

## 4.7 GENERAL SCIENCE (237)

### 4.7.1 General Science Paper 1 (237/1)

#### SECTION A : BIOLOGY

1. (a) Avoid spilling chemicals / acids which corrode bench tops;  
Avoid cutting specimens on bench tops because they scratch bench surfaces;  
Avoid placing hot objects on bench tops which may burn the tops. (1 mark)
- (b) Distribution of nutrients / transport of nutrients only;  
Availability of raw materials for photosynthesis;  
Cooling effect to the plant; (3 marks)
2. (a) Dicotyledonae; (1 mark)
- (b) Leaves have net venation;  
Have tap root system; (1 mark)
3. (a) There was movement of water molecules from the beaker into the strip of pawpaw by osmosis;  
because the strip tissue fluid was hypertonic / water in the beaker was hypotonic; (2 marks)
- (b) The strip became rigid / hard / stiff / turgid / firm;  
The strip bent / curved; (1 mark)
4. (a) Peripheral nucleus; Large central vacuole;  
Cell wall present; Has regular shape ; /chloroplast present (3 marks)
- (b) Chloroplast; (1 mark)
5. (a) (i) Control reaction rates; (1 mark)
- (ii) They are protein in nature; (1 mark)
- (b) In low temperature the rate of photosynthesis is slow / rate increased with increase in temperature upto to optimum; beyond optimum temperature, rate decreases and eventually photosynthesis stops; (2 marks)