### Previous Year Question Paper of LPUNEST (B.Tech)

Question paper contains five subjects i.e. Physics (r.Questions), Maths (r.Questions), Chemistry (r.Questions), Biology (r.Questions) and English (r.Questions). English, Physics & Chemistry are mandatory subjects and student has to opt one subject out of Mathematics and Biology.

#### Section - ENGLISH

This section contains 30 Multiple Choice Questions. Each question has four choices (a), (b), (c) and (d) out of which ONLY ONE is correct.

Select the answer choice that iden Sue's parents tried living in the a) north b) but	ntifies the noun in the sentence. north, but they could not adapt to the cold. c) not d) adapt
<sup>Y.</sup> What is the missing pronoun? The children are coming out of s a) it b) her c) th	school in a minute. I need to go and pick up.
<sup>r.</sup> Choose the correct order of adject	tives to fill the blank.
<i>She is a supermodel.</i> <i>a</i> ) Beautiful slim Brazilian c) Slim Brazilian beautiful	b) Brazilian beautiful slim d) Brazilian slim beautiful
<ul> <li>Which kind of adverb is the word</li> <li>"Mothers look GENTLY at the a) Adverb of Manner</li> <li>C) Adverb of Place</li> </ul>	<i>in capitals?</i> <i>ir babies.</i> " b) Adverb of Time /Frequency d) Adverb of Degree
<sup>0</sup> Chasse the right artist to fill the	
When Pooig awings I	gup.
<i>a</i> ) Will be sleeping	in my uput imeni. b) Won't be sleening
c) Be sleeping	d) Both Will be sleeping and Won't be sleeping
<sup>1</sup> Choose the right option to fill the	gap.
Nahal his PhD on tra	uma studies by December this year.
a) will completing	b) will have been completing
c) will have completed	d) will have been completed
$^{\vee}$ . Choose the right option to fill the	gap.
Jean Martin Charcot a)Will work	<i>for us soon.</i> b) Shall work
c̃í Would have worked	d) Both Will work and Shall work
<sup>A</sup> Choose the correct one. a) I think he would not come with the might not come with the might not come with the shall no	with us to the meeting with us to the meeting th us to the meeting

d) I think he might not came with us to the meeting

Choose the correct use of modal verb. a) I will make dinner tonight b) I will be making dinner tonight c) Both I will make dinner tonight and I will be making dinner tonight d) None of these \*\* The sentence below contains an error. Identify which part has the error and choose from the options. I am finding it difficult to choose among my pair of red trousers and my pair of green ones. b) To choose between my pair of red trousers **a**) I did found it difficult d) No error c) And my pair of green one <sup>11</sup> Identify which part of the sentence has the error. Following intense debate (1), the faculty has approved the measure to increase (2) class size by 15% over the next four years.(3) No error (4) d) ٤ b) ۲ C) ٣ **a**) 1 <sup>17</sup> Pick the right meaning for the following phrase. To die in harness b) Die after doing work **a**) Die early d) Die peacefully c) To die while in dutv <sup>1</sup><sup>r</sup>. Identify the correct meaning of the idiom. That ship has sailed. **a**) Work better or leave b) It's too late d) Go through something difficult c) Work quickly  $^{12}$  Choose one word for the following. A mild or indirect expression substituted for an offensive or harsh one c) Euphemism d) Linguist b) Sacrilege **a**) Wriggle ۱٥. In the following question, a related pair of words or phrases is followed by five pairs of words or phrases. Choose the pair that best expresses a relationship similar to that in the original pair. earth is to ball as pancake is to? c) disc d) flat b)flag **a**) soccer <sup>17.</sup> Choose the correct form of the verb to fill the gap so as to make a meaningful sentence. a new cellphone. This one does not function properly any more. I think I b) needed c) need d) am needing a) needs Choose the correct form of the verb to fill the gap so as to make a meaningful sentence. At a school dance: Mohul: " ..... yourself?" Zoya: "Yes, I'm having a fun time!" b) Ĕnjoy you c) Do you enjoy d) Are you enjoying **a**) You enioving ۱۸. Choose the correct form of the verb to fill the gap so as to make a meaningful sentence. During the two years Rishi ten different jobs. b) has had d) have has c) have had **a**) has has

<sup>19</sup> Fill in the blank with correct word.

