

SWL-11-23

Roll No.

--	--	--	--	--	--

(To be filled in by the candidate)

Biology

H.S.S.C (11th) 1st Annual 2023

Time : 20 Minutes

Paper : I

Objective – (iv)

Marks : 17

Paper Code	6	4	6	7
------------	---	---	---	---

Note: - You have four choices for each objective type question as A, B, C and D. The choice which you think is correct; fill that circle in front of that question number in your answer book. Use marker or pen to fill the circles. Cutting or filling up two or more circles will result no mark.

SECTION-A

Q.1	Questions	A	B	C	D
1.	A contagious disease is:	Cancer	Asthma	Tuberculosis	Emphysema
2.	The example of an insectivorous plant is:	Dodder	Dionaea	Puccinea	Neotia
3.	In yeast Pyruvic acid is converted into:	Ethyl alcohol	Methyl alcohol	Acetic acid	Lactic acid
4.	The absorption spectrum of light for chlorophyll ranges:	430-660 nm	430-670 nm	430-680 nm	430-690 nm
5.	The worm that damages the wood of ships is called:	Hook worm	Sepia	Teredo	Mytilus
6.	The respiratory pigment of mollusc is called:	Haemocyanin	Haemoglobin	Haemolymph	Colourless pigment
7.	The symptom of candidosis is:	Convulsion	Psychotic thrush	Oral thrush	Renal thrush
8.	The male gametophyte has two wings in:	Cycas	Taxus	Picea	Pinus
9.	Which of the given pigment is absent in algae?	Phycocyanin	Carotenoids	Xanthophylls	Phycocerythrin
10.	The hollow, non-helical, filamentous appendages in bacteria:	Cilia	Pilli	Flagella	Cyst
11.	Mumps and measles are caused by:	RNA naked virus	DNA naked virus	RNA enveloped virus	DNA enveloped virus
12.	The liver and muscle cells appear filled with glycogen within membrane bounded organelles in disease:	Glycogenosis type -I	Glycogenosis type -II	Glycogenosis type -III	Glycogenosis type -IV
13.	The charge bearing site of an enzyme is called:	Catalytic site	Binding site	Blocking site	Active site
14.	The number of carbon atom in waxes are:	C ₅ -C ₁₅	C ₁₅ -C ₂₅	C ₂₅ -C ₃₅	C ₃₅ -C ₄₅
15.	The oldest period of Mesozoic era is:	Jurassic	Cretaceous	Triassic	Silurian
16.	The hydrostatic pressure in xylem and root, pressure of roots is responsible for:	Bleeding	Guttation	Imbibition	Transpiration
17.	The renal vein brings deoxygenated blood from:	Brain	Liver	Lungs	Kidneys

CANCELLED

Note:- Section B is compulsory. Attempt any 3 questions from Section C.

SECTION-B

2. Write short answers to any Eight parts.

(8 x 2 = 16)

- i. Differentiate between anabolic and catabolic reaction.
- ii. Only small quantities of vitamins are needed. Why?
- iii. Enlist different regions of active site and write down their functions.
- iv. Define inhibitors and give their examples.
- v. Differentiate between karyogamy and plasmogamy.
- vi. What is ergotism?
- vii. Write down two affinities of echinoderms with hemichordates.
- viii. What is marsupium?
- ix. Give two parasitic adaptations of Platyhelminthes.
- x. What is agricultural importance of earth worm?
- xi. Why non cyclic phosphorylation changes into cyclic phosphorylation under certain conditions.
- xii. Define oxidative phosphorylation.

3. Write short answers to any Eight parts.

(8 x 2 = 16)

- i. How can we determine the age of rocks?
- ii. Differentiate between organ and organelle.
- iii. What do you know about middle lamella?
- iv. Differentiate between cristae and cisternae?
- v. Why is it difficult to classify the protists?
- vi. Discuss the importance of chlorella.
- vii. What do you know about ramenta? Also write down their function.
- viii. Differentiate between homosporous and heterosporous.
- ix. What do you know about blue babies?
- x. Differentiate between cavum venosum and cavum pulmonale.
- xi. What are red tides?
- xii. How the oomycetes are different from fungi?

