



S.S.C (Part-I) A/2023
(For all Sessions)

Roll No _____ to be filled in by the candidate

Paper Code **5** **4** **6** **1**

Biology (Objective)

Time: 15 Minutes

Group - I

RWP-1-23

پیالوگی (معروضی)

Marks : 12

Note:- Write answers to the questions on the objective answer sheet provided. Four possible answers are given. Which answer you consider correct fill the corresponding circle A,B,C or D in front of each question with marker or ink on the answer sheet provided.

Note: ہر سوال کے چار مکانہ جوابات A,D,C,B,A پر درست جواب کا اختیاب کرتے ہوئے مغلقہ دائرے میں فین یا مرکزے لٹک کریں۔

1.1 The study of genes and their role in inheritance is called:

(A) Anatomy

ایمیٹری

(B) Genetics

جینیکس

(C) Taxonomy

نکسائونی

(D) Histology

ہستولوگی

2. The number of Bio-elements in nature is:

(A) 16

(B) 14

(C) 12

(D) 10

فطرت میں پائے جانے والے ایجیئنیٹس کی تعداد ہے:

3. French army physician who worked on Malaria in 1878 was:

(A) A.F.A King

اے۔ ایف۔ اے۔ کنگ

(B) Ronald Ross

رونالڈ روس

(C) Laveran

لوران

(D) Mendel

منڈل

4. Mushrooms are the example of which kingdom?

(A) Fungi

فجئی

(B) Animalia

پروٹیلی

(C) Monera

منیرا

(D) Protista

پروٹیستا

5. The major component of plant cell wall is:

(A) Cellulose

سلول

(B) Peptidoglycan

پپٹاگلیکان

(C) Cholesterol

کولیسترول

(D) Chitin

کائٹن

6. Fluid of chloroplast is called:

(A) Nucleoplasm

نوكلیپلasm

(B) Cytosol

سائٹوپلasm

7. Chiasmata is found during which phase of Meiosis:

(A) Metaphase I

ماتفاز I

(B) Prophase I

پروفاز I

(C) Telophase I

تلوفاز I

(D) Anaphase I

انافاز I

8. Bite of which of the following organisms can cause necrosis:

(A) Snake

سینے

(B) Mosquito

گھریلو

(C) Spider

کڑی

(D) Dog

گھریلو

9. To which category of molecules, enzymes belong:

(A) Carbohydrates

کاربوجنیوریٹس

(B) Proteins

پروٹینز

(C) Nucleic Acid

نیکلیک ایڈن

(D) Lipids

لپڈز

10. The example of 3-carbon molecule is:

(A) Starch

سٹارچ

(B) Ribose

پریبوس

(C) Glucose

گلکوز

(D) Pyruvic acid

پریووکیکسید

11. Liver converts Ammonia to which less toxic form:

(A) Uric acid

ورک ایڈن

(B) Bile juice

بائل جس

(C) Urea

وریا

(D) Fibrinogen

فیبرینوجن

12. Ventricular systole lasts about in:

(A) 0.1 sec

0.1

0.2

عین

(B) 0.2 sec

0.2

0.3

عین

(C) 0.3 sec

0.3

0.4

عین

233-09-A*

R

Roll No. to be filled in by the candidate

Biology (Subjective)

Time: 1:45 Hours

Group - I

پاکیج (انٹاریو)
Marks : 48

Section - I

RWP-1-23

2. Attempt any five parts of the question.

(2x5=10)

- Define community with one example.
- Differentiate between micro molecules and macro molecules.
- Write down the important contributions of Abdul Malik Asmai in biology.
- Define bioinformatics.
- How welts appear when mosquito bites?
- Differentiate between qualitative and quantitative observations.
- What is plasmodesmata?
- Write down two functions of phloem tissue.

3. Attempt any five parts of the question.

(2x5=10)

- Define biodiversity?
- Write a note on three Kingdom classification.
- What happens in S-Phase of cell cycle?
- Differentiate between somatic and germ line cells?
- Define synapsis.
- How phragmoplast does form in cytokines is?
- Define photo systems.
- Differentiate between aerobic and anaerobic respiration.

4. Attempt any five parts of the question.

(2x5=10)

- Write any two uses of enzymes.
- Define (optimum temperature).
- Differentiate between intracellular and extracellular enzymes.
- Define saturated fatty acids.
- Which diseases occur due to lack of vitamin "C" and "D".
- Define Leukemia (blood cancer).
- What is heart rate and pulse rate? Define.
- Define Leukocytes.

Section - II.

Note: Attempt any two questions from the following:

(9x2=18)

- Explain molecular and tissue level.
- Describe the structure and function of Ribosomes with diagram.
- Write down the characteristics of five kingdoms of organisms.
- Write summary of events of light reactions.
- Write down any five nutrients role in the life of plants in detail.
- Describe factors which affect the rate of transpiration.

حصہ دوم

نوٹ: درج ذیل میں سے کوئی سے دو سوالات کے جوابات تحریر کریں۔

5. (a) ماکرو اور میکرو کی وفاہت کریں۔

(b) ھلکا کرنا جو سوزمی ساخت اور حمل تحریر کریں۔

6. (a) جانداروں کے پانچ تکالف مزکی خصوصیات تحریر کیجیے۔

(b) لائسٹ ری ایکشنز کے واقعات کی جبری (خلاص) تحریر کریں۔

7. (a) پودوں کی زندگی کیلئے کوئی سے پانچ نیوٹن میں کے کردار کو تفصیل سے بیان کیجیے۔

(b) ریاضیاتی کی رفتار پر حمل کرنے والے عوامل کی تفصیل بیان کیجیے۔



Roll No. _____ to be filled in by the candidate

Paper Code 5 4 6 4

Biology (Objective)

Group - II

یادوی (صروحتی)

Marks : 12

Time: 15 Minutes

Note: Write answers to the questions on the objective answer sheet provided. Four possible answers are given. Which answer you consider correct fill the corresponding circle A,B,C or D in front of each question with marker or ink on the answer sheet provided.

