

RAMAKRISHNA VIVEKANANDA MISSION
MODEL QUESTION FOR ANNUAL EXAM 2020
SUBJECT- LIFE SCIENCE (ENGLISH MEDIUM)
CLASS- IX

Full Marks-90

Group – A

Answer to all questions is compulsory

1 X 14 = 14

1) Choose the correct answer : -

- a) In the course of organic events marine algae emerged in the following period: -
i) Cambrian ii) Ordovician iii) Permian iv) None of these
- b) The branch of biology that deals with the study of molluses is: -
i) Mycology ii) Malacology iii) Entomology iv) ornithology
- c) Naked seeds are present in :
i) Thallophyta ii) Angiosperms iii) Gymnosperms iv) Bryophyta
- d) The kingdom which includes eukaryotic, unicellular, both autotrophic and heterotrophic organism is:
i) Protista ii) Monera iii) Fungi iv) Rantac
- e) Site of kreb cycle is:
i) Cytoplasm ii) Mitochondria iii) Ribosome iv) None of these
- f) Total parasite on Holoparasite is:
i) Dodder ii) Mucor iii) Agaricus iv) Pinus
- g) A lipolytic enzyme is:
i) Amylase ii) Renin iii) Lipase iv) Sucrase
- h) The main inorganic constituent of blood is :
i) Urea ii) Ammonia iii) Calcium iv) Uric Acid
- i) The functional site of an antigen which binds with the antibody is :
i) Paratop ii) Epitop iii) Antivenom iv) None of these
- j) The largest antibody is :
i) IgM ii) IgG iii) IgE iv) IgD
- k) Haemocyanin pigment consists of:
i) Copper ii) Magnesium iii) Zinc iv) Potassium
- l) Neptune's cup belong to phylum:
i) Ctenophora ii) Porifera iii) Cnidaria iv) Nematoda
- m) Single membrane bound organelle is:
i) Mitochondria ii) Golgi Bodies iii) Ribosome iv) chlorophyll
- n) The microelement which influences plant development and regulates osmotic pressure is :
i) Zinc ii) Chlorine iii) Sodium iv) None of these

Group – B

2. Fill in the blanks (answer any five)

1 X 5 = 5

- a) _____ of WBC secretes heparin .
- b) Blood pressure is measured by the help of _____ artery.
- c) _____ is called the mixed gland.
- d) _____ is the largest lymph gland in human body.
- e) _____ helps to maintain a flow of liquid or suspended particles in one direction.
- f) _____ helps in osmoregulation and acid-base balances .

3. Write true or false against the following statements (answer any five)

1 X 5 = 5

- a) Glomerulus helps in ultra filtration .

- b) Blood goes to the lungs by the systole of right auricle.
- c) Tannins are carbonaceous excretory products of plants.
- d) Ovary produces female sex organ oestrogen and progesterone.
- e) Dark reaction is fully dependent on light reaction.
- f) Prokaryotic cell-wall is composed of cellulose.

4. Answer in one sentence (any ten)

1 X 10 = 10

- a) Write the name of the hormone that regulates transpiration.
- b) Which alkaloid is used in the treatment of eyes?
- c) Write the name of two pigments present in bile.
- d) Name one natural and one artificial coagulant.
- e) What is papine?
- f) Write the name of two enzymes present in intestinal juice.
- g) Write the name of two non-proteinaceous nitrogenous substance present in blood.
- h) Name the mineral which prevents tetany.
- i) Name the only living tissue in xylem.
- j) Write one important function of centrosome.
- k) Name two parts of the body where stratified cubical epithelium tissue is found.

Group – C

5. Answer in brief (any twelve)

2 X 12 = 24

- a) Write two differences between light phase and dark phase.
- b) Differentiate epitope and paratope.
- c) Write two important differences between Chondrichthyes and Osteichthyes.
- d) Write a short note on-
 - i) First class protein
 - ii) Second class protein
- e) Write two important differences between amino acid and fatty acid.
- f) Write two important functions of Zinc in human body.
- g) What do you mean by carbon assimilation?
- h) Explain the four external factors which effect the rate of transpiration.
- i) Explain four important functions of lymph.
- j) What is ICF?
- k) Name the two vitamins which are responsible for the maturation of RBC.
- l) Name four non-nitrogenous excretory product in plant and animal.
- m) Define vaccination and write its principle.

Group – D

6. Answer four questions or there alternatives given below:

8 X 4 = 32

- 6.a)** Write four important differences between annelid and arthropoda with examples. **4**
- 6.b)** Describe symbiotic nutrition with example. **4**
- Or
- 6.a)** Define accessory respiratory organs with examples. **4**
- 6.b)** Describe the structure accessory respiratory organ in – i) koi (Anabas Testutineus)
ii) Magur(Clarius Batrachus)
- 6.c)** Write the sources, substrats and role in digestion of the following enzymes- (2 ½ + 2 ½)=**5**
 - i) Trypsin
 - ii) Lactase
- 6.d)** Write the important functions of nephron **3**
- Or
- 6.c)** Define Mycorrhiza mentioning its types **2 + 2 = 4**

6.d) Match the following:

4

Column A

Column B

a) Largest WBC	i) Trachea
b) Grass hopper	ii) Monocyte
c) Muscle formentation	iii) Potassium Ferric Oxalate
d) Artificial hill reagent	iv) Lactic Acid

6.e) Draw a typical nephron (without peritubular capillaries.)

4

6.f) Label atleast four parts.

4

Or,

6.e) Write the endocrine and exocrine function of testis.

4

6.f) Mention two main functions of brain.

4

6.g) Discuss the mechanism of ascent of sap explained by the theory of Dixon and Jolly.

5

6.h) Write the significance of respiration.

3

Or,

6.g) Write four important differences of pulmonary artery and pulmonary vein.

4

6.h) Why transpiration is called 'necessary evil'?

4