Paper Code
Number: **4465**

2018 (A)          Roll No._____

INTERMEDIATE PART-II (12th CLASS)

BIOLOGY PAPER-II (NEW SCHEME) GROUP-I MTN-G1-12-18

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)  Mongolism is the other name of:-

(A) Klinefelter's Syndrome  (B) Turner's Syndrome  (C) Down's Syndrome  (D) Jacobs

(2)  The full cell cycle in yeast cells is completed in:-

(A) 24 hours          (B) 4.5 hours          (C) 30 minutes          (D) 90 minutes

(3)  The cytoplasmic process/fibres which carry impulse towards cell body is called:-

(A) Dendron          (B) Axons          (C) Nissl's granules          (D) Neurofibrils

(4)  The human life span is judged to be maximum of:-

(A) 60 – 70 years     (B) 70 – 100 years     (C) 120 – 125 years     (D) 130 – 135 years

(5)  In sickle cell anemia code for glutamic acid is replaced by:-

(A) Leucine          (B) Histidine          (C) Valine          (D) Proline

(6)  Universal recipient blood group is ____ blood group.

(A) A          (B) B          (C) AB          (D) O

(7)  An enzyme $\alpha$ – galactosidase that can be used to treat a human lysosome storage disease, is harvested from:-

(A) Soyabeans          (B) Tobacco plants          (C) Sugarcane          (D) Corn plants

(8)  The first photosynthetic organisms probably used Hydrogen Sulphide as a source of Hydrogen for reducing $CO_2$ to:-

(A) Sugars          (B) $H_2CO_3$          (C) RUBP          (D) Malate

(9)  Primary succession may start in a dry soil or rock is called:-

(A) Hydrosere          (B) Xerosere          (C) Desert          (D) Derosere

(10)  Cacti and Euphorbia are the desert plants which store water in their:-

(A) Fleshy leaves     (B) Fleshy buds     (C) Fleshy stems     (D) Fleshy roots

(11)  A single chlorine atom can react with ultraviolet rays and destroy as many as:-

(A) One million $O_3$ molecules          (B) Three millions $O_3$ molecules

(C) Four millions $O_3$ molecules          (D) Six millions $O_3$ molecules

(12)  _____ is not Endotherm.

(A) Bird          (B) Amphibian          (C) Flying insect          (D) Some fishes

(13)  Glomerular filtrate are reabsorbed in:-

(A) Proximal tubule  (B) Bowman's capsule     (C) Loop of Henle     (D) Distal tubule

(14)  The membrane that bounds vacuole is called:-

(A) Primary cell     (B) Vascular wall     (C) Pelicle          (D) Tonoplast

(15)  In birds, the sternum is modified to form:-

(A) Keel          (B) Neck          (C) Rib          (D) Clavicle

(16)  Fruit ripening is often accompanied by a burst of respiratory activity called:-

(A) Biometric     (B) Redox          (C) Climacteric     (D) Photorespiration

(17)  An example of long-day plants is:-

(A) Tomato          (B) Cabbage          (C) Corn          (D) Soyabean

**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.**     $8 \times 2 = 16$
(i) What is Lithotripsy?
(ii) Why temperature of body increases during fever? Explain.
(iii) Differentiate between fibres and sclereides.
(iv) What is "All or None response"?
(v) Define Vernalisation.
(vi) What is meant by "After birth"?
(vii) Differentiate between Climate and Weather.
(viii) Define Productivity of an Ecosystem.
(ix) What are heat-shock Proteins?
(x) What is cause and symptoms of Rickets?
(xi) How forests act as environmental buffers?
(xii) Define Demography.

**3.**     **Attempt any eight parts.**     $8 \times 2 = 16$
(i) Define Nissl's granules.
(ii) What are Neurotransmitters? Give examples.
(iii) Write two functions of Parathyroid gland.
(iv) Differentiate between gene and allele.
(v) What is Epistasis? Differentiate it from dominance.
(vi) Define Crossing Over. Give its importance.
(vii) Write three methods to get gene of interest.
(viii) What is Probe? How is it traced?
(ix) What do you know about the Particle Gun?
(x) Compare Autecology with Synecology.
(xi) Differentiate between Primary and Secondary Succession.
(xii) What are Lichens? Write its significance.

**4.**     **Attempt any six parts.**     $6 \times 2 = 12$
(i) Write practical applications of Apical dominance.
(ii) Write about cleavage and discoidal cleavage.
(iii) Write the functions of DNA polymerase III.
(iv) Differentiate between Pyrimidines and Purines.
(v) Define Phenylketonuria.
(vi) Write symptoms of Turner's Syndrome.
(vii) Define cell cycle. Write its phases.
(viii) Define Hardy-Weinberg Theorem and also write its formula.
(ix) What is Endosymbiont hypothesis?

## SECTION-II

**NOTE:** - Attempt any three questions.     $3 \times 8 = 24$

5.(a) Discuss the nature of excretory products in different habitats.     4

(b) Define Ecosystem. Describe various components of an ecosystem.     4

6.(a) Describe Exoskeleton in arthropods. Write its advantages and disadvantages.     4

(b) Explain one-gene/one-polypeptide hypothesis.     4

7.(a) Define nerve impulse. Explain factors responsible for resting membrane potential.     4

(b) Write a note on Wild life.     4

8.(a) Write notes on:-     (i) Seed Dormancy     (ii) Fruit set and Fruit ripening     4

(b) Describe genetic basis of ABO blood group system.     4

9.(a) Write a note on abnormal development.     4

(b) Discuss comparative anatomy as an evidence of Evolution.     4