	<i>They went to the sl</i> <b>a</b> ) because b) or	<i>hopping center</i> _ c) but	d	<i>shoj</i> ) so	ps were close	ed.		
۲۰.	<i>*•• Choose the most suitable interjection to complete the sentence.</i>							
	<u><i>a</i></u> ) Oops!	<i>illed my coffee o</i> b) Aww!	on my dres c) Phew:	's.	d)Ah!			
۲١.	Fill in the blank with Nisha is pleased a) about	th correct word. her b)at	<i>result.</i> c) with		d) all of the	se		
۲۲.	Fill in the right ver	b form.						
	<i>The horse was</i> <i>a</i> )ride	<i>by the y</i> b)rode	<i>oung boy</i> . c)ridder	ı	d)riding			
۲۳.	Change the voice of	f following sente	ence.					
	They speak French a) French is spoke c) French has spo	a <i>at this shop.</i> An at this shop ken at this sho	b pd)Frenc	) Fren h were	ch was spo e spoken at	ken at this shop this shop		
٢٤.	Which of these wor Pit	ds is most nearl	y the oppo	site of	the word pro	ovided?		
	<b>a</b> )group	b) peak c) sele	ect d	) marı	у			
۲٥.	Which of these wor Banish	ds is closest in n	neaning to	the wo	ord provided	?		
	<b>u</b> )exile	b)nate	c) luuc		u) cicuit			
۲٦.	Choose the right op Mrs Adams was <b>a</b> ) has	ntion to fill the g dinn b)had	ap. ner at 6 o'd c) have c	z <b>lock y</b> 1) havi	<i>esterday mo</i> ng	rning.		
۲۷.	Choose the right op	otion to fill the g	aps.					
	It was a very diffic a) Had understoc c) Had read . under	<i>ult movie, but I</i> od  read erstood	b) Read ، d) Under	t <i>becau</i> had u rstooc	se I Inderstood I ، had read	_ the book.		
۲۸.	Choose the right op The film wasn't ver a) enjoyed	otion to fill the g y good. I b) wasn't enjo	y <b>ap.</b> by c) didn'	<i>it very</i> t enjoy	y <i>much.</i> yed d)d	lidn't enjoy		
۲۹.	Select the answer c Susan was exceeding a) exceedingly	<i>hoice that ident</i> ngly proud of he b)home	ifies the no er beautifu C	oun in t I new h ) prou	<i>he sentence. ome</i> . d	d)beautiful		
۳۰.	Choose the right op By the time the bos a) Jane and Luke of b) Jane and Luke of c) Jane and Luke of d) Both Jane and l	<i>otion to fill the g</i> <i>ss comes in the f</i> discuss be discussed be discussing Luke discuss &	ap. Gactory, wid Jane and	<i>II</i>	<i>the new</i>	w project? ng		

### Section – PHYSICS

*This section contains* 30 Multiple Choice Questions. *Each question has four choices (a), (b), (c) and (d) out of which* ONLY ONE *is correct.* The total mass of the lift and the passengers is 1311kg. The

variation of the velocity of the lift is as shown in the figure. The tension in the rope at t=۸th second will be



- r۲. A mass m moves with a velocity land collides in elastically with another identical mass . collision، the first mass moves with velocity in a direction perpendicular to the initial direction of motion. Find the speed of rnd mass after collision.
- a)  $\frac{r}{\sqrt{r}}$  b)  $\frac{\Box}{\sqrt{r}}$  c)  $\boxed{\Box}$  d)  $r\sqrt{r}$
- ۲۳. In a system of particles ۸kg mass is subjected to a force of ۱۹ N along positive y axis and another ۸kg mass is subjected to a force of ۸N along positive x axis. The angle made by the acceleration o centre of mass with x axis is

a)  $\mathbb{R}$  in b)  $\mathbb{R}^{t} = c$  c)  $\mathbb{R}^{t} = d$  c)  $\mathbb{R}^{t} = d$ 

