



ද්‍රේශීය

11

Second Term Test - 2016

Science Answers

පාසලේ නම :

ශිෂ්‍ය/ශිෂ්‍යාවගේ නම/ ඇතුළත්වීමේ අංකය :

කාලය : පැය 3 යි.

Part-1

01 - 01	06 - 01	11 - 03	16 - 02	21 - 04	26 - 03	31 - 01	36 - 04
02 - 02	07 - 01	12 - 03	17 - 04	22 - 03	27 - 04	32 - 01	37 - 03
03 - 01	08 - 02	13 - 03	18 - 01	23 - 02	28 - 02	33 - 04	38 - 02
04 - 03	09 - 03	14 - 01	19 - 02	24 - 01	29 - 01	34 - 03	39 - 01
05 - 04	10 - 02	15 - 01	20 - 01	25 - 01	30 - 02	35 - 01	40 - 03

Total- (2×40=80)

Part-11

Part A

01.

- A) i) a. mineral oil, natural gas, coal (2)
 b. Wind, Solar energy, bio mass (2)
 c. Solar energy, sea waves (1)
 ii) Air pollution, destruction of forest (2)
- B) a. $S_{(s)} + O_{2(g)} \longrightarrow SO_{2(g)}$ (2)
 b. acid rain (1)
 c. dust, carbon particles, noise, heat , C (2)
 d.
 i) methane (CH₄) (1)
 ii) producing electricity/ as a fuel (2)

Total-15

02. A) (1) A- stigma
 B- style
 C- petals
 D- ovary (4)

(2) depositing pollen of one flower on the stigma of another flower of same species. (1)

(3) positioning the anther below the stigma. (1)

(4) for two correct answers (2)

(5) by wind

By animals

By water

By explosive mechanism (with correct examples) (2)

B) (i) carbohydrates, protein, lipids, nucleic acid (2)

(ii) necrosis of tissues and stunted plants (2)

(iii) sodium hydroxide, copper sulphate (2)

Total-15

(3) A. i) steam distillation (1)

ii) solvent extraction (1)

iii) The mixtures in which the components cannot be observed separately from one another and the properties and composition are similar throughout are termed homogenous mixtures (2)

The mixtures in which the components can be distinguished from one another and they are known as a heterogeneous mixtures. (2)

iv) homogenous - salt solution, sugar solution (2)

heterogeneous- Water in which clay is dissolved, water in which laundry blue (the powder used for whitening of clothes) is dissolved, cement mortar, sherbet drinks, fruit salad (2)

B. (i)

Mole fraction of B =
$$\frac{\text{Amount of moles of B}}{\text{Amount of moles of A} + \text{Amount of moles of B}}$$
 (1)

(ii) $\frac{2}{7.33}$ (1)

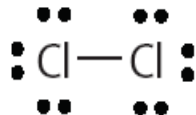
C.

(i) . a.- 13 b.- 14 (2)

(ii) 2, 8, 3 (2)

(iii) co- valent bonds (1)

(iv) (1)



(2)

Total-15

(4)

A) (i) by steam (1)

(ii) 3rd law (1)

(iii) For every action, there is an equal and opposite reaction. (2)

(iv) 0.5 N (1)

B)

(i) affecting the area of cross section of a conductor on resistance (1)

(ii) length of the conductor and resistivity (1)

(iii) 7.5 Ω (2)

(iv) 500 J (2)

C)

(i) 30 N (1)

(ii) 40 N (1)

(iii) lowering towards 10 N force (1)

(iv) 7.5 N m clockwise (1)

Total-15

Part B

5) A)

- (i) Utilizing the energy from sunlight, the cells containing chlorophyll in green plants synthesize food using carbondioxide and water as raw materials. This process is called photosynthesis. (2)
- (ii) sun light, CO₂, water, chlorophyll (2)
- (iii) a) to dissolve chlorophyll (1)
- b) alcohol is a highly inflammable substance (1)
- (iv) turns dark blue (2)
- (v) starch is produced during photosynthesis. (2)
- (vi) $6\text{CO}_2 + 6\text{H}_2\text{O} \rightarrow \text{C}_6\text{H}_{12}\text{O}_6 + 6\text{O}_2$ (2)

B)

- (i) villi (2)
- (ii) Presence of microvilli in the epithelial cells of villi
Thin epithelial lining on villi
Villi are highly vascularised (2)
- (iii)
- | | |
|------------------------------|---------------------------------|
| a. Mouth – Amylase | Starch → Maltose |
| b. Stomach – Pepsin | Protein → Polypeptide |
| c. small Intestine – Maltase | Maltose → Glucose |
| Sucrase | Sucrose → Glucose and Fructose |
| Lactase | Lactose → Glucose and galactose |
| Peptidase | Polypeptides → Amino acids |
- (2)
- (iv) constipation
Consumption of food rich with dietary fibres
taking required volume of water (2)

Diarrhea

- Consumption of boiled water
Removing fly breeding places and cover is food to prevent entering of flies to food
Avoid consumption of food which are sold in open places (2)

Total-20

- C)
- (i) 16 800 J (2)
 - (ii) Radiation (2)
- D)
- (i) Nephron (2)
 - (ii) Renal failure, nephritis, calculi in kidney (2)

Total-20

- (9) A)
- (i) 4 N (2)
 - (ii) 3 N (2)
 - (iii) depth of the liquid column, density of the liquid, gravitational acceleration (2)
 - (iv) 50 000 Pa (2)
 - (v) hydraulic jack, hoists, (2)
- B)
- (i) decreases (1)
 - (ii) The system gets cool/ absorb heat from the environment (1)
 - (iii) Endo thermic reactions (2)
- C)
- (i) to reduce the loss of heat (2)
 - (ii) no loss of heat to the environment / (2)
- density of the solution is equal to the density of water /
- specific heat capacity of solution is equal to the specific heat capacity of water
- (iii) 2 g (2)

Total-20