

Paper Code Number: 2463		2024 (1 st -A) INTERMEDIATE PART-I (11 th Class)		Roll No: _____	
BIOLOGY PAPER-I GROUP-I					
TIME ALLOWED: 20 Minutes		OBJECTIVE		MAXIMUM MARKS: 17	
Q.No.1	You have four choices for each objective type question as A, B, C and D. The choice which you think is correct, fill that bubble in front of that question number, on bubble sheet. Use marker or pen to fill the bubbles. Cutting or filling two or more bubbles will result in zero mark in that question.				
S.#	QUESTIONS	A	B	C	D
1	In spermatophytes seed is formed from:	Anther	Embryo sac	Ovary	Ovule ●
2	Larva produced during the life cycle of annelids is named as:	Trochophore ●	Tadpole	Bipinaria	Brachiolaria
3	The hind limb of birds is modified for:	Flying	Running	Perching ●	Walking
4	During respiratory chain co-enzyme Q is oxidized by:	Cytochrome – a	Cytochrome – b ●	Cytochrome – c	Cytochrome – a ₃
5	Acetic acid on entering mitochondria combines with co-enzyme – A to form:	Malate	Oxaloacetate	Acetyl – CoA ●	Fumarate
6	The term employed to the loss of appetite due to the fear of becoming obese is:	Anorexia nervosa ●	Bulimia nervosa	Obesity	Botulism
7	Breakdown of alveoli of lung is termed as:	Asthma	Tuberculosis	Lung cancer	Emphysema ●
8	Histamine that participate in allergic reactions is produced by:	Monocytes	Eosinophils	Neutrophils	Basophils ●
9	Antiserum is a serum containing:	Antigen	Antibodies ●	Hormones	Enzyme
10	An aphid that attacks walnut tree is being controlled biologically by:	Housefly	Honey bee	Mosquito	Wasp ●
11	Cotton is the pure form of:	Cellulose ●	Amino acid	Glycogen	Starch
12	An enzyme with its co-enzyme removed is designated as:	Holoenzyme	Apoenzyme ●	Co-factor	Activator
13	The process of taking in solid material by cell membrane is:	Pinocytosis	Exocytosis	Phagocytosis ●	Autophagy
14	Small pox is caused by:	Bacteria	Fungi	Protozoa	Virus ●
15	Which structure of bacteria helps in DNA replication?	Mesosome ●	Nucleoid	Plasmid	Cyst
16	Tests of actinopods are made up of:	Calcium	Potassium	Silica ●	Sodium
17	The fungi which obtain food from dead organic matter are:	Autotrophs	Saprotrophs ●	Heterotrophs	Parasites

2024 (1st-A)		Roll No: _____
INTERMEDIATE PART-I (11th Class)		
BIOLOGY PAPER-I GROUP-I		
TIME ALLOWED: 2.40 Hours	SUBJECTIVE	MAXIMUM MARKS: 68
NOTE: Write same question number and its parts number on answer book, as given in the question paper.		
SECTION-I		
2. Attempt any eight parts.		8 × 2 = 16
(i)	How fats differ from oils?	
(ii)	Define an enzyme. Write names of parts of active two sites in enzyme.	
(iii)	Write any two characteristics of enzymes.	
(iv)	What is Induce Fit Model? Who proposed it?	
(v)	Differentiate the obligate and facultative parasite in fungi.	
(vi)	In what way composition of cell wall is advantageous to fungi with reference to nutrition?	
(vii)	How would you find contrast between ostia and osculum?	
(viii)	Write the functions of mantle and radula.	
(ix)	Echinoderms are comparatively simple organisms but are placed at the top of invertebrate phyla very close to chordates. Give any two reasons.	
(x)	What is Larynx? Give its function.	
(xi)	Define accessory pigments. What is their role?	
(xii)	How photophosphorylation differs from oxidative phosphorylation?	
3. Attempt any eight parts.		8 × 2 = 16
(i)	What is meant by Phyletic lineage?	
(ii)	How would you differentiate deductive and inductive reasoning?	
(iii)	Give the role of endoplasmic reticulum.	
(iv)	What are cisternae?	
(v)	Write important features of diatoms.	
(vi)	Give ecological importance of dinoflagellates.	
(vii)	What are symptoms of malaria?	
(viii)	Differentiate foraminiferans and actinopods.	
(ix)	What is the affect of pH on capacity of haemoglobin to combine with oxygen?	
(x)	Give causes and symptoms of tuberculosis.	
(xi)	Write two functions of Monocytes.	
(xii)	How would you define source and sink?	
4. Attempt any six parts.		6 × 2 = 12
(i)	What is prophage? How it differs from virion?	
(ii)	Differentiate slime and endospore.	
(iii)	Write distinguishing characters of bryophytes.	
(iv)	Write the structure of ovule of angiosperms.	
(v)	Write two differences between monocots and dicots.	
(vi)	What is pollen tube? Write its function.	
(vii)	What are detritivores? Give an example.	
(viii)	Define peristalsis and antiperistalsis.	
(ix)	What is chyme? Give its effect on duodenum.	
SECTION-II		
NOTE: Attempt any three questions.		3 × 8 = 24
5.(a)	How biology is helpful for protection and conservation of environment?	4
(b)	In what way respiration in birds is the most efficient and elaborate?	4
6.(a)	Draw the structure of a Mononucleotide. Differentiate DNA and RNA.	1+3=4
(b)	What is the importance of unicellular fungi? Discuss ecological impact of fungi.	1+3=4
7.(a)	Write any four differences between Prokaryotes and Eukaryotes.	1+1+1+1=4
(b)	Discuss food selection, grinding, lubrication and digestion functions of oral cavity of man.	1+1+1+1=4
8.(a)	What is Hepatitis? Describe its different types.	1+3=4
(b)	Write down any eight functions of blood.	4
9.(a)	Classify bacteria with respect to flagella.	4
(b)	Sketch the phases of glycolysis.	4