- <sup> $r_{\epsilon}$ </sup>. Four spheres of diameter 2a and mass M are placed with their centers on the four corners of a square of side 'b'. Then the moment of inertia of the system about an axis along one of the sides of the square is a)  $\frac{\epsilon}{2}$  Mar[]<sub>T</sub>Mbr b)  $\frac{h}{2}$  Mar[]Mbr c)  $\frac{h}{2}$  Mar d)  $\frac{\epsilon}{2}$  Mar[]<sub> $\epsilon$ </sub>Mbr
  - $r_{\circ}$ . The time dependence of a physical quantity P is given  $P_{\Theta} P_{\circ}^{\text{III}}$ , where **a** is a constant and t is

*a time then constant* **a** *is* a) dimension less b) dimension of t-r c) dimensions of P d) dimension of tr

ra. Acceleration verses velocity graph of a particle moving in a straight line as shown in graph. The corresponding velocity-time graph would be.



rv. A man wishes to cross the river flowing with velocity u swims at angle [] with river flow if the man swims with speed v and if the width of the river is d then drift travelled by him.

a) ᄜ⊡vcos⊑ <sup>d</sup>		b)[]u[]vco	vsin0	
c) 🗓 vcos 🗍 d		d)[]u[]vco		
۳۸. If the gravitational	lacceleration at surfa	مce of Earth is g ، ۲	then increase in potent	tial energy in liftin
object of mass m to	o a height equal to ha	alf of radius of ea	rth from surface will be	9:-
mgR	b) <sup>r</sup> mgR	mgR	d) mgR	
a) <del></del>	<del>۳</del>	<u> </u>	<u>۳</u>	

rs. In the arrangement, spring constant k has value rNm, mass M = r kg and mass m = r kg. Mass M is in contact with a smooth surface. The coefficient of friction between two blocks is ... and amplitude of oscillation is recm. The time period of SHM executed by the system is



٤٠. A wire of variable mass per unit length is M hanging from the ceiling as shown in figure. The length of wire is I. A small transverse disturbance is produced at its lower end. Find the time after which the disturbance will reach to the other ends.



a) ٤٢°C b) ٤.°C c) ٥٦°C d) ٥٥°C

٤٣. In the indicator diagram fig. shown of Carnot cycle Ta، Tb، Tc، Td represent temperature of gas B، C، D respectively. Which of the following is correct relation



a) Ta = Tb = Tc = Td c) Ta = Td (Tc = Tb)

d) Ta = Tb ، Tc = Td

a)•. t[]m b)•. tmm c)•. tcm d)•. tnm

- ٤ Three concentric conducting spherical shells carry charges [] & Q on the inner shell [] Q on the inner shell [] Q on the outer shell. The charge on the inner surface of the outer shell is
   a) b) & Q c) [] Q d) [] Q
- Et. Find equivalent capacitance between points A and B. Assume each conducting plate is having dimensions and neglect the thickness of the p dimensions and neglect the thickness of the p dimensions and neglect the thickness of the plate P.



٤٧. When an electric heater is switched on ، the current flowing through it (i) is plotted against time (i) Taking into account the variation of resistance with temperature ، which of the following best represents the resulting curve



- ٤٨. A wire of mass ۲۰۰۰g is carrying a current of ۲A towards increasing x in the form of y[]x۲([]۲m[]x[]]۲m). This wire is placed in a magnetic field B]]]۰.۰۲k îtesla. The acceleration of the wire (in m /s۲) is
- a)  $[1, \tau]^{n}$  b)  $[r, \tau]^{n}$  c)  $(\tau, \tau)^{n}$  d) zero
- : . The real angle of dip at a place , if a magnet is suspended at an angle of  $r \cdot ^{\circ}$  to the magnetic meric and the dip needle makes an angle of  $\mathfrak{so}^{\circ}$  with horizontal is

a)	Tan□1□√¯□ □ <sup>™</sup> □	b) Tan <b>1</b> 🛄	c) Tan□1□ <sup>™</sup> □ □ <sup>≭</sup> □	d) Tan 1 1 1 1
٥٠.				LV L

