KARNAL SHER KHAN CADET COLLEGE SWABI

CODE NO.

Not for Candidate

Invigilator Sign: _____

ENTRY TEST FOR CLASS – 11th 2023-24

Roll Number (In Figures): _____

Date: _____Apr 2023

Name: _____

Paper/Subject: **BIO / MATHS**

Father's Name: _____

Exam Center: KSKCCS

KARNAL SHER KHAN CADET COLLEGE SWABI

CODE NO.

Not for Candidate

PAPER: BIO / MATHS

Maximum Marks: 50

Time: 60 Minutes

Q.NO	BIOLOGY					O.M (50)	MATHS					O.M (50)	Sign of Scrut
	1	2	3	4	5		1	2	3	4	5		
Marks													
Signature of Checkers													

INSTURCTIONS

1. **Use ball point only.**
2. Write Roll Number, name and center in the above mentioned spaces on the answer book.
3. Writing Roll number or any suspicious mark, sign etc on answer book will lead to the cancellation of paper.
4. Deposit the answer book to the Supervisor before leaving the exam Hall.
5. No part of this answer book is to be torn out.
6. Electronic dictionary, mobile phones are strictly prohibited inside the hall.
7. Sharing of calculators or any other materials are not allowed during the paper.
8. No overwriting, cutting, or use of ink remover is allowed.

MODEL PAPERS

DO NOT WRITE ON THIS PORTION

PAPER – BIOLOGY

Q-1: Choose the correct option. **Marks: 20**

i. Mitosis takes place in_____

a) Germ cells b) Somatic cells c) Bacterial cells d) All of these

ii. _____ is the longest sub-phase of interphase.

a) G1-phase b) S-phase c) G2-phase d) G0 phase

iii. Unwanted damaged cells are removed from the body through_____

a) Mitosis b) Meiosis c) Apoptosis d_ Necrosis

iv. Trypsin in small intestine works best at a pH of____

a) 9 b) 6 c) 12 d) 8

v. Which of the following are produced during light reaction of photosynthesis?

a) ATP and FADH b) NADPH c) ATP and NADPH d) FADH

vi. The dark reaction of photosynthesis takes place in_____ of chloroplast.

a) Stroma b) Granum c) Membranes d) Thylakoids

vii. Crossing over occurs during_____ phase of meiosis.

a) Anaphase-1 b) Metaphase-1 c) Telophase-1 d) Prophase-1

viii. The part which is common in both respiratory and digestive tract is____

a) Trachea b) Pharynx c) Stomach d) Lung

ix. The pyloric sphincter is located between:

a) Stomach and duodenum b) Esophagus and stomach

c. Duodenum and ileum d) Jejunum and caecum

x. The wave like contractions and relaxations in the muscular walls of the digestive tract is called ___.

a) Convulsions b) Peristalsis c) Absorption d) Egestion

xi. Beneath the cranium, the brain and spinal cord are protected by a tought membrane called

(a) Plasma membrane (b) Pericardium (c) Meninges (d) Tymphanic membrane

xii. The part of the brain that controls transitions between sleep and wakefulness and the rate and pattern of breathing is the.

(a) Corpus callosum (b) Cerebellum (c) Medulla oblongata (d) Pons

MODEL PAPERS

xiii. The part of neuron that takes nerve impulses away from the cell body is the:

(a) Dendron (b) Axon (c) Neurotransmitter (d) Non of these

xiv. The neuron that have long axon and short dendrites are:

(a) Sensory neurons (b) Associate neurons (c) Major neurons (d) Non of these

xv. The colored portion in the center of sclera is the:

(a) Pupil (b) Iris (c) Rods (d) Cones

xvi. When the lens of the eye becomes cloudy or opaque, this defect of the eye is called:

(a) Myopia (b) Hypermetropia (c) Cataract (d) Non of these

xvii. Which of the following gas can change the PH of blood and making it more acidic

(a) So_2 (b) O_2 (c) N_2 (d) Co_2

xviii. The land plants get oxygen from the surrounding air through stomata, leaves and _____.

(a) Young roots (b) Young stems (c) Old roots (d) old stems

xix. Inside the thorax, the trachea divides at its lower end in to two branches called:

(a) Bronchioles (b) Alveoli (c) Bronchi (d) Non of these

xx. Those five vertebrae which lie in the back region are termed as:

(a) Thoracic vertebrae (b) Lumber vertebrae (c) Sacrum (d) Coccyx

Q–2: Fill in the blanks with suitable words and formulas. **Marks: 10**

i. For a multicellular organism to grow, new cells are produced by____.

ii. Before entering in Krebs cycle, Pyruvic acid is changed into a 2-carbon compound called_____.

iii. The enzymes which are used to cut the DNA in specified sequence is_____.

iv. The air moves from the pharynx into the_____.

v. The outer region of the kidney is called_____.

vi. The parts of the body which receive the changes (stimuli) taking place in our environment are called_____.

vii. _____muscles are attached to the bones of the skeleton.

viii. The various forms of a gene responsible for the same trait are called____.

ix. After fertilization in plants, the fruit develops from____

x. Human blood group is an example of _____variation.

Note: Attempt any three (3) questions. **(Marks: 20)**

Q-3: What is the status of viruses in classification?