Paper Code Number: 2464		2024 (1 st -A) INTERMEDIATE PART-I (11 th Class)		Roll No: _____	
BIOLOGY PAPER-I GROUP-II					
TIME ALLOWED: 20 Minutes		OBJECTIVE		MAXIMUM MARKS: 17	
Q.No.1	You have four choices for each objective type question as A, B, C and D. The choice which you think is correct, fill that bubble in front of that question number, on bubble sheet. Use marker or pen to fill the bubbles. Cutting or filling two or more bubbles will result in zero mark in that question.				
S.#	QUESTIONS	A	B	C	D
1	The process in which viral DNA becomes incorporated into the bacterial chromosome is known as:	Induction	Lysis	Lysogeny <input checked="" type="radio"/>	Deduction
2	Rapid phase of growth of bacteria is called:	Log phase <input checked="" type="radio"/>	Lag phase	Decline phase	Stationary phase
3	Parasitic protozoans that form spores at some stage in their life cycle belong to:	Actinopods	Ciliates	Zooflagellates	Apicomplexans <input checked="" type="radio"/>
4	Asexual reproduction in yeast occurs by:	Conjugation	Budding <input checked="" type="radio"/>	Fragmentation	Conidia
5	The class of seedless plants containing foliar sporangia is:	Angiospermae	Gymnospermae	Filicmeae <input checked="" type="radio"/>	Algae
6	The largest invertebrate animal is:	Anodonta	Oyster	Octopus	Squid <input checked="" type="radio"/>
7	Which of the given has a pseudocoelom?	Ascaris	Earth worm	Hydra	Planaria <input checked="" type="radio"/>
8	Ferredoxin is a protein that contains:	Copper	Iron <input checked="" type="radio"/>	Magnesium	Sodium
9	The NADH molecule provides the reducing power for the synthesis of sugar during:	Chemiosmosis	Electron transport chain	Calvin cycle <input checked="" type="radio"/>	Glycolysis
10	Which type of muscles are found in stomach?	Skeletal	Smooth <input checked="" type="radio"/>	Cardiac	Voluntary
11	Blood is not involved in exchange of gases in:	Fish	Frog	Man	Cockroach <input checked="" type="radio"/>
12	Guttation occurs in plants through:	Hydathodes <input checked="" type="radio"/>	Stomata	Cuticle	Lenticels
13	The type of white blood cells which perform Phagocytosis in tissue are:	Basophils	Eosinophils	Monocytes	Neutrophils <input checked="" type="radio"/>
14	The reasoning that moves from general to specific is called as:	Deductive <input checked="" type="radio"/>	Inductive	Scientific	Theoretical
15	Animals mainly obtain carbohydrates from:	Glucose	Glycogen	Sucrose	Starch <input checked="" type="radio"/>
16	Metal ions are related to:	Co-enzyme	Co-factor <input checked="" type="radio"/>	Vitamin	Substrate
17	Which is not found in secondary wall?	Chitin <input checked="" type="radio"/>	Inorganic salts	Cutin	Silica

2024 (1 st -A)		Roll No: _____
INTERMEDIATE PART-I (11 th Class)		
BIOLOGY PAPER-I GROUP-II		
TIME ALLOWED: 2.40 Hours	SUBJECTIVE	MAXIMUM MARKS: 68
NOTE: Write same question number and its parts number on answer book, as given in the question paper.		
SECTION-I		
2. Attempt any eight parts.		8 × 2 = 16
(i)	Give one similarity and one difference between Amylose and Amylopectin.	
(ii)	What are enzymes? How they accelerate a metabolic reaction?	
(iii)	Write the effect of temperature on the enzyme action.	
(iv)	How would you differentiate activator and co-enzyme?	
(v)	How mycorrhizal association increases growth of plants?	
(vi)	What are toad stools? Give two examples.	
(vii)	Why annelids and arthropods are considered having same origin?	
(viii)	How would you differentiate ostia and osculum?	
(ix)	Write down the economic importance of Molluscs.	
(x)	Differentiate the determinate and indeterminate cleavage.	
(xi)	Absorption and action spectrum are different. How?	
(xii)	Name the processes, which acts as energy-capturing and energy releasing.	
3. Attempt any eight parts.		8 × 2 = 16
(i)	How would you recognize a living organism?	
(ii)	Define community with an example.	
(iii)	How polysomes are formed?	
(iv)	What role is played by centrioles in cell division?	
(v)	How protista are different from prokaryotes?	
(vi)	How algae differ from the plants in sex organs?	
(vii)	What do you know about kelps?	
(viii)	How slime molds survive during unfavourable conditions?	
(ix)	If photorespiration is inhibited even then plants can grow. Then why does photorespiration exists?	
(x)	How counter current exchange increases amount of oxygen in birds?	
(xi)	How Absciscic acid controls stomatal movement in plants?	
(xii)	Why transpiration is called a necessary evil?	
4. Attempt any six parts.		6 × 2 = 12
(i)	What do you know about capsid and capsomeres?	
(ii)	What are pili? Give their functions.	
(iii)	How "venus fly trap" catches and digest the insects?	
(iv)	Differentiate nutrients and nutrition.	
(v)	How would you define detritivores? Give one example of detritivore animal.	
(vi)	Funeria is an "amphibians of plant." How?	
(vii)	What is phylogenetic system classification?	
(viii)	Give two important features of female cone of pinus.	
(ix)	What are sori? Give their structure.	
SECTION-II		
NOTE: Attempt any three questions.		3 × 8 = 24
5.(a)	Give the role of Biology in the field of protection and conservation of environment.	2+2=4
(b)	Compare the role of haemoglobin and myoglobin in respiration.	3+1=4
6.(a)	Why carbon is called the skeleton of life? Justify it.	4
(b)	Enlist different modes of nutrition in fungi. Describe fungi as predators.	1+3=4
7.(a)	Describe structure and functions of lysosomes.	4
(b)	Why is digestion necessary? Describe what happens to a meal containing fats, carbohydrates and protein while it is in stomach of man.	4
8.(a)	Write characteristics and structure of viruses.	2+2=4
(b)	How ascent of SAP takes place in plants? Explain only Cohesion Tension Theory.	4
9.(a)	Explain the germ theory of disease. Also describe the discovery of bacteria.	2+2=4
(b)	Draw outline of glycolysis. No description is required.	4

Multan Board-2023

Paper Code Number: 2461		2023 (1 st -A) INTERMEDIATE PART-I (11 th Class)		Roll No: _____	
BIOLOGY PAPER-I GROUP-I					
TIME ALLOWED: 20 Minutes		OBJECTIVE		MAXIMUM MARKS: 17	
Q.No.1		You have four choices for each objective type question as A, B, C and D. The choice which you think is correct, fill that bubble in front of that question number, on bubble sheet. Use marker or pen to fill the bubbles. Cutting or filling two or more bubbles will result in zero mark in that question.			
S.#	QUESTIONS	A	B	C	D
1	A large regional community primarily determined by climate is:	Biomass	Biosphere	Biome	None of these
2	Total number of amino acids in insulin is:	50	51	40	41
3	Which does structure act as a bridge between enzyme and its substrate?	Co-factor	Binding site	Apoenzyme	Inhibitor
4	The protein present in microtubule is:	Actin	Myosin	Tropomyosin	Tubulin
5	Pig could be the source of infection of hepatitis:	A	B		E
6	Important vector in a modern genetic engineering technique is:	Plasmid	Nucleoid	Ribosome	Mesosome
7	Based on molecular data, euglenoids are thought to be closely related to:	Brown algae	Diatoms	Zooellulales	Green algae
8	Cell wall of Fungi is made up of:	Pectin	Murein	Cellulose	Chitin
9	A flower is a modified:	Root	Shoot	Leaf	Stem
10	Closed circulatory system first time appeared in:	Nematoda	Platyhelminthes	Annelida	Arthropoda
11	Nematocysts are the characteristic of phylum:	Annelida	Coelentrata	Nematoda	Platyhelminthes
12	Which of the following is related to phytol?	$C_{20}H_{39}$	$C_{39}H_{20}$	$C_{22}H_{40}$	$C_{40}H_{22}$
13	During Calvin Cycle, the carbon is fixed and reduced resulting in the synthesis of:	Fat	Protein	Sugar	Enzyme
14	Amoeba moves and obtains food by means of:	Cilia	Pseudopodia	Flagella	Tentacles
15	Breakdown of alveoli of lungs is called:	Asthma	Emphysema	Tuberculosis	Lung cancer
16	Which is not an example of granulocyte?	Basophils	Eosinophils	Lymphocytes	Neutrophils
17	Uncontrolled production of white blood cells result in:	Asthma	Thalassemia	Odema	Leucaemia