In a hypothetical Bohr's hydrogen atom the mass of the electrons is doubled. The energy E. and radius of the first orbit will be is the Bohr radius for the first orbit):

a)  $E_{, \Box} \Box^{\dagger} v. \tau eVr_{, \Box} a_{, }$ b)  $E^{\cdot} \Box \Box^{\dagger} r. \tau eV. r_{\Box} a_{, } / \tau$ c)  $E_{, \Box} \Box^{\dagger} v. r eVr_{, \Box} a_{, } / \tau$ d)  $E^{\cdot} \Box \Box^{\dagger} r. \tau eV. r_{\Box} a_{, }$ 

• ). A radioactive isotope is being produced at a constant rate X. Half–life of the radioactive substance Y. After some time the number of radioactive nuclei become constant. The value of this constant is



٥٢. Two identical particles move at right angles to each other، possessing debrogliæwdvelengt

 $_{\Box}$  ' . The Debroglie wavelength of each of the particles in their centre of mass frame will be



م۳۰ A point object is placed at a distance of ۲۰ cm from a thin plano\_convex lens of focal length الهارية) ( The curved surface is silvered. The image will form at



- 54. In Young's double slit experiment, the two slits acts as coherent sources of equal amplitude A and wavelength. In another experiment with the same set up the two slits are sources of equal amplitude A and wavelength [] but are incoherent. The ratio of the intensity of light at the months of the screen in the first case to that in the second case is
  a) \$\sum\_{1}\$, \$\sum\_{1}\$, \$\sum\_{2}\$, \$\sum\_{1}\$, \$\sum\_{2}\$, \$\sum\_{1}\$, \$\sum\_{2}\$, \$\sum\_{1}\$, \$\sum\_{2}\$, \$\
- ••. The voltage time graph of a triangular wave having peak value V• is as shown in figure. The rms

value of V in time interval from  $t_{=}, t_{\frac{O}{2}}^{T}$  is



•1. A potential difference of vV is applibed tween the opposite faces Greecrystal plate of areacons and thickness •... mm. If the concentration of electrons in Ge is v [] ••••/mv and mobilities of electrons and holes are  $\frac{mv}{volt llsec}$  and •...  $\frac{mv}{volt llsec}$  respectively. then the current flowing through

the plate will be  $\cdot \cdot \tau \circ A$  b)  $\cdot \cdot \cdot \circ A$  c)  $\cdot \cdot \circ \tau A$  d)  $\cdot \cdot \tau \cdot A$ 

ov. The diagram of a logic circuit is given below. The output F of the circuit is represented by



A block A of mass 100 kg rests on another block B of mass 100 kg and is tied to a wall as shown in the figure. The coefficient of friction between A and B is 0.17 and that between B and the ground is 0.17. The minimum force F required to move the block B is (g = 10 m/st)



a) ••• N b) ••• N

of A fully charged capacitor C with initial charge q ∙ is connected to a coil of self-inductance

• . The time at which the energy is stored equally in the form of electric filed in capacitor and the  $\pi m \sqrt{agLnCetic}$  field in the i $\pi$ nductor

a) — b)  $4\sqrt{LCc}$   $2\pi\sqrt{LC}$ 

1. A signal of frequency 1. kHz and peak voltage of  $\circ$  Volt as used to modulate a carrier wave of

frequency **1.7** MHz and peak voltage **7** Volts. Choose the correct statement.

a) Modulation index= $o_i$  side frequency bands are at  $v \in v \in kHz$  and  $v \mapsto v \in kHz$ 

b) Modulation index=o , side frequency bands are at t1.t kHz and 1A.A kHz

c) Modulation index=+. A, side frequency bands are at NA+ kHz and NF++ kHz

d) Modulation index=+.  $\tau_i$  side frequency bands are at  $\iota \tau \tau$  · kHz and  $\iota \iota h \cdot$  kHz

# Section- MATEHMATICS

# This section contains 30 Multiple Choice Questions. Each question has four choices (a), (b), (c) and (d) out of which ONLY ONE is correct.

