Entrance Examination for Admission to 11th Class - Sample

Time Allow Total Mar	ved: 45 Min BIOL(ks: 50	OGY					
Q. No. 1	Choose the correct answer and encircle it.		(20x1=20)				
i.	Human immunodeficiency virus (HIV) causes acquired immunodeficiency syndrome (A in human beings by:						
	a. Increasing the pH of blood	b.	Decreasing the number of white blood cells				
	c. Increasing the division of red blood cells	d.	Decreasing the oxygen carrying capacity of blood				
ii.	If a patient has severe throat infection, which required?	ch of th	ne following types of medicine is				
	a. Sedative	b.	Vaccine				
	c. Narcotics	d.	Antibiotics				
iii.	Which of the following statement is true for	⁻ Eusta	chian tube				
	a. It has sound receptor cells	b.	It separates middle ear from inner ear				
	c. It directs sound waves to inner ear	d.	It regulates air pressure on both side				
			of tympanum				
iv.	In which of the following organism's alcoholic fermentations takes place?						
	a. Lactobacillus species	b.	Streptococcus species				
	c. Saccharomyces Cerevisiae	d.	Homo Sapiens				
٧.	How many genetically different kinds of gametic an individual with Genotype AaBB can						
	produce						
	a. 1	b.	4				
	c. 2	d.	8				
vi.	During unfavorable conditions, Amoeba reproduces asexually?						
	a. Binary Fission	b.	Fragmentation				
	c. Spore Formation	d.	Multiple Fission				
vii.	The enzyme required to cut the DNA in spec	cific se	quence is				
	a. Amylase	b.	Ligase				
	b. Endonuclease	d.	DNAase				
viii.	Chemical coordination takes place through certain chemical called						
	a. Fatty acid	b.	Enzyme				
	c. Inhibitors	d.	None of these				
ix.	Malaria in human is caused by						
	a. Bacteria	b.	Virus				
	c. Plasmodium	d.	Fungi				
Х.	Selected the one which is NOT related to sir	Selected the one which is NOT related to single cell protein					
	a. Prediction in pollution	b.	Mass growth of microorganism				
	c. Less nutritious food	d.	Use of agricultural waste				

xi.	Fui	nction of pleural membrane is to	_					
	a.	Enclose the lungs	b.	Help to increase the volume of cavity during respiration				
	C.	Increase the volume of chest	d.	Secrete fluid that enable lungs to glide over one another				
xii.	lf a	If a piece of DNA has based sequence AGLTTCA, what will be the sequence of bases in						
	mF	mRNA?						
	a.	TCGAACG	b.	TCGAAGT				
	C.	UCGAAGU	d.	ALGAACT				
xiii.	Wł	When primary oocyte divides through meiosis-I, it results in the formation of two cells of						
	dif	different size. What is the small size cell?						
	a.	Oogonia	b.	First polar body				
	с.	Second oocyte	d.	Ovum				
xiv.	Wł	nich of the following is true about cerebra	al corte	x?				
	a.	It is located deep in the brain	b.	It is located at the back of the brain				
	с.	it is the folded outer covering of the	d.	It is the part of peripheral nervous				
		brain		system				
XV.	The	e point of attachment which is pulled dur	ing mu	scle contraction is				
	a.	Origine	b.	Insertion				
	С.	Tendon	d.	Ligament				
xvi.	Hy	Hypersonic urine is formed when water in the body fluid						
	a.	Less	b.	Absent				
	С.	In excess	d.	Not filtered				
xvii.	На	rdness of a seed coat is due to						
	a.	Sclereid	b.	Fiber				
	с.	Tracheid	d.	Vessels				
xviii.	Sel	Select the one which is NOT the characteristics of a prion?						
	a.	Composed of protein only	b.	Can replicate				
	с.	Cause disease in sheep	d.	Contain circular RNA				
xix. Antidiuretic hormone promotes the retention of water by stimulating the			ater by stimulating the					
	a.	Active transport of water	b.	Active transport of chloride				
	С.	Active transport of sodium	d.	Permeability of collecting duct to water				
xx. Calcitonin and I		lcitonin and Parathormone work in collab	oratior	with each other for the regulation of				
	a.	Calcium in cell cytoplasm	b.	Calcium in teeth				
	с.	Calcium in bones	d.	Calcium in blood				
Q. No. 2	Att	tempt all questions		(10x3=30)				
	i.	Construct a flow chart showing the sper	matoge	enesis in Rabbit				
	ii.	Differentiate between the cross-section	al view	s of brain and spinal cord with				
		reference to white and grey matter.						
	iii.	ii. The flow chart is showing anaerobic respiration						
		a. Identify the process A, B and C						
		b. Mention the products (i), (ii) and	l (iii) pro	oduces by these processes				
	iv.	What are the steps of eutrophication?						

