

INTERMEDIATE PART-II (12th CLASS)**BIOLOGY PAPER-II (OLD SCHEME) (SESSION 2012-2014) GROUP-I**

TIME ALLOWED: 3.10 Hours

SUBJECTIVE

MAXIMUM MARKS: 83

**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) What is Pyrexia?
- (ii) Define Anhydrobiosis.
- (iii) What is the role of ADH?
- (iv) Define Sliding Filament Model.
- (v) Define Ecdysis.
- (vi) Differentiate between Photonasty and Thermonasty.
- (vii) What is After Birth?
- (viii) Define Apomixis. Give example.
- (ix) Define Desert. Give example.
- (x) What is Littoral Zone?
- (xi) Write any two ways by which we can save energy.
- (xii) Define Greenhouse Effect.

3. Attempt any Eight parts.**8 × 2 = 16**

- (i) What is commercial application of Gibberellins?
- (ii) Define Effectors. Give their examples.
- (iii) Define the term Synapse.
- (iv) Define Pleiotropy. Give one example.
- (v) What is Linkage Group? Give example.
- (vi) What are sex limited traits? Give one example.
- (vii) Define Genomic Library and how it can be made?
- (viii) What are Palindromic Sequences?
- (ix) Name firefly enzyme and give example.
- (x) Differentiate between Population and Community.
- (xi) What is meant by Poiner and Climax Community?
- (xii) Define Commensalism and give example.

4. Attempt any Six parts.**6 × 2 = 12**

- (i) Define the term Karyotype.
- (ii) What are Okazaki fragments?
- (iii) What is Nucleosome?
- (iv) What are Teratogens?
- (v) What is Discoidal Cleavage?
- (vi) What is Mitotic Apparatus?
- (vii) What is Necrosis?
- (viii) Differentiate between Endangered Species and Threatened Species.
- (ix) State Endosymbiont Hypothesis.

SECTION-II**NOTE: - Attempt any three questions.****8 × 3 = 24**

- 5.(a) Excretion in Planaria. Discuss it. 4
- (b) Explain N_2 cycle with the help of diagram. 4
- 6.(a) How broken bone is repaired? Give its detail. 4
- (b) Describe in detail the work of Griffith on Transformation. 4
- 7.(a) How Auxins influence the growth of plants? Given their commercial applications. 4
- (b) What is Acid Rain? What are its effects? 4
- 8.(a) Write the steps in human female reproductive cycle. 4
- (b) What is Crossing Over? Give its importance and define recombinant frequency. 4
- 9.(a) Define Aging. Explain it in detail. 4
- (b) Explain Fossil record and comparative anatomy as evidences of evolution. 4

SECTION-III (PRACTICAL)**10. Attempt any three parts.**

- (A) Sketch and label female reproductive system of Frog. 5
- (B) Sketch and label pectoral girdle of frog. (Dorsal view) 5
- (C) Write material required, procedure, observations and results, to demonstrate geotropism. 5
- (D) Explain and draw a simple food – web in a pond ecosystem. 5
- (E) Write short notes:- 5
 - (i) What are Smooth muscles? (ii) Define Ecosystem.
 - (iii) Define Phototropism. (iv) What is Kymograph?
 - (v) What is a Muscle Twitch?

BIOLOGY PAPER-II (OLD SCHEME) (SESSION 2012-2014) GROUP-I

TIME ALLOWED: 20 Minutes

OBJECTIVE

MAXIMUM MARKS: 17

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Q.No.1

- (1) Blood supplied to Kidney from each Cardiac beat is:-
 (A) 10 % (B) 20 % (C) 30 % (D) 50 %
- (2) 70 % stone formation in Kidney is due to:-
 (A) Calcium oxalate (B) Uric acid (C) Calcium Phosphate (D) Urea
- (3) Rickets is caused by deficiency of:-
 (A) Vitamin A (B) Vitamin B (C) Vitamin D (D) Riboflavin
- (4) _____ cells have angular thickening in their primary walls.
 (A) Collenchyma (B) Sclerenchyma (C) Fibers (D) Vessels
- (5) In honey bee males are haploid and produce sperms by:-
 (A) Meiosis (B) Mitosis (C) Parthenogenesis (D) Amitosis
- (6) In tubules sperms are protected and nourished by:-
 (A) Sertoli cells (B) Tubular cells (C) Spermatogonia (D) Spermatocytes
- (7) Average cell cycle, in the case of human cell is about:-
 (A) 10 hours (B) 30 hours (C) 24 hours (D) 90 minutes
- (8) The spread of tumor cells and establishment of secondary areas of growth is called:-
 (A) Metastasis (B) Apoptosis (C) Necrosis (D) Epistasis
- (9) _____ has diffused nervous system.
 (A) Planaria (B) Man (C) Hydra (D) Birds
- (10) In ascidian yellow cytoplasm give rise to:-
 (A) Epidermis (B) Muscle cells (C) Gut (D) Notochord
- (11) Nucleosome is formed in DNA duplex after every:-
 (A) 200 Nucleotides (B) 300 Nucleotides (C) 100 Nucleotides (D) 400 Nucleotides
- (12) In erythroblastosis foetalis bilirubin damages:-
 (A) Brain cells (B) Liver cells (C) Kidney cells (D) Red blood cells
- (13) Cystic fibrosis patients lack a gene that codes for trans-membrane carrier of ions:-
 (A) K^+ (B) Na^+ (C) Cl^- (D) Ca^{++}
- (14) Species occupation is called as:-
 (A) Community (B) Population (C) Niche (D) Habitat
- (15) Northern coniferous forests are also called as:-
 (A) Taiga (B) Boreal (C) Alpine (D) Alpine boreal
- (16) Study of human population and things those affect them is called as:-
 (A) Demography (B) Biography (C) Teratology (D) Biogeography
- (17) Emigration and immigration of members of a population cause disturbance in:-
 (A) Gene pool (B) Frequency (C) Population (D) Characters