11. A survey of or television viewers produced the following information. 140 watch foot ball. 140 watch hockey 110 watch basket ball. 20 watch foot ball and basket ball. 140 watch foot ball and hockey. 04 watch hockey and basket ball. 04 do not watch any of the three games. The number of viewers. who watch exactly one of the th games is

a) rro b)ri. C)rio d)rvr

۲۲. The minimum number of elements that must be added to the Relation ، ۲ الله الله متابع ، abn the set المتابع اب، ۲ ، ۳ so that it is an equivalence relation

a)۳ b)٥ c)٦ d)٧





, If  $y_{\Box} f^{(X)}$  passing through (1, 1) satisfies the differential equation  $y_{A} d_{\Delta} x dy_{\Box}$ . then

a) 
$$f(x) \Box \frac{YX}{2\Box XY}$$
 b)  $f(x) \Box \frac{X \Box'}{XY \Box'}$  c)  $f(x) \Box \frac{X \Box'}{\xi \Box XY}$  d)  $f(x) \Box \frac{\xi X}{Y \Box' XY}$ 

A). A line cuts x-axis at A ( $y_i \rightarrow$ ) and y-axis at B( $y_i \rightarrow 0$ ). A variable line PQ is drawn perpendicular to AB cutting x, yaxis at P and Q. If AQ, BP intersect in R, then locus of R is

$a)  X^{r} \ \Box^{Yr} \ \Box^{v} X \ \Box^{o} Y \ \Box^{v}.$	$b) \times^{Y} \Box y^{Y} []_{Y} X []_{\circ} y [].$
$c) \times^{r} \Box^{y_{r}} \Box^{r_{r}} \Box^{\mathfrak{t}_{s}} \Box^{\mathfrak{t}_{s}} \cdots $	$d) X^{T} \Box^{Y} \Box^{T} X \Box^{V} y \Box^{T}$

 $\Lambda^{\gamma}$  A straight line through the origin O meets the parallel lines  $x_{+\gamma}y_{=\gamma}$  and  $\gamma x_{+\gamma+\gamma=\gamma}$  at points P and Q respectively. The point O divides the segment PQ in the ratio

a) 1: Y b) W: E C) Y: 1 d) E: W

a) 15 c) 16 d) 18

a)  $\cdot$  **b)** 1 **c)** 2 **d**) infinite

The plane  $x \square y + rz = v$  divides the line joining the points  $(\square r, \varepsilon, v)$  and  $(r, \square \circ, \lambda)$  in the ratio a)  $r: \circ$  **b**(r: v) **c**(r: v) **d**) none of these

AT. The ratio of the distances from the points (1, -1, r) and (r, r, r) to the plane oX + ry - vZ + q = ra) r : 1b) 1 : rc) 1 : 1d) r : r

<sup>AV</sup>. If the mean deviation of number 1, 1+d, 1+2d, .....1+100d from their mean is 255, then the d is equal to a)  $\forall \cdot \cdot \cdot$  b)  $| \cdot \cdot \cdot \rangle$  c)  $\forall \cdot \cdot \cdot \forall$  d)  $| \cdot \cdot \cdot \rangle$ 

AA. If n integers taken at random are multiplied together، then the probability that the last digit of the p is ۱، ۳، ۷ or ۹ is

- a)  $\frac{rn}{on}$  **b**)  $\frac{n-rn}{on}$  **c**)  $\frac{(n-rn)}{on}$  **d**) None of these

## Section- CHEMISTRY

This section contains 30 Multiple Choice Questions. Each question has four choices (a), (b), (c) and (d) out of which ONLY ONE is correct.

