

SUBJECT-SCIENCE (086) M.M-40

Model Answer Sheet

SECTION-A

- 1.(b) 2.(b) 3.(b) 4.(b) 5.(a) 6.(d) 7.(b) 8.(a)
 9.(d)

SECTION B.

10. Oxygenated blood from lungs → Pulmonary veins → Left atrium of heart → Left ventricle → Aorta → Arteries → Body parts

Or

The process of transporting food from the leaves to other parts of a plant is called translocation. This process is carried out by the phloem, a vascular tissue that allows for the bi-directional flow of nutrients.

11. (i) Myopia, concave lens ½ mark each (ii) Two

causes (any two) ½ mark each

1. Elongation of eyeball
2. Decrease in focal length of eye lens

12. Given (½ mark) Lens formula (½ mark) Solution (2 marks)

Ans: 12

given - ½ mark

height of object (h_1) = 10 cm
 distance of object (u) = -25 cm
 focal length (f) = 15 cm
 image distance (v) = ?
 height of image (h_2) = ?

- lens formula $\frac{1}{v} - \frac{1}{u} = \frac{1}{f}$ - ½ mark

$$\frac{1}{v} - \frac{1}{-25} = \frac{1}{15}$$

$$\frac{1}{v} = \frac{1}{15} - \frac{1}{25}$$

$$= \frac{5-3}{75}$$

$$\frac{1}{v} = \frac{2}{75}$$

$$v = 37.5 \text{ cm} - 1 \text{ mark}$$

or $\frac{h_2}{h_1} = \frac{v}{u}$

$$\frac{h_2}{10} = \frac{37.5}{-25}$$

$$h_2 = \frac{37.5 \times 10}{-25}$$

$$h_2 = -15 \text{ cm} - 1 \text{ mark}$$

13. (a) Zinc oxide is an amphoteric oxide because it can react with both acids and bases to form salts and water.

(b) Sodium metal is stored in kerosene oil because it is highly reactive and can react violently with water and oxygen in the air.

(c) Nitric acid is a strong oxidizing agent that oxidizes the hydrogen gas produced during the reaction to water.

14. Given (½ mark)

Mirror formula (½ mark)

Solution of object distance, $u = -60$ cm (1 mark) Solution of size of an image, $h_i = -2$ cm (1 mark)

SECTION C

15.(a) Electron dot structure of chlorine and calcium ½ mark each
 Formation of calcium chloride. (2 marks)

(b) Ionic compound (1 mark)

(c) Two Physical properties of ionic compounds ($\frac{1}{2}$ mark each)

Or

(a) formation of MgO by electron transfer (2marks) Cation and anion ($\frac{1}{2}$ mark each)

(b) 1 mark (c) 1 mark

16.(a) Name of organs of excretory system ($\frac{1}{2}$ mark each) A pair of kidneys

A pair of ureter Urinary bladder Urethra

b. urine formation -3 marks

SECTION D

17.(i) All plants were Tall in F1 generation Gene combination- Tt

ii. Dominant trait mask the recessive trait

ii. In F2 generation Tall 75%

ii. In F2 generation-Phenotypic ratio -Tall:Dwarf-3:1

18.(i)b. (ii)c. (iii)X-Violet ,Y-Red. (iv)c