BIOLOGY 231/3 MARKING SCHEME

1. (a) **M** – Acetabulum √ **N** – Ilium √ (*rej. ileum*) **O**- Pubis symphysis√ **P** – Isichiom √ (4mks)

   (b) Pelvic girdle (1mk)

   (c) (i) Femure √

   (ii) Obturator foramen√ (2mks)

   (d) (i) **Q** – Lumbar vertebra√ *rej. Wrong sp* **R** – Cervical vertebra√

   (ii) – Long transverse process √

   - Narrow neural canal √ (1mk) (1st correct answer)

   R – Presence of branched transverse processes√

   - Presence of vertebralerial √ (1mk) canals

   - Presence of cervical ribs√

   (e)

Bone Q	Bone R
Long transverse process	Short transverse process √
Unbranched transverse process √	Branched transverse process√
Narrow neural canal√	Wide neural canal√
Cervical ribs absent√	Cervical ribs present √ (3mks)

2. (a) **A** – Vacuole √ **B** – Nucleolus √ **C** – Nucleus√

   D – Cell wall √ **E** – Mitochondrion√ **F** – Cytoplasm√

   (b) Plantae plant kingdom is wrong (1mk)

   (c) Reasons - presence of chloroplast√

   - large vacuole in the centre√

   - nucleus on the periphery√

   - presence of cell wall √ 1st 2 pts =(2mks)

   (d) 4 cells

   (e) **G**- site for photosynthesis√

   H – contain chlorophyll molecules to trap light energy √

   J – Carbon (IV) oxide reduction /formation of sugars√ (3mks)

   (f) **D** – Gives mechanical support /allows substances to move in and out (2mks)

   F – contain (cellular) organelles√

   - medium for chemical reaction√

3. (a)

Test	Procedure	Observation	Conclusion
Starch √	Put suspension in a test tube add drops of iodine solution √	Traces of blue black colour √	Starch present √
Proteins √	Put suspension in a test tube. Add Sodium hydroxide solution and Copper II sulphate solution √	Purple colour √	Proteins present √

   (b) proteins – growth and development of embryo √

   - formation of enzymes used in growth √

   Starch – provide energy for cell division √