

## Model Papers Class 11<sup>th</sup>

Subject: Biology

Class: XI

Time: 10 minutes

Objective

Total marks: 10

Name: \_\_\_\_\_ Roll No: \_\_\_\_\_

**Q#01-** Each question has four possible answers A, B, C and D. Encircle the correct answer.

**Note:** Overwriting, Cutting, Erasing, use of ink remover and carbon pencil will result in loss of marks.

<b>01</b>	Which of the following Blood cells are responsible for Clotting?							
	A	Basophils	B	Lymphocytes	C	Thrombocytes	D	Monocytes
<b>02</b>	The relation between I <sup>A</sup> and i alleles of human blood group system is:							
	A	Co-dominance	B	Incomplete dominance	C	Complete dominance	D	Over dominance
<b>03</b>	Urine from all the Nephrons moves to the .....;							
	A	Collecting duct	B	Urinary bladder	C	Ureter	D	Renal Pelvis
<b>04</b>	Which hormone is responsible for production of glucose from proteins?							
	A	Thyroxin	B	Glucagon	C	Cortisol	D	Aldosterone
<b>05</b>	Flow of energy and material is related to;							
	A	Organism	B	Community	C	Ecosystem	D	Biosphere
<b>06</b>	Which hormones prepare the body for fight or flight response in emergency?							
	A	ACTH	B	Adrenaline	C	TSH	D	Thyroxin
<b>07</b>	The difference among the members of same species is called;							
	A	Mutation	B	Evolution	C	Variation	D	None of these
<b>08</b>	Which one of the following is considered as green house gas							
	A	Carbon monoxide	B	Carbon dioxide	C	Methane	D	Both B & C
<b>09</b>	Tricuspid valve is present at the opening between the .....;							
	A	Left ventricle and aorta	B	Left atrium and left ventricle	C	Right atrium and right ventricle	D	Superior and inferior vena cava
<b>10</b>	Ingestive heterotrophic mode of nutrition is the characteristic feature of kingdom;							
		Monerans		Fungi		Plantae		Animalia

Subject: Biology

Class: XI

Time: 40 minutes.

Subjective:

Total marks: 30

Part I

Q#03. Answer briefly any Ten parts of the following.

(10x2=20)

I	Differentiate between parthenogenesis and parthenocarpy.	II	It is recommended that we should take fiber rich diet. Why?
III	Why dogs hang out their tongues and pant?	IV	What is genotype? Differentiate between homozygous and heterozygous genotype.
V	What does AIDS stands for? Why it is considered as the most severe and fatal disease?	VI	What do you know about theory of special creation?
VII	Differentiate between nerve and the ganglion.	VIII	What is vaccine? Why is it used? Name some vaccines used in Pakistan for COVID-19.
IX	Give the names of some antibiotics and painkillers used in our daily life.	X	What is cell? What is meant by eukaryotic cell? Give example.
XI	Why the import of Eucalyptus in Pakistan was proved to be harmful?	XII	What are glands? Name any four endocrine glands of our body.

Part II

Note: Attempt any two Long Questions.

5x2=10

Q# 4- Discuss the structure and function of endoplasmic reticulum.

Q# 5- Write down the function of hormones secreted by following glands.

- a) Thyroid gland.
- b) Gonads.

Q# 6- Describe the structure of neuron with the help of diagram.

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Subject: Chemistry

Time: 30 minutes.

Subjective:

Total marks: 28

Part I

Q#03. Write short answers of the following questions.

(9x2=18)

I	Discuss the formation of coordinate covalent bond in NH <sub>3</sub> and BF <sub>3</sub> .	II	What is functional group, draw the structure of ester functional group.
III	Why shielding effect decreases down in group II A elements?	IV	How NO <sub>2</sub> and CO <sub>2</sub> participate in acid rain?
V	Write a reaction for the preparation of alkyl halides from alkane.	VI	Why Octane (C <sub>8</sub> H <sub>18</sub> ) is insoluble in water?
VII	Draw the structure of toluene and H <sub>2</sub> O	VIII	What is the unit of K <sub>c</sub> for the given
IX	Find the number of molecules in 10g CO <sub>2</sub> .		

Part II

Note: Attempt the following Questions.