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BIOLOGY PAPER-II (OLD SCHEME) (SESSION 2012-2014) GROUP-I

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INTERMEDIATE PART-II (12th CLASS)**BIOLOGY PAPER-II (OLD SCHEME) (SESSION 2012-2014) GROUP-II**

TIME ALLOWED: 3.10 Hours

SUBJECTIVE

MAXIMUM MARKS: 83

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

SECTION-I2. **Attempt any Eight parts.****8 × 2 = 16**

- (i) Differentiate between Osmoconformers and Osmoregulators.
- (ii) Define Anhydrobiosis with example.
- (iii) Differentiate between Hemodialysis and Peritoneal Dialysis.
- (iv) What is the cause of Cramps?
- (v) Differentiate between Tetanus and Tetany.
- (vi) What is Secondary Growth? How it occurs?
- (vii) What is the function of Germinating Pollen Grain?
- (viii) What is Follicle Atresia?
- (ix) Differentiate between Savanna and Prairies of Grassland Ecosystem.
- (x) Differentiate between Alpine and Boreal Forests.
- (xi) What do you mean by Non – renewable resources? Give example.
- (xii) What are Environmental Buffers?

3. **Attempt any Eight parts.****8 × 2 = 16**

- (i) Why anterior lobe of pituitary gland is called master gland? Name its Hormones.
- (ii) How Autonomic Nervous System differ from Somatic Nervous System?
- (iii) Define Modality of Sensation. Give example.
- (iv) Sometimes a mild ABO incompatibility protects the baby against a more severe a more Rh incompatibility. How?
- (v) What is Haemophilia? Give its types.
- (vi) Define Dominance Relations. Give its types.
- (vii) Enlist the requirements for producing recombinant DNA.
- (viii) Which are the goals of Human Genome Project?
- (ix) How Transgenic animals are produced?
- (x) Differentiate between Autecology and Synecology.
- (xi) Define Predation. Give its significance.
- (xii) How Mutualism differ from Commensalism?

4. **Attempt any Six parts.****6 × 2 = 12**

- (i) Enlist names of chromosomes on the basis of location of Centromere.
- (ii) What are Mutations? Mention their classification.
- (iii) Differentiate between Nucleotide and Nucleoside.
- (iv) Differentiate between Hypoblast and Epiblast.
- (v) What is Gerontology? Also give its goal.
- (vi) What is Metastasis?
- (vii) Define Crossing over.
- (viii) Differentiate between Species and Population.
- (ix) What are Endangered Species? Give example.

SECTION-II**NOTE: - Attempt any three questions.****8 × 3 = 24**

5.(a) Explain Excretory System in Planaria.

4

(b) Describe steps involved in Nitrogen Cycle.

4

6.(a) Write a note on Exoskeleton.

4

(b) Explain Watson and Crick's model of DNA.

4

7.(a) Write a note on Nervous Disorders.

4

(b) Write a note on Greenhouse Effect.

4

8.(a) Give an account of Sexually Transmitted Diseases (STD).

4

(b) What is Incomplete Dominance? Explain with an example.

4

9.(a) Explain Growth Correlations.

4

(b) Explain Evolution from Prokaryotes to Eukaryotes.

4

SECTION-III (PRACTICAL)10. **Attempt any three parts.**

(A) Draw labelled diagram of Urinogenital System of Female Frog.

5

(B) Draw and label the diagram of hind limb of frog.

5

(C) Write down the material, procedure, observations and result of an experiment showing Phototropism.

5

(D) Draw and explain the structure of Hen's egg.

5

(E) Answer the following questions briefly:-

5

(i) What is Geotropism?