4. Write short answers to any Six parts.

(6 x 2 = 12)

- i. What is Herpes simplex?
- ii. Differentiate between heterotrophic and saprophyte bacteria.
- iii. What is symbiotic nutrition?
- iv. Define microphagous feeders. Give example.
- v. What is the role of Gastrin?
- vi. Differentiate between pulmonary and cutaneous respiration.
- vii. What are parabronchi?
- viii. What is rubisco? Write its function.
- ix. Differentiate between bronchi and bronchioles.

CANCELLED

SECTION-C

Note:- Attempt any Three questions. Each question carries eight marks (4+4=8)

(8 x 3 = 24)

5. (a) What is cloning? Give its applications.
(b) Give comparison between closed and open circulatory system.
6. (a) Discuss the taxonomic position of Fungi.
(b) Write the importance of carbon. Why carbon is called skeleton of life?
7. (a) Explain chemical composition of bacterial wall in detail.
(b) Write a comprehensive note on life cycle of Adiantum.
8. (a) What do you know about the structure of viruses?
(b) Sketch the Calvin Cycle.
9. (a) Write down composition and functions of Ribosomes.
(b) Describe digestion of food in human stomach.

Roll No.

--	--	--	--	--	--	--

(To be filled in by the candidate)

Biology**H.S.S.C (11th)-A-2022**

Time : 20 Minutes

Paper : I

Objective – (i)

Marks : 17

Seat - 22Paper Code

6	4	6	1
---	---	---	---

Note: - You have four choices for each objective type question as A, B, C and D. The choice which you think is correct; fill that circle in front of that question number in your answer book. Use marker or pen to fill the circles. Cutting or filling up two or more circles will result no mark.

SECTION-A

Q.1	Questions	A	B	C	D
1.	A method in which pests are destroyed by using some living organism is called:	Biological control	Insecticide control	Cultural control	Pesticide control
2.	Identify the unsaturated fatty acid.	Acetic acid	Butyric acid	Palmitic acid	Oleic acid
3.	The optimum pH for pepsin is:	2.00	4.50	5.50	7.60
4.	Nuclear membrane is continuous with:	Endoplasmic reticulum	Golgi bodies	Lysosomes	Peroxisomes
5.	The mysterious brain infection in man is caused by:	Virion	Fungi	Bacteria	Prions
6.	Antibiotics are produced by fungi and certain bacteria of groups:	Oomycetes	Basidiomycetes	Ascomycetes	Actinomycetes
7.	Which one of the given phylums has no flagella?	Euglenophyta	Pyrrophyta	Rhodophyta	Chlorophyta
8.	The number of ascospores in each ascus are:	2	4	6	8
9.	Vascular system is absent in:	Bryophytes	Pteridophytes	Gymnosperms	Angiosperms
10.	During development of an animal mesoderm layer gives rise to:	Nervous system	Digestive system	Integumentary system	Reproductive system
11.	Which one of the given is intermediate host for Taenia?	Snail	Pig	Sparrow	Man
12.	The product of cyclic phosphorylation is/are:	ATP	NADP	NADP and ATP	NADP, ATP and O ₂
13.	In which of the given parts of body lactic acid fermentation takes place?	Brain	Muscle	Heart	Liver
14.	Appendix arise from blind end of:	ileum	Caecum	Colon	Rectum
15.	Surfactant is mainly composed of:	Lipids	Proteins	Lipoproteins	Carbohydrates
16.	Which one of the given parts of fish body has oxygenated blood?	Sinus venosus	Dorsal aorta	Ventral aorta	Atrium
17.	Hydathodes are linked with one of the given processes.	Imbibition	Bleeding	Guttation	Transpiration

Handwritten signature

Roll No.

--	--	--	--	--	--

(To be filled in by the candidate)

Biology

H.S.S.C (11th)-A-2022

Time : 2:40 Hours

Paper : I **SWL - 22**

Subjective

Marks : 68

Note:- Section B is compulsory. Attempt any 3 questions from Section C.

