

Bahawalpur Board-2024



Biology	(D)	L.K.No. 1467	Paper Code No. 8467
Paper II	(Objective Type)	Inter (1st – A – Exam – 2024)	
Time :	20 Minutes	Inter (Part - II)	
Marks :	17	Session (2020 – 22) to (2022 – 24)	

Note : Four choices A , B , C , D to each question are given. Which choice is correct fill that circle in front of that Question No. on the Objective Bubble Sheet. Use Marker or Pen to fill the circles. Cutting or filling two or more circles will result in Zero Mark in that Question.

Q.No.1	One gram of Ammonia require how much water for its removal :
(1)	(A) 300 ml (B) 400 ml (C) 500 ml (D) 600 ml
(2)	Nociceptor produce the Sensation of ____ :
	(A) Pressure (B) Touch (C) Smell (D) Pain
(3)	Number of Pelvic Vertebrae are :
	(A) 9 (B) 12 (C) 7 (D) 5
(4)	The Living cell of Cartilage are called :
	(A) Cnidocytes (B) Chondrocytes (C) Osteocytes (D) Melanocytes
(5)	Hind Brain Contains Medulla , Pons and ____ :
	(A) Thalamus (B) Cerebellum (C) Hypothalamus (D) Cerebrum
(6)	Genetic Code for Methionine is :
	(A) AUG (B) UAA (C) UAG (D) UGA
(7)	Diploid Parthenogenesis occurs in :
	(A) Aphid (B) Honey Bee (C) Wasp (D) Hydra
(8)	Study of Aging is called :
	(A) Paelontology (B) Serology (C) Teratology (D) Gerontology
(9)	How many different kinds of t.RNA are in Human Cell :
	(A) 54 (B) 45 (C) 20 (D) 50
(10)	The Enzyme which joins two pieces of DNA :
	(A) Helicase (B) DNA Ligase (C) Gyrase (D) Primase
(11)	Cross which is used to find out the Homozygous or Heterozygous nature of Genotype is called :
	(A) Reciprocal Cross (B) Multiple Cross (C) Test Cross (D) Dihybrid Cross
(12)	Mitotic Apparatus is organized during which phase of Mitosis :
	(A) Prophase (B) Metaphase (C) Anaphase (D) Telophase
(13)	Antibody used for treatment of Genital Herpes is obtained from :
	(A) Rice (B) Wheat (C) Soyabean (D) Corn
(14)	Northern Coniferous Forests are also called :
	(A) Savanna (B) Prairies (C) Taiga (D) Tundra
(15)	Which one of following act as Environmental Buffer :
	(A) Forests (B) Desert (C) Oceans (D) Lakes
(16)	Endosymbiont Hypothesis was proposed by :
	(A) Lynn Margulis (B) Wallace (C) Lyell (D) Darwin
(17)	All Food Chains and Food Webs begin with :
	(A) Decomposer Level (B) Primary Consumer Level (C) Secondary Consumer Level (D) Producer Level



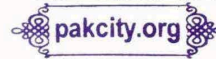


Roll No.	1467 - 25000	Inter (Part - II)	Session (2020 - 22) to (2022 - 24)
Biology (Subjective)	Inter (1 st - A - Exam - 2024)	Time 2 : 40 Hours	Marks : 68

Note: It is compulsory to attempt any (8 – 8) Parts each from Q.No. 2, Q.No.3 and attempt any (6) Parts from Q.No.4. Attempt any (3) Questions from Part – II. Write same Question No. and its Part No. as given in the Question Paper.

Make Diagram where necessary.