(ii) What is Water Table?

(iii) Define Food Web?

(iv) What is a Community?

(v) Define Soil Texture.

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Q.No.1

- (1) Nitrogenous wastes are produced as a result of:-
 (A) Digestion (B) Respiration (C) Deamination (D) Photosynthesis
- (2) Action of the venus fly trap is:-
 (A) Nyctinasty (B) Haptonasty (C) Epinasty (D) Hyponasty
- (3) The structures which respond when they are stimulated by impulse coming via motor neuron are:-
 (A) Nerves (B) Sense organs (C) Receptors (D) Effectors
- (4) Fruit development without fertilization and no seed formation is called:-
 (A) Parthenocarp (B) Parthenogenesis (C) Apomixes (D) Dormancy
- (5) The phenomenon of staying together of all the genes of a chromosome is called:-
 (A) Crossing over (B) Recombination (C) Linkage (D) Epistasis
- (6) ____ is a result of point mutation.
 (A) Down's Syndrome (B) Turner's Syndrome (C) Sickle cell Anemia (D) Klinefelter's Syndrome
- (7) Cells of the eye lens can remain in ____ stage for days, weeks or years.
 (A) G₁ (B) G₂ (C) S (D) G₀
- (8) Variations provide raw material for the process of:-
 (A) Linkage (B) Crossing over (C) Synapsis (D) Evolution
- (9) pSC 101 plasmids has antibiotic resistance gene for:-
 (A) Ampicillin (B) Tetracycline (C) Streptomycin (D) Penicillin
- (10) Gene frequency can be altered by:-
 (A) One factor (B) Two factors (C) Four factors (D) Many factors
- (11) Much of the Nitrogen found in the soil is the result of:-
 (A) Degeneration (B) Decomposition (C) Denitrification (D) Assimilation
- (12) In aquatic ecosystem a little light is left to power photosynthesis at the depth of:-
 (A) 500 feet (B) 700 feet (C) 600 feet (D) 1000 feet
- (13) Ozone is a layer of atmosphere extending above earth is of:-
 (A) 10 – 30 kms (B) 10 – 40 kms (C) 10 – 50 kms (D) 10 – 60 kms
- (14) The excretory structure that delivers urine from kidney to urinary bladder is:-
 (A) Urethra (B) Pelvis (C) Ureter (D) Collecting tubule
- (15) Joints present in the skull which fix teeth into the jaws are:-
 (A) Fibrous (B) Cartilaginous (C) Hinge (D) Ball & Socket
- (16) Syphilis is caused by:-
 (A) Neisseria (B) Treponema (C) Entamoeba (D) HIV
- (17) Down's syndrome is the result of non-disjunction in man when chromosome fail to segregate this failure occurs in:-
 (A) 21st chromosomes (B) 13th chromosomes (C) 18th chromosomes (D) 6th chromosomes

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- (13) Action of the venus fly trap is:-
 (A) Nyctinasty (B) Haptonasty (C) Epinasty (D) Hyponasty
- (14) The structures which respond when they are stimulated by impulse coming via motor neuron are:-
 (A) Nerves (B) Sense organs (C) Receptors (D) Effectors
- (15) Fruit development without fertilization and no seed formation is called:-
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 (A) Crossing over (B) Recombination (C) Linkage (D) Epistasis
- (17) _____ is a result of point mutation.
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(A) Ampicillin (B) Tetracycline (C) Streptomycin (D) Penicillin
- (16) Gene frequency can be altered by:-
(A) One factor (B) Two factors (C) Four factors (D) Many factors
- (17) Much of the Nitrogen found in the soil is the result of:-
(A) Degeneration (B) Decomposition (C) Denitrification (D) Assimilation

BIOLOGY PAPER-II (OLD SCHEME) (SESSION 2012-2014) 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 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. 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 question on this sheet of OBJECTIVE PAPER.

