MODEL TEST PAPER

ENTRANCE EXAMINATION FOR ADMISSION TO B.Sc. (AGRICULTURE)

General Instructions for Students

- Every candidate should carry his/her valid Roll No. cum Admit Card to the Entrance Test. No candidate without the valid Roll No. cum Admit Card will be allowed to enter the examination centre.
- The question paper will be of Two Hours duration and will comprise of Hundred Multiple Choice Questions of One mark each.
- There will be four sections, viz; Physics, Chemistry, Biology OR Mathematics and General Awareness of the Subject.
- The candidates with 10 + 2 (Medical) will opt the section of Biology while the candidates with 10+2 (Non-Medical) will opt the Mathematics Section.
- The candidate has to mark the right option against the question number in the OMR sheet with black pen. The circles marked with pencil or blue pen will not be marked.
- 6. There will be no negative marking.
- 7. The OMR must be handed over to the Room Supervisor even if candidate has not filled any option.
- 8. No candidate will be allowed to leave the examination hall before two hours.
- 9. Don't write/make any identification marks(s)/religious symbols/slogan(s) on the answer books.
- 10. The candidate must ensure that his OMR has been duly stamped.
- 11. Please ensure that you have signed the attendance sheet.
- Mobile Phones and other electronic gadgets such as Bluetooth etc. are strictly prohibited in the Examination Centre.

			PI	IYSIC	S							
	1.	If a small amount of	antimony is added to gen	manium	crystal :							
		A) It becomes a p-ty	pe semiconductor									
		B) The antimony be	comes an acceptor atom									
		C) There will be more free electrons than holes in the semiconductor										
		D) Its resistance is increased										
•	2.	2. In forward biasing of the p-n junction.										
		A) The positive term	ninal of the battery is con	unected	to p-side and t	the depletion	region becomes thic	k				
		B) The positive terminal of the battery is connected to n-side and the depletion region becomes thin										
	C) The positive terminal of the battery is connected to n-side and the depletion region becomes thic											
		D) The positive term	ninal of the battery is cor	nected	to p-side and t	he depletion	region becomes thin					
	3.											
		A) Stationary charge		B) l	Jniformly mov	ing charges						
		C) Accelerated char	ges	D) /	All of these			-				
	4,	The oscillating electric and magnetic field vectors of electromagnetic wave are oriented along :										
		A) The same direction and in phase										
		B) The same direction but have a phase difference of 90°										
		C) Mutually perpendicular directions and are in phase										
		D) Mutually perpendicular directions but has a phase difference of 90°										
	5.	The half life of radiu after :	m is about 1600 years. I	lf 100 g	of radium exi	sts now, 25g	will remain unchang	ged				
		A) 3200 years	B) 4800 years	C)	6400 years		D) 2400 years					
	6.	The nuclii 7N14 and	C ¹³ can be described as									
		A) Isotones	B) Isobars	C)	Isotopes		D) Isomers					
	7.	 A 220 volts input is supplied to a transformer. The output circuit draws a current of 2.0 A at 440 Volt If the efficiency of the transformer is 80, the current drawn by the primary windings of the transform 										
		is: A) 3.6 A	B) 2.8 A	0	2.5 A		D) 5.0 A					
	8. One conducting U tube can slide inside another as shown in figure, maintaining electrical contacts be the tubes. The magnetic field B is perpendicular to the plane of the figure. If each tube moves towards the other at a constant speed v, then the emf induced in the circuit in terms of B, <i>l</i> and v where <i>l</i> is the width of each tube will be :											
		A)-B/v	1	3) B/v		(v•					
		C) 2B/v	1)) Zero		C.	/ /					