Part - I



22 x 2 = 44

- Q.No.2 (i) What is Anhydrobiosis ?
(ii) Draw a labelled diagram of Flame Cell.
(iii) How Kidney Stones are formed in man?
(iv) Write names of the Bones of Pelvic Girdle.
(v) Define Rickets. Give its cause.
(vi) How do Amoeba move?
(vii) Define Seed Dormancy . How it is beneficial for Plants?
(viii) Mention technique to produce Test Tube Babies.
(ix) Enlist dominant plants of Coniferous Alpine and Boreal Forests.
(x) How Humans affect Tundra Ecosystem ?
(xi) How balance in the Nutrient cycle can be upset?
(xii) Acid Rain is Harmful . How?
- Q.No.3 (i) Differentiate between Monohybrids and Dihybrids .
(ii) How pattern of Inheritance of X – Linked Dominant Traits is different from that of X – Linked Recessive Traits ?
(iii) What are Linked Genes ? Do they obey Law of Independent Assortment ?
(iv) Why synthetic Auxins are economical than IAA ? Write Commercial uses of 2 , 4 – D .
(v) Compare Somatic and Autonomic Nervous System.
(vi) What are Pacinian Corpuscles ? Write their role as Receptors .
(vii) Define Genomic Library . How can we search a particular Gene from a Genomic Library ?
(viii) What are Plasmids ? Compare pSC 101 and pBR 322 .
(ix) Why patients of SCID are subjected to life threatening infections and how they can be treated via Gene Therapy?
(x) Differentiate between Population and Community .
(xi) How can Grazing turn a Pastureland into a Barren Area?
(xii) What is meant by Denitrification?
- Q.No.4 (i) Differentiate between Growth and Development .
(ii) Define Apical Dominance. How it affects the Morphology of Plants?
(iii) What is Karyotype ?
(iv) Do you know how much information one Human Chromosome contains ? Comment.
(v) What is Phosphodiester Bond ? Give its role in DNA synthesis .
(vi) What is Interphase ? Give its Phases.
(vii) Define and draw Mitotic Apparatus .
(viii) Give the role of Ozone in initiation of life on Earth.
(ix) Differentiate between Darwinism and Neo-Darwinism.

Part - II

(3 x 8 = 24)

- Q.No.5 (a) What is Dialysis ? Describe its types. (4)
(b) Describe the importance of Meiosis and Mitosis. (4)
- Q.No.6 (a) Define Secondary Growth . Explain . (4)
(b) Discuss Four Stages of Xerosere . (4)
- Q.No.7 (a) Why Feedback Mechanism is important for a human body ? Explain it with an example. (4)
(b) State Hardy – Weinberg Theorem . Discuss any two factors affecting Gene Frequency. (4)
- Q.No.8 (a) Argue that Oogenesis and Spermatogenesis are fundamentally Meiotic Processes but have extraordinary differences. (4)
(b) What is Incomplete Dominance ? Explain it with an example. (4)
- Q.No.9 (a) What are Transgenic Plants ? Write at least four examples. (4)
(b) Explain the experiment of Haemmerling on importance of Nucleus in development. (4)





Biology	(D)	L.K.No. 1073	Paper Code No. 8467
Paper II	(Objective Type)	1st - A - Exam 2023	
Time :	20 Minutes	Inter (Part - II)	
Marks :	17	Session (2019 - 2021) to (2021 - 2023)	

Note : Four possible choices A , B , C , D to each question are given. Which choice is correct fill that circle in front of that Question No. Use Marker or Pen to fill the circles. Cutting or filling two or more circles will result in Zero Mark in that Question.

Q.No.1	The Homeostatic Thermostat is present in :
(1)	(A) Thalamus (B) Kidneys (C) Liver (D) Hypothalamus
(2)	The Cytoplasmic Processes which carries nerve impulse towards the cell body is : (A) Dendrites (B) Axon (C) Axoplasm (D) Soma
(3)	Each Lighter Band is called : (A) H - Zone (B) A - Band (C) I - Band (D) M - Line
(4)	The Sclerenchyma cells found in seed coats and nut shells are : (A) Tracheids (B) Sclereids (C) Vessels (D) Trachea
(5)	The Structure which control hunger is : (A) Amygdala (B) Hippo Campus (C) Hypothalamus (D) Thalamus
(6)	Histones are positively charged due to abundance of basic Amino Acids Arginine and : (A) Lysine (B) Methionine (C) Glycine (D) Alanine
(7)	Gray Crescent is present in : (A) Nucleus (B) Cytoplasm (C) Cell Membrane (D) Ribosomes
(8)	The Endosperm in Angiosperms is : (A) Haploid (B) Diploid (C) Monoploid (D) Triploid
(9)	The Methyl containing Nitrogenous base is : (A) Cytosine (B) Thymine (C) Uracil (D) Adenine
(10)	F.C. Steward grew a complete Carrot Plant from a tiny piece of : (A) Pith (B) Cortex (C) Xylem (D) Phloem
(11)	The Gene for Albinism is located on Chromosome No. : (A) 11 (B) 09 (C) 19 (D) 22
(12)	S - Phase of Interphase is completed in : (A) 9 Hours (B) 4.5 Hours (C) 10 Hours (D) 30 Minutes
(13)	Antibody used for the treatment of Genital Herpes is obtained from : (A) Wheat (B) Rice (C) Soyabean (D) Sugarcane
(14)	Northern Coniferous forests are also called : (A) Prairies (B) Taiga (C) Savanna (D) Temperate Deciduous Forests
(15)	Which One Bacteria is responsible for the conversion of Ammonia into Nitrite : (A) Nitrosomonas (B) Nitrobacter (C) Clostridium (D) Rhizobium
(16)	Which of the following Scientist has studied the Order in the diversity of Life : (A) Cuvier (B) Lyell (C) Malthus (D) Linnaeus
(17)	The Hot water or stream that comes from Earth also contain harmful substances like : (A) Oxides of Nitrogen (B) Oxides of Sulphur (C) Lead (D) CO ₂





