

## SAMPLE PROBLEMS

### (BIOLOGY)

- Which one of the following statement is wrong ?
  - Chlorella* and *Spirulina* are used as space food
  - Mannitol is stored food in Rhodophyceae
  - Algin and carragen in are products of algae
  - Agar-agar is obtained from *Gelidium* and *Gracilaria*
- A major characteristic of the monocot root is the presence of
  - Vacuature without cambium
  - Cambium sandwiched between phloem and xylem along the radius
  - Open vascular bundles
  - Scattered vascular bundles
- In a ring girdled plant
  - The shoot and root die together
  - Neither root nor shoot will die
  - the shoot dies first
  - the root dies first
- Gastric juice of infants contains
  - pepsinogen, lipase, rennin
  - amylase, rennin, pepsinogen
  - maltase, pepsinogen, rennin
  - nuclease, pepsinogen, lipase
- Minerals known to be required in large amounts for plant growth include
  - potassium, phosphorus, selenium, boron
  - magnesium, sulphur, iron, zinc
  - phosphorus, potassium, sulphur, calcium
  - calcium, magnesium, manganese, copper
- Erythropoiesis starts in
  - Spleen
  - Red bone marrow
  - Kidney
  - Liver
- Which one of the following statements is **incorrect** ?
  - The competitive inhibitor does not affect the rate of breakdown of the enzyme-substrate complex
  - The presence of the competitive inhibitor decreases then  $K_m$  of the enzyme for the substrate
  - A competitive inhibitor reacts reversibly with the enzyme to form an enzyme-inhibitor compelx
  - In competitive inhibition, the inhibitor molecule is not chemically changed by the enzyme
- Capacitation refers to changes in the



**ANSWERS**  
**(BIOLOGY)**

1. (b)

2. (a)

3. (d)

4. (a)

5. (c)

6. (d)

7. (b)

8. (c)

9. (d)

10. (d)