

**MAR THOMA RESIDENTIAL SCHOOL THIRUVALLA**  
**ANNUAL EXAMINATION 2017-18**

**BIOLOGY**

**STD: IX**

**TIME: 2hrs**  
**MAX. MARKS: 80**

**SECTION-1**

**QUESTION – 1**

- (a) **Name the following** (5)
1. The large cup shaped articular cavity found in pelvic girdle.
  2. The pigment present in the malpighian layer
  3. The bacteria that converts, nitrates to nitrites
  4. The protective layer in a plant ovule
  5. The animals that lay eggs with a leathery shell.
- (b) **Define the following** (5)
1. Double fertilisation
  2. Antibiotics
  3. Incubation period
  4. Toxoid
  5. Immunity.
- (c) **Give the location of the following** (5)
1. Generative nucleus
  2. Pleura
  3. Lacteal
  4. Patella
  5. C- shaped cartilaginous rings
- (d) **Differentiate the following pairs on the basis of what is given in the bracket** (5)
1. Vasodilation and Vasoconstriction (definition)
  2. Hinge joint and Pivot joint (example)
  3. Mammary glands and Ceruminous glands (Gland from which it is modified)
  4. Amylopsin and Steapsin (function)
  5. Cytoplasm and Mitochondria (Phase of respiration)
- (e) **Give the function of the following** (5)
1. Lymph
  2. Epiglottis
  3. Alveoli
  4. Synergids
  5. Tracheid

(f) Given below are a set of four items. In each case rewrite the terms in correct order so as to be in a logical sequence. (5)

1. Lactase, Pepsin, Ptyalin, Trypsin
2. Alveoli, Larynx, Tracheae, Bronchi
3. Harvesting,, Spawning, Composting, Casing
4. Class, Family, Species, Order
5. Stomach, Ileum, Duodenum, Colon

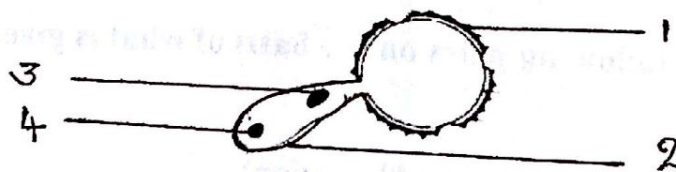
(g) Given below is a table consisting of a set of items belonging to a common category. Complete the table by filling the common category and odd one the blank (10)

Set	Odd one	Category
1)Humerus, Radius, Ulna, Tibia		
2)Amylopsin, Maltase, Sucrase,Lactase		
3)Tuberculosis, Goitre, Marasmus, Anaemia		
4)Sea Urchin, Sea cucumber, Brittle star, Cray fish		
5)Malaria, Elephantiasis, Dengue, Cholera		

### SECTION -2

#### QUESTION - 2

(a) Given below is a diagrammatic sketch of the sectional view of a plant part related reproduction. Study the same and answer the questions that follow.



- (1) Identify the plant part as a whole (1)
- (2) Name the structural parts numbered 1 to 4 (2)
- (3) Where is it found as a stage shown in the figure (1)
- (4) What is the function of part 4? (1)

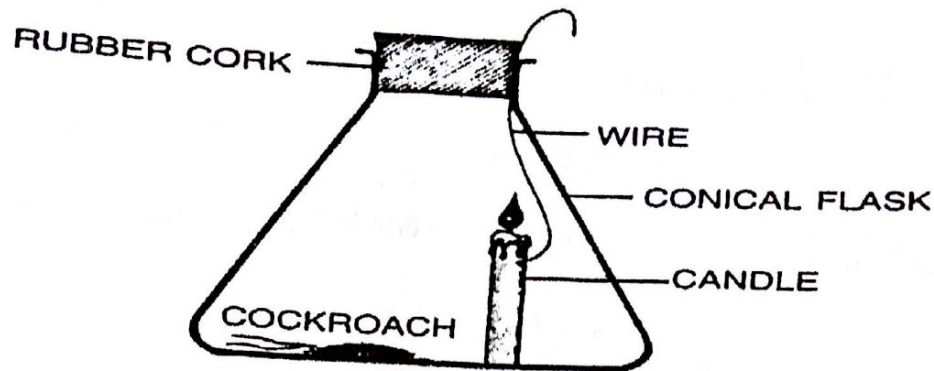
(b) Explain the following terms (5)

1. Asphyxiation
2. Antagonistic muscles
3. Viviparous germination
4. Stratum corneum
5. Vitiligo



### QUESTION - 3

The figure below represents an experimental set up to study a physiological process in animals. Study the diagram and answer the questions that follow (5)



1. Name the physiological process being studied.
2. Define the process
3. What is the aim of the above experiment?
4. Give a balanced equation to represent the above process.
5. Gaseous exchange continues in lungs even during expiration. Why?

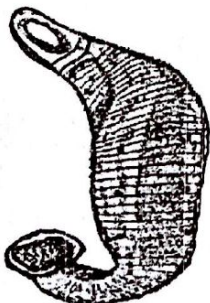
#### (b) Give reasons

(5)

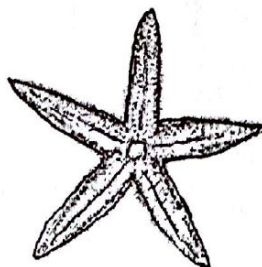
1. Scientific names of living beings are considered to be better than common names
2. Bile is essential for digestion
3. Mammals require more energy than other chordates
4. People shiver and their teeth chatter during winter
5. Human beings are resistant to 'Distemper' of dogs.

### QUESTION - 4

(a) The pictures of two animals are given below. Study the same and answer questions that follow.



(a)



(b)

1. Identify the animals and the respective Phylum to which each belong (1)
2. Write any two distinguishing features of the phylum to which each of the above animal belong. (2)
3. Are they Vertebrates or invertebrates? Give reason (1)
4. What do you mean by homeothermal organisms? (1)

(b) **Answer briefly.**

- (1) What do you mean by expiration? (1)
- (2) What happens to the following parts of the respiratory system during inspiration? (2)
- (i) Diaphragm
  - (ii) Ribcage and sternum
  - (iii) Thoracic cavity
  - (iv) Internal inter costal muscle
- (3) Explain how breathing is controlled in human beings . (2)

**QUESTION- 5**

- (a) (i) Draw and label the internal parts of a human teeth (2)
- (ii) What do you mean by mastication of food? What is its advantage? (2)
- (iii) Write the dental formulae of an adult human being (1)

(b) **Answer the following questions.**

- (i) How does respiration take place in flesh eaters in the absence of glucose in their blood? (1)
- (ii) The stomach secretes gastric juice which contains hydrochloric acid. What is its function? (1)
- (iii) What is an epidemic? Give an example. (1)
- (iv) Name the region of small intestine into which the pancreatic juice is released. What are the enzymes present in it and write down the functions of each of them. (2)