Roll No.	1073 - 24000	Inter (Part - II)	Session (2019 - 2021) to (2021 - 2023)
Biology (Subjective)	1st - A - Exam 2023		Time 2 : 40 Hours Marks : 68

Note: It is compulsory to attempt any (8 - 8) Parts each from Q.No. 2 and Q.No.3 and attempt any (6) Parts from Q.No.4. Attempt any (3) Questions from Part - II. Write same Question No. and its Part No. as given in the Question Paper.

Bahawalpur Board-2023

Make Diagram where necessary.

Part - I

22 x 2 = 44

- Q.No.2 (i) What will happen if an animal cell is placed into a Hypertonic Solution?
(ii) Mention two desert adaptations of Xerophytes.
(iii) What are Pyrogens?
(iv) Why does water enter into the vacuole and hence create turgidity to the plant cell?
(v) How does Epinasty lead to opening of Floral Buds?
(vi) How are Muscles arranged at hinge joint?
(vii) How is seed dormancy important for plant survival?
(viii) Give the method to produce Test Tube Babies.
(ix) Differentiate between Climate and Weather.
(x) What is Tundra Ecosystem?
(xi) How Kinetic Energy of water is used to produce electricity?
(xii) How Oxides of Nitrogen and Sulphur can cause Acid Rain?
- Q.No.3 (i) Differentiate between Reflex Arc and Reflex Action.
(ii) What are Effectors?
(iii) Define Epilepsy.
(iv) A Single gene affects two or more traits. Give examples.
(v) The blood group phenotype of a person can be changed. Comment on it.
(vi) The first Rh - Incompatible pregnancy may not face much problems. Discuss it.
(vii) How genetic library for a certain gene can be traced? Comment on it.
(viii) How gene of interest is inserted into a vector? Discuss it.
(ix) How health of plants can be promoted? Give examples.
(x) What is Niche? Give its elements.
(xi) Differentiate Autecology from Syneocology by giving examples.
(xii) What is Predation? Give its significance.
- Q.No.4 (i) Define Regeneration. Write its two examples.
(ii) How Inhibitory effect is different from compensatory effect during growth correlation?
(iii) What are Chromosomes? Also write number of Chromosome in Mouse and Sugarcane.
(iv) Differentiate between Leading and Lagging Strand.
(v) What are Purine? Give example.
(vi) What is Mitotic Apparatus? Write its function.
(vii) Define the term Synapsis and Crossing Over.
(viii) What are Hydrothermal Vents? How did they support life?
(ix) Write down any two points of Darwin Theory.

Part - II

3 x 8 = 24

- Q.No.5 (a) Describe the structure of Nephron with a labelled diagram. 3 + 1 = (4)
(b) What is Interphase? Describe the details of Sub phases of Interphase. 1 + 3 = (4)
- Q.No.6 (a) How does Secondary Growth occurs? Give its significance. (4)
(b) Define Succession. Discuss Xerosere in detail. (4)
- Q.No.7 (a) Explain the factors affecting Gene Frequency. (4)
(b) Describe the Feedback Mechanism. Also draw the diagram. (4)
- Q.No.8 (a) Define and explain the process of Vernalization. (4)
(b) Explain Erythroblastosis Foetalis and how it can be prevented? (4)
- Q.No.9 (a) How External and Internal Factors play their role in Plant Growth Rate? (4)
(b) Write a detailed note on Gene Sequencing. (4)





Biology	(A)	L.K.No. 1311	Paper Code No. 8461
Paper II	(Objective Type)	Inter – A – 2022	
Time :	20 Minutes	Inter (Part - II)	
Marks :	17	Session (2018 - 2020) to (2020 – 2022)	

Bahawalpur Board-2022

Note : Four possible choices A , B , C , D to each question are given. Which choice is correct fill that circle in front of that Question No. Use Marker or Pen to fill the circles. Cutting or filling two or more circles will result in Zero Mark in that Question.

