# USWA COLLEGE ISLAMABAD
## Class XI  Paper Biology

**Time Allowed : 30 Minutes**                                                **Total Marks:30**

**Name :** -------------------------------------------------------                **Father's name:**-----------------------------------------------

**Roll No .**----------------------------------------                **Group:**------------------------------------------------------**Note:**

**Attempt any TEN (10) Questions  on the QUESTION PAPER. All questions carry equal(3) marks**

1. Draw labelled Diagram of nephron

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2. How insulin and Glucagon work by antagonistic way

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3. Name bones of forelimb of human

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4. Explain Trachea and Bronchus of Respiratory System

5 Draw labelled Diagram of Brain.

6. What are functions of Ovaries and Oviduct ?

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7.  Define law of independent assortment and give one example.

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8. How DNA is cut in Genetic Engineering ?

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9. What are nitrogen fixing Bacteria ?

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10. Name trophic levels in food chain

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11. Explain Binary fission in Bacteria.

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12. Name and explain two types of antibiotics.

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13. Explain structure of neuron.

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# USWA COLLEGE ISLAMABAD
## Class XI     Paper Chemistry

**Time Allowed : 30 Minutes**                                     **Total Marks:30**

**Name : -------------------------------------------------**          **Father's name:-----------------------------------------------**

**Roll No .----------------------------------------**          **Group:----------------------------------------------------------**

**Note: All the question are to be attempted on the QUESTION PAPER. All questions carry equal(3) marks**

1.  Differentiate between acid   salt and basic salt with examples.

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2.Define acidic rain and give any two effects on environment.

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3.Differentiate between empirical formula and molecular formula with examples

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4. How can you predict the direction of a reaction by using the equilibrium constant?

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5. Give the structural formula of isobutane ,isopentane and propene.

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6. What is meant by glucose and fructose?

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7. what are the effects of global warming?

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8. How polarity of water molecule play its role to dissolve the substance?

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9.Explain the process of roasting.

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10. what happens when ammonical brine is carbonated?

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# USWA COLLEGE ISLAMABAD

### Class XI    Paper Computer Science

**Time Allowed: 30 Minutes**                              **Total Marks: 30**

**Name:** _____          **Father's Name:** _____
**Roll No.** _____ **Group:** _____    **Centre**_____

**Note:  Write any 6 short questions of the following all questions carry equal marks.  Marks = 18**
Q.1: write any 6 short questions of the following.

1. Define Algorithm?
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2. Make a truth table of AND GATE, with DIAGRAM.
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3. Differentiate between Syntax and Semantic?
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4. What are the Characteristics of High Level Languages?
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5. Construct a TRUTH Table of following.
i) XY'Z+X'YZ+X'Y'Z'          ii)XY+YZ+XZ
_____

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6. Construct a LOGIC DIAGRAM of following.
i) A'B'C+AB'C'+A'B'C     ii)A'B+B'C+A'C

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7. Write a note on Integrated Development Environment (IDE).

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8. Define Reserved Words in C Language?

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9. Define PREPROCESSOR DIRECTIVES?

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**Q.2 Write down any 2 Long questions of the following.          Marks = 12**
1. What is problem solving? Write down the steps to solve a problem.

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2. Write a C program to find the sum and average of three numbers.

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3. What is operating system? What are the functions of operating system?

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# USWA COLLEGE ISLAMABAD

Paper: English        Class:  First Year

Time Allowed: 30 Minutes                                     Max.Marks: 30

*Name:_____        Father's Name:_____*
*Roll No :_____ Group _____*

## Note: All questions are to be attempted on the question papers.

**Question 1. Circle the correct option. (10)**

**1. I said to him, "Why are you working so hard?" The correct indirect is:**

A. I asked him why he was working so hard.            B. I asked him why was he working so hard.

C. I asked him why had he been working so hard.       D. I asked him why he had been working so hard.

**2.The tiger caught a fox. The correct passive is:**

A. A fox has been caught by the tiger.            B. A fox was caught by the tiger.

C. A fox is caught by the tiger.                  D. A fox had been caught by the tiger.

**3. He believes in the policy of *making hay while the sun shines*. The underlined part means:**

A. giving bribes to get his work done             B. seeking advice from one and all

C. helping those who help him                     D. making the best use of a favourable situation

**4. The performance of our players was rather** worst than I had expected. The correct clause is:

A. bad as I had expected                          B. worse than I had expected.

C. worst than was expected                        D. No correction required

**5. Choose the correctly spelt word.**

A. Comitte            B. Committee          C. Committee          D. Comiittee

**6.A disease that spreads over a large area is called:**

A. Infection          B. Cancer             C. Plague             D. Epidemic

**7. The antonym of 'Bitter' is :**

D. Sweet                 B. Blunt                 C.Bold                 D. Timid

**8. If . . . . . . I would not lose temper. The correct conditional clause is:**

A. I were you            B. I was you            C.I will be you        D. I am you

**9. A mosquito is flying . . . . . your head.**

A. up                    B. at                  C. over                D. on

**10. They are two brothers, but . . . . . . of them is hardworking.**

A. none                  B. neither             C. either              D. not any

**Question 2. Determine the part of speech (verb, noun, adjective etc) of the underlined words in the following sentences : (5)**

