BOYS' HIGH SCHOOL AND COLLEGE
THIRD TERM EXAMINATION (2023-24)
BIOLOGY (SCIENCE PAPER – 3)
CLASS – IX

Estd. 1861

Time: 2 Hours   **MM:80**

*Section A is compulsory. Attempt any **four** questions from **Section B.***
The intended marks for questions or parts of questions are given in brackets.

SECTION A (40 Marks)
*(Attempt **all** questions from this section)*

Question 1
Select the correct answers to the questions from the given options.
(Do not copy the question write the correct answer only)

(i)   The lowest level in biological classification is:
    (a) Genus   (c) Family
    (b) Species   (d) Phylum

(ii)   Which of the following reproduce only inside the cells of the host?
    (a) Fungi   (c) Virus
    (b) Protozoa   (d) Bacteria

(iii)   A plant cell can be identified from an animal cell by:
    (a) Absence of centrosome   (c) Presence of vacuoles
    (b) Presence of cell membrane   (d) None of these

(iv)   The germ causing Hepatitis is transmitted through:
    (a) Bite of a mosquito   (c) Contaminated water
    (b) Contamination of food by housefly   (d) Personal contact

(v)   A vaccine made with living fully poisonous germ is:
    (a) TAB vaccine   (c) BCG vaccine
    (b) Small pox vaccine   (d) Salk's vaccine

(vi)   Which of the given organ is affected by tuberculosis?
    (a) Liver   (c) Stomach
    (b) Lung   (d) Intestine

(vii)   Coelenteron is a cavity inside an animal belonging to the phylum:
    (a) Cnidaria   (c) Porifera
    (b) Nematoda   (d) Annelida

(viii) Ascariasis is caused by:
    (a) Roundworm   (c) Fungi
    (b) Tapeworm   (d) Ringed worms

(ix)   World Health-day is celebrated on:
    (a) 7th July   (c) 7th April
    (b) 1st May   (d) 22nd January

(x)   The most convenient reusable waste is:
    (a) Fly ash   (c) Medical instrument
    (b) Broken glass   (d) Old newspapers

(xi)   Which of the following class of animals have a four chambered heart?
    (a) Pisces   (c) Amphibia
    (b) Aves   (d) Reptilia

(xii)   'T' in DPT vaccination stands for:
    (a) Tuberculosis   (c) Typhoid
    (b) Tetanus   (d) Tonsilitis

(xiii) Which of the following vector is responsible for dengue?
(a) Anopheles mosquito
(c) Aedes mosquito
(b) Culex mosquito
(d) *Tsetse fly*

(xiv) Sewage water is purified by:
(a) Microorganisms
(c) Light
(b) Fishes
(d) Aquatic plants

(xv) Which of the following is mismatched?
(a) Fungi---Yeast
(c) Plantae---Bryophyta
(b) Protista----Paramecium
(d) Animalia----Euglena

Question 2

(i) **Give appropriate biological/ technical terms for the following:**
(a) The degradation involving activity of microorganisms.
(b) The process by which white blood cells engulf bacteria.
(c) The colourless plastids which help to store food.
(d) Organisms with a cylindrical, segmented body and with a coelom.
(e) A machine that separates suspended wastes by using electric field.

(ii) **Choose the odd one out and name the category to which the others belong:**
(a) Sepia, Slug, Octopus, Sycon
(b) Pesticides, Old computer, Tissue paper, Electric toys
(c) Saliva, Water, Sweat, Tears
(d) Cresol, Phenol, Iodine, DDT
(e) Hepatitis, Cholera, Chicken pox, AIDS

(iii) **Correct the given statements by changing the underlined words:**
(a) Disinfectants are mild chemical substances applied on the body to kill germs.
(b) Unicellular prokaryotic organisms belong to the kingdom Fungi.
(c) BCG vaccine is used against poliomyelitis
(d) The outer layer of the human skin is made of chitin.
(e) Tentacles are part of the reproductive system of earthworms.