Q.No.1	Mammalian Kidney including human is adapted to conserve water upto :
(1)	(A) 99.5 % (B) 89.5 % (C) 79.5 % (D) 69.5 %
(2)	Mature Bone Cells are called : (A) Osteoblast (B) Chondrocytes (C) Osteocytes (D) Osteoclast
(3)	Which one of the following disease is caused by low calcium in the blood : (A) Tetany (B) Sciatica (C) Muscle Fatigue (D) Cramp
(4)	The number of Spinal Nerves in man is : (A) 12 Pairs (B) 31 Pairs (C) 24 Pairs (D) 62 Pairs
(5)	In Human Female, total gestation period is usually about : (A) 80 Days (B) 180 Days (C) 280 Days (D) 380 Days
(6)	Yellow Cytoplasm gives rise to : (A) Muscle Cells (B) Larval Epidermis (C) Gut (D) Notochord and Neural Tube
(7)	The Pigment Free area that appears at the time of Fertilization is called : (A) White Cytoplasm (B) Gray Crescent (C) Yolk (D) Blastopore
(8)	In Eukaryotes mRNA is not synthesized by the following Enzyme except : (A) DNA Polymerase (B) RNA Polymerase I (C) RNA Polymerase II (D) RNA Polymerase III
(9)	Crossing Over does not occur in all of the following stages except : (A) Zygotene (B) Diakinesis (C) Leptotene (D) Diplotene
(10)	The Syndrome having Trisomy of Chromosome 18 is called : (A) Down's (B) Patau's (C) Jacob's (D) Edward's
(11)	Which one of the following Genotypic Ratio is observed for cross between Heterozygous round and Homozygous wrinkled seed in Pea : (A) 3 : 1 (B) 1 : 1 (C) 2 : 1 (D) 1 : 3
(12)	Which of the following Organism is used to prevent Airborne Chemical Pollutants : (A) Transgenic Plants (B) Transgenic Animals (C) Transgenic Bacteria (D) Transgenic Fungus
(13)	Cell Suspension Culture of Cinchona Ledgeriana is used to produce : (A) Luciferin (B) Digitoxin (C) Dopamine (D) Quinine
(14)	Archaeobacteria tolerate temperature about : (A) 120°C (B) 100°C (C) 80°C (D) 40°C
(15)	Succession is Initiated by few hardy Invaders called : (A) Pioneers (B) Climax Community (C) Decomposers (D) All these
(16)	All of the Grasses form 2nd layer in Grassland Ecosystem except : (A) Stipa (B) Sporobolus (C) Oryzopsis (D) Andropogon
(17)	Ozone Molecule is made up by three atoms of : (A) Nitrogen (B) Oxygen (C) Carbon (D) Hydrogen



Roll No.	1311 - 2000	Inter (Part - II)	Session (2018-2020) to (2020-2022)
Biology (Subjective)	Inter - A - 2022	Time 2:40 Hours Marks : 68	

Note: It is compulsory to attempt any (8-8) Parts each from Q.No. 2 and Q.No.3 and attempt any (6) Parts from Q.No.4. Attempt any (3) Questions from Part - II. Write same Question No. and its Part No. as given in the Question Paper.

Bahawalpur Board-2022

Make Diagram where necessary.

Part - I

22 x 2 = 44

- Q.No.2
- Discuss Adaptation in Xerophytes.
 - By what phenomenon organisms adapt wide range of habitats? Give its any two examples.
 - Discuss how Urea is formed from Ammonia?
 - What is Secondary Growth?
 - Differentiate between Epinasty and Nyctinasty.
 - Give the process of Ecdysis or Moulting briefly.
 - Briefly discuss the phenomenon of Cloning in Animals. Give its major disadvantages.
 - What is Oestrous Cycle?
 - Discuss Limnetic Zone of Fresh Water lake.
 - Discuss Terrestrial Ecosystem.
 - What is Green House Effect?
 - How Water Pollution is produced?



- Q.No.3
- Describe the Neural Pathways involved in regulation of Reflexes.
 - What Structures show response to an Impulse? Give examples.
 - Irrelevant Stimulus can be paired with natural stimulus in a type of learning. Comment on it.
 - Differentiate between Homozygous and Heterozygous with examples.
 - Define Over Dominance. Give an example.
 - Distinguish Quantitative Traits from Qualitative Traits.
 - What is Recombinant DNA?
 - Define PCR.
 - Differentiate between Ex Vivo and In Vivo Gene Therapy.
 - Differentiate Ectoparasites from Endoparasites by giving examples.
 - What are Biogenic Elements? Give their types.
 - Why Secondary Succession take less time to complete than Primary Succession?

- Q.No.4
- How Temperature plays its role in the growth of Plants?
 - Define Blastula stage of Chick Development.
 - Differentiate between Heterochromatin and Euchromatin.
 - What is a Point Mutation?
 - Define Central Dogma. Name its two steps.
 - Write down about Anaphase.
 - How Mitosis is important with respect to Development and Growth?
 - State Descent with Modification.
 - Discuss Biogeography as evidence of Evolution.