- v. Complete the given table
- vi. Answer the following:
 - a. Write any two similarities between dialysis machine and a real kidney?
 - b. Name some waste products of plants
- vii. Answer the following:
 - a. Why the dog kept their tongue hanging outside their mouth?
 - b. List down the osmotic adjustments adapted by the water lily for its survival in the habitat.
- viii. Differentiate between prokaryotes and Eukaryotes
- ix. Write down the taxonomic hierarchy of man?
- x. Answer the following:
 - a. Although our teeth are made of mainly calcium, but they are not bones, why?
 - b. What is the function of cartilage at the end of bones?

Entrance Examination for Admission to 11th Class - Sample

Time Allowed: 45 Min Total Marks: 50		lin	CH	IEMISTRY	<i>I</i>			
Q. No. 1	Choose the correct answer and encircle it.					(20 x1 = 20)		
i.	What is the conjugate Base of HF?							
	a. H ⁺	+1		b.	F ⁺¹			
	c. H⁻	·1		d.	F ⁻¹			
ii.	Which	Which element belongs to Alkaline earth metal?						
	a. Rb	C		b.	Cu			
	c. Si			d.	Sr			
iii.	Which	of the following ga	s molecule cor	ntain same	number of molecule	es		
	a. 1.	8 moles of H_2		b.	1.7 moles of NH_3			
	c. 2	moles of O_2		d.	1.5 moles of CH ₄			
iv.	HCL is a	an example of	Acid					
	a. M	lonoprotic		b.	Diprotic			
	c. Tr	riprotic		d.	Tetraprotic			
۷.	100 gm	10l ⁻¹ is the						
	a. Fo	ormula Mass of Na	Cl	b.	Molar Mass of NH ₃			
	c. Fo	ormula mass of Ca	CO3	d.	Molar mass of CO ₂			
vi.	For a reversible reaction given below the unit of Kc is H2 + I2 \rightleftharpoons 2HI							
	a. M	iol ⁻¹ dm ³		b.	Mol ⁻¹ dm ⁺⁶			
	c. M	iol ⁺² dm ⁻³		d.	None of these			
vii.	5 moles of HCl are dissolved per dm ³ of solution. Molarity of this solution is							
	a. 1	М		b.	2.5 M			
	b. 5	Μ		d.	10 M			
viii.	The ma	ass of electrons is						
	a. 9.	1 x 10 ⁻²⁷ Kg		b.	8.5 x 10 ⁻³¹ Kg			
	c. 9.	1 x 10 ⁻³¹ Kg		d.	6.02 x 10 ⁻³¹ Kg			
ix.	The col	lor of phenolphtha	lein in PH11 so	lution is				
	a. Re	ed		b.	Yellow			
	c. Pi	nk		d.	Colorless			
Х.	Milk of magnesia contains $MG(OH)_2$. It is used as antacid it neutralizes excess stomach acid							
	which i	s formed in reaction	on					
	a. M	IgSO ₄		b.	MgCO ₃			
	c. M	lgCl ₂		d.	MgO			
xi.	Which	of the following co	ontains Ester fu	nctional G	roup			
	a. Cł	H₃COOH		b.	CH_2CH_2OH			
	c. Cł	H ₃ COCH ₃		d.	CH_3COOCH_3			
xii.	Which	of the following ha	as strong Hydro	gen Bond ?				
	a. Ho	Cl		b.	H ₂ O			
	c. NI	H ₃		d.	HF			