(iv) **Match the column:**

Column A	Column B
1. Herpes virus	a. Dysentery
2. Rat flea	b. Mosquito larvae
3. Culex	c. Chicken pox
4. Housefly	d. Plague
5. Gambusia	e. Elephantiasis

(v) **Give two examples of each of the following:**
(a) Water-borne disease
(b) Vector
(c) Prokaryotic cell
(d) Agricultural waste
(e) Killed germ vaccine

SECTION B (40 Marks)
*(Attempt any **four** questions from this section)*

Question 3

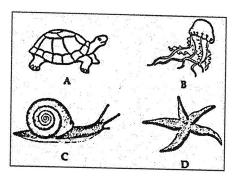(a) Expand the following terms: [1]
     i.   TAB   ii. HIV
(b) What is sewage? How are they disposed of?   [2]
(c) Differentiate between the following pairs: [2]
     i.   Endemic disease and Pandemic disease
     ii.   Innate immunity and Acquired immunity
(d) List two main activities of the Red Cross.   [2]

(e) Study the four organisms given below and answer the questions: **[3]**
    i.   Name and write the phylum of the animals labelled as A, B, C and D.
    ii.   Write one distinguishing feature of the animals of the phylum C and D.
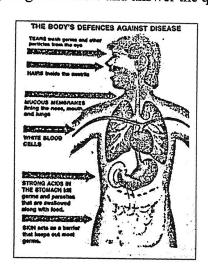

Question 4

(a) What is Immunization? **[1]**
(b) Rearrange the following in a correct sequence: **[2]**
    i.   Genus, kingdom, order, phylum, family
    ii.   Cytoplasm, cell membrane, cell wall, nucleolus, nucleus
(c) Explain the following terms: **[2]**
    i.   Biodegradable waste   ii. Scrubber
(d) Define chordates and write their classes? **[2]**
(e) Draw a neat labelled diagram of the plant cell and label the following organelles:
    Cell wall, Nucleus, Chloroplast, Mitochondria Cytoplasm and Vacuole. **[3]**

Question 5

(a)   Why are bats considered as mammals not birds? **[1]**
(b)   Write the causative agent and symptoms for the following **[2]**
    diseases:
        i.   Filariasis   ii. Cholera
(c)   What are the objectives and functions of WHO? **[2]**
(d)   Draw a well labelled diagram of the earthworm. **[2]**
(e)   Look at the figure given below and answer the questions given: **[3]**

    i.   What are the merits of the local defence system.
    ii.   How do white blood cells defend the body against diseases?
    iii. How does mucous membranes prevent the entry of germs in the body tissues?
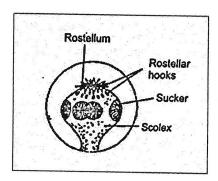
Question 6

(a)   **Fill in the blanks:** **[1]**

i.	Supportive framework of the cell.
ii. Lysosome	

(b)   **Give biological explanation for the following:** **[2]**
    i. Earthworms are very useful in agriculture.
    ii. It is important to dispose of e-waste properly.

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(c) Write any two characteristic features of the following phylum with example: **[2]**

     i.   Pisces   ii.   Amphibian

(d) What is a virus? How is it different from bacteria? **[2]**

(e) **Read the paragraph given below and answer the questions:** **[3]**
The wastes are of so many types. Their disposal also requires suitable methods like segregation, dumping, composting, drainage, treatment of effluents, incineration, scrubbers, electrostatic precipitators.

    i.   What is composting?
    ii. Define incineration? What are its advantages?
    iii. Draw a labelled diagram of an electrostatic precipitator.

Question 7

(a) What is an epidemic? **[1]**
(b) Define immunity. Explain active immunity and passive immunity. **[2]**
(c) Fill in the blanks: **[2]**
The _____(i) is a specialized agency of the UNO that was established in_____(ii). The Red Cross Society was formally founded in _____(iii) and the Red Cross-day is celebrated on_____(iv).
(d) Name any two human diseases caused by protozoa. Write their symptoms and methods of treatment. **[2]**
(e) Study the figure and answer the following questions: **[3]**
    i.   What does this figure depict? Name the Kingdom it belongs to.
    ii. Mention any two features of this Kingdom.
    iii. Name any two other organisms belonging to this Kingdom.

Question 8

(a) "Housefly is called public enemy no: 1". Explain. **[1]**
(b) Complete the following sentences: **[2]**
_____(i) diseases are caused by germs called_____(ii) and their transmission from one person to another is called_____(iii). The period between the entry of germs and the appearance of the first symptoms of the disease is called_____(iv).
(c) Explain briefly the uses of the following health aids: **[2]**
    i.   Vaccine   ii. Antibiotic
(d) Differentiate between angiosperms and gymnosperms. **[2]**
(e) Study the figure and answer the questions: **[3]**

a) What is shown in the figure? State its features.
b) Name the disease caused by it. How does it spread.
c) Name any two other diseases caused by parasitic worms.

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