Part - II

3 x 8 = 24

- Q.No.5
- Draw and describe the structure of Nephron. Also discuss Blood Supply of Nephron. (4)
 - Describe Nitrogen Cycle in detail emphasizing three principal stages Ammonification, Nitrification and Assimilation. (4)
- Q.No.6
- List the major parts of Skeletal Muscle Fibre and write the function of each part. (4)
 - Discuss the process of Transcription. (4)
- Q.No.7
- Discuss the role of Insulin and explain how Diabetes Mellitus is caused? (4)
 - Write a note on Green House Effect. Give its causes and ill effects. (4)
- Q.No.8
- Describe the types of Parthenogenesis in Animals. (4)
 - What is Epistasis? Explain your answer with an example. (4)
- Q.No.9
- What is Growth Correlation? Describe briefly. (4)
 - What are Endangered Species and how we protect the Endangered Species? (4)



Note : Four possible choices A, B, C, D to each question are given. Which choice is correct fill that circle in front of that Question No. Use Marker or Pen to fill the circles. Cutting or filling two or more circles will result in Zero Mark in that Question.

- Q No.1 Turgor Pressure is generated by high osmotic pressure of the cell :
 (A) Cytoplasm (B) Protoplasm (C) Vacuole (D) Nucleus
- (1) The active absorption of Sodium in the ascending limb of Henle is promoted by :
 (A) ADH (B) ATCH (C) Vesopression (D) Aldosterone
- (2) Non Surgical removal of Kidney Stone is called :
 (A) Dialysis (B) Uremia (C) Lithotripsy (D) Kidney Transplant
- (3) In Pelvic Region Fusion of four Posterior Vertebrae forms :
 (A) Coccyx (B) Sacrum (C) Pubis (D) Ischium
- (4) Cleavage in fertilized egg results in the formation of :
 (A) Gastrula (B) Blastula (C) Morulla (D) Neurula
- (5) Estrogen produced by Ovary inhibits the secretion of :
 (A) FSH (B) LH (C) ADH (D) ATCH
- (6) Leaf Abscission is promoted by :
 (A) Auxins (B) Gibberellins (C) Cytokinins (D) Absciscic Acid
- (7) The Hormone which releases the lateral buds from apical dominance is :
 (A) Auxins (B) Gibberellins (C) Cytokinins (D) Absciscic Acid
- (8) The syndrome in which male has enlarged breasts, obesity and small testes with no sperms is :
 (A) Down's Syndrome (B) Turner's Syndrome (C) Klinefelter's Syndrome (D) Jacob's Syndrome
- (9) During Prophase I of Meiosis, Tetrads are formed :
 (A) Leptotene (B) Zygotene (C) Pachytene (D) Diplotene
- (10) All are Stop Codons except :
 (A) UAA (B) AUG (C) UAG (D) UGA
- (11) Maternal Foetal Incompatibility can result due to marriage between :
 (A) Rh⁺ male and Rh⁻ female (B) Rh⁻ male and Rh⁺ female
 (C) Rh⁺ male and Rh⁺ female (D) Rh⁻ male and Rh⁻ female
- (12) Relationship between Shark and Remora attached to it is an example of :
 (A) Symbiosis (B) Mutualism (C) Parasitism (D) Commensalism
- (13) All are causes of Green House effect except :
 (A) Deforestation (B) Industrialization (C) Over Urbanization (D) Reforestation
- (14) Bacteria easily take up recombinant plasmid if they are treated with :
 (A) Calcium Chloride (B) Sodium Chloride (C) Ammonium Chloride (D) Barium Chloride
- (15) The Ecosystem in which Soil is Grayish brown, very fertile and rich in organic matter is :
 (A) Coniferous Forest (B) Grassland (C) Temperate Deciduous Forest (D) Tundra
- (16) According to Endosymbiont Hypothesis, ingestion of Prokaryotes similar to Cyanobacteria could have developed into :
 (A) Mitochondria (B) Chloroplasts (C) Nucleus (D) Dictyosomes

Note: It is compulsory to attempt any (8-8) Parts each from Q.No. 2 and Q.No.3 and attempt any (6) Parts from Q.No.4. Attempt any (3) Questions from Part - II. Write same Question No. and its Part No. as given in the Question Paper.

Bahawalpur Board-2021

Make Diagram where necessary.