xiii	. The	e water soluble base is calle	d			
	a.	Halogen		b.	Metal	
	с.	Alkali		d.	None of these	
xiv	. Del	nydration of Alcohol carried	l in the presence	of		
	a.	Zn		b.	Ni	
	с.	H ₂ SO ₄		d.	Alcoholic KOH	
XV	. Wh	ich of the following test is u	used to differenti	iate	between Alcohol and Aldehyde in	
	lab	oratory?				
	a.	Fehling's Test		b.	Bromine Water Test	
	С.	Baeyer's Test		d.	Flame Test	
xvi	. Doe	es not react with aqueous s	olution of bromi	ne.		
	a.	C_2H_6		b.	C ₂ H ₄	
	с.	C_2H_2		d.	C ₃ H ₆	
xvii	. The	e least reactive Halogen is				
	a.	F ₂		b.	U ₂	
	С.	Br ₂		d.	l ₂	
xviii.	. "Su	rvey: disease is because of	deficiency of Vita	amin	?	
	a.	А		b.	В	
	С.	С		d.	D	
xix	. Wh	ich of the following layer is	closest to the ea	arth?	•	
	a.	Stratosphere		b.	Thermosphere	
	С.	Mesosphere		d.	Troposphere	
XX	. No	of Carbon present in Gaso	line is			
	a.	$C_8 - C_{12}$		b.	$C_5 - C_{10}$	
	с.	$C_{14} - C_{20}$		d.	$C_{20} - C_{28}$	
Q. No. 2	Att	empt all questions			(10x3=30)	
i.		Calculate the number of molecules present in 22g of CO_2 .				
ii.		The concentration of an aqueous solution of H_2SO_4 contains 0.001 M. what is the pH?				
		Classify solution is acidic of	r basic.			
	iii.	Why alkenes are called "Pa	araffins"?			
	iv.	What is Dative Covalent Bo	ond? Explain with	n exa	mples	
	v.	What is meant by Ozone d	epletion?			
vi.		Write method with reaction for permanent hardness of water removal.				
	vii.	Differentiate between mol	ecule and molec	ular	ion with examples.	
	viii.	Complete the reactions				
		a. CH ₃ CH ₂ CH ₂ OH	$\xrightarrow{H_2SO_4} ?$	+	?	

a. $CH_3CH_2CH_2OH \xrightarrow{180^{\circ}C} ? + ?$ b. $CH_3CH_2Br \xrightarrow{Zn/HCl} ? + ?$ c. $CH_3CH_2Cl \xrightarrow{AlC.KOH} ? + ?$

- ix. Can you give reaction when $KMnO_4$ react with Ethyne? $180^{\rm o}C$
- x. Identify the group and period of the following with help of electronic configuration.

a. ${}^{27}_{13}Al$ b. ${}^{9}_{4}B$ c. ${}^{19}_{9}F$

Entrance Examination –Admission to 11th Class

Time Allowe Total Marks:	d: 45 Min ENGLISH 50	
Q. No. 1 (A) i. ii. iii. iv. v.	Correct the following sentences. Each of the boy performed well in the test. Each of us were given a gift. Kala is tallest girl in the class. The Cattles are grazing in the field. I have seen him yesterday.	(5)
(B) i. ii. iii. iv. v.	Change the narration of the given sentences. My friend said to me, "Sorry, I cannot help you". Mary said, "Can you help me with my homework?" He says, "We were good friends". I said to my brother, "How did you do your papers?" He said, "I am writing a letter".	(5)
(C) i. ii. iii. iv. v.	Change voice of the following. Who told you this? What did you told him? The gardener has planted new flowers in the garden. She has not beaten the dog. Our teacher will deliver a lecture tomorrow	(5)
(D) i. ii. iii. iv. v.	Use correct form of verb in brackets. Do you still (are belonging) to the tennis club? He (play) the piano beautifully since childhood. Tomorrow I (see) my friend. We (have) a party next Saturday. Would you like to come, Corrie? If it rained, you (get) wet.	(5)
Q. No. 2	Write an essay on any one of the following topics of about 150-200 w i. Life is Action ii. The Role of Sports in Building Character iii. Importance of Social Media	orks. (10)
Q. No. 3	Write a letter to your younger brother suggesting him how to improve poor result.	e his (10)
Q. NO. 6	Translate any five of the following into English.	(10) بر ایرا م