5x2=10

Q# 4-

- a) Discuss in detail the main causes of air pollution.
- b) (i) Prepare ethane from ethyne.  
How ethanol is prepared from ethene.

**Subject: Chemistry**

Time: 15 minutes

**Objective**

Total marks: 12

Name: \_\_\_\_\_ Roll No: \_\_\_\_\_

Note: Overwriting, Cutting, Erasing, use of ink remover and carbon pencil will result in loss of marks.

Q#01- Each question has four possible answers A, B, C and D. Encircle the correct answer. 06

01	The conjugate base of $\text{HSO}_4^-$ is _____.							
	A	$\text{H}_2\text{SO}_4$	B	$\text{H}_3\text{SO}_4^+$	C	$\text{H}_2\text{O}$	D	$\text{SO}_4^{2-}$
02	Hydrogens present in pentane are _____.							
	A	08	B	10	C	12	D	14
03	Which of the following contain covalent bond?							
	A	$\text{NaBr}$	B	$\text{K}_2\text{SO}_4$	C	$\text{Ne}$	D	$\text{CO}_2$
04	The reaction will be in equilibrium if							
	A	$K_c < Q_c$	B	$K_c > Q_c$	C	$K_c = Q_c$	D	All of these
05	Which of the following atoms do not form bonds?							
	A	$\text{He}$	B	$\text{K}$	C	$\text{Cl}$	D	$\text{S}$
06	Which of the following is base according to Lewis Concept?							
	A	$\text{BF}_3$	B	$\text{NH}_3$	C	$\text{AlCl}_3$	D	$\text{H}^+$

Q#2- Fill in the Blanks.

06

- 1- If  $[\text{H}^+] < [\text{OH}^-]$  the solution will be \_\_\_\_\_.
- 2- Group \_\_\_\_\_ elements show highest ionization energy values.
- 3- The Oxygen of water molecule has \_\_\_\_\_ lone pair(s).
- 4- The molecular formula of acetic acid is \_\_\_\_\_.
- 5- According to Bronsted Lowry concept  $\text{B(OH)}_3$  is \_\_\_\_\_.
- 6- The Oxidation state of Noble gases is usually \_\_\_\_\_.

Paper Computer Science

Total Marks 10

Time: 10 Minutes

Objective Part

Name: \_\_\_\_\_

Roll No. \_\_\_\_\_

Note: Over-writing, Cutting, Ink-remover and use of lead pencil will cause in loss of marks.

Q.1 Each question has four possible choices. Tick the correct choice.

S	Statement	A	B	C	D
i	Making illegal copies of copyrighted software is called:	Piracy	Privacy	Replication	Generate
ii	Which one needs periodic refreshing?	ROM	PROM	DRAM	SRAM
iii	Which register value is incremented after fetching?	PC	IR	AX	EBX
iv	Which programming structure executes program statements in order?	Sequence	Relation	Decision	Repetition
v	Conditional operator is an alternative of -----.	If	If-else	Nested if	I-else-if
vi	Which character signifies the beginning of an escape sequence?	/	\	#	)
vii	There are ---- types of loops in C.	2	3	4	5
viii	Which of the following key is used to save a C file?	F2	F3	F9	F5
ix	Escape sequence \\ is used to print.	New line	Backslash	Space	tab
x	Which character signifies the beginning of a format specifier?	/	%	#	)

**Paper Computer Science**

Total Marks 30

Time: 35 Minutes

**Subjective Part**

**Q.2 Write short answers to the following questions. [2×10=20]**

i. What are programs?	vi. What is Cache memory?
ii. What is escape sequences? Explain with examples.	vii. Write the syntax of for loop.
iii. What do you know about syntax?	viii. Define compiler.
iv. What is CPU?	ix. Define loop structure.
v. Differentiate b/w variable and constant.	x. Differentiate b/w web page and web site.

**Q.3 Draw a flowchart to find the area of a circle.**

**5**

**Q.4 Explain the use of if - else statement with the help of a flowchart. 5**

**Subject: English**

**Total Marks: 40**

**Time: 45 min**

**Note: Attempt all questions.**

Q#1. Write a paragraph on any of the following topics. 10  
(a) Moral Codes (b) Future of Modern Technology (c) Importance of Foreign Policy

Q#2. Rearrange the following Jumbled Sentences 03  
1. Thing a dangerous is little learning a.  
2. Roast little boast great.  
3. The spoils black a flock whole sheep.