• A mixture of CO and COr has vapour density roat STP. 100 g of this mixture contains \_\_\_\_\_ mole of CC d) . . . . . . . . . . . . d a) •. ٤ b) • . r C) . . . . . . . st. If ideal gas expands at constant temperature a) kinetic energy of molecules increases b) number of gas molecules increases c) kinetic energy of the molecules remains same d) pressure of the gas increases ar. Number of photons emitted by 1. watt bulb in 1. seconds, if wavelength of the light is 1... Å, is b) r. •rx 1 • 1" d)  $\varepsilon$ .  $\cdot \varepsilon x$   $1 \cdot 19$ a) 1..1X1.11 C) T. . TX 1.10 31. The hybridization of atomic bitals of N in NOI NOI and NHI are respectively b)sp,spr,spr d) spr, spr, sp c) spr, sp, spr sp .sp .sp \* a) so. Bond dissociation energy of XY, Xr and Yr (all diatomic molecules) are in the ratio year of and [Hf of XY is  $-\tau \cdot \cdot k$  mol $-\tau$ . The bond dissociation energy of X $\tau$  will be: b)  $\mathbf{r} \cdot \mathbf{k} \mathbf{j} \mathbf{mol} - \mathbf{i} \mathbf{c} \mathbf{r} \cdot \mathbf{k} \mathbf{j} \mathbf{mol} - \mathbf{i} \mathbf{d} \mathbf{i} \mathbf{\epsilon} \cdot \mathbf{k} \mathbf{j} \mathbf{mol} - \mathbf{i}$ a)  $\wedge \cdot \cdot k | mol - 1$ 96. Van't Hoff factors of aqueous solutions of X, Y, Z are 1.8, 0.8 and 2.5, Hence, their b) freezing point: Z > X > Y a) boiling point: Z > X > Yd) vapour pressure Y > x > Zc) osmotic pressure : X = Y = Zw.K spof Mg OH is x y · O Y. · · · · wWbk/bg=Cibitating at the limiting b) ۹ d) 17 a) 🔥 C) \ •  $3^{1}$  On the basis of information available for the reacting  $2^{1}$   $\frac{1}{2}$  AlrOr  $\frac{1}{2}$  AlrOr  $\frac{1}{2}$  AlrOr  $\frac{1}{2}$   $\frac{1}{2}$  AlrOr  $\frac{1}{2}$ minimum emf required to carry out an electrol  $(A \text{ liven } ) F = 970 \dots C)$ a) Y. 18 V b) E. YAV d)  $\Lambda$ ,  $0 \exists V$ C) 7. 27 V Consider a successive reaction (al first order) The incorrect statements is a) Concentration of A decreases exponentially with time b) Concentration of both B and C first increases, reaches maxima, then decreases

c) If $k_{,\Box} k_{,and}$ d) If $k_{,\Box}$	□ kī a Bemax wil will be greater than □	l be greater kr C max.			
New Assertion (A): Reason (R): Due to	Colloidal solution is ele similar nature of the cl	ectrically neutra narge carried b	al . by the particles ، the	ey repel each other and	do not con
a) Both (A) and (R) a b) Both (A) and (R) a c) (A) is true but (R) d) Both (A) and (R) a	are true and (R) is the co are true and (R) is not th is false are false	orrect explanat ne correct expla	ion of (A) anation of (A)		
Which is the m	lost basic oxides				
a)SnOr	b) KrO	c) CuO	d) FeO		
102. Which of the fo	llowing acts as 'activator	' in the froth flo	atation process?		
a) KCN b) N	aCN c) Sodium et	hyl Xanthate	d) Copper sulpha	ite	
۱.۳. CO□۲H□□□ /۳۰	atmllCHrOH, tl	ne catalyst is			
a) Fe	b) CryOr /ZnO	c)VrOo	d)AlrOr		
۰۰٤. Which of the fo	ollowing statement(s) is	s (are) incorrec	t for alkali metalss		
a) Li+ ion is exception	onally small and thus s	how covalent c	haracter in some o	ompounds	
b) Sodium oxide is	amphoteric in nature				
c) Lithium is the str	ongest reducing agen	t -  :			
d) All alkall metals a	and alkaline earth meta	ais give blue co	loration in liquid a	mmonia	
۰۰۰. The structures	s of quartz، mica، asbes	stos have the c	ommon basic unit	of	
$a)(SiO) \boldsymbol{\xi}_{\overline{\boldsymbol{\xi}}}$	b) (SiO)۲-	c) (SiOr) <sup>r</sup>	d) SiO۲		
- Eoradvorticon	popt the coloured disc	a argod tubos c	ontain		
a)He	b) Ne	c) Ar	d) Kr		
v.v. Given below	catalyst and correspon	dina process /r	eaction are match	ed . The mismatch is	
a) ﷺRhCl(pph۳)۲ c) V۲O٥ : Haber-Bo	: Hydrogenation pschprocess	b) TiCl $\epsilon$ + Al(C d) Nickel $\epsilon$ H	۲H۵)۳ : Polymeriza drogenation	tion	
VM The FAN of C			5		
a) Oxidation		b) Reduc	tion of ato	$\mathbf{C}$	
c) Dimerizati	on of $4 \times 0$	b) Sodium cr d) Both a and	llorate lc	.0)	
۱۰۹. Carcinogenic ا	pollutant in the following	ng is			