	The flux linked wit = 3s is :	th a given coil at ar	iy instant	ť is giv	en by $\varphi = 1$	0t ² - 504	+ 250), ih	e ind	uced e	mf
	A) -190 V	B) -10 V		C)	10 V		D)	190	V	11.0	
10.	A bar magnet, of n on it is	nagnetic moment N	i, is place	d in m	agnetic field	l of indu	ction	в, Т	he to	orque (exer
	A) $\overrightarrow{M} \cdot \overrightarrow{B}$	B) $\xrightarrow{\rightarrow}{M} \xrightarrow{\rightarrow}{B}$		C)	$\overrightarrow{M} \times \overrightarrow{B}$		D)	B	×M		
11.		magnets are fixed v charge Q is placed O as shown in fig	at P in be	etween	the gap of	he			•P D		
	A) directed perper	ndicular to the plan	e of paper								
	B) zero					S		N	0		S
	C) directed along	OP							d	-	-
	D) directed along	PO					4-		u	1	
	conductor as shown	ductor carrying a s n in figure. The loop	p will exp	erience		'd' from	the		la	,1	-
		e force away from t			A start sta						
	R) A net torque ac	cting upward perpet				ne					
		NAMES OF TAXABLE PARTY AND ADDRESS OF TAXABLE PARTY.									
	C) A net torque ac				anai piane						
	C) A net torque acD) A net attractive	e force towards the	conducto	r		1. 74 54				6. 	
13.	C) A net torque acD) A net attractiveA circular loop of r	e force towards the	conducto urrent I, li gh X-Y pl	r es in X ane is :	-Y plane w		ıtre				
13.	C) A net torque acD) A net attractiveA circular loop of r	e force towards the radius R, carrying c magnetic flux throu	conducto urrent I, li gh X-Y pl	r es in X ane is :	-Y plane w		ntre				
	 C) A net torque ac D) A net attractive A circular loop of n at origin. The total A) directly proport C) inversely proport 	e force towards the radius R, carrying c magnetic flux throu tional to l ortional to R	conducto urrent I, li gh X-Y pl B) D)	r es in X ane is : direct zero	-Y plane w	nal to R					
	 C) A net torque ac D) A net attractive A circular loop of n at origin. The total A) directly proport 	e force towards the radius R, carrying c magnetic flux throu tional to l ortional to R	conducto urrent I, li gh X-Y pl B) D)	r es in X ane is : direct zero roduce:	-Y plane wi ly proportio s 80J of hea	nal to R	The r		ance	of cor	aduc
14.	 C) A net torque ac D) A net attractive A circular loop of n at origin. The total A) directly proport C) inversely proport A current of 2A pain Ohm is A) 0.5 	e force towards the radius R, carrying c magnetic flux throu tional to 1 ortional to R assing through a co B) 2	conducto urrent I, li gh X-Y pl B) D) nductor pr	r es in X ane is 1 direct zero roduce C)	-Y plane w ly proportio s 80J of hea 4	nal to R t in 10 s.	The r D)	20			
14.	 C) A net torque ac D) A net attractive A circular loop of n at origin. The total A) directly proport C) inversely proport A current of 2A pain Ohm is 	e force towards the radius R, carrying c magnetic flux throu tional to 1 ortional to R assing through a co B) 2	conducto urrent I, li gh X-Y pl B) D) nductor pr	r es in X ane is : direct zero roduce C)	-Y plane w ly proportio s 80J of hea 4 ted at an cle	nal to R t in 10 s. ctrode is	The r D)	20			
14.	 C) A net torque ac D) A net attractive A circular loop of n at origin. The total A) directly proport C) inversely proport A current of 2A pain Ohm is A) 0.5 	e force towards the radius R, carrying c magnetic flux throu tional to I ortional to R assing through a co B) 2 amount of mass de	conducto urrent I, li gh X-Y pl B) D) nductor pr posited or B)	r es in X ane is : direct zero roduce C) libera Amo	-Y plane wi ly proportio s 80J of hea 4 ted at an ele int of charge	nal to R t in 10 s. ctrode is	The r D) direct	20			
14.	 C) A net torque ac D) A net attractive A circular loop of n at origin. The total A) directly proport C) inversely proport A current of 2A pain Ohm is A) 0.5 In electrolysis, the A) Square of electrol C) Square of current 	e force towards the radius R, carrying c magnetic flux throu tional to I ortional to R assing through a co B) 2 amount of mass de tric charge ent	conducto urrent I, li gh X-Y pl B) D) nductor pl posited of B) D)	r es in X ane is : zero roduce C) libera Amoi Conc	-Y plane wi ly proportio s 80J of hea 4 ted at an ele ant of charge entration of	nal to R t in 10 s. ctrode is electroly	The r D) direct	20 ly pr			
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14.	 C) A net torque ac D) A net attractive A circular loop of n at origin. The total A) directly proport C) inversely proport A current of 2A pain Ohm is A) 0.5 In electrolysis, the A) Square of elect C) Square of current In the circuit shown 	e force towards the radius R, carrying c magnetic flux throu tional to I ortional to R assing through a co B) 2 amount of mass de tric charge ent	conducto urrent I, li gh X-Y pl B) D) nductor pl posited of B) D)	r es in X ane is : zero roduce C) libera Amoi Conc	-Y plane wi ly proportio s 80J of hea 4 ted at an ele ant of charge entration of	nal to R t in 10 s. ctrode is electroly	The r D) direct te	20 ly pr			
14.	 C) A net torque ac D) A net attractive A circular loop of n at origin. The total A) directly proport C) inversely proport A current of 2A pain Ohm is A) 0.5 In electrolysis, the A) Square of election C) Square of current In the circuit shown A) Zero Volts 	e force towards the radius R, carrying c magnetic flux throu tional to I ortional to R assing through a co B) 2 amount of mass de tric charge ent	conducto urrent I, li gh X-Y pl B) D) nductor pl posited of B) D)	r es in X ane is : zero roduce C) libera Amoi Conc	-Y plane wi ly proportio s 80J of hea 4 ted at an ele ant of charge entration of	nal to R t in 10 s. ctrode is electroly	The r D) direct te	20 ly pr	opor	tional	