Q#3. Write the correct spellings of the following words. 05  
Aparrant, Coleague, Concensus,, Lisence Rythem

Q#4. Change the narration of following. 03  
1. The boy said, "He wrote the essay when I was entering the class room."  
2. The teacher said, "Does the boy with blue eyes listen the lecture of this topic today?"  
3. He has said to you, "Would that you were here in the functions two days ago."

Q#5. Change the Voice of the following sentences. 03  
1. How has the fire not damaged the building?  
2. The boys will not have received a prize on his birthday party.  
3. English will be taught to us by our teacher.

Q#6. Classify/Name the underlined part/s of speech in the following sentences into correct grammatical category. (Write accurate one, no marks will be awarded for appropriateness) 08

1. I did not see anything in the house.
2. Pakistani people are working hard day and night.
3. There are many boys in the hall.
4. I saw a broken window pan.
5. He has drawn this line. \_\_\_\_\_ Verb.
6. He always talks in a loud voice.
7. If he had worked hard, he would have passed the entry test. \_\_\_\_\_ Sentence.
8. Safi definitely left the house in the morning.

Q#7. Complete the blanks with prepositions. 04  
1. Some birds flew \_\_\_\_\_ his house.  
2. We slept late \_\_\_\_\_ Saturday night.  
3. They invested their money \_\_\_\_\_ business.  
4. I was amazed \_\_\_\_\_ his wonderful performance.

Q#8. Use Articles to complete following sentences. 04  
1. He is \_\_\_\_\_ university graduate.  
2. \_\_\_\_\_ Earth looks beautiful.  
3. I have \_\_\_\_\_ Holy Quran in my home.  
4. He is \_\_\_\_\_ honest.

## Subject: Mathematics

Time: 10 minutes

Objective

Total marks: 10

Name: \_\_\_\_\_ Roll No: \_\_\_\_\_

Note: Overwriting, Cutting, Erasing, use of ink remover and carbon pencil will result in loss of marks.

Q#01- Each question has four possible answers A, B, C and D. Encircle the correct answer.

01	If $a^n = a^m$ then $n = m$ this property is called							
	A	One – to – one property	B	Commutative property	C	Reflexive property	D	None of these
02	If a and b are the roots of $4x^2 - 3x + 7 = 0$ then the value of $\frac{a}{b} + \frac{b}{a}$ is							
	A	$\frac{3}{4}$	B	$-\frac{3}{4}$	C	$\frac{3}{7}$	D	$-\frac{3}{7}$
03	If $a : b = c : d$ then $a : c = b : d$ property used is							
	A	Invertendo	B	Componendo	C	Alternando	D	Dividendo
04	_____ is							
	A	Proper fraction	B	Improper	C	Irrational	D	None of these
05	If set A has two elements and set B has 3 elements then number of binary relation in $A \times B$ are							
	A	$2 \times 3$	B	$2^3$	C	$2^6$	D	$2^2$
06	The number of times of a value appears on a set of data is called							
	A	Frequency	B	Average	C	Mode	D	Median
07	$\sin(-350^\circ)$ lies in _____.							
	A	1 <sup>st</sup> quadrant	B	2 <sup>nd</sup> quadrant	C	3 <sup>rd</sup> quadrant	D	4 <sup>th</sup> quadrant
08	Pythagoras was a _____ mathematician.							
	A	Indian	B	Greek	C	Pakistani	D	Chinese
09	In a circle, two chords are equally distant from the center of the circle, the chords are							
	A	Congruent	B	Non Congruent	C	Parallel	D	Non Parallel
10	A line that intersects the circle at two distinct points is called							

Subject: Mathematics

Time: 35 minutes.

Subjective:

Total marks: 30

Note: Attempt any Six of the following questions.