1. He didn't take anything during the **fast**. (          )

2. Muslims **fast** during Ramazan.(          )

3. I missed the **fast** train. (          )

4. She speaks **fast**. (          )

5. I have a pain in the **back**. (          )

6. I will come **back** in five minutes. (          )

7.Have you closed the **back** door? (          )

8. Please **back** your car a little. (          )

9. The earth is **round**. (          )

10. The boys ran **round** the tree. (          )

**Question 3. Write a paragraph in about 100 words on 'Importance of Vaccination against Covid-19'.                (8)**

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**Question 4. Translate into English:** (7)

تعلیم ہماری زندگی کا ایک لازمی حصہ ہے۔ ہم علم کے بغیر کچھ بھی نہیں۔ تعلیم کے حصول کا سب سے بڑا قدم خود ایک اسکول میں داخلہ لینا ہے۔ اسکول زیادہ تر لوگوں کے لئے سیکھنے کی پہلی جگہ کے طور پر کام کرتا ہے۔ میرا اسکول میرا دوسرا گھر ہے جہاں میرا زیادہ تر وقت گزرتا ہے۔ سب سے بڑھ کر، اس سے مجھے زندگی میں بہتر کام کرنے کا ایک پلیٹ فارم ملتا ہے اور میری شخصیت بھی مضبوط ہوتی

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# USWA COLLEGE ISLAMABAD

## Class XI                                    Paper Mathematics

Time Allowed : 45 Minutes                                                    Total Marks:30

Name : --------------------------------------------------                    Father's name:-------------------------------------

Roll No .-------------------------------------------                         Group:-------------------------------------------------

**Note: All the question are to be attempted on the QUESTION PAPER.**

**Q. 1**    **Encircle the correct option i.e A/B/C/D. All Parts carry equal marks.   (Marks – 18)**

i)    Two linear factors of $x^2 - 15x + 56$ are

   A) $(x-7),(x+8)$      B) $(x+7),(x-8)$      C) $(x-7),(x-8)$      D) $(x+7),(x+8)$

ii)    The number of terms in a standard quadratic equation $ax^2 + bx + c = 0$

   A) 1                     B) 2                     C) 3                     D) 4

iii)    Roots of the equation $4x^2 - 5x + 2 = 0$ are

   A) irrational            B) imaginary            C) rational            D) none of these

iv)    The nature of the roots of equation $ax^2 + bx + c = 0$ is determined by

   A) Sum of the roots    B) Product of the roots      C) Synthetic division  D) discriminant

v)    In a ratio $a:b$ , $a$ is called

   A) relation              B) antecedent            C) consequent          D) none of these

vi)    If $\dfrac{u}{v} = \dfrac{v}{w} = k$ , then

   A) $u = wk^2$            B) $x^2 y^2$            C) $u = w^2 k$            D) $\dfrac{y^2}{x^4}$

vii)    A fraction in which the degree of numerator is greater or equal to the degree of denominator
   is called

   A) a proper fraction    B) an improper fraction      C) an equation          D) algebraic
relation

viii)    Partial fractions of $\dfrac{x+2}{(x+2)(x^2+2)}$ are of the form

   A) $\dfrac{A}{x+1} + \dfrac{B}{x^2+2}$      B) $\dfrac{A}{x+1} + \dfrac{Bx+C}{x^2+2}$      C) $\dfrac{Ax+B}{x+1} + \dfrac{C}{x^2+2}$      D) $\dfrac{A}{x+1} + \dfrac{Bx}{x^2+2}$

ix)    Power set of an empty set is

   A) $\phi$                B) $\{a\}$              C) $\{\phi,\{a\}\}$              D) $\{\phi\}$

x)    If $A \subseteq B$ , then $A - B$ is equal to

   A) A                     B) B                     C) $\phi$                D) $B - A$

xi)    Mean is affected by change in

   A) value                 B) ratio                 C) origin                D) None of these

xii)    Sum of the deviations of the variable X from its mean is always

   A) zero                  B) one                   C) same                  D) None of these

xiii)    If $\tan\theta = \sqrt{3}$, then $\phi$ is equal to

A) $90^0$                    B) $45^0$                        C) $60^0$                    D) $30^0$

xiv)    $\dfrac{1}{1+\sin\theta} + \dfrac{1}{1-\sin\theta} = \underline{\hspace{3cm}}$

A) $2\sec^2\theta$            B) $2\cos^2\theta$            C) $\sec^2\theta$            D) $\cos\theta$

xv)    $\dfrac{1}{2}\cos ec45^0$

A) $\dfrac{1}{2\sqrt{2}}$        B) $\dfrac{1}{\sqrt{2}}$        C) $\sqrt{2}$                D) $\dfrac{\sqrt{3}}{2}$

xvi)    How many tangents can be drawn from a point outside the circle?