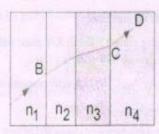
- Five resistances each of 5Ω, are connected as shown in figure. If all the resistances are of 5Ω the equivalent resistance between points (1) A & B and (2) A & C.
 - Α) (1) 7.5 Ω (2) 2.25 Ω
 - B) (1) 5Ω (2) 2.5Ω
 - C) (1) 2.5Ω (2) 3.1Ω
 - D) (1) 3Ω (2) 2.5Ω
- 18. The force between two point charges placed in vacuum is 18N at a separation of 1mm. If a glass plate of thickness 1mm and dielectric constant 6 be kept between the charges, then the force between them would be :

A) 18 N B) 108N C) 3 N

and the second second

D) 3×10⁻⁶N

- 19. The electric field inside a spherical shell of uniform surface charge density is :
 - A) Zero
 - C) Proportional to the distance from centre
- B) Constant, but non zero
- D) None of the above
- 20. A point object is 24 cm above the surface of water (µ=4/3) in lake. A fish inside the water will observe the image to be at a point :
 - A) 6 cm above the surface of waterC) 18 cm above the surface of water
- B) 6 cm below the surface of water
 D) 32 cm above the surface of water
- 21. A ray of light passes through four transparent media with refractive indices n₁, n₂, n₃ and n₄ as shown in the figure. The surfaces of all media are parallel. If the emergent ray CD is parallel to the incident ray AB, we must have :



A) $n_1 = n_2$ B) $n_2 = n_3$ C) $n_3 = n_4$ D) $n_4 = n_1$

22. The magnification m, the image position v and focal length f are related to one another by the relation :

A)
$$m = \frac{f - v}{f}$$
 B) $m = \frac{f}{f - v}$ C) $m = \frac{f + v}{f}$ D) $m = \frac{f}{v - f}$

- 23. Which of the following statement is correct?
 - A) Photo-current increases with intensity of light
 - B) Photo-current is proportional to the applied voltage
 - C) Current in photocell increases with increasing frequency
 - D) Stopping potential increases with increase of incident light

24. An electron, proton and a car all have same wavelength. The one possessing highest velocity is :

A) Electron

- B) Proton
- C) Car
- D) All have same velocity
- 25. In photocell, energy conversion is from ...
 - A) Chemical to electricalC) Optical to electrical
- B) Mechanical to electrical
- D) Magnetic to electrical