INTERMEDIATE PART-I (11 th Class)		2023 (1 st -A)	Roll No: _____
BIOLOGY PAPER-I GROUP-I			
TIME ALLOWED: 2.40 Hours		SUBJECTIVE	MAXIMUM MARKS: 68
NOTE: Write same question number and its parts number on answer book, as given in the question paper.			
SECTION-I			
2. Attempt any eight parts.			8 × 2 = 16
(i)	What are Conjugated Molecules? Give examples.		
(ii)	Differentiate between Competitive and Non-competitive inhibitors.		
(iii)	What are Holoenzymes?		
(iv)	Define Enzyme and Substrate.		
(v)	What is a Hypha? What is the advantage of having incomplete septa?		
(vi)	Differentiate between Ascospores and Ascus.		
(vii)	What is Spongocoel?		
(viii)	Give two important features of Mammals.		
(ix)	How insects are beneficial to man?		
(x)	What is Syrinx?		
(xi)	Differentiate between Grana and Stroma.		
(xii)	What do you know about Photosystems?		
3. Attempt any eight parts.			8 × 2 = 16
(i)	How did industrialization destroy our environment?		
(ii)	How did Biology helped mankind in better food production?		
(iii)	Give three functions of SER.		
(iv)	Differentiate between Microtubules and Microfilaments.		
(v)	What do you know about Amoebae?		
(vi)	What is Thallus?		
(vii)	Write the ecological importance of Dinoflagellates.		
(viii)	What is Chlorella? Give its importance.		
(ix)	Write the names of two plants belonging to family Poaceae.		
(x)	Define Seed.		
(xi)	What is Symplast pathway?		
(xii)	What are Isobilateral leaves?		
4. Attempt any six parts.			6 × 2 = 12
(i)	Describe term Provirus. Give one example.		
(ii)	Give structure of virion of HIV.		
(iii)	Write composition of Saliva.		
(iv)	Discuss Ulcer.		
(v)	Describe role of Large intestine.		
(vi)	What is Lung cancer?		
(vii)	How does partial pressure of O ₂ effect formation and disassociation of oxyhaemoglobin?		
(viii)	Argue that animals having diving reflex have special body features.		
(ix)	Why it is necessary to have respiratory surface?		
SECTION-II			
NOTE: Attempt any three questions.			3 × 8 = 24
5.(a)	How Drug treatment/genetherapy is used for disease control?		4
(b)	What do you know about Cohesion Tension Theory?		4
6.(a)	Describe characteristics of Monosaccharides.		4
(b)	Explain why did fungi separate from plant kingdom.		4
7.(a)	Describe the nutrition in Bacteria.		4
(b)	Explain the life cycle of angiospermic plant. (Only description).		4
8.(a)	How have we moved from two to five kingdom system of classification?		4
(b)	Explain the phenomenon of non-cyclic phosphorylation.		4
9.(a)	Elaborate the structure and function of mitochondria.		4
(b)	Write a note on digestion in planaria.		4

Multan Board-2023

Paper Code Number: 2464		2023 (1 st -A) INTERMEDIATE PART-I (11 th Class)		Roll No: _____	
BIOLOGY PAPER-I GROUP-II					
TIME ALLOWED: 20 Minutes		OBJECTIVE		MAXIMUM MARKS: 17	
Q.No.1		You have four choices for each objective type question as A, B, C and D. The choice which you think is correct, fill that bubble in front of that question number, on bubble sheet. Use marker or pen to fill the bubbles. Cutting or filling two or more bubbles will result in zero mark in that question.			
S.#	QUESTIONS	A	B	C	D
1	Reindeer moss is a/an:	Lichens	Algae	Fungi	Bryophyte
2	When egg and male gamete in angiosperm fuse, they form:	Zygospore	Ascospore	Oosphere	Oospore
3	The beginning of swallowing action in man is:	Voluntary	Involuntary	Automatic	Reflex action
4	Air entering nasal cavity is:	Filtered	Moistened	Warmed	All of these
5	Phytol is attached to:	2 pyrrole rings	3 pyrrole rings	Only one of pyrrole ring	4 pyrrole rings
6	Which of the following do not take part in respiratory chain?	Coenzyme	Cytochrome	Molecular oxygen	Plastocyanin
7	Circular muscles are absent while longitudinal muscles are present in:	Platyhelminthes	Flatworm	Roundworm	Cnidarian
8	Average life span of RBCs is:	4 months	One year	6 years	Whole life
9	A foreign substance often a protein which stimulates formation of an antibody is:	B-Lymphocytes	T-Lymphocytes	Antigen	Serum
10	Process of shedding of exoskeleton in arthropods is called:	Excretion	Ecdysis	Lysis	Splitting
11	Cloning could not be used to make:	Multiple copies of desired organism	Used to produce genetically identical cattle	Commercial production of valuable animals	In research
12	All of following have chains of glucose except:	Chitin	Glycogen	Cellulose	Starch
13	Coenzyme is related to:	Proteins	Fats	Vitamins	Lipids
14	Single membrane bound organelle is:	Chloroplast	Mitochondria	Nucleus	Lysosomes
15	Which part of virus is produced in multiple copies inside host cells?	Virus genome	Capsid	Envelop	All of these
16	Structure involved in reclamation of alkaline soils are:	Akinetes	Heterocysts	Cysts	Hormogonia
17	One of the following represents protozoans:	Dinoflagellates	Diatoms	Apicomplexans	None of these

INTERMEDIATE PART-I (11 th Class)		2023 (1 st -A)	Roll No:
BIOLOGY PAPER-I GROUP-II			
TIME ALLOWED: 2.40 Hours		SUBJECTIVE	MAXIMUM MARKS: 68
NOTE: Write same question number and its parts number on answer book, as given in the question paper.			
SECTION-I			
2. Attempt any eight parts.			8 × 2 = 16
(i)	Draw the complete structure of ATP.		
(ii)	Why some enzymes are manufactured in inactive form?		
(iii)	Why some enzymes need a cofactor?		
(iv)	Define inhibitors with examples.		
(v)	Write down names of four animal diseases caused by Fungi.		
(vi)	Define parasexuality and give its importance.		
(vii)	Differentiate between Polyps and Medusae.		
(viii)	Write down four harmful insects name and their relevant diseases.		
(ix)	Why Reptiles are different from Amphibians?		
(x)	Enlist Reptile like characters of Archaeopteryx.		
(xi)	What is compensation point? When it occurs?		
(xii)	Define carotenoids and give their importance.		
3. Attempt any eight parts.			8 × 2 = 16
(i)	Differentiate between Deductive and Inductive hypothesis.		
(ii)	What is Hydroponic Culture Technique? Give use of this technique.		
(iii)	How Glyoxysomes differ from Peroxisomes.		
(iv)	What are storage diseases? Name two storage diseases in man.		
(v)	Give importance of Chlorella.		
(vi)	For what study plasmodial slime mold used as model organism?		
(vii)	Write down ecological importance of Dinoflagellates.		
(viii)	Green algae are considered ancestral organism of green land plants why?		
(ix)	Why are Bryophytes called Amphibians plants?		
(x)	Differentiate between Monocot and Dicot plants.		
(xi)	What are essential and non-essential parts of flower?		
(xii)	What is Cardiac Cycle?		
4. Attempt any six parts.			6 × 2 = 12
(i)	Write the botanical names for amaltas and tomato.		
(ii)	Differentiate between lag phase and log phase.		
(iii)	Explain Scraping type of feeding.		
(iv)	What is the role of nematocysts in the life of coelenterates?		
(v)	How peristalsis is different from antiperistalsis?		
(vi)	How does breathing differ from respiration?		
(vii)	Explain briefly Asthma.		
(viii)	How much CO ₂ is present in venous and arterial blood.		
(ix)	Lung cancer is more frequent in smokers. Comments your own.		
SECTION-II			
NOTE: Attempt any three questions.			3 × 8 = 24
5.(a)	Define Cloning. What is its mechanism and products?		1 + 3 = 4
(b)	Why transpiration is considered as a necessary evil?		4
6.(a)	Describe functions of proteins.		4
(b)	Discuss different methods of asexual reproduction in fungi.		4
7.(a)	Describe the classification of bacteria on the basis of flagella.		4
(b)	Define alternation of generation. Also describe its significance.		4
8.(a)	What is binomial nomenclature, give its importance.		4
(b)	Discuss role of carbon dioxide as a photosynthetic reactant.		4
9.(a)	Discuss structure and function of ribosomes.		4
(b)	Give role of oral cavity in digestion.		4

