



MARKING SCHEME

Question	Maximum Score	Candidate's Score
1	13	
2	12	
3	15	
Total Score	40	

1. a) (i) Pisces; 1mk Rej Wrong spelling
Rej fish (pisces)
Rej pisces (fish)

- (ii) Presence of scales;
 - Presence of fins;
 -] Presence of lateral line;
 - Presence of operculum; acc any first two
- (2 mks)

Note (ii) is tied (i)

b) (i) Streamlined; 1mk

(ii) Reduces friction/resistance during locomotion/movements in water; (1 mk)

c) (i) 162mm ±1mm; (1 mk)

(ii) 82mm ±mm; 1mk

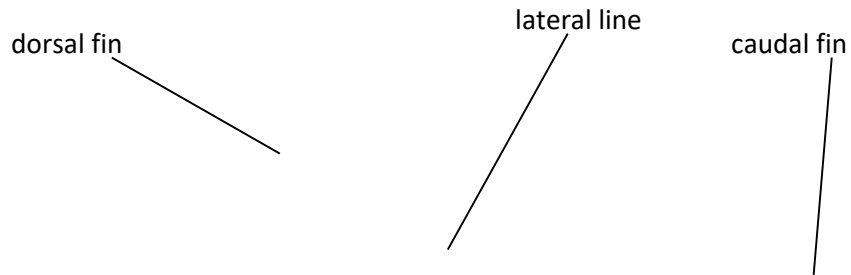
(1 mk)

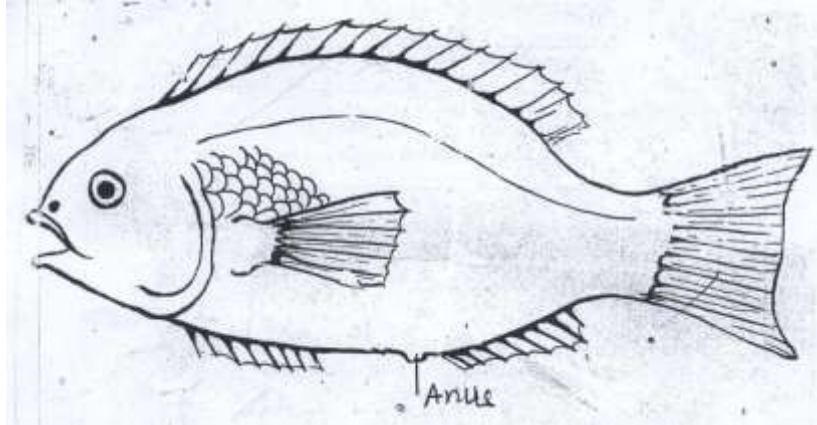
(iii)

$$\text{Tail power} \propto \frac{\text{length of tail to anus} \propto 100}{\text{length from tail to mouth}};$$

$$\propto 50\%; \quad \frac{820\text{mm} \propto 100}{(2 \text{ mks}) 162\text{mm}} \quad \propto \quad \underline{\hspace{2cm}}$$

d)





Pectoral fins and Pelvic fins 2mks

Rj. Pectoral fin or pelvic fin

Correct spelling

(i) Dorsal fin, Anal fin and Tail fin 3mks

2. (a) C – Hypocotyl 1mk

D - Cotyledon/ seed leaves 1mk

E

Importance-protects the delicate tip/first leaf/foilage leaf (1mk)

(b)

(i) nodules/root nodules (1mk)

(i) Rhizobium/Rhizobia/Rhizobium bacteria rej. Bacteria alone. (1mk)

(iii) Symbiotic relationship in which bacteria gets protection and nutrients while the plant gets nitrogen in form of nitrates fixed by bacteria. (1mk)

(c) (i) Epigeal (1mk)

(ii) Hypocotyl elongates raising/ pulling cotyledons are brought out of the ground.

(d) Water

Oxygen;

Optimum temperature First two

3 (a) (i) Fruit 1mk

(iii) - Has two scars

(iv) - Presence of pericarp 1mk

(b) (i) 4mks

Drawing marks 2mks

D1 1mk - Proportionality- Seeds larger than placenta, Endocarp the largest size followed by Mesocarp and Epicarp the smallest

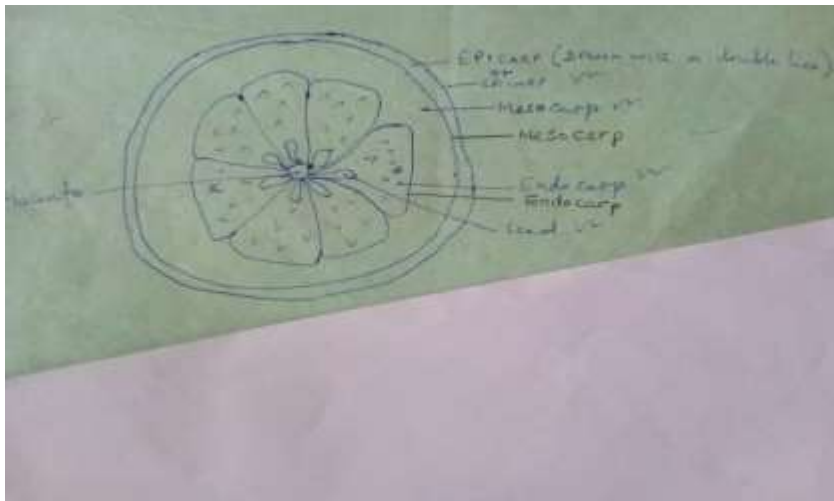
D2 1mk - Complete outline, thin continuous outline

- Seeds present
- Complete outline for placenta

Labelling marks 2mks

Any 4 correctly labeled parts $\frac{4}{2}$

- Complete labeling line
- Labeling line must touch the labeled part
- Correct spelling on the parts
- Labeling lines not crisscrossing
- No double naming(giving the same part different names)



Magnification $X^{1/2}$ - X^3 1mk

(ii) Axile 1mk

(c) Animal

(d) - Seeds have hard/ slimy seed coats/ with mucus which prevent/ resist digestion/ make them indigestible

- Scented to attract animal/ dispersal by animal

- Succulent to attract/ so that it is edible/ can be eaten by animal 3mks

(e) (i) 2 drops (accpt from 1 to 4 drops) 1mk

(ii) 8 drops (accpt from 1 to 10 drops) 1mk

(ii) $\frac{2}{8} \times 0.1\% = 0.025\%$
The drops must be within stated ranges

(iii) – Period of storage of specimen E/ extent/ degree of ripening

- Size of drops

- Size of dropper

- Impurities 1mk