CHEMISTRY

26.	The coordination nur	mber of a metal that	crystal	lizes i	n hexagonal close c	ubic pac	ked (hcp) structure
	A) 6 .	B) 12		C)	8	D)	4
27.	The solution contain	ing 18 g of glucose p	er 100	0 g of	solvent is termed a	IS I	
	A) 0.1 molal	B) 0.1 molar		C)	1.8 molal	D)	1.8 molar
28.	When one Faraday is	s divided by Avogadi	o nun	iber, v	ve get :		
	A) Charge of electro	on in Coulombs	B)	Char	ge of electron in es	u	
	C) Charge on the nu	icleus	D)	Curr	ent in Amperes		
29.	The units of rate con	stant for a zero order	reacti	ion an	м		
	A) mol L ^{-I} sec ⁻¹	B) L mol ⁻¹ sec ⁻¹		C)	·sec ⁻¹	D)	mol L ⁻¹ .
30.	Which of the following	ng will have highest o	coagula	ating p	ower for As ₂ S ₃ sol ²	?	
	A) Al ³⁺ ion	B) PO4 ³⁻ ion		C)	SO42- ion	D)	Na ⁺ ion
31.	Poling process is use	d for the removal of					
	A) Al ₂ O ₃ from Al	B) Cu ₂ O from Co	1	C)	Fe ₂ O ₃ from Fe	D)	All of these
32.	Which of the following	ng nitrogen oxide is th	hermal	lly mo	st stable :		
	A) N ₂ O ₅	B) NO ₂		C)	NO	D)	N20
33.	Hybridization of S in	SF ⁴ is :					
	A) sp ²	B) sp ³		C)	sp ³ d	D)	sp ³ d ²
34.	Which of the following	ng halogens is oxidiz	ed by r	utric a	cid?		
	A) I	B) Br		(C)	Cl	D)	F
35.	Bleaching powder is	prepared from the re	action	of :			
	A) Slaked lime and o	chlorine	B)	Quic	k lime and chlorine		
	C) Calcium and chlo	rine	D)	Burn	t lime and chlorine		
36.	IUPAC name of K4[Fc(CN) ₆] is :					
	A) Potassium hexac	yanoferrate (II)	B)	Pota	ssium hexacyanofe	rrate (III)
	C) Potassium hexac	yanoiron (II)	D)	Pota	ssium hexacyanoiro	on (III)	
37.	Which of the following	ngs is not a condensa	tion po	olymei	9		
	A) Polystyrene	B) Glyptal		C)	Terelene	D)	Nylon-6,6

38.	The proteins have their minimum solubility at a	B)	Basic pH
	A) Actual pri		And the second
	() include pri	D)	Isoelectric point
39.	On heating glucose with Fehling solution we	get	
	A) Yellow B) Red		C) Black D) White
40,	All amino acids in proteins are :	210	
	(1) Obneauly secure encely Process	B)	Have L-configuration.
			Have D-configuration
41.	give rise to alkyl bromide. The function of su	lph	on but the same reactants in presence of sulphuric acid uric acid here is to :
	A) Provide H*	B)	Convert OH of alcohol to a better leaving group wate
	C) Act as a dehydrating agent	D)	All of these
42.	Ethanol is made unfit for drinking by adding :		I servera with the paper of the
	A) Methanol B) Glycol		C) Glycerol D) All of these
43.	A primary amine can be distinguished from a	a 2º	or 3° amine by :
	A) Carbylamine reaction	B)	Reaction with CH ₃ 1
	C) Reaction with acetyl chloride		None of these
44	In Hinsberg test to distinguish between 1°, 2	20.8	nd 3° amine, the reagent used is :
	A) SnCl ₂ /HCl	B)	p-toluenesulphonyl chloride
	() Subhania acid	D)	Benzenesulphonyl chloride
45	Chlorobenzene on reaction with methyl cl tormation of :		ide in the presence of anhydrous AICI3 results in th
	A) Toluene		m-chlorotolucne
	C) o- and p- chlorotoluenes		Benzyl chloride
46	5. Which of the following does not give Canni:	zari	o's reaction?
	A) HCHO		2.2-dimethylpropanal
	C) Benzaldehyde		2-methyl-2-phenylethanal
47	7. In the presence of iodine catalyst, chlorine r	cac	ts with acetic acid to torm :
	A) CH3COCI	B)	CICH ₂ COCI
	C) CICH2COOH	D)	CH ₃ CCl ₂ (OH)
48	8. Which of the following compounds will be	for	ned by the reaction of HBr with acetylene?
	A) Ethylidene bromide	B	Ethylene bromide
	C) Ethyl bromide	D	Vinyl bromide
4	9. The organic reaction product from the react	ion	of methyl magnesium bromide and ethyl alcohol is :
	A) Methane B) Ethane		C) Propane D) Butane
5	0. Which of the following reagents can disting	guis	h C2H3OH from CH3OH?
			C) 12 + KOH D) HCl