Multan Board-2021

BIOLOGY PAPER-I GROUP-I

TIME ALLOWED: 20 Minutes

OBJECTIVE

MAXIMUM MARKS: 17

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 bubble in front of that question number, on bubble sheet. Use marker or pen to fill the bubbles. Cutting or filling two or more bubbles will result in zero mark in that question. No credit will be awarded in case BUBBLES are not filled. Do not solve question on this sheet of OBJECTIVE PAPER.

Q.No.1



- (1) The sexual process exhibited by most ciliates is called:
 - (A) Oogamy
 - (B) Binary fission
 - (C) Budding
 - (D) Conjugation
- (2) Which of following is important as bioindicator of air pollution?
 - (A) Yeasts
 - (B) Lichen
 - (C) Rust fungi
 - (D) Mycorrhizae
- (3) Double fertilization is the characteristic of:
 - (A) Angiosperms
 - (B) Gymnosperms
 - (C) Bryophytes
 - (D) Pteridophytes
- (4) Which one of following is freshwater sponge?
 - (A) Sycon
 - (B) Leucosolenia
 - (C) Spongilla
 - (D) Euplectella
- (5) Duckbill platypus belongs to subclass:
 - (A) Eutheria
 - (B) Atheria
 - (C) Metatheria
 - (D) Prototheria
- (6) Photosynthetic pigments are organized into dusters, called:
 - (A) Cytochrome
 - (B) Photosystem
 - (C) Phytochrome
 - (D) Chromatophores
- (7) Dark reaction takes place in:
 - (A) Stroma
 - (B) Granum
 - (C) Thylakoid
 - (D) Cytoplasm
- (8) The human stomach is situated below the:
 - (A) Liver
 - (B) Kidneys
 - (C) Spleen
 - (D) Diaphragm
- (9) How many polypeptide chains are present in Myoglobin?
 - (A) 1
 - (B) 2
 - (C) 3
 - (D) 4
- (10) The loss of water through hydathodes in leaves is called:
 - (A) Bleeding
 - (B) Transpiration
 - (C) Guttation
 - (D) Imbibition
- (11) The arteries divide into smaller vessels called:
 - (A) Veins
 - (B) Venules
 - (C) Capillaries
 - (D) Arterioles
- (12) Tentative explanation of observation is called:
 - (A) Deduction
 - (B) Theory
 - (C) Reasoning
 - (D) Hypothesis
- (13) Human tissues contain 85% water in cells of:
 - (A) Liver
 - (B) Blood
 - (C) Brain
 - (D) Bone
- (14) Enzymes involved in cellular respiration are found in:
 - (A) Mitochondria
 - (B) Ribosomes
 - (C) Cytoplasm
 - (D) Nucleus
- (15) Cell wall is secreted by:
 - (A) Ribosomes
 - (B) Lysosomes
 - (C) Nucleoplasm
 - (D) Protoplasm
- (16) Family include related:
 - (A) Species
 - (B) Genera
 - (C) Order
 - (D) Class
- (17) Pili are made up of special proteins called:
 - (A) Flagellin
 - (B) Tubulin
 - (C) Pilin
 - (D) Actin

INTERMEDIATE PART-I (11th CLASS)

BIOLOGY PAPER-I GROUP-I

TIME ALLOWED: 2.40 Hours

SUBJECTIVE

MAXIMUM MARKS: 68

NOTE: Write same question number and its part number on answer book, as given in the question paper.



SECTION-I

2. Attempt any eight parts. 8 × 2 = 16
- Write any two properties of lipid.
 - Define competitive inhibitor. Give example.
 - Differentiate between apoenzyme and co-enzyme.
 - What are irreversible inhibitors?
 - Describe carnivorous fungi. Give one example.
 - Define Toadstools. Give any two examples.
 - Define placenta. What is its function?
 - Write economic importance of sharks.
 - Write some beneficial properties of insects.
 - Write two fundamental characters of Chordates.
 - What is alcoholic-fermentation?
 - Define photophosphorylation. Give its types.
3. Attempt any eight parts. 8 × 2 = 16
- Define Parasitology and molecular biology.
 - What is integrated disease management?
 - What is fluid mosaic model about the structure of cell membrane?
 - What are Leucoplasts? Give their function.
 - Write two characteristics of amoebas.
 - Write two characters of slime molds.
 - How fungus like protists differ from fungi?
 - Define Thallus.
 - Define alternation of generation.
 - Write two differences between monocot and dicot.
 - Write briefly symplast pathway for uptake of water.
 - Write briefly about blue babies.
4. Attempt any six parts. 6 × 2 = 12
- Define species.
 - What are Bacilli Bacteria? Give one example.
 - Define digestion.
 - What is peristalsis?
 - What is pyrosis?
 - Why air is better respiratory medium than water? Give two reasons.
 - What are vocal cords? Give their function.
 - What is Pleura?
 - What is asthma?

SECTION-II

NOTE: Attempt any three questions.

3 × 8 = 24

- 5.(a) How biology improved food quality and quantity for mankind? 4
- (b) Define immunity and give its types in detail. 4
- 6.(a) Explain various aspects of importance of water. 4
- (b) Describe asexual reproduction in fungi. 4
- 7.(a) Discuss nutrition in bacteria. 4
- (b) Write a note on class gymnospermae. 4
- 8.(a) Describe lytic cycle of bacteriophage. 4
- (b) Sketch and explain calvin cycle in plants. 4
- 9.(a) Write a comprehensive note on mitochondria. 4
- (b) Describe structure and function of large intestine of man? 4

BIOLOGY PAPER-I GROUP-II

TIME ALLOWED: 20 Minutes
MAXIMUM MARKS: 17OBJECTIVE

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 bubble in front of that question number, on bubble sheet. Use marker or pen to fill the bubbles. Cutting or filling two or more bubbles will result in zero mark in that question. No credit will be awarded in case BUBBLES are not filled. Do not solve question on this sheet of OBJECTIVE PAPER.

