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**MATRIC NUMBER :18 /MHS07/048**

**COURSE CODE :BCH 204(Medical Biochemistry)**

**Outline the toxicity value and deficiency manifestation of the following minerals**

**A. Potassium**

**B. Calcium**

**C. Magnesium**

**D. Chloride**

**E. Iron**

**ANSWERS**

**A. Potassium:**

**Toxicity value for potassium : Ingestion of potassium higher than 6.0mmol/L leads to severe toxicity.**

**Deficiency manifestation :**

**i. Muscle weakness**

**ii. Paralysis**

**iii. Mental confusion**

**iv. Acidosis**

**B. Calcium :**

**Toxicity value for calcium : ingestion of calcium higher than 2.63mmol/L leads to severe toxicity.**

**Deficiency manifestation :**

**i. Tetany**

**ii. Muscle Cramps**

**iii. Convulsion**

**iv. Osteoporosis**

**v. Rickets**

**vi. Bone fractures**

**C. Magnesium :**

**Toxicity value for magnesium : Ingestion of magnesium higher than 1.74 - 2.61mmol/L leads to severe toxicity.**

**Deficiency manifestation :**

**i. Muscle spasms**

**ii. Tetany**

**iii. Confusions**

**iv. Seizures**

**v. Poor calcium absorption**

**D. Chloride :**

**Toxicity value : ingestion of more than 107mEq/L results in severe toxicity**

**Deficiency manifestation :**

**i. Deficiency secondary to vomiting and diarrhoea**

**E. Iron:**

**Toxicity value for iron: ingestion of more than**

**60mg/kg results in severe toxicity**

**Deficiency manifestation :**

**i. Microcytic anaemia**