PONDA SCHOOLS' ASSOCIATION

JOINT FIRST TERMINAL EXAMINATION OCTOBER, 2018

Marks : **65** Sub : **SCIENCE** STD. : **X**

Date : **31:10:2018** SEAT NO. : | | | | | TIME : 2 hrs

Q.1A] (i) Select the correct alternative from those given below each statement and write the completed statement : (1)

a) Magnesium ribbon burns to produce magnesium oxide is an example of _____ reaction.

(decomposition, double displacement, combination , redox)

b) The growth of roots toward the soil is an example of _____.

(chemotropism, geotropism, hydrotropism, phototropism)

(ii) Name the following: (1)

a) The reaction in which one substance gets oxidized and the other gets reduced.

b) The plant hormone that promotes cell division.

(iii) We observe things getting corroded in our everyday life. (2)

a) How can corrosion be prevented? (1 point)

b) Chips packets are flushed with nitrogen gas. Why?

B] (i) In animals, control and co-ordination are provided by neurons and muscular tissues.

a) Give one point of difference between gustatory and olfactory receptors. (2)

b) What is a synapse?

(ii) The forebrain is the main thinking part of the brain. (2)

a) Give a point of difference between voluntary and involuntary muscles.

b) Name the nervous system that facilitates the communication between central nervous system and other parts of the body.

(iii) Attempt the following: (2)

a) Plants show tropism in response to other stimulus.
Give one example of chemotropism.

b) Why is the use of iodised salt advisable?

C] Hormones produced in one part of an organism move to another part to achieve the desired effect. (3)

a) How does our body respond when adrenaline is secreted in the blood?

b) Why are some patients of diabetis advised to take insulin injections?

c) What is the function of growth hormone?

OR

C] Radha is suffering from swollen neck.

a) Name the hormone that is deficient in Radha .

b) Which element is required for the formation of this hormone?

c) Name the hormone associated with puberty in males and write any one change seen in boys during puberty.

Q.2A] (i) Observe the correlation in the first pair and complete the second pair: (1)

a) Magnesium oxide : basic oxide :: zinc oxide : _____

b) Clove : olfactory indicator :: Hibiscus petals : _____

(ii) State one use of washing soda. (1)

(iii) **Name the following** (1)

a) An acid used in preparing baking powder.

b) Chemical name of bleaching powder.

(iv) Gold and silver metals are more preferred over other metals for making jewellery. **Give reason.** (1)

(v) Sodium is always preserved in kerosene oil. Why? (1)

B] (i) Chemical properties are equally important along with physical properties of the elements. (2)

a) Name the allotroph of carbon used in making electrodes.

b) Name the metals used for making solder.

c) Ionic compounds are solids and some what hard. Why?

(ii) a) Write one point of difference between the reaction of sodium with water and reaction of magnesium with water. (1)

b) How do we extract metals low in activity series from their ores? (1)

C] The earth's crust is a major source of metals. (4)

a) Ores of many metals are oxides. Why?

b) What is gangue?

c) State one point of difference between calcination and roasting.

d) Give an application of thermit reaction.

Q.3A (i) Match the items in column 'A' with the correct items in column 'B' and write the correct pair. (1)

'A'	'B'
a) Xylem	i) Removal of metabolic waste
b) Phloem	ii) Conductor of water and minerals
	iii) Preparation of food
	iv) Transport of prepared food

ii) Write any one function of blood (1)

iii) What is the function of guard cells? (1)

iv) A person lost his life due to heavy blood loss in an accident. (1)

a) Name the blood vessel that resulted in heavy loss of blood.

b) Name the blood cell that helps in clotting of blood.

B] **We are able to see this colourful world because of our eyes.** (2)

a) Name the type of lens present in the human eye.

b) What type of image is formed by the human eye lens?

c) What is myopia?

C] **Everyone appreciates the spectacular colours in a rainbow.** (3)

a) Name the colour that denotes the most and the colour that deviates the least in a band of spectrum.

b) What is dispersion of light?

c) Where is the image formed in a hypermetropic eye and name the corrective lens used to treat this defect of vision.

D] **The earth's atmosphere is a heterogeneous mixture of many particles.** (4)

a) What is Tyndall effect?

b) The sky appears dark to the passengers flying at high attitudes. Give reason.

c) Why does sun appear reddish in the early morning.

d) What causes presbyopia in old age?

Q.4A] (i) Select the correct alternative given below each statement and write the completed statement. (1)

a) The organism which reproduces binary fission is _____.

[hydra, planaria, amoeba, spirogyra]

b) The transfer of pollen grains from anther to stigma is _____.

[fertilization, pollination, reproduction, germination]

ii) What are the limitations of using nuclear energy. (2 points) (1)

iii) Why is wind energy eco-friendly? (1)

iv) What are the principle advantages associated with solar cells? (1)

B] (i) A gardener found it difficult to cultivate plants like rose and mogra as seeds of these plants were not available. (2)

a) Which method of vegetative propogation should the gardener use to grow such plants?

b) What are the two advantages of growing plants by using vegetative propogation?

ii) The reproductive parts of plants are located in flowers. (2)

a) Name the female reproductive part of flower. In which part are the ovules located?

b) Why is stigma sticky?

iii) India ranks third in population next to China. (2)

a) Name any 2 contraceptive methods used by females.

b) Name any 2 sexually transmitted diseases caused by bacteria.

C] I) **Draw a neat diagram to show the germination of pollen on stigma and label a) pollen tube b) germ cell** (2)

ii) Testis are located outside abdominal cavity. Give reason. (1)

OR

C] i) Draw a neat diagram of spore formation of Rhizopus and label spores and hyphae. (2)

ii) What is the role of seminal vesicle and prostate gland? (1)

Q.5A (i) **Select the correct alternative given below each statement and write the completed Statement.** (1)

a) We get a virtual and enlarged image in a concave mirror when the object is placed _____.

(at C, beyond C, at F, between P and F)

b) The near point for a normal human eye is _____.

(250m, 25cm, 2km, 250cm)

ii) The slury from biogas plant is used as manure. Why? (1)

iii) Differentiate between concave and convex mirrors with respect to focal length and reflecting surface. (1)

iv) Convex lens is a converging lens. Why? (1)

B] (i) The curved surface of a spherical plate could be considered as a spherical mirror. (2)

a) Write any two uses of convex mirror.

b) The radius of curvature of a concave mirror is 10m. Find the focal length.

ii) The printed letters on a page appear to be raised when a glass paper weight is kept over it. (2)

a) How does a ray of light bend when it travels from a rarer to a denser medium?

b) State the snells law of reflection.

iii) An object is placed 15cm infront of a concave mirror of focal length 12cm. At what distance from the mirror should a screen be placed so that a sharp focused image can be obtained. Also find the magnification produced by the mirror. (2)

C] (i) **Draw a neat diagram to show the formation of image in a convex lens when an object is placed at infinity.** (2)

ii) What is the position, nature and size of image formed by a concave mirror when the object is placed at C? (1)

OR

C] (i) Draw a neat diagram to show the formation of image in a convex mirror when the object is placed between infinity and the pole of the mirror. (2)

(ii) What is the nature of the image formed by a concave lens when the object is placed between infinity and optical centre of the lens. (1)