SECTION-B

2. Write short answers to any Eight parts. (8 x 2 = 16)

- i. Why proper arrangement of amino acids is necessary for proteins? Give an example.
- ii. What will happen to enzymatic reactions if the temperature becomes 50°C ?
- iii. Why some enzymes are not produced in active form? Give an example.
- iv. Enzymes become denatured in what ways? Explain briefly.
- v. What are septate and non-septate hyphae?
- vi. Write a brief note on yeast.
- vii. Give four parasitic adaptations in Platyhelminthes.
- viii. Define Moulting.
- ix. What do you know about locusts?
- x. Give two differences between osteichthyes and chondrichthyes.
- xi. What is compensation point?
- xii. How absorption spectrum differs from action spectrum?

3. Write short answers to any Eight parts. (8 x 2 = 16)

- i. Differentiate between biopesticides and biological control.
- ii. How a biologist can help to reduce environmental pollution?
- iii. Why thylakoid has grana and intergrana?
- iv. Describe the fact that centrifugation is necessary for cellular fractionation.
- v. How are limestone deposits formed?
- vi. Write two similar and two different characters between algae and green plants.
- vii. Give two examples each of red algae and green algae.
- viii. What is the name of oomycetes which played infamous role in human history? Comment why it is so notorious?
- ix. Which plant group is called arthropytes and why?
- x. Differentiate between monocots and dicots.
- xi. What will be direction of flow of blood in the heart of fishes?
- xii. Define Immunity. What is difference between active and passive immunity?

4. Write short answers to any Six parts. (6 x 2 = 12)

- i. Define Retroviruses.
- ii. Write down few words on the capsule of bacteria.
- iii. Write down the names of any two salivary glands. Compare them.
- iv. Define Heart Burn.
- v. Define Dyspepsia.
- vi. Write down the lung capacity of humans.
- vii. By listening "Smoker's Cough" which disease come in our mind? Elaborate.
- viii. How muscles get their oxygen?
- ix. Has pH any effect on the blood when oxygen combines with haemoglobin?

SECTION-C

(EACH QUESTION CARRIES EIGHT (8) MARKS)

- 5. (a) Why is understanding of biodiversity important and how biology is helping to mankind to conserve environment? 4
- (b) What is ascent of sap? Explain the Cohesion-Tension Theory? 4
- 6. (a) Describe the structure of amino acids and importance of proteins. 2+2
- (b) Describe nutrition in Fungi and explain mycorrhizal association. 2+2
- 7. (a) Wise use of antibiotics is necessary. What happens if we misuse them? Introduce antibiotics as well. 4
- (b) Comprehend various processes that occurred in vascular plants to evolve microphylls and megaphylls. 4
- 8. (a) Describe the structure and function of plasma membrane. 4
- (b) Explain the digestion of food in Hydra. 4
- 9. (a) Describe the structure and function of plasma membrane. 4
- (b) Describe any four methods of animal nutrition. 4

Roll No.

--	--	--	--	--	--	--

(To be filled in by the candidate)

Biology

Inter (Part-I)-A-2021

Time : 20 Minutes

Paper : I

Objective - (III)

Marks : 17

Paper Code

6

4

6

5

SWL-21

Note: - You have four choices for each objective type question as A, B, C and D. The choice which you think is correct; fill that circle in front of that question number in your answer book. Use marker or pen to fill the circles. Cutting or filling up two or more circles will result no mark.