		BIO	LOGY		
51.	Most likely reason for development of re-			cs is :	
	A) Genetic recombination		Acquired heritable change		
	C) Random mutations		Directed mutations		
52.	Test cross is crossing between				
	A) Genotype with dominant trait	B)	Genotype with recessive t	rait	
	C) F1 hybrid with double recessive	D)	Two F1 hybrids		
53.	Gametic maps of chromosomes are base	d on :			
	A) Non disjunction		Translocation		
	C) Dominance		Genetic recombination		
54.	Grain colour of wheat is determined by t resembling either parent in F2 generation		airs of polygenes. In cross	AABB	SCC x aabbee, progeny
	A) Half	1215	One third		
	C) Less than 5%	0.04	75%		4.4
55.	Which mendelian idea is depicted by a cr			bles be	oth the parents :
	∧) Codominance		Incomplete dominance		
	C) Law of dominance	10	Inheritance of one gene		1. 1. 1. 1. 1. 1. 1. 1. 1. 1. 1. 1. 1. 1
56.			e for cancer cells in relation	n to mi	nations?
	A) Mutations destroy telomerase inhibite	or			
	B) Mutations inactive the cell control				
	C) Mutations inhibit production of telom				
	D) Mutations in proto-oncogenes accele				
57.	The mechanism that causes a gene to mo				
	A) Duplication B) Translocation		C) Crossing-over	100	Inversion
58.		hree by			
	A) 12 B) 8		C) 6	D)	
59.	Which one of the following does not follo			r biolo;	gy :
	A) Mucor C) HIV	D)	Chlamydomonas Pea		
60.	The unequivocal proof of DNA as the ge	netic n			
	A) Viroid B) Bacterial viru	s	C) Bacterium	D)	Fungus
61.	Basis of DNA fingerprinting is :				
	 A) Relative proportion of purines and py 				
	B) Relative difference in DNA occurrent	ice in b	lood, skin and saliva		
	C) Relative amounts of DNA in ridges a	ind gro	oves of fingerprints		
	D) Satellite DNA occurring as highly re	peated	short DNA segments		

62.	Which one is not applicable of RNA?								
	A) Complementary base pairing	B)	5' phosphoryl and 3' hydroxyl en	ds					
	C) Heterocyclic nitrogenous bases	D)	Chargaff's rule						
63.	Just as a person moving from Delhi to Shi of migratory birds from Siberia and other								
	A) Western Ghat	B)	Meghalaya						
	C) Corbett National Park	D)	Keoladeo Ghana National Park	interestion of the					
64.	Tubectomy :								
	A) Prevents implantation	B)	Prevents foetal development						
	C) Prevents fertilization	D)	None of these						
65,	Capacitaion of sperms occur in :								
	A) Female genital tract	B)	Vas efferens						
	C) Vas Deferens	D)	Vagina						
66.	The deme is a group of :								
	A) Genes in different environment	B)	Chromosomes in same organism						
	C) Individuals in same environment		Populations with same gene pool						
67.									
	A) Corona radiata	B)	Chorion						
	C) Vitelline membrane	D)	Zona pellucida						
68.	Anaemia in alcoholism may be due to the	deficie	ncy of :						
	A) Vitamin H	B)	Vitamin B2						
	C) Folic acid & Vitamin B12	D)	Vitamin C	17					
69.	Mendel's experimental organism was :								
	A) Homo sapiens	B)	Antirrhinum majus						
	C) Pisumsativum	D)	Drosophila melanogaster						
70.	Athelete foot disease is caused by :								
	A) Tinea pedis B) Tinea capitis		C) Ricketssia D) (Candida albicans					
71.	In F2 generation of quantitative inheritanc	e, a rat	io of 1:4:6:4:1 is obtained instead of	of:					
	A) 7:4:1:4 B) 3:1			8:6:4:1					
72.	The infective stage of malaria is :								
	A) Sporozoite B) Merozoite		C) Schizont D) (Jametes					
73.	Who wrote the famous book "Origin of S	pecies							
	A) Lamarek B) Darwin		C) de Vries D) 1	Mendel					
74.	In any food chain the largest population is	that o							
	A) Primary consumers		Tertiary consumers						
	C) Producers		Decomposers						
75.	Smallest part of DNA that undergoes reco	mbina	ion is :						
	A) Muton B) Cistron			Recon					