Q.No.1

- (1) If the non protein part of enzyme is covalently bonded, it is known as:

(A) Prosthetic group	(B) Co-enzyme	(C) Activator	(D) Binding site
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- (2) Attachment of two subunits of ribosomes is controlled by:

(A) K^+	(B) Ca^{++}	(C) Na^+	(D) Mg^{++}
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- (3) Absorptive mode of nutrition is found in:

(A) Algae	(B) Fungi	(C) Plants	(D) Animals
-----------	-----------	------------	-------------
- (4) When flagella surround the whole cell of bacteria, it is termed as:

(A) Atrichous	(B) Lophotrichous	(C) Amphitrichous	(D) Peritrichous
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- (5) Kelps, the largest known algae belong to group:

(A) Brown	(B) Red	(C) Green	(D) Euglenoids
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- (6) Lichen is symbiotic association between fungi and:

(A) Protozoans	(B) Photoautotrophs	(C) Gymnosperms	(D) Angiosperms
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- (7) First plants that formed true leaves and roots, are:

(A) Lycopods	(B) Sphenopsida	(C) Pteropsida	(D) Angiosperms
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- (8) Excretory structures present in annelids are:

(A) Flame cells	(B) Kidneys	(C) Nephridia	(D) Malpighian tubes
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- (9) The pores through which water enters the body of sponges is called:

(A) Stomata	(B) Spiracles	(C) Osculum	(D) Ostia
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- (10) Xanthophylls absorb the light:

(A) Yellow to orange	(B) Red to orange	(C) Green to yellow	(D) Green to orange
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- (11) Photosystem I is also called as:

(A) P_{680}	(B) P_{700}	(C) P_{780}	(D) P_{660}
---------------	---------------	---------------	---------------
- (12) Chyme enters into duodenum through sphincter:

(A) Cardiac	(B) Anal	(C) Pyloric	(D) Iliocolic
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- (13) Above 70% of CO_2 is transported in form of:

(A) HCO_3^-	(B) CO_3^{2-}	(C) Carboxyhaemoglobin	(D) Oxyhaemoglobin
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- (14) Which light enhance the uptake of K^+ in guard cells?

(A) Red	(B) Blue	(C) Green	(D) Violet
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- (15) Immunoglobulins present in plasma play a role in:

(A) Defense against diseases	(B) Water balance	(C) Transport of O_2	(D) Salt balance
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- (16) It is virtually an irrefutable theory:

(A) Hypothesis	(B) Deduction	(C) Scientific law	(D) Experiment
----------------	---------------	--------------------	----------------
- (17) Percentage of DNA in a mammalian cell is:

(A) 1 %	(B) 0.25 %	(C) 2 %	(D) 4 %
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BIOLOGY PAPER-I GROUP-II

INTERMEDIATE PART-I (11th CLASS)

TIME ALLOWED: 2.40 Hours

MAXIMUM MARKS: 68



NOTE: Write same question number and its part number on answer book, as given in the question paper.

SUBJECTIVE

SECTION-I

8 × 2 = 16

2. Attempt any eight parts.
- Differentiate between purines and pyrimidines.
 - What are cofactors? Give their function in an enzyme catalysed reaction.
 - Differentiate between an activator and a prosthetic group.
 - What is a competitive inhibitor of an enzyme?
 - What is nuclear mitosis?
 - What is a mycorrhizae?
 - What are pseudocoelomates?
 - Differentiate between ostium and osculum of a sponge.
 - What is radula?
 - What is syrinx?
 - Write balanced equation of alcoholic fermentation.
 - What are cytochromes?

8 × 2 = 16

3. Attempt any eight parts.
- Describe hydroponic culture technique.
 - What is fluid mosaic model of plasma membrane?
 - What do you know about autophagy?
 - Define microbiology.
 - Write a short note on choanoflagellates.
 - Differentiate between micronucleus and macronucleus in ciliates.
 - What was the cause of Irish potato famine?
 - Why physarum polycephalum is a model organism?
 - What is double fertilization?
 - Differentiate between gymnosperms and angiosperms.
 - Describe bleeding in plants.
 - Differentiate between open and closed circulatory systems.

6 × 2 = 12

4. Attempt any six parts.
- Draw a labeled diagram of a bacteriophage.
 - How capsule is different from slime?
 - How Lichens are different from Mycorrhiza?
 - Give composition of Saliva and its effects.
 - What is hunger pangs and its cause?
 - Mention two properties of respiratory surface.
 - Give internal structure of nasal cavity.
 - What is diaphragm? Write its function.
 - Mention changes in chest cavity that cause expiration.

SECTION-II

3 × 8 = 24

NOTE: Attempt any three questions.

- Discuss biological method.
- Define cardiac cycle. Write its three distinct stages.
- Write different structures of proteins (primary and secondary).
- Give economic losses due to fungi.
- Describe physical and chemical methods to control bacteria.
- Write a note on evolution of leaf.
- Define hepatitis. Explain its various types.
- Sketch respiratory electron transport chain.
- Discuss in detail structure and functions of Mitochondria.
- Describe functions of large intestine.

BIOLOGY PAPER-I (NEW SCHEME) GROUP-I

TIME ALLOWED: 20 Minutes

OBJECTIVE

MAXIMUM MARKS: 17

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 bubble in front of that question number. Use marker or pen to fill the bubbles. Cutting or filling two or more bubbles will result in zero mark in that question. Attempt as many questions as given in objective type question paper and leave others blank. No credit will be awarded in case BUBBLES are not filled. Do not solve questions on this sheet of OBJECTIVE PAPER.

Q.No.1

- (1) The reasoning from general to specific is:
(A) Inductive (B) Deductive (C) Scientific (D) Theoretical
- (2) Our blood normally contains Glucose:
(A) 0.6 % (B) 0.8 % (C) 0.06 % (D) 0.08 %
- (3) Lock and key model was proposed by:
(A) Koshland (B) Emil Fischer (C) Flemming (D) Wilkins
- (4) The fluid which surrounds thylakoids is:
(A) Matrix (B) Stroma (C) Cytosol (D) Nucleoplasm
- (5) The capsomeres present in the capsid of Adeno-virus are:
(A) 152 (B) 162 (C) 252 (D) 352
- (6) Rapid phase of growth of Bacteria is:
(A) Lag phase (B) Log phase (C) Stationary phase (D) Death/decline phase
- (7) Most green algae possess cell walls with:
(A) Cellulose (B) Chitin (C) Silica (D) Pectin
- (8) Ustilago species are most common:
(A) Rust fungi (B) Smut fungi (C) Mold (D) Yeast
- (9) The simplest of all the Bryophytes are:
(A) Mosses (B) Liverworts (C) Hornworts (D) Club Mosses
- (10) Dolphin is:
(A) Fish (B) Bird (C) Mammal (D) Amphibian
- (11) Coral reefs are mostly formed of:
(A) Calcium carbonate (B) Silica (C) Chitin (D) Lignin
- (12) Chlorophyll a is:
(A) Yellow green (B) Blue green (C) Orange green (D) Yellow green dark
- (13) The number of chloroplasts in each Mesophyll cell is about:
(A) 10-50 (B) 20-100 (C) 30-80 (D) 100-200
- (14) Fresh saliva has pH:
(A) 4 (B) 6 (C) 8 (D) 7.3
- (15) The heart of Fish is:
(A) Single circuit (B) Double circuit (C) Triple circuit (D) Multi circuit
- (16) About _____ of total transpiration takes place through cuticular transpiration.
(A) 1-2 % (B) 5-7 % (C) 90 % (D) 2-5 %
- (17) One complete heart beat lasts for:
(A) 0.8 seconds (B) 0.4 seconds (C) 0.15 seconds (D) 0.2 seconds

INTERMEDIATE PART-I (11th CLASS)

BIOLOGY PAPER-I (NEW SCHEME) GROUP-I

TIME ALLOWED: 2.40 Hours

SUBJECTIVE

MAXIMUM MARKS: 68

NOTE: - Write same question number and its part number on answer book, as given in the question paper.