Q.1	Questions	A	B	C	D
1.	Scientific name of Sago-palm is:	Cycas	Pinus	Taxus	Picea
2.	Colour of spores of smuts is:	brown	yellow	black	blue
3.	Euglenoids are thought to be closely related to:	zooflagellates	dinoflagellates	diatoms	brown algae
4.	Hepatitis is inflammation of:	Kidney	Heart	Liver	Lungs
5.	Which is composed of double stranded DNA molecules?	Mesosomes	Ribosomes	Plasmids	Granules
6.	Cell membrane is chemically composed of how much proteins?	20 - 40 %	40 - 60 %	60 - 80 %	80 - 100 %
7.	Enzymes involved in synthesis of protein are integral part of:	Mitochondria	Ribosomes	Chloroplast	Nucleolus
8.	Which of the given value is the heat capacity of water?	1.0	2.0	3.0	4.0
9.	In biological control an aphid is being controlled by:	Honey bee	Wasp	Mosquito	Dragon fly
10.	Plasmodesmata are found in:	symplast	apoplast	protoplast	chloroplast
11.	Which constitutes about 90% of plasma?	inorganic ion	water	proteins	organic nutrients
12.	Which help in voice production when vibrated by air?	spinal cord	vocal cord	trachea	bronchi
13.	All of the Insectivorous plants are true.	Prokaryotes	Heterotrophs	Autotrophs	Protists
14.	Calvin cycle is also known as:	C_2 - pathway	C_3 - pathway	C_4 - pathway	C_5 - pathway
15.	Molecular formula of chlorophyll "a" is:	$C_{55}H_{70}O_5N_4Mg$	$C_{50}H_{70}O_5N_4Mg$	$C_{54}H_{72}O_5N_4Mg$	$C_{55}H_{72}O_5N_4Mg$
16.	J-shaped stomach is found in:	Shark	Perch	Trout	Plaice
17.	The larvae such as bipinnaria are found in phylum.	Porifera	Coelentrata	Echinodermata	Annelida

Roll No.

--	--	--	--	--	--

 (To be filled in by the candidate)

Biology

Inter (Part-I)-A-2021

Time : 2:40 Hours

Paper : I

Subjective **SWL-21**

Marks : 68

Note: Section I is compulsory. Attempt any 3 questions from Section II.

(SECTION-I)

2. Write short answers to any Eight parts. (8 x 2 = 16)
- Draw the formation of Glycylalanine showing peptide linkage.
 - Define Reversible and Irreversible Inhibitors.
 - Give a diagrammatic representation of an enzyme substrate reaction (Lock and key model).
 - Differentiate between enzyme and inhibitors.
 - Differentiate between obligate and facultative parasites.
 - How fungi is economically helpful in the manufacture of antibiotics and other drugs?
 - How sponges reproduce?
 - How Platyhelminthes have adapted themselves to the parasitic mode of life?
 - Differentiate between mantle and radula.
 - Write down three basic characteristics of Chordates.
 - What happens to pyruvic acid before entering into citric acid cycle?
 - Define Alcoholic Fermentation.
3. Write short answers to any Eight parts. (8 x 2 = 16)
- Differentiate between Microbiology and Biotechnology.
 - What are endangered species? Give example.
 - Differentiate between chromoplasts and leucoplasts.
 - Give any two functions of Nucleolus.
 - Name a parasitic amoeba. What disease does it cause?
 - Write two examples of zooflagellates.
 - Give two characters of green algae similar to green plants.
 - What are Euglenoids? Give their evolutionary significance.
 - Define Double Fertilization. How is it important for storage of food?
 - Differentiate between homosporous and heterosporous.
 - Differentiate between active and passive immunity.
 - Differentiate between thrombus and embolus.
4. Write short answers to any Six parts. (6 x 2 = 12)
- Give biological classification of Corn plant.
 - Define Cysts.
 - What is Swallowing?
 - Define Dyspepsia, also give its symptoms.
 - How does Sundew get its food?
 - Define Larynx.
 - Define Alveoli.
 - How do carbon dioxide and temperature affect the capacity of haemoglobin to combine with oxygen?
 - Define Carcinoma.

(SECTION-II)

(Each question carries Eight (4+4=8) Marks)

5. (a) Discuss biology and the service of mankind.
(b) Describe the hypothesis "Influx of K⁺ ions" about opening and closing of stomata.
6. (a) Write a note on amino acids.
(b) Discuss the importance of fungi in genetic research, food and pharmaceutical industry.
7. (a) Write a note on Nutrition in Bacteria.
(b) Write life cycle of an angiospermic plant.
8. (a) Write a note on any four viral diseases in man.
(b) Make a complete sketch of glycolysis.
9. (a) Describe in detail the structure and functions of Endoplasmic Reticulum.
(b) Write a note on Food poisoning.