Ans: _____

_____

_____

_____

_____

model papers

Q-4: What is the role of insulin and glucagon?

Ans:

Q-5: If a man with type AB blood group marries a woman with type O blood group. What type of blood group do you expect in the offsprings?

Ans:

Q-6: Differentiate between food chain and food web.

Ans:

MODEL PAPERS

PAPER – MATHS

Q-1: Choose the correct option. **Marks: 20**

i. The midpoint of a segment with end points at (5, 1) and (1, - 3) is ---------

(a) (- 1, 3) (b) (- 3, 3) (c) (- 2, 2) (d) (3, - 1)

ii. In ΔABC if m$\overline{AB}$ > m $\overline{AC}$ then which statement is true.

(a) m < B > m < A (b) m < C > m < A (c) m < C > m < B (d) m < A > m < C

iii. Which of the following are concurrent?

(a) Angle bisector (b) Median (c) Both (a) & (b) (d) None of these

iv. The point (– 4, 7) lies in ____ quadrant.

(a) 1st (b) 2nd (c) 3rd (d) 4th

v. The factors of $x^2 – 5x + 6$ are _____.

(a) x + 1, x – 6 (b) x – 2, x – 3 (c) x + 6, x – 1(d) x + 2, x + 3

vi. The solution set of $\left|\frac{5x}{3}\right| = 5$ is _____.

(a) {5,-5} (b) {3,-3} (c) {4,-4} (d) {-3}

vii. Solution of x^2= -9 is _____ , xεR

(a) {3,-3} (b) {9,-9} (c) {-3} (d) {}

viii. L.C.M = _____ for two polynomial A, B

(a) $\frac{A}{H.C.F}$ (b) $\frac{AXB}{H.C.F}$ (c) $\frac{B}{H.C.F}$ (d) $\frac{H}{AXB}$

ix. Square root of $x^2 - \frac{2}{x} + \frac{1}{x^4}$ is _____.

(a) $\pm (x - \frac{1}{x^2})$ (b) $\pm (x - \frac{1}{x})$ (c) $\pm (x^2 - \frac{1}{x})$ (d) None

x. The equation $(x + y)^m = x^m + y^m$ is true for m = _____.

(a) 0 (b) 1 (c) 2 (d) 3

xi. If $x^2 – 3x – 4 = 0$, then the solutions are _____.

a) x = 4, - 1 b) x = - 4, 1 c) x = 4, 1 d) x = - 4, - 1

xii. The sum of the cube roots of unity is _____.

a) zero b) one c) three d) None

xiii. If 2a + 1 : 21 :: 4 : 7, then a = _____.

a) a = $\frac{13}{2}$ b) a = $\frac{11}{2}$ c) a = 10 d) a = $\frac{9}{2}$

xiv. If P(x) and Q(x) are two polynomials, then $\frac{P(x)}{Q(x)}, Q(x) \neq 0$ is _____ fraction.

a) Rational b) Irrational c) Proper d) Improper

xv. If "f" is a function from A to B, then 'f" is onto function if _____.

a) Range f = B b) Range f ≠ A c) Dom f = A d) Range f ⊂ B

xvi. If A ⊂ B, then AUB = _____.

a) A b) B c) U d) None

xvii. The set {x | x ∈ A and x ∈ B } is _____.

a) AUB b) A∩B c) A – B d) None

xviii. A subset of A x A is called the ____ in A.

a) binary relation b) Domain c) Co-domain d) None

MODEL PAPERS

xix. $(1 - w - w^2)^5 =$ _____.

a) w^5 b) w^{10} c) 32 d) 64

xx. The distance of the center from any point of the circle is called _____.

a) Diameter b) secant c) radius d) chord

Q–2: Fill in the blanks with suitable words and formulas. **Marks: 10**

i. Discriminant of $x^2 - 2x + 1 = 0$ is _____.

ii. If AUB = U and A∩B = Ø then A'= _____.

iii. A cumulative frequency histogram is also called _____.

iv. $(\cos\vartheta - \sin\vartheta)^2 + 2\cos\vartheta\sin\vartheta =$ _____.

v. If A and B are (2 x 5) matrices, what will be the dimension of the matrix (A + B) ? -----

vi. A line segment joining the midpoint of a side to the opposite vertex is called _____.

vii. Base of natural logarithm is _____.

viii. Two tangents draw from a point outside a circle are ____ in length.

ix. Two sets A and B are said to be disjoint if _____.

x. $1 + \cot 2\vartheta =$ _____.

Note: Attempt any three (3) questions. **(Marks: 20)**

Q-3: The length of one side of a right triangle exceeds the length of the other by 3 centimeters. If the hypotenuse is 15 centimeters. Find the length of the side of the triangle.

Ans: _____

MODEL PAPERS

Q-4: Prove that $\left[\frac{4^5.64^3.2^3}{8^5.(128)^2}\right]^{\frac{1}{2}} = 2$

Ans:

Q-5: $\text{Cos}^4x - \text{Sin}^4x = 1 - 2\text{Sm}^2x$

Ans:

Q-6: Prove that the angle in a semi-circle is a right angle.

Ans:

MODEL PAPERS

MODEL PAPERS