SECTION-I

8 × 2 = 16

Attempt any eight parts.

- (i) Draw general formula for an Amino acid.
- (ii) How enzyme concentration affects the rate of enzyme action?
- (iii) What is active site of enzyme? How it works?
- (iv) At high level of substrate concentration, enzyme reaction is not increased. Why?
- (v) What role fungi and algae play in lichen?
- (vi) Define dikaryotic phase with example.
- (vii) Give two common characters of Arachnids and Arthropods.
- (viii) What are harmful effects of insects?
- (ix) Give two uses of sharks.
- (x) What is swim bladder? Give its function.
- (xi) Define accessory pigments. What is their role?
- (xii) What is compensation point? When it occurs?

8 × 2 = 16

Attempt any eight parts.

- (i) Define Phyletic Lineage.
- (ii) How deductive reasoning is different from inductive reasoning?
- (iii) Differentiate between chromoplast and leucoplast.
- (iv) What are microtubules? Write their function.
- (v) Write something about giant amoeba.
- (vi) How algae are different from plants?
- (vii) What are Dinoflagellates? Give their significance.
- (viii) Write importance of Algae.
- (ix) What are antheridiophores and archegoniophores?
- (x) Define Homospory and Heterospory.
- (xi) Write role of lymphatic system in defense of body.
- (xii) What is passive immunity?

6 × 2 = 12

1. Attempt any six parts.

- (i) What are capsid and capsomere?
- (ii) Differentiate between Leptotrichous and Amphitrichous bacteria.
- (iii) Write down function of Villi.
- (iv) Give composition of saliva.
- (v) What is heart burn?
- (vi) Define breathing.
- (vii) Give symptoms and causes of tuberculosis.
- (viii) How pH affects the capacity of haemoglobin to combine with Oxygen?
- (ix) What is the role of diaphragm in breathing?

SECTION-II

3 × 8 = 24

NOTE: - Attempt any three questions.

- 5.(a) Discuss Biological method. 4
- (b) What is Cohesion tension theory? 4
- 6.(a) Write a note on Acylglycerol. 4
- (b) Give an account of animal diseases caused by Fungi. 4
- 7.(a) Write various methods to control bacteria. 4
- (b) Give land adaptations of bryophytes. 4
- 8.(a) Discuss the lytic cycle of the Bacteriophage. 4
- (b) What is anaerobic respiration? Discuss its types. 4
- 9.(a) Describe structure and functions of cell membrane. 4
- (b) Explain causes and remedy of food poisoning and obesity. 4

BIOLOGY PAPER-I (NEW SCHEME) GROUP-II

TIME ALLOWED: 20 Minutes

OBJECTIVE

MAXIMUM MARKS: 17

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 bubble in front of that question number. Use marker or pen to fill the bubbles. Cutting or filling two or more bubbles will result in zero mark in that question. Attempt as many questions as given in objective type question paper and leave others blank. No credit will be awarded in case BUBBLES are not filled. Do not solve questions on this sheet of OBJECTIVE PAPER.

Q.No.1

- (1) In deductive reasoning we move from:
(A) General to specific (B) Specific to general (C) General to general (D) Specific to specific
- (2) Total weight of water in bacterial cell is:
(A) 10% (B) 30% (C) 50% (D) 70%
- (3) Irreversible inhibitors form which bonds with active site?
(A) Hydrogen bonds (B) Covalent bonds (C) Ionic bonds (D) Hydrophobic bonds
- (4) Cell membrane is chemically composed of proteins:
(A) 10 – 20 % (B) 20 – 30 % (C) 40 – 50 % (D) 60 – 80 %
- (5) Influenza viruses are:
(A) RNA enveloped (B) RNA non-enveloped (C) DNA enveloped (D) DNA non-enveloped
- (6) Pilli are primarily involved in:
(A) Movement (B) Conjugation (C) Nutrition (D) Excretion
- (7) Phycoerythrin is found in:
(A) Green algae (B) Red algae (C) Brown algae (D) Blue green algae
- (8) Rhizopus belongs to class:
(A) Deuteromycetes (B) Ascomycetes (C) Basidiomycetes (D) Zygomycetes
- (9) Which of the following were the first plants that formed true leaves and roots?
(A) Psilopsids (B) Lycopods (C) Megaphylls (D) Ferns
- (10) Pseudocoel is found in:
(A) Ascaris (B) Neries (C) Lumbricus (D) Pheretima
- (11) Example of tunicate is:
(A) Amphioxus (B) Molgula (C) Amphibia (D) Reptilia
- (12) Chlorophyll 'a' of photosystem I absorbs maximum light of:
(A) 670 nm (B) 680 nm (C) 690 nm (D) 700 nm
- (13) Which is stimulus for cyclic phosphorylation?
(A) Low CO_2 (B) Low O_2 (C) Low ATP (D) Low NADPH
- (14) Which of the following has tube type digestive system?
(A) Cockroach (B) Amoeba (C) Hydra (D) Planaria
- (15) Respiratory distress syndrome is common in:
(A) All new borns (B) Premature infants (C) Adults (D) Old age people
- (16) Closely associated with root pressure is a phenomenon:
(A) Transpiration (B) Exudation (C) Evaporation (D) Humidity
- (17) Antiserum is a serum containing:
(A) Antibodies (B) Antibiotics (C) Antigen (D) Anticancer chemicals

INTERMEDIATE PART-I (11th CLASS)

BIOLOGY PAPER-I (NEW SCHEME) GROUP-II

TIME ALLOWED: 2.40 Hours

SUBJECTIVE

MAXIMUM MARKS: 68

NOTE: - Write same question number and its part number on answer book, as given in the question paper.



SECTION-I

8 × 2 = 16

2. **Attempt any eight parts.**
- What is the function of mRNA?
 - Define Coenzyme.
 - Differentiate between Holoenzyme and Apoenzyme.
 - What is Activator?
 - What do you know about nuclear mitosis?
 - Differentiate between endomycorrhizae and ectomycorrhizae.
 - What is Mantle?
 - What are spicules?
 - Describe disinfestation of Taenia.
 - What are tunicates?
 - What is source of Oxygen during photosynthesis?
 - What is the use of Spectrophotometer?

8 × 2 = 16

3. **Attempt any eight parts.**
- What is Bioremediation?
 - What is Biological control?
 - What are Peroxisomes?
 - Define Storage diseases.
 - What are actinopods?
 - How slime molds are different from fungi?
 - Describe evolutionary significance of euglenoids.
 - What are red tides?
 - How male cone of pinus differs from female cone?
 - Define Ovule.
 - Briefly describe pulmonary circulation.
 - What is honey dew?