Part - I

22 × 2 = 44



- Q.No.2
- What is Lithotripsy? Give the Mechanism.
 - What are Poikilotherms? Give one example as well.
 - Define Homeostasis. Give components of Homeostatic Control System.
 - Differentiate between Tendons and Ligaments.
 - Briefly describe the Hematoma Formation.
 - Give the composition of Thin Filaments in Skeletal Muscles.
 - Give the route of sperms from Testis to Outside in man.
 - Define Menopause and Ovulation.
 - Differentiate between Prairies and Savanna.
 - What is Taiga? What conditions do animals face residing there?
 - Give the effects of Ozone Layer Depletion.
 - Define Eutrophication. How man has speeded up this process?

- Q.No.3
- Describe Feedback Mechanism with an example.
 - Define Parasympathetic Nervous System.
 - Write a note on Parathyroids Glands.
 - What is Complete Dominance?
 - Define Over Dominance.
 - Differentiate between Homozygous and Homozygote.
 - Write a note on Recombinant DNA Technology.
 - How can we get a Gene of Interest?
 - How Plant Health can be promoted by Transgenic Bacteria?
 - What is a Niche?
 - Define Food Web.
 - Define Lichens in detail.

- Q.No.4
- What are Intercalary Meristems?
 - What is Discoidal Cleavage?
 - Define Point Mutation.
 - Compare Euchromatin with Heterochromatin.
 - What are Okazaki Fragments?
 - What is Metastasis?
 - What changes occur in Cell during anaphase of Mitosis?
 - Define the term Homology. Give example.
 - What is the role of Migration in affecting Gene Frequency?

Part - II

- Q.No.5
- Discuss Counter - Current Multiplier with reference to concentration of excretory products.
 - Write a note on the Nitrogen Cycle.
- Q.No.6
- Describe the types of Joints on the basis of Structure.
 - How Cells use RNA to make Proteins?
- Q.No.7
- What is Synapse? Diagrammatically mention how nerve impulse passes through a synapse?
 - Describe importance of Forests for human life.
- Q.No.8
- Describe the Female Reproductive Cycle in Humans.
 - Define and explain Incomplete Dominance with example.
- Q.No.9
- Describe Growth Correlation in detail.
 - Discuss Theory of Natural Selection and Adaptation.

(4)

(4)

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(4)



Biology	(A)	L.K.No. 1318	Paper Code No. 84b1
Paper. II	(Objective Type)	Inter -A- 2019	(New Pattern)
Time :	20 Minutes	Inter (Part II)	
Marks :	17	Session (2015 -17) to (2017 - 19)	

Bahawalpur Board-2019

Note : Four possible choices A , B , C ,D to each question are given. Which choice is correct fill that circle in front of that Question No. Use Marker or Pen to fill the circles. Cutting or filling two or more circles will result in Zero Mark in that Question.

Q.No.1	How much water is needed to excrete 1 g of Ammonia Nitrogen :
(1)	(A) 400 ml (B) 500 ml (C) 600 ml (D) 700 ml
(2)	The active uptake of Sodium in the loop of Henle is provided by the action of Hormone : (A) Cortisone (B) Testosterone (C) Aldosterone (D) Progesterone
(3)	Movements shown by sperms of liver - worts, ferns towards archegonia is a : (A) Chemotactic (B) Phototactic (C) Chemotrophic (D) Phototrophic
(4)	An Increase in the plant girth due to the activity of Vascular Cambium is called : (A) Primary Growth (B) Secondary Growth (C) Sap Wood (D) Heart Wood
(5)	Nociceptors produce the sensation of : (A) Pain (B) Light (C) Taste (D) Hearing
(6)	Developing Seeds are rich source of : (A) Auxins (B) Cytokinins (C) Gibberellins (D) All these
(7)	Example of Day Neutral Plant is : (A) Tomato (B) Soyabean (C) Xanthium (D) Chrysanthium
(8)	Somites are formed and organized by : (A) Ectoderm (B) Mesoderm (C) Endoderm (D) Blastoderm
(9)	A Gene with initiation codon which encodes the Amino Acid methionine is : (A) UAA (B) UAG (C) AUG (D) UGG
(10)	The spread of Tumor Cells and establishment of secondary areas of growth is known as : (A) Epigenesis (B) Metastasis (C) Apoptosis (D) Necrosis
(11)	Pairing of Chromosomes is called as : (A) Synapse (B) Synapsis (C) Bivalent (D) Tetrad
(12)	Hypophosphatemic rickets is an ----- trait. : (A) X-linked (B) Y-linked (C) X and Y linked (D) An Autosomal
(13)	DNA Polymerase Enzyme was isolated from : (A) Viruses (B) Bacteria (C) Fungi (D) Protozoa
(14)	Endosymbiont Hypothesis was proposed by : (A) Wallace (B) Lamarck (C) Lynn Margulis (D) Linnaeus
(15)	The bacteria in the root nodules fix nitrogen in soil from air, converting it into ----- : (A) Nitrate (B) Nitrite (C) Ammonia (D) Amino Acid
(16)	Limnetic Phytoplankton includes the : (A) Bacteria (B) Algae (C) Cyanobacteria (D) Mosses
(17)	Which one of the following is responsible for headache, brain damage and death : (A) Oxides of Nitrogen (B) Lead Compounds (C) CFCs (D) Carbon Monoxide

