

Roll No. _____

CHR-G2-12-18

(To be filled in by the candidate)

(Academic Sessions 2015 – 2017 & 2016 – 2018)**BIOLOGY**

218-(INTER PART – II)

Time Allowed : 20 Minutes

Q.PAPER – II (Objective Type)

GROUP – II

Maximum Marks : 17

PAPER CODE = 8466

Note : Four possible answers A, B, C and D to each question are given. The choice which you think is correct, fill that circle in front of that question with Marker or Pen ink in the answer-book. Cutting or filling two or more circles will result in zero mark in that question.

1-1	The interphase of meiosis lacks the stage : (A) G ₀ (B) G ₁ (C) G ₂ (D) S
2	The leaf unrolling is promoted by red light in : (A) Monocot (B) Dicots (C) Ferns (D) Gymnosperms
3	Which one of the following is endangered in Pakistan : (A) Indian rhino (B) Indus dolphin (C) Cheer pheasant (D) Tiger
4	A network of closed tubules without internal opening is called : (A) Metanephridium (B) Protonephridium (C) Nephridium (D) Sub meta nephridium
5	The individuals who born with abnormal organs or body parts is called : (A) Malformed (B) Malignant (C) Falignant (D) Malfunction
6	A chromosome with equal length of its arms : (A) Acrocentric (B) Telocentric (C) Metacentric (D) Sub meta centric
7	The plantigrade animals used to walk on their : (A) Digits (B) Tips of toes (C) Soles (D) Belly
8	The blood vessel supplying the blood to Bowman's capsule is : (A) Afferent arterioles (B) Efferent arterioles (C) Renal artery (D) Renal vein
9	A gene with a multiple phenotypic effect is : (A) Polygenic (B) Bombay type (C) Monogenic (D) Pleiotropic
10	The zoological name of leopard cat is : (A) Felis-domestica (B) Felis-leo (C) Felis pardous (D) Felis bengalensis
11	The average cell cycle in humans is : (A) 12 hours (B) 24 hours (C) 36 hours (D) 48 hours
12	The part of human limbic system : (A) Amygdala (B) Thalamus (C) Cerebrum (D) Pons
13	A single chlorine atom can react with ultraviolet rays and destroy as many as ozone molecules : (A) One million (B) Two million (C) One billion (D) Two billion
14	The corpus luteum secretes a hormone : (A) Oxytocine (B) Progesterone (C) Oestrogen (D) Testosterone
15	The sclerenchyma has thick secondary walls usually impregnated with : (A) Chitin (B) Pectin (C) Silica (D) Lignin
16	Cystic fibrosis patients lack a gene that codes for a trans-membrane carrier of : (A) Sodium ion (B) Potassium ion (C) Carbonate ion (D) Chloride ion
17	The term niche was first proposed by Joseph Grinnell an American : (A) Embryologist (B) Ecologist (C) Ornithologist (D) Physiologist

SECTION – I

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2. Write short answers to any EIGHT (8) questions :

- (i) Define anhydrobiosis.
- (ii) Differentiate between haemodialysis and peritoneal dialysis.
- (iii) Define counter current multiplier mechanism.
- (iv) Define antagonistic movement of muscles.
- (v) Differentiate between ligament and tendon.
- (vi) Compare hinge joint with ball and socket joint.
- (vii) What is vernalization?
- (viii) What is apomixis?
- (ix) What is grazing? How grazers affect the texture of soil?
- (x) Where the desert ecosystem are found in Pakistan?
- (xi) Name two pathogenic and two congenital diseases.
- (xii) Differentiate between renewable and non-renewable resources.

3. Write short answers to any EIGHT (8) questions :

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- (i) What is chlorosis? How it is caused?
- (ii) Differentiate between active and resting membrane potential.
- (iii) What is Parkinson's disease?
- (iv) Define gene linkage and gene linkage groups.
- (v) What is heterogametic individual? Give example.
- (vi) Give significance of test cross.
- (vii) What is gene pharming?
- (viii) What is palindromic sequence?
- (ix) Define gene therapy. Name two main methods of gene therapy.
- (x) Define synecology.
- (xi) What are lichens?
- (xii) Differentiate between primary and secondary succession.

4. Write short answers to any SIX (6) questions :

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- (i) Define teratology and teratogens.
- (ii) What are intercalary meristems? Give their role.
- (iii) Differentiate between sense and anti sense strands of DNA.
- (iv) Define point mutations. Give one example.
- (v) Where codon and anticodon are situated?
- (vi) How cytokinesis occur in plants?
- (vii) Write a brief note on turner's syndrome.
- (viii) Define the term Neo-Darwinism.
- (ix) What are endangered species? Give two examples from Pakistan.

SECTION – II

Note : Attempt any THREE questions.

5. (a) Discuss major homeostatic functions of the liver. 4
- (b) Define succession. Explain the different stage of xerosere. 4
6. (a) What is the sliding filament model of muscle contraction? What does it explain? 4
- (b) What hypothesis did beadle and tatum test in their experiment on neurospora? 4
7. (a) Write any four differences between nervous and chemical coordination. 4
- (b) Describe wild life as renewable resources. 4
8. (a) Write a note on tissue culture and cloning. 4
- (b) Discuss sex-linkage in humans with one example. 4
9. (a) What is aging? Describe its causes and symptoms. 4
- (b) Describe the evidences of evolution by comparative anatomy. 4