a) Polychlorinated biphenyls c) Tetrachloroethene

110. 29.5 mg of an organic compound containing nitrogen was digested according to Kjeldahl's method and the evolved ammonia was absorbed in  $r \cdot mL$  of  $\cdot ... MHCl$  solution. The excess of acid required  $i \circ mL$  of MNaOHsolution for complete neutralization. The percentage of nitrogen in the compound is



112. How many monochloro derivatives are possible when r-methylpentane is subjected to free radical chlorinations (including stereo isomers)

a) ۷ b) ۵ c) ۲ d) ٤

- $(CH_{\tau})$  (CH\_{\tau}) (NH []K[]Mn []O\_{{}[}ACH\_{\tau}) (NH []H [] (SO ]] ) Bere A and B are
- a) Tetramethylhydrazine and dimethyl hydroxyl amine

Ċ

d)

b) Dimethylphenol amine and Tetramethyl hydrazine

c) Tetramethylhydrazine and Tetramethyl hydrazine

 $d) \, \text{Dimethyl} \, hydroxyl \, amine \, and \, \text{Dimethyl} \, hydroxyl \, amine$ 

۱۲۲. Gutta-percha، a naturally occurring highly crystalline non-elastic rubber، consists of

a) v. ٤-polyisoprenes in which all the double bonds have E-configurations

b) v.  $\epsilon$ -polyisoprenes in which all the double bonds have Z-configurations

c) A mixture of Z-1 ,  $\epsilon$ -polyisoprenes and E-1,  $\epsilon$ -polyisoprenes

d) \. &-polyisoprenes in which some double bonds have Z-configurations and the Rave E-configurations

NV. Statement-I: Glucose is in pyranose form and has free anomeric hydroxyl groupStatement -II: In sucrose, glucose is in pyranose form and fructose is in furanose forma) Both I and II are true b) I is true, but II is falsec) I is false, But II is trued) both I and II are false

NA. The drug used for the treatment of throat infection isa) quinineb) piperazinec) sulpha drug like sulphanilamided) isonicotin hydrazide

114. Which of the following statement is not corrects

a) Only III amino acids are obtained on hydrolysis of proteins

b) The amino acids which are synthesized in the body are known as non-essential amino acids

c) There are ۲۰ essential amino acids

d) L-amino acids are represented by writing the  $[NH]_{\gamma}$  group on the left side

 $\iota$  reaction involving ring substitution of C $\iota$ H $\circ$ Y $\iota$  the major product is meta-isomer. The group Y can be

a) – NHr b) – COOH c) – CHr d) – Cl

# Section-BIOLOGY

This section contains 30 Multiple Choice Questions. Each question has four choices (a), (b), (c) and (d) out of which ONLY ONE is correct.

1911. When two or more authors publish a new species or propose a new name a their names are linke using the epithets

a)In b)Ex c)emend d)et

 $\ensuremath{\mathsf{vrr}}$  . Members of which kingdom have cell walls and are all heterotrophics