ایس میں یں پیناور میں چکاہوں کا۔ ۲۔ میچ کہاں کھیلا گیا؟ ۳۔ میر اپیاراد وسی مجھے بھول گیا۔ ۴۔ ہمیں مل کراورا تحاد سے کام کرما چاہیے۔ ۵۔اند ھے فقیر کے پاس لیمپ کیوں تھا؟

Entrance Examination for Admission to 11th Class

Time Allow Total Mark	ved: 45 Min MATHEMAT s: 50	ICS	
Q. No. 1	Choose the correct answer and encircle	e it.	(20 x 1 = 20)
i.	If $\log_6 (m-5) = 2$, them m= a. 36 c. 41	b. d	40 17
ii.	If $27 \times 3^x = 81^{(y-4)}$, then $x=$ for $y=4$ a. 3	b.	-3 -4
iii.	In the quadratic equation $px2+qx-q=0$, Va	alue	of $\alpha^2 + \beta^2 = \beta^2$
	a. $\frac{q^2 + 2pq}{p^2}$	b.	$\frac{q^2 - 2pq}{p^2}$
	c. $\frac{q^2 + 2pq}{q^2}$	d.	$\frac{q^2 - 2pq}{q^2}$
iv.	If tan θ > 0and Sec θ < 0, then θ lies in a. I c. IV	b. d.	quadrant III II
v.	A line perpendicular to a end point of radia	l seg b	gment is called
vi.	c. Normal Mean Proportional of 2x ⁴ y ⁴ and 8x ² is	d.	Diameter
vii.	a. $16x^{\circ}y^{4}$ c. $4x^{3}y^{2}$ For what value of x, x+13 : x+7 = 4:5?	b. d.	4x*y ² 8x ² y ²
	a. 37 c37	b. d.	17 -17
viii.	What is length of Chord AB intercepted at 4 radius 5 cm	cm :	away from the center of circle having
	a. 3cm	b.	6cm
ix.	If two circle of radiuses $r1 = 5$ cm, and $r2$ between their centres is	u. = 3	3cm touches internally then distance
	c. 2 cm	d.	3 cm

x. What is radius of circle inscribed in a square of side 10cm?



8cm d. 12 cm c. xi. represents 1 b ► 2 C · 3 d Into Function b. Bijective Function a. **Onto Function** d. Not a Function c. Simplified form of (7+5w+5w²)² xii. 4 b. 12 a. 49 c. d. 144 If $b^2 - 4ac > 0$ and $b^2 - 4ac$ is a perfect square then root are xiii. a. Real, Unequal; b. Rational Ir-rational d. Imaginary c. Partial Fraction of $\frac{x^2}{x(x^2+1)}$ xiv. $\frac{x^2}{x(x^2+1)} + \frac{c}{x^2+1}$ b. $\frac{A}{x} + \frac{Bx + C}{x^2 + 1}$ a. d. $\frac{Ax+B}{x} + \frac{Cx+D}{x^2+1}$ c. $\frac{A}{r} + \frac{B}{r^2 + 1}$ Which of the following is the multiplicative inverse of $\begin{bmatrix} -2 & 5 \\ -1 & 3 \end{bmatrix}$ is XV. a. $\begin{bmatrix} -3 & 5 \\ -1 & 2 \end{bmatrix}$ b. $\begin{bmatrix} -1 & 2 \\ 3 & -5 \end{bmatrix}$ c. $\begin{bmatrix} -1 & -3 \\ -2 & -5 \end{bmatrix}$ d. $\begin{bmatrix} 3 & -5 \\ 1 & -2 \end{bmatrix}$ If Log 100 + Log 1000 =xvi. a. 5 b. 3 c. 4 d. 2 If P = 2 + $\sqrt{3}$, then value of $P - \frac{1}{p}$ xvii. a. $\sqrt[-2]{3}$ b. 4 d. $\sqrt[2]{3}$ c. -4 For which expression a+b is not a factor xviii. a. $a^2 - b^2$ b. a⁴ – b⁴ c. $a^3 + b^3$ d. $a^2 + b^2$ If $p(x) = x^{72} + 5x^{31} + 4$ then x+1 is a xix. a. Factor b. Divisor c. Quotient d. Reminder Graph of y=x, bisect quadrant XX. a. 1st & 3rd b. 2nd & 4th c. 1st & 4th d. 2nd & 3rd