6 × 2 = 12

4. **Attempt any six parts.**
- What are the symptoms of AIDS?
 - What is plasmid? Give its importance.
 - What are detritivores/animals?
 - Define the term peristalsis.
 - What is gastrin? Give its function.
 - How much Carbon dioxide is present in venous and arterial blood?
 - What is pulmonary tuberculosis? Write down its cause.
 - What is Myoglobin? How does it differ from haemoglobin?
 - What is the effect of Carbon dioxide on the transport of Oxygen in blood?

SECTION-II

3 × 8 = 24

NOTE: - Attempt any three questions.

- Define the following branches of Biology.
 - Molecular Biology
 - Microbiology
 - Parasitology
 - Biotechnology
- Describe the mechanism of opening and closing of stomata.
- Describe the primary and secondary structure of protein.
 - Describe characteristics of Basidiomycota.
- Give economic importance of Cyanobacteria.
 - Describe life cycle of Adiantum.
- Write a detailed note on "AIDS". Draw life cycle of HIV.
 - Explain Krebs's cycle in detail. Draw flow sheet diagram of its reactions.
- What is Cytoskeleton? Give its functions.
 - Describe events that occur during the process of swallowing.

BIOLOGY PAPER-I (NEW SCHEME) GROUP-I

TIME ALLOWED: 20 Minutes

OBJECTIVE

MAXIMUM MARKS: 17

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 bubble in front of that question number. Use marker or pen to fill the bubbles. Cutting or filling two or more bubbles will result in zero mark in that question. Attempt as many questions as given in objective type question paper and leave others blank. No credit will be awarded in case BUBBLES are not filled. Do not solve questions on this sheet of OBJECTIVE PAPER.

Q.No.1

(1) _____ is employed in treatment of cancer.

- (A) Antibiotics and vaccination (B) Chemotherapy and cloning
(C) Gene therapy (D) Radiotherapy and chemotherapy

(2) _____ is not a Terpenoid.

- (A) Rubber (B) Steroids (C) Terpenes (D) Waxes

(3) An activated enzyme consisting of polypeptide chain and a cofactor is known as:-

- (A) Holoenzyme (B) Apoenzyme (C) Coenzyme (D) Prosthetic group

(4) Glyoxysomes are most abundant in:-

- (A) Human Blood (B) Plant seedlings (C) Liver cells (D) Microorganisms

(5) Influenza viruses are:-

- (A) Enveloped RNA viruses (B) Non enveloped RNA viruses
(C) DNA enveloped viruses (D) DNA naked viruses

(6) Cysts are dormant, thick-walled, desiccation resistant forms and develop during:-

- (A) Late stage of cell growth (B) Differentiation of vegetative cells
(C) Differentiation of reproductive cells (D) During conjugation

(7) One of the most unusual protist phyla is that of:-

- (A) Zooflagellates (B) Euglenoids (C) Dinoflagellates (D) Apicomplexa

(8) Reindeer moss is a:-

- (A) Mycorrhizae (B) Bryophyta (C) Lichen (D) Protista

(9) *Clitoria ternatea* is used against:-

- (A) Insect bite (B) Dog bite (C) Cat bite (D) Snake bite

(10) In sponges asexual reproduction takes place by budding. The internal buds are called:-

- (A) Globules (B) Gemmules (C) Endosperm (D) Cyst

(11) Some of colonial members of Cnidaria have upto five different types of zooids performing different functions for the colony e.g.:-

- (A) Physalia (B) Paramecium (C) Aurelia (D) Actinia

(12) In the first step of the citric acid cycle, acetyl CoA reacts with oxaloacetate to form:-

- (A) Pyruvate (B) Citrate (C) NADH (D) FADH₂

(13) Haem portion of haemoglobin is also a porphyrin ring but containing an iron atom instead of:-

- (A) Nitrogen atom (B) Potassium atom (C) Sulphur atom (D) Magnesium atom

(14) HCl is secreted by following gastric cells of stomach:-

- (A) Oxyntic cells (B) Chief cells (C) Mucous cells (D) Zymogenic cells

(15) _____ have most efficient respiratory system.

- (A) Fish (B) Amphibians (C) Birds (D) Mammals

(16) After a fatty meal, fat globules may make up:-

- (A) 10 % of the lymph (B) 1 % of the lymph (C) 15 % of the lymph (D) 1.5 % of the lymph

(17) A hormone released by mesophyll cells at high temperature is called:-

- (A) Acetic acid (B) Abscissic acid (C) Hydrochloric acid (D) Sulphuric acid

NOTE: - Write same question number and its part number on answer book, as given in the question paper.

SECTION-I

- 2. Attempt any eight parts.** **8 × 2 = 16**
- (i) Define Biotechnology and Microbiology.
 - (ii) Differentiate between Hypothesis and Theory.
 - (iii) Write down the cause of measles and small pox.
 - (iv) Write the effect of temperature on enzyme action.
 - (v) Differentiate between Binding site and Catalytic site of an enzyme.
 - (vi) Differentiate between Holoenzyme and Apoenzyme.
 - (vii) What is Syrinx? Where it is present?
 - (viii) What is the Notochord? Write down its function.
 - (ix) Differentiate between Ecdysis and Metamorphosis.
 - (x) Write the four names of harmful insects.
 - (xi) Differentiate between obligate parasites and facultative parasites.
 - (xii) Differentiate between Plasmogamy and Karyogamy.
- 3. Attempt any eight parts.** **8 × 2 = 16**
- (i) Write down misuses of Antibiotics.
 - (ii) Give two characteristics of Giant Amoeba.
 - (iii) What are Choanoflagellates?
 - (iv) Why Euglenoids are placed in Algae as well as in Protozoa?
 - (v) Differentiate between Fungi like Protists and Fungi.
 - (vi) Differentiate between Microphylls and Megaphyll leaves.
 - (vii) What are essential and non-essential parts of flower?
 - (viii) Write down phases of aerobic cellular respiration.
 - (ix) Differentiate between Absorption spectrum and Action spectrum.
 - (x) Name three pairs of salivary glands with their location.
 - (xi) What is Detritus Feeding? Give an example.
 - (xii) Give name of hormones secreted by digestive system.
- 4. Attempt any six parts.** **6 × 2 = 12**
- (i) Differentiate between Prokaryotic and Eukaryotic.
 - (ii) Differentiate between Mononucleate and Binucleate cell. Give examples.
 - (iii) What do you mean by heat of vaporization of water?
 - (iv) Differentiate between plasmolysis and deplasmolysis.
 - (v) Define Cohesion Tension Theory.
 - (vi) What are Peroxisomes? Give their functions.
 - (vii) Differentiate between Haemoglobin and Oxyhaemoglobin.
 - (viii) Differentiate between Inspiration and Expiration.
 - (ix) What are the symptoms of Asthma?