A) 1                        B) 2                            C) 3                        D) 4

xvii)    If $\alpha$, $\beta$ are the roots of $3x^2 + 5x - 2 = 0$, then $\alpha + \beta$ is

A) $\dfrac{5}{3}$            B) $\dfrac{3}{5}$            C) $-\dfrac{5}{3}$            D) $-\dfrac{2}{3}$

xviii)   If $a:b = x:y$, then alternendo property is

A) $\dfrac{a}{x} = \dfrac{b}{y}$    B) $\dfrac{a}{b} = \dfrac{x}{y}$    C) $\dfrac{a+b}{b} = \dfrac{x+y}{y}$    D) $\dfrac{a-b}{b} = \dfrac{x-y}{y}$


**Q. 2    Solve the Following Questions        (4 X 3 = 12)**


i)      Solve  $3x^{2x+2} = 12.3^x - 3$




ii)     Solve the following simultaneous equations

$7x^2 - 3y^2 = 4; \quad 2x^2 + 5y^2 = 7$

iii)     The following frequency distribution the weights of boys in kilogram. Compute median

| Class intervals | 1 – 3 | 4 - 6 | 7 – 9 | 10 – 12 | 13 -15 | 16 – 18 | 19 – 21 |
|---|---|---|---|---|---|---|---|
| Frequency | 2 | 3 | 5 | 4 | 6 | 2 | 1 |

iv)     A road is inclined at an angle $5.7^0$. Suppose that we drive 2 miles up this road starting from sea level. How high above sea level are we?

# USWA COLLEGE ISLAMABAD

Entry Test 2021                                                          Class XI

## Paper Physics

Time Allowed : 30 Minutes                                               Total Marks:30

Name : ---------------------------------------------------        Father's name:----------------------------------------------

Roll No .--------------------------------------------        Group:---------------------------------------------------

**Note: All the question are to be attempted on the QUESTION PAPER.**

**Q. 1    Encircle the correct option i.e A/B/C/D. All Parts carry equal marks.   (Marks – 15)**

i)      Least count of physical balance
        A) 0.1 g              B) 0.01 g              C) 0.001 g              D) 1 g

ii)     A train moves at 72 Km/h. Its speed in m/s
        A) 10                 B) 20                  C) 30                  D) 40

iii)    Acceleration produced 10 KN force in 50 Kg body will be _____ ms$^{-2}$
        A) 500                B) 5000                C) 50000               D) 500000

iv)     In case of Neutral equilibrium center of gravity of a body is _____ than normal state.
        A) higher             B) lower               C) at same level       D) both A & B

v)      The value of *'g'* at height of two earth radius would be
        A) $\frac{1}{3}g$          B) $\frac{1}{4}g$          C) $\frac{1}{6}g$          D) $\frac{1}{9}g$

vi)     Energy possessed by stretched spring of watch
        A) K.E                B) Gravitational P.E   C) Elastic P.E         D) Electrical energy

vii)    The density of a substance cab be found with help of
        A) Pascal's Law       B) Hook's Law      C) Archimedes Principle D)  Principle of
flotation

viii)   At -40C$^0$ the value in Fahrenheit is
        A) – 20F$^0$              B) – 40F$^0$              C) – 32F$^0$              D) – 60F$^0$

ix)     In solids heat is transferred by
        A) Conduction      B) Convection          C) Radiation           D) Absorption

x)      Which one is not example of simple Harmonic motion
        A) simple pendulum                         B) mass spring system
        C) ball & bowl system                      D) bouncing ball at ground

xi)     If at Anarkali Bazar Lahore intensity level of sound is 80 dB then its intensity would be
_____                 Wm$^{-2}$
        A) 20                 B) 15                  C) 25                  D) 10

xii)    Which of following quantity is not changed during refraction?
        A) its direction      B) its speed           C) its frequency       D) its wavelength

xiii)   Electroscope works on principle of
        A) Coulomb's Law                           B) Ohm's Law
        C) Electrostatic induction                 D) Electromagnetic induction

xiv) lev = _____ J

A) $1.6 \times 10^{19}$         B) $1 \times 10^{-19}$         C) $1.6 \times 10^{-19}$         D) $1 \times 10^{19}$

xv) Particles emitted from hot cathode surface are

A) Positive ions         B) Negative ions         C) Protons         D) Electrons

**Q. 2**   **Attempt any FIVE (5) questions.**         **(5 X 3 = 15)**

i) Action and reaction are always equal then how does a body move?

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ii) Define capacitance. Name factors upon which it depends.

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iii) Lenz's Law is manifestation of Law of Conservation of energy. Prove this statement by suitable example.

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iv) Differentiate between cosmic and background radiations.

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v)      Define critical angle and write conditions for total internal reflection.

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vi)     Prove that in SHM when K.E is maximum P.E is zero and when P.E is maximum K.E will be zero.

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