Note: جواب کے پارٹ کے جوابات A,B,C,D پرستی میں اپنے انتخاب کرتے ہوئے محقق دائرے میں مینا مار کر لے لیں۔

- 1.1 The amount of energy released from one mole of ATP is: ATP 1-1
 (A) 7.02 K. cal 7.02 کلوکلوریز (B) 7.03 K. cal 7.03 کلوکلوریز
 (C) 7.20 K. cal 7.20 کلوکلوریز (D) 7.3 K. cal 7.3 کلوکلوریز
- 1.2 How much percentage of lipids is present in milk: -2
 (A) 12 % 12% (B) 10 % 10% (C) 0.9 % 0.9%
- 1.3 Root hairs belong to: -3
 (A) Pericycle cells پیرائیسلیکل میٹر (B) Stomatal cells سٹومائیٹل میٹر
 (C) Root epidermal cells روت اپیڈرمل میٹر (D) Cortical cells کورتیکل میٹر
- 1.4 The scientific study of plants is called: -4
 (A) Botany بٹانی (B) Zoology زوائولوچی (C) Anatomy آناتومی (D) Histology ہیسٹولوچی
- 1.5 The study of fossils is called: -5
 (A) Taxonomy تکالیفی (B) Systematics سیسٹمیکس (C) Palaeontology پیلسنٹنولوچی (D) Paleontology پیلسنٹنولوچی
- 1.6 Tentative explanation of observations is called: -6
 (A) Hypothesis ہیپوٹیسیس (B) Experiment اخیریت (C) Deduction ڈیڈکوشن (D) Theory ٹھیئری
- 1.7 In Pakistan an endangered species is: -7
 (A) Indus Dolphin یندھی دلفین (B) Crowned crane کراؤنڈ کرین (C) Sparrow چڑیا (D) Markhor مارخور
- 1.8 Cells were first discovered by: -8
 (A) Aristotle ارسطو (B) Robert Brown Robert Brown (C) Robert Hooke Robert Hooke (D) Schwan شوان
- 1.9 In 1974 Nobel Prize for physiology and medicines won by: -9
 (A) Rene de Duve رنی دی دووے (B) Camillo Golgi کیمیلو گولجی (C) Lamark لامارک (D) Aristotle ارسطو
- 1.10 During mitosis one cell divides into number of daughter cell: -10
 (A) 1 1 (B) 2 2 (C) 4 4 (D) 8 8
- 1.11 Duplication of chromosomes occurs in: -11
 (A) S-Phase S-فاز (B) M-Phase M-فاز (C) GI-Phase GI-فاز (D) Prophase پروفیز
- 1.12 Enzymes are made up of: -12
 (A) Fatty Acid نیٹی ائسٹ (B) Nucleic Acid نیوکلیک ائسٹ
 (C) Carbohydrates کاربوہائیڈز (D) Amino Acids ائیمین ائسٹز

Roll No _____ to be filled in by the candidate.

Biology (Subjective)

Time: 1:45 Hours

Group - II

پالوی (اثاریہ)

Marks : 48

Section - I

RWP-2-23

2. Attempt any five parts of the question.

(2x5=10)

- Define Biotechnology.
- Write down the scientific name of mustard plant and frog.
- What is parasite?
- Differentiate between qualitative and quantitative observations.
- Write down two important observations of A.F.A. King.
- Define hypothesis.
- What is micrograph?
- Differentiate between primary and secondary cell wall.

3. Attempt any five parts of the question.

(2x5=10)

- Why viruses are at the border line of living and non living organisms?
- What is role of Eucalyptus plant in disturbing water table?
- Write the name of phases of Karyo kinesis? (In sequence)
- Differentiate between disjunction and non-disjunction.
- Define Metastasis?
- How does meiosis produce variations in next generation?
- What are pigments?
- Define fermentation? Write name of its types.

4. Attempt any five parts of the question.

(2x5=10)

- Define metabolism.
- How value of pH affects the working of an enzyme? Give an example.
- What is meant by active site?
- What is co-enzyme? State its two functions.
- How does our stomach digest food bolus and chyme?
- Why human heart is called double pump?
- What is transpirational pull?
- Write two symptoms of dengue fever.

Section - II

Note: Attempt any two questions from the following:

(9x2=18)

- Describe any ten branches of biology.
- Define mitochondria? Explain it with the help of diagram.
- Define Binomial Nomenclature and give its significance.
- Write note on Dark reaction of photosynthesis.
- What are Fertilizers? Give their importance and related environmental hazards.
- Write note on ABO Blood Group System.

حصہ دوم

لوٹ: سچے ازیل میں سے کوئی سے دوسرا لات کے جوابات تحریر کریں۔

5. (ا) پائیور لوگی کی کوئی سی دس شاخوں کی وضاحت کریں۔

(ب) ماں کو ڈریا کی تحریر کریں۔ ماں گرام کی مدد سے اس کی وضاحت کریں۔

6. (ا) ہانوی مولیں کلچر کی تحریر کریں اور اہمیت کی وضاحت کریں۔

(ب) فوٹسینٹی سرکے ڈارک ری ایکشن پر لوٹ لکھیں۔

7. (ا) فریلیزرز کیا ہوتے ہیں؟ ان کی اہمیت اور ان سے جڑے اخراجی خدشات تحریر کریں۔

(ب) ABO بلاک گروپ سٹیپر لوت لکھیں۔

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