Paper Code Number: 2461 MTN-11-G1-18 2018 (A) Roll No._____

INTERMEDIATE PART-I (11th CLASS)

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) $FADH_2$

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

(A) Nitrogen atom (B) Potassium atom (C) Sulpher 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) Abscisic acid (C) Hydrochloric acid (D) Sulphuric acid

MTN-11-G1-18

2018 (A) Roll No: _____

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

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 means 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 comprehensives note on drug treatment and gene therapy. 4
(b) Give detailed account of Oedema and Thalassaemia. 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

MTN-11-G2-18

Paper Code Number: 2468

2018 (A) Roll No._____

INTERMEDIATE PART-I (11th CLASS)

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) Arthrophytes

(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) Porijera (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

MTN-11-G2-18

2018 (A) Roll No: _____

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 temperatue 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 transvirsion.
(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

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