Q. No. 2 Attempt all questions. Each question carries equal marks. (3 x10=30)

- i. Find x and y, if $(3+4i)^2 2(x-iy) = x + iy$
- ii. Solve $\frac{2x}{x-1} + \frac{1}{3} = \frac{5}{6} + \frac{2}{x-1}$ $x \neq 1$

Resolve into partial fraction.

- iii. Find expression for perimeter of rectangle whose area is given by $2x^2 7x 4$.
- iv. Use distance formula check A(-2,-2), B(4,-2), B(4,-2) and C(4,6) shows which triangle?

v. Find x, if
$$\begin{vmatrix} x & 3 \\ 4 & x \end{vmatrix} = 36$$

vi.

$$\frac{x^2+1}{x^2-1}$$

- vii. Waheeda is making a shirt. Each panel of this skirt is of a shape shown shaded region in diagram. How much material is required.
- viii. If $\tan \alpha = -\frac{1}{2}$ and $\alpha \in I.Q$. Find remaining trigonometric ratios.
- ix. If $2\text{Tan}^{2}\theta \cos\theta = 3$. Shows that $2\cos^{2}\theta + 3\cos^{2}\theta = 0$
- x. The sum of three consecutive even numbers is 306. Find the numbers.

Entrance Examination for Admission to 11th Class – Sample

Time Al Total Ma	lowed: 45 Min arks: 50	PHYSICS			
Q. No. 1	Choose the co	orrect answer and enci	rcle	it.	(20 x 1 = 20)
i.	When rounding 0.0	2347 to 2 significant figu	ures	, the result is:	
	a. 0.02		b.	0.023	(m/s)
ii	C. U.U24 The slope shown in	the speed- time graph r	d.	0.0235	elocity
11.	a Uniform accel	eration	h	Uniform speed	s
	c. Zero accelerat	ion	d.	Uniform retardation	0 time (s)
iii.	When two forces of forces must act	f 3 N and 4 N act togeth	ier a	and produce net force	of 5 N, then the
	a. Parallel to eac	h other	b.	Opposite to each othe	er
	c. To cancel each	n other	d.	Perpendicular to eacl	h other
iv.	Friction always act	S:			
	a. In the directio	n of motion	b.	Opposite to the direc	tion of motion
	c. Perpendicular	to the motion	d.	Randomly	
v .	Gravitational field	strength is maximum at			
	a. The surface of	the Earth	b.	The center of the Ear	th
	c. A point outsid atmosphere	e the Earth's	d.	The Moon's surface	
vi.	The power of a wat	er pump is 1.5 hp. The p	owe	r in watts is?	
	a. 746 W		b.	1492 W	
	C. 1119 W	oria processo do croco o	d.	2238 W	
VII.	why does achiosph	eric pressure decrease v			
	a. The air gets de	enser	D. d	The emperature inci	reases
viii	Water has a high sr	all above decreases	u. s me	ans.	ation decreases
v 111.	The stores heat a	phone afficiently	h	It heats up quickly	
	c It cools down	ranidly	d.	It does not conduct h	eat
ix.	When water waves	move from deep to shall	low	region, the frequency a	and wavelength
	are respectively:	r i r i r i r	-		
	a. Increase, decr	ease	b.	Decrease, increase	
	c. Remains same	e, decrease	d.	Decrease, remains sa	me
х.	How does the pitch	of a sound change if the	frec	quency of the sound wa	ave increases?
	a. The pitch decr	eases.	b.	The pitch remains un	changed.
	c. The pitch becc	omes inaudible.	d.	The pitch increases.	
xi.	The refractive inde	x of glass (prism) is grea	test	for	
	a. Red colour		b.	Green colour	
	c. Violet colour		d.	Blue colour	
X11.	wny do objects app	bear bent when partially	sub	merged in water?	
	a. Reflection of li	ignt	b. רי	Diffraction of light	
viii	c. Keiraction of l	Igiil aranca hatwoon platas at	a. f car	Uspersion of light	then
XIII.	canacitance of the	canacitor will	ιcaμ	action is becomes fiall,	, 11111
	a. Become half		h.	Remains same	
	c. Decrease by 4	times	d.	Become double	