Roll No.	1318 - 1000	Session (2015 - 17) to (2017 - 19)	Inter (Part - II)
Biology (Subjective)	Inter - A -2019	Time 2 : 40 Hours Marks : 68	(New Pattern)

Note: It is compulsory to attempt any (8 - 8) Parts each from Q.No. 2 and Q.No.3 and attempt any (6) Parts from Q.No.4. Attempt any (3) Questions from Part - II. Write same Question No. and its Part No. as given in the Question Paper. **Bahawalpur Board-2019**

Make Diagram where necessary.

Part - I

22 x 2 = 44

- Q.No.2
- What are Juxtamedullary Nephrons? Give their function.
 - What is Pyrexia?
 - Define Anhydrobiosis.
 - What is Rigor Mortis?
 - Differentiate between Phototactic and Phototropism Movements.
 - What is Cleft Palate?
 - Differentiate between Ex-vivo and In-vivo Gene Therapy.
 - Write possible ways to get the Gene of Interest.
 - Write down Soil Conditions of Grassland Ecosystem.
 - What is meant by Productivity of an Ecosystem?
 - Why Forests are called Environmental Buffers?
 - What is Ozone Layer?
- Q.No.3
- What is Feed Back Mechanism? Give an example.
 - Differentiate between Kineses and Taxes.
 - How Pancreas acts as both Exocrine and Endocrine Gland?
 - Draw Graphic representation of Life Cycle of Bryophytes.
 - Explain Gonorrhea.
 - How a Seed is formed?
 - Explain the term MODY.
 - What is Over Dominance? Give an example.
 - An Rh⁻ Woman is married to an Rh⁺ man whose father was also Rh⁺. What is the probable risk of Erythroblastosis Foetalis in their babies?
 - Differentiate between Primary and Secondary Succession.
 - What is Biome? Name any four major terrestrial biomes.
 - Explain Mycorrhiza with an example.
- Q.No.4
- Define Growth Correlation.
 - Differentiate Epiblast from Hypoblast.
 - How many Chromosomes are found in Penicillium and Mosquito?
 - Define Dispersive Replication of DNA.
 - What do you know about the term Transcription?
 - Define the term non-disjunction of Chromosomes.
 - What are Events happen in Diakinesis?
 - Differentiate Natural Selection from Special Creation.
 - Define Endangered Species. Write down the names of two species from Pakistan.

Part - II

- Q.No.5
- Describe adaptations in Plants to low and high temperature. (4)
 - Describe Predation, Parasitism and their significance. (4)
- Q.No.6
- Discuss different types of Joints. (4)
 - Describe the process of Transcription in detail. (4)
- Q.No.7
- Define Feedback Mechanism. Explain with an example. (4)
 - Define Pollution. Discuss its various types. (4)
- Q.No.8
- Describe Male Reproductive System in Human. (4)
 - Discuss the genetics of ABO Blood Group System. (4)
- Q.No.9
- Write a note on Neurulation in Chick Embryo. (4)
 - Discuss "Migration" and Genetic drift as factors affecting Gene Frequency. (4)





Note : Four possible choices A, B, C, D to each question are given. Which choice is correct, fill that circle in front of that question number. Use marker or pen to fill the circles. Cutting or filling two or more circles will result in zero mark in that question.

