**8.** Plants can be grown in (Tick the incorrect option)

A. soil with essential nutrients

B. water with essential nutrients

C. either water or soil with essential nutri-

ents

D. Water or soil without essential nutrients

Answer: c