xiv.	The electric field is applied opposite to th will	e direc	tion of electron beam, the electron
	a Speed up	h	Speed down
	c Deflect	d.	Speed will not be affected T.
XV.	The I-V characteristic graph shown in the	figure	represents which of
	the following components		
	a. Ohmic conductor	b.	Filament of bulb
	c. Semiconductor diode	d.	Thermistor
xvi.	A battery of 12volt connect with a resistor	r of 24	ohm. The value of current in this
	circuit will be.		
	a. 0.5A	b.	2A
	c. 1.5A	d.	None of the above
xvii.	The magnetic field inside a solenoid is:		
	a. Non-uniform and weak	b.	Uniform and strong
	c. Zero	d.	Uniform and weak
xviii.	A bar magnet is moving toward a stationa	ry cop	per ring as shown in the
	figure. According to Lenz's law the directi	on of i	nduced current in the ring is
	a. Clockwise	b.	Counterclockwise
	c. Direction of current depends on the speed of the magnet	d.	No current is induced
xix.	The radioisotope which is used as tracer f	for the	monitoring of thyroid gland
	functioning is		
	a. Carbon-14	b.	Phosphorous-32
	c. Iodine-131	d.	Cobalt-60
XX.	Which type of logic gate produces a HIGH	outpu	t only when both inputs are LOW?
	a. AND	b.	OR
	c. NOT	d.	NAND

Q. No. 2 Attempt all questions. Each question carries equal marks. (3 x10=30)

- i. A ball is thrown vertically upward with an initial velocity. It rises until it reaches its maximum height, then starts descending back to the ground. Draw and label the following to represent this motion:
 - a. Distance-time graph and
 - b. Speed-time graph.
- ii. A 10 kg box is pushed with a force of 40 N. If the frictional force is 10 N, calculate the acceleration of the box.
- iii. How the position of centre of mass of an object plays an important role in their stability. Explain with examples
- iv. It is easy to remove air from a balloon but it is very difficult to remove air from a glass tube. Why?
- v. How we can get (a)real image and (b) virtual image from concave mirror. Support your answer with ray diagram.
- vi. What is a commutator? And why it is essential in a D.C. motor?
- vii. The sound intensity 3m from a Jackhammer is 8.2 $\times 10^{-2}$ W/m². What is the sound intensity level in decibel. (Where I°= 1.0×10^{-12} w/m²).
- viii. How does acoustic protection help to reduce environmental noise pollution in urban areas?
- ix. In nuclear transmutation how alpha, beta and gamma emission effect the atomic and mass number of an atom.
- x. Draw a comparison between series combination and parallel combination of resistors.

Recommended Books :	Punjab Text Books, National Book Foundation, KPK Text Book, Balochistan Text
	Book (Class 9 th & 10 th)