Q.No.2

- (a) The area of a rectangular field is  $252 \text{ m}^2$ . The length of its side is 9m longer than its width, find its sides. 03
- (b) Solve the equation  $8x + 3x = 15x + 2$  02

Q.No.3 Show that the roots of

$(p - q)x^2 + (q - r)x + (r - p) = 0$  are real if possible. 05

Q.No.4

- (a) Solve  $\frac{(P+2)^2 + (P-2)^2}{(P+2)^2 - (P-2)^2} = \frac{13}{12}$  by using componendo dividendo theorem. 03
- (b) If  $Z = 3 + 2i$  then show  $Z + \bar{Z}$  is real. 02

Q.No.5

- (a) Reduce  $\frac{3x^2 - 5x + 2}{3x^2 + 4x - 4}$  to its simplest form. 03
- (b) Simplify by Rationalizing  $\frac{2x - 2y}{\sqrt{x} + \sqrt{y}}$  02

Q.No.6

- (a) Prove the Trigonometric identity  $(\tan \theta + \sin \theta) = \frac{1 + \sin \theta}{1 - \sin \theta}$  03
- (b) Evaluate  $(1 + w - w^2)^3$  02

Q.No.7 If  $A = \{1,2,3,4\}$ ,  $B = \{1,3,5\}$  and  $R = \{(x,y) / y < x\}$  is a binary relation from A to B then Write it in tabular form. 05

Q.No.8 Find arithmetic mean, variance and standard deviation for the data 6,8,10,12,14. 05



**Paper Physics****Total Marks 16****Time: 15 Minutes****Objective Type**

Name: \_\_\_\_\_ Roll No. \_\_\_\_\_

**Note: Over-writing, Cutting, Ink-remover and using of lead pencil will cause in loss of marks.****Q.1 Each question has four possible choices. Tick the correct choice.**

S.No	Statements	A	B	C	D
1	At what place the motion of simple pendulum is slowest	Equator	Poles	On earth surface	At the center of earth
2	If 10 waves are produced per second the frequency is	0.1 Hz.	0.2 Hz	.01 Hz	1 Hz
3	Speed of sound in air at 0°C is	331m/s	340m/s	33200m/s	800m/s
4	Speed of light in air is	30,000m/s	30,000km/s	300,000 m/s	300,000 km/s
5	1 Dioptre is same as	1m	1m <sup>-1</sup>	m <sup>2</sup>	m <sup>-2</sup>
6	The electric potential between two points in an electric field is	$w/v$	$w/q$	$q/w$	$v/w$
7	SI unit of capacitance is	Newton	Farad	Volt	Coulomb
8	Which of the following is correct relation between power, voltage and resistance?	$P = \frac{v}{R^2}$	$P^2 = \frac{v}{R}$	$P = \frac{v^2}{R^2}$	$P = \frac{v^2}{R}$
9	Which is a scalar quantity	Electric force	Electric potential	Electric field	Field intensity
10	1 Volt is same as	Joule/coulomb	Coulomb/Joule	Coulomb x Joule	Joule/Coulomb <sup>2</sup>
11	For a step up transformer	$N_s > N_p$	$N_s < N_p$	$N_s = N_p$	Both a and c
12	If we double the length of a wire , its resistance will	Remains same	Be doubled	Be One fourth	Be Three times
13	What are the numbers of neutrons in ${}_{92}\text{U}^{235}$	245	92	143	235
14	The number of significant figures in 0.1010 are	3	4	2	1
15	In an NOR gate output will be zero when both inputs are	(1,0)	(0,0)	(1,1)	Both a and c
16	Which of the following reaction takes place in sun?	Nuclear fission	Nuclear Fusion	Controlled Fission	Internal combustion

Total Marks 24

**Paper Physics**

Time: 30 Minutes

**Subjective Type**

**SECTION – I**

Q 2: Write short answers of the following.

8 x 2 = 16

1	What happens to the period of simple pendulum if its length is doubled?	2	What is audible frequency range?
3	Define Total internal reflection.	4	State coulombs law and write its mathematical form.
5	If 0.5 C charge passes through a wire in 5s. What will be the current passing through it.	6	Write three equations of uniformly accelerated motion.
7	What is the effect on atomic and mass number of a nuclide when it decays by $\beta$ particle?	8	What are isotopes?

**SECTION – II**

Q.No.3

- (a) Draw ray diagrams of compound microscope and astronomical telescope. 2+2
- (b) Explain the series combination of resistors. (04)