Q.No.1

- (1) Joints present in the skull which fix teeth into the jaws are:-
(A) Fibrous (B) Cartilaginous (C) Hinge (D) Ball & Socket
- (2) Syphilis is caused by:-
(A) Neisseria (B) Treponema (C) Entamoeba (D) HIV
- (3) Down's syndrome is the result of non-disjunction in man when chromosome fail to segregate this failure occurs in:-
(A) 21st chromosomes (B) 13th chromosomes (C) 18th chromosomes (D) 6th chromosomes
- (4) Nitrogenous wastes are produced as a result of:-
(A) Digestion (B) Respiration (C) Deamination (D) Photosynthesis
- (5) Action of the venus fly trap is:-
(A) Nyctinasty (B) Haptonasty (C) Epinasty (D) Hyponasty
- (6) The structures which respond when they are stimulated by impulse coming via motor neuron are:-
(A) Nerves (B) Sense organs (C) Receptors (D) Effectors
- (7) Fruit development without fertilization and no seed formation is called:-
(A) Parthenocarp (B) Parthenogenesis (C) Apomixes (D) Dormancy
- (8) The phenomenon of staying together of all the genes of a chromosome is called:-
(A) Crossing over (B) Recombination (C) Linkage (D) Epistasis
- (9) _____ is a result of point mutation.
(A) Down's Syndrome (B) Turner's Syndrome (C) Sickle cell Anemia (D) Klinefelter's Syndrome
- (10) Cells of the eye lens can remain in _____ stage for days, weeks or years.
(A) G₁ (B) G₂ (C) S (D) G₀
- (11) Variations provide raw material for the process of:-
(A) Linkage (B) Crossing over (C) Synapsis (D) Evolution
- (12) pSC 101 plasmids has antibiotic resistance gene for:-
(A) Ampicillin (B) Tetracycline (C) Streptomycin (D) Penicillin
- (13) Gene frequency can be altered by:-
(A) One factor (B) Two factors (C) Four factors (D) Many factors
- (14) Much of the Nitrogen found in the soil is the result of:-
(A) Degeneration (B) Decomposition (C) Denitrification (D) Assimilation
- (15) In aquatic ecosystem a little light is left to power photosynthesis at the depth of:-
(A) 500 feet (B) 700 feet (C) 600 feet (D) 1000 feet
- (16) Ozone is a layer of atmosphere extending above earth is of:-
(A) 10 – 30 kms (B) 10 – 40 kms (C) 10 – 50 kms (D) 10 – 60 kms
- (17) The excretory structure that delivers urine from kidney to urinary bladder is:-
(A) Urethra (B) Pelvis (C) Ureter (D) Collecting tubule

BOARD OF INTERMEDIATE AND SECONDARY EDUCATION,

MULTAN

OBJECTIVE KEY FOR INTER (PART I / II) Annual Examination, 2017.

Name of Subject BIO (OLD SCHEME)

Session 2012-2014

Group: 1st (old)

Group: 2nd (old)

Q. Nos.	Paper Code	Paper Code	Paper Code	Paper Code
	8461	8463	8465	8467
1.	B	A	B	C
2.	A	B	A	A
3.	C	A	A	A
4.	A	C	C	A
5.	B	A	C	B
6.	A	C	A	A
7.	C	B	A	C
8.	A	A	A	A
9.	C	A	B	B
10.	B	C	A	A
11.	A	C	C	C
12.	A	A	A	A
13.	C	A	B	C
14.	C	A	A	B
15.	A	B	C	A
16.	A	A	A	A
17.	A	C	C	C
18.	/	/	/	/
19.	/	/	/	/
20.	/	/	/	/

Q. Nos.	Paper Code	Paper Code	Paper Code	Paper Code
	8462	8464	8466	8468
1.	C	D	C	A
2.	B	D	C	B
3.	D	B	C	A
4.	A	D	A	C
5.	C	B	B	B
6.	C	C	A	D
7.	D	C	C	A
8.	D	C	B	C
9.	B	A	D	C
10.	D	B	A	D
11.	B	A	C	D
12.	C	C	C	B
13.	C	B	D	D
14.	C	D	D	B
15.	A	A	B	C
16.	B	C	D	C
17.	A	C	B	C
18.	/	/	/	/
19.	/	/	/	/
20.	/	/	/	/

سرٹیفیکیٹ بابت تصحیح سوالیہ پرچہ مارکنگ Key

ہم نے مضمون Bio پرچہ II گروپ اول سیم اول اور سالانہ امتحانی امتحان 2017 کا سوالیہ پرچہ چائنہ نیو میٹرونی (Subjective & Objective) کو بنظر عین چیک کر لیا ہے یہ پرچہ سلیبس کے سین مطابق Set کیا گیا ہے۔ اس سوالیہ پرچہ میں کسی قسم کی کوئی غلطی نہ ہے۔ ہم نے سوالیہ پرچہ کا اردو اور انگریزی Version بھی چیک کر لیا ہے یہ Version آپس میں مطابقت رکھتے ہیں اور سلیبس (Syllabus) کے مطابق بھی ہیں۔ نیز اس پرچہ کی Key کی بابت بھی تصدیق کی جاتی ہے کہ یہ بھی درست بنائی گئی ہے۔ اس میں بھی کسی قسم کی کوئی غلطی نہ ہے۔ مزید یہ کہ ہم نے Key بنانے سے متعلق دفتر کی جانب سے تیار کردہ ہدایات وصول کر کے ان کا بغور مطالعہ کر لیا ہے اور ان کی روشنی میں Key بنائی ہے۔

PREPARED & CHECKED BY

Sr.No Name

Designation

Institution

Mobile No.

Signature.