SECTION-II

- NOTE: - Attempt any three questions.** **3 × 8 = 24**
- 5.(a) Write a comprehensive note on drug treatment and gene therapy. **4**
 - (b) Give detailed account of Oedema and Thalassemia. **4**
 - 6.(a) Give importance of Water. **4**
 - (b) Discuss mutualistic symbiotic association of fungi. **4**
 - 7.(a) Give the structure and functions of Mitochondria. **4**
 - (b) Write a note on absorption of food in small intestine. **4**
 - 8.(a) Describe structure of a Bacteriophage. **4**
 - (b) Sketch different steps of Glycolysis. **4**
 - 9.(a) Give physical methods to control microorganisms. **4**
 - (b) Give the adaptation in Bryophytes for land habitat. **4**

BIOLOGY PAPER-I (NEW SCHEME) GROUP-II



TIME ALLOWED: 20 Minutes

OBJECTIVE

MAXIMUM MARKS: 17

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 bubble in front of that question number. Use marker or pen to fill the bubbles. Cutting or filling two or more bubbles will result in zero mark in that question. Attempt as many questions as given in objective type question paper and leave others blank. No credit will be awarded in case BUBBLES are not filled. Do not solve questions on this sheet of OBJECTIVE PAPER.

Q.No.1

- (1) The number of capsomeres in the capsid of adenovirus is:-
(A) 452 (B) 352 (C) 252 (D) 152
- (2) The interval of time until the completion of next division is known as:-
(A) Interphase (B) Generation time (C) Reproductive time (D) Growth
- (3) Amoebas move and obtain food by means of:-
(A) Cilia (B) Flagella (C) Plasmodium (D) Pseudopodia
- (4) The cell wall of fungus contains:-
(A) Cellulose (B) Chitin (C) Calcium carbonate (D) None of these
- (5) The plants belonging to group Sphenopsida are also called:-
(A) Amphibians of the plant (B) Hornworts (C) Club mosses (D) Arthropytes
- (6) The tsetse fly of African countries transmits Trypanosoma, the cause of:-
(A) Sleeping sickness (B) Measles (C) Lung infection (D) Malaria
- (7) Polymorphism is the characteristic of the members of phylum:-
(A) Porifera (B) Cnidaria (C) Platyhelminthes (D) Nematoda
- (8) Conversion of one pyruvic acid into one acetyl CoA gives off one molecule of:-
(A) ATP (B) Oxygen (C) Carbon dioxide (D) Water
- (9) In the first step of citric acid cycle, acetyl CoA reacts with oxaloacetate to form:-
(A) Pyruvate (B) Citrate (C) NADH (D) ATP
- (10) Hydra is the example of:
(A) Tentacular feeding (B) Scraping feeding (C) Filter feeding (D) Fluid feeding
- (11) Asthma is associated with severe paroxysm of difficult:-
(A) Sleeping (B) Spreading (C) Walking (D) Breathing
- (12) The left systemic arch disappears in:-
(A) Amphibians (B) Birds (C) Reptiles (D) Fishes
- (13) Platelets are not cells but are fragments of large cells called:-
(A) Microkaryocytes (B) Karyocytes (C) Megakaryocytes (D) Karyokinesis
- (14) A large regional community primarily determined by climate is:-
(A) Biomass (B) Biosphere (C) Biome (D) Population
- (15) Most of the cellular secretions are in nature:-
(A) Proteins (B) Lipids (C) Carbohydrates (D) Glycoproteins
- (16) According to Lock and Key model the active site is a:-
(A) Rigid structure (B) Flexible structure (C) Liquid structure (D) Enzyme
- (17) Golgi apparatus is concerned with cell:-
(A) Division (B) Lysis (C) Secretions (D) Storage

INTERMEDIATE PART-I (11th CLASS)

BIOLOGY PAPER-I (NEW SCHEME) GROUP-II

TIME ALLOWED: 2.40 Hours

SUBJECTIVE

MAXIMUM MARKS: 68

NOTE: - Write same question number and its part number on answer book, as given in the question paper.



SECTION-I

- | | | |
|-----------|---|-------------------|
| 2. | Attempt any eight parts. | 8 × 2 = 16 |
| (i) | Define bioremediation with one example. | |
| (ii) | What are bio-pesticides? Give one example. | |
| (iii) | Differentiate between the Capsid and Capsomere. | |
| (iv) | How is the Apoenzyme different from Holoenzyme? | |
| (v) | Write down the effects of high temperature on the activity of enzymes. | |
| (vi) | Compare Pepsin with Pepsinogen. | |
| (vii) | What is polymorphism? Give an example. | |
| (viii) | What is Madreporite? Write its functions. | |
| (ix) | Differentiate between Protostomes and Deuterostomes. | |
| (x) | How is the Spiral Cleavage different from Radial Cleavage? | |
| (xi) | What is Histoplasmosis? Write its cause and effects. | |
| (xii) | Differentiate between Rusts and Smuts. | |
| 3. | Attempt any eight parts. | 8 × 2 = 16 |
| (i) | Differentiate between Antibiotics and Antiseptics with examples. | |
| (ii) | Define Apicomplexans with example and mode of transversion. | |
| (iii) | Differentiate between Pseudopodia and Flagella. | |
| (iv) | What are Pyrrophytas? Give its examples and pigments. | |
| (v) | What are Diatoms? Write its role in the ecosystem. | |
| (vi) | Differentiate between Overtopping and Planation. | |
| (vii) | Differentiate between Homospory and Heterospory. | |
| (viii) | Define accessory pigments and its role in transferring of energy. | |
| (ix) | Differentiate between Alcoholic and Lactic acid fermentation with Reactions. | |
| (x) | Differentiate between Saprophytic and Parasitic mode of nutrition. | |
| (xi) | What is meant by symbiotic nutrition? Give its examples. | |
| (xii) | Differentiate between Detritivores and Omnivores with examples. | |
| 4. | Attempt any six parts. | 6 × 2 = 12 |
| (i) | What is heat capacity of water? Give its importance. | 1 + 1 = 2 |
| (ii) | Mention two functions of smooth endoplasmic reticulum. | 2 |
| (iii) | What are storage diseases? Give an example. | 1 + 1 = 2 |
| (iv) | Define Photorespiration. Write its significance. | 1 + 1 = 2 |
| (v) | In hot and dry season, level of O ₂ rises inside the leaf. Give its reasons. | 2 |
| (vi) | Mention at least two properties of respiratory surfaces in animals. | 2 |
| (vii) | What types of respiration occur in frog? | 2 |
| (viii) | Write a short note on Stroke. | 2 |
| (ix) | Differentiate between Thrombus and Embolus. | 1 + 1 = 2 |

SECTION-II

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| NOTE: - Attempt any three questions. | 3 × 8 = 24 |
| 5.(a) Explain the biological methods for solving biological problems. | 4 |
| (b) Compare closed and open circulatory system. | 4 |
| 6.(a) Write a note on Phospholipids also give their structural formula. | 4 |
| (b) Why taxonomic status of fungi has changed from that of a group of plant kingdom to a separate kingdom "Fungi"? | 4 |
| 7.(a) Define Cell Cytoplasm. Explain its functions. | 4 |
| (b) Explain "Digestion in Hydra". | 4 |
| 8.(a) Write a note on AIDS. | 4 |
| (b) Describe the role of water in Photosynthesis. | 4 |
| 9.(a) Write down the main characteristics and economic importance of cyanobacteria. | 4 |
| (b) Explain the gametophyte of adiantum. | 4 |