a) Plantae b) Fungi c) Animalia d) Protista

۱۳۳. Squamous epithelium occurs in inner lining of

a) Kidney b) Pancreatic duct c) Lung Alveoli d) Heart

**Which of the following statements is true** a) Eukaryotic cells have membrane-bound organelles b) Prokaryotic cells have a nucleus c) Eukaryotic cells have genetic information d) Prokaryotic cells are surrounded by a cell membrane 110. DNA structure was discovered by Watson and Crick in d) 1901 a) 1907 b) 1977 C) 1907 Name the phenomena that begins when sugar solution is separated from water by a semiper membranes b) Diffusion c) Imbibition d) Translocation a) Osmosis NTV. This is a rich source for Vitamin C a) Rice b) Milk d) Lemon c) Eqq 128. Synthesis of  $ADP + Pi \rightarrow ATP$  in grana is a) Phosphorylation b) Photophosphorylation c) Oxidative Phosphorylation d) Photolysis 119. Citric acid cycle takes place in a) Cytosol b) Peroxisomes c) mitochondria d) None of these ir. Coiling of garden peatendrils around any support is an example of a) Thermotaxis b) Thigmotaxis c) Thigmotropism d) Thigmonasty 1r). The instrument used for measuring blood pressure is known as b) Stethoscope c) Sphygmomanometerd) EEG a) ECG 1rr. Amount of blood passes through kidney per minute is b)  $10 \cdot - 7 \cdot \cdot ml$ a) 111-11. ml c) v - v m $d_{0,0} \rightarrow 0,0$  ml **hrr**. Hinge joints a) Are synovial joints b) Permit movements in one direction c) Are found in knee d) All of these ۱۳٤. When a neuron is in resting state i.e. not conducting any impulse, the axonal membrane is a) Comparatively more permeable to K+ ions and nearly impermeable to Na+ ions b) Comparatively more permeable to Na+ ions and nearly impermeable to K+ ions c) Equally permeable to both Na+ and K+ ions d) Impermeable to both Na+ and K+ ions ۱۳۰. Parthenocarpy leads to b) Seedless fruit a) Seed fruit c) No fruit d) Seed formation 136. Tyson's glands occur in male on a) urethra b) scrotum c) prepuce d) epididymis \rv. Chromatin is composed of \_\_\_\_\_

a) Nucleic acid and c) Only protein	d protein		b) Only Nucleic acid d) None of these	ł
۱۳۸. B-lymphocyto a) Formed in bone b) Preprocessed in c) Preprocessed in d) Both Formed in	es are e marrow n bone marrov n liver bone marrow	v and Pr	eprocessed in bone	marrow
۱۳۹. Choose the co	omplex fertilize	er		
a) Potassium sulp c) Triple super pho	hate osphate	b)Calo	cium ammonium ni d) Urea ammoniun	trate 1 phosphate
νε. Hop flowers a	re used for			
a) Gluconic acid p c) Vinegar produc	roduction tion		b) Citric acid produ d) Beer production	ction
۱٤۱. The two DNA	strands are he	ld toge	ther by bonds of	
a) Nitrogen	b)Oxygen	0	c) Hydrogen	d) Carbon
۱٤۲. Green Fluore	scent Protein v	vas firs	t observed in	
a)Jellyfish	b)Primate		c) Cuttlefish	d) Shark
۱٤۳. The carrying o	capacity of a po	opulatio	on is determined by	its th rate
c) Limiting resour	ces		d) Mortality	linate
۱٤٤. The richness ر	of species in ar	necosv	stem is termed as	
a) Genetic diversit	ц Ту	,	b) Species diversity	,
c) Community div	ersity		d) All of these	
۱٤٥. Red data boo	k provides data	aon		
a) red flowered pla	ants	de	b) red coloured fish	ies
c) endangered pla	11115 al 10 al 11116	115	d) red cyca birds	
۱٤٦. The Taj Maha	l is being affect	ted by		
a) Noise pollution	b) Air polluti	on	c) Water pollution	d) None of these
۱٤٧. Blood flow in	lungs is circula	ited by		
a) Cardiac circulat	ion	b)Gas	tric circulation	
c) Pulmonary circu	ulation	d)trac	chea	
۱٤۸. Which of thes	e is true for ga	stric jui	cess	
a) Kill bacteria	aloricacid		b) Digest food	
		ا - مىل		
a) India	b) South Δfri	try hav	e richest blodiversif	ys d) Russia
G/111010	S/ 354617 (11)		C/ DI 0211	a, ita 3310

vov. Disease caused by eating fish inhabiting mercury contaminated water is

a) Hiroshima episode

c) Bright's disease

b) Mina-mata disease d) Osteosclerosis