Q.No.1	Extracellular Environment may be of diluted solution compared to the cell concentration
(1)	designated as : (A) Isotonic (B) Hypertonic (C) Hypotonic (D) Cotic
(2)	Rickets is caused by deficiency of : (A) Vitamin A (B) Vitamin B (C) Vitamin C (D) Vitamin D
(3)	Opening of Flower Bud follows : (A) Photonasty (B) Epinasty (C) Hyponasty (D) Haptonasty
(4)	Excretory Structure present in Cockroach is : (A) Contractile Vacuule (B) Malpighian Tubules (C) Nephredia (D) Flame Cells
(5)	Etiolated Plants grow without : (A) Water (B) Light (C) O ₂ (D) CO ₂
(6)	Apical Dominance is caused by : (A) Gibberellins (B) Cytokinins (C) Ethene (D) Auxin
(7)	Which one is Parthenogenic Fruit : (A) Apple (B) Pineapple (C) Peach (D) Mango
(8)	The total gestation period in human female is usually about : (A) 280 Days (B) 250 Days (C) 265 Days (D) 260 Days
(9)	Which one of the given is Non-Sense Codon : (A) UCC (B) UAA (C) UCG (D) UCU
(10)	Bombay Phenotype is an example of : (A) Pleiotropy (B) Dominance (C) Probability (D) Epistasis
(11)	Each Bivalent is consists of four : (A) Chromosome (B) Chromatids (C) Chiasmata (D) Spore
(12)	Chiasmata formation takes place during : (A) Leptotene (B) Diakinesis (C) Pachytene (D) Diplotene
(13)	Cystic Fibrosis Patients lack gene that codes for transmembrane carrier of : (A) Sulphate Ions (B) Carbonate Ions (C) Chloride Ions (D) Bromide Ions
(14)	The light in this zone is insufficient to support photosynthesis : (A) Limnetic (B) Profundal (C) Littoral (D) Chaparral
(15)	All the Food Chain and Food Webs begin with : (A) Primary Consumer (B) Secondary Consumer (C) Decomposer (D) Producers
(16)	Book " The Origin of Species " was written by : (A) Linnaeus (B) Darwin (C) Lamarck (D) Wallace
(17)	It is a Fossilized Fuel : (A) Water (B) Oil (C) Wind (D) Food



Roll No.	918 - 17000	Inter (Part - II)	Session (2015 - 2017) to (2016 - 2018)
Biology (Subjective)	Inter-A-2018	(New Pattern)	Time : 2:40 Hours Marks = 68

Note: It is compulsory to attempt any (8-8) parts each from Q.No.2 and Q.No.3 and attempt any (6) parts from Q.No.4. Attempt any (03) questions from Part II. Write same Question No. and its Part No. as given in the question paper.

Bahawalpur Board-2018

Make Diagram where necessary.

Part - I

22 x 2 = 44

Q.No.2 (i) Why Leaves are said to be Excretophores?

- (ii) What is Glomerulus?
- (iii) What are Pyrogens? Give their functions.
- (iv) How does Tendon differ from ligament?
- (v) What is Active Flight?
- (vi) What is Cramp? Give its causes.
- (vii) What is Follicle Atresia?
- (viii) Define Photoperiodism.
- (ix) Differentiate between Alpine and Boreal Forests.
- (x) What are Phytoplankton and Zooplankton?
- (xi) Explain Ozone Layer.
- (xii) Give two effects of Acid Rain.

Q.No.3 (i) Define Hormones. Enlist their chemical composition.

- (ii) Differentiate between Kinesis and Taxes Behaviour.
- (iii) What are the functions of Follicle Stimulating Hormones?
- (iv) Differentiate between Complete Dominance and Co-dominance.
- (v) What is Pleiotropy? Give its example.
- (vi) What are Sex Influenced Traits? Give an example.
- (vii) Define Transgenic Plants. Give its two uses.
- (viii) Differentiate between Ex-vivo and In-vivo Gene therapy.
- (ix) What is Anther Culture?
- (x) Differentiate between Autecology and Synecology.
- (xi) What are Producers and Consumers?
- (xii) Differentiate between Primary Succession and Secondary Succession.

Q.No.4 (i) Differentiate between Primary and Secondary Growth.

- (ii) Define Regeneration. Give one example.
- (iii) What is Semi-Conservative Model of DNA Replication?
- (iv) Differentiate between Template and Coding Strand of DNA.
- (v) What is Point Mutation? Give one example.
- (vi) What changes occur in Cell during Anaphase of Mitosis?
- (vii) What is the cause and symptoms of Down's Syndrome.
- (viii) Define Hardy Weinberg's Theorem.
- (ix) What are Hydrothermal Vents?

Part - II

Q.No.5 (a) Describe the major Homeostatic Functions of Liver.

(b) Discuss about Nitrogen Cycle.

Q.No.6 (a) Describe the Repair Process of Simple Fracture of a bone.

(b) Describe the process of Translation.

Q.No.7 (a) Describe the role of Adrenal Gland.

(b) Explain the phenomenon of Eutrophication.

Q.No.8 (a) Write a note on Fruit Set and Fruit Ripening. Also discuss Parthenocarpy in Plants.

(b) Write a note on Sex Determination in Plants.

Q.No.9 (a) Describe External Factors of Growth in Plants.

(b) Describe the evidence of evolution with special reference to the Comparative Anatomy