OR MATHEMATICS

51. If $a * b = a^{h-1}$, * be a binary operation then 4 * 3 is equal to : C) 64 D) 81 B) 12 A) 16 52. Let A be the non-void set of the children in a family. The relation x is a brothers of y on A is : C) Transitive D) None of these B) Symmetric A) Reflexive 53. Range of the function $f(x) = \frac{|x-1|}{|x-1|}$ is: B) {-1,2} A) {-1.1} D) None of these C) [-2.2] $|\tan^{-1}x|$ if $|x| \le 1$ 54. The domain of the derivative of the function $f(x) = \begin{cases} \frac{1}{2} (|x|-1) & \text{is :} \\ \frac{1}{2} (|x|-1) & \text{if } |x| > 1 \end{cases}$ C) 1R-{-1} D) IR-(-1.1) B) IR- {1} A) $IR - \{0\}$ 55. If $A = \begin{bmatrix} \alpha & \beta \\ y & -\alpha \end{bmatrix}$ is such that $A^2 = I$, than : B) $1 - \alpha^2 + \beta \gamma = 0$ D) $1 + \alpha^2 - \beta \gamma = 0$ A) $1 + \alpha^2 + \beta \gamma = 0$ C) $1 - \alpha^2 - \beta \gamma = 0$ 56. If $A = \begin{bmatrix} 1 & 2 \\ 3 & 4 \end{bmatrix}$, Then $1 + A + A^2 + \dots + a^2$ is : A) $\begin{bmatrix} 1 & 0 \\ 0 & 1 \end{bmatrix}$ B) $\begin{bmatrix} -1 & -2 \\ -3 & -4 \end{bmatrix}$ C) $\begin{vmatrix} \frac{1}{2} & -\frac{1}{3} \\ \frac{1}{2} & 0 \end{vmatrix}$ D) 57. If $D_r = \begin{vmatrix} 2^r - 1 & 2 \cdot 3^r - 1 & 4 \cdot 5^r - 1 \\ \alpha & \beta & \gamma \\ 2^n - 1 & 3^n - 1 & 5^n - 1 \end{vmatrix}$ then the value of $\sum_{r=1}^n D_r$ is : C) $\alpha \neq \beta + \gamma$ D) $\alpha.2^* + \beta.3^* + \gamma.4^*$ B) $\alpha\beta\gamma$ A) 0 58. The matrix $A = \begin{bmatrix} 0 & -1 \\ 1 & 0 \end{bmatrix}$ is a B) Diagonal matrix A) Unit matrix D) Skew-symmetric matrix C) Symmetric matrix 3 , $x \neq 0$ a+1, x = 0 and f is continuous at x = 0, then value of 'a' is : 59. If the function f is defined by f(x) =D) 4 C) 3 B) 2 A) 1

60. If f(x) = |x-2| and g(x) = f(f(x)) then for x > 2, g'(x) equals :

61. The normal to a given curve is parallel to x-axis if :

$$\frac{dy}{dx} = 0$$
 B) $\frac{dy}{dx} = 1$ C) $\frac{dx}{dy} = 0$ D) $\frac{dx}{dy} = 1$

- 62. The function $f(x) = \max \{ (1-x), (1+x), 2 \} x \in (-\infty, \infty)$ is :
 - A) Continuous at all points

A

- B) Differentiable at all points
- C) Differentiable at all points except at x = 1
- D) Continuous at all points except at $x = \pm 1$, where it is discontinuous
- 63. $\int \frac{dx}{e^{x} + e^{-x}} \text{ is equal to :}$ A) $\tan^{-1}(e^{x}) + c$ B) $\tan^{-1}(e^{-x}) + c$ C) $\log(e^{x} e^{-x}) + c$ D) $\log(e^{x} + e^{-x}) + c$ 64. $\int \frac{x \, dx}{(x-1)(x-2)} \text{ equals :}$ A) $\log \left| \frac{(x-1)^{2}}{x-2} \right| + c$ B) $\log \left| \frac{(x-2)^{2}}{x-1} \right| + c$ C) $\log \left| \frac{(x-1)^{2}}{x-2} \right| + c$ D) $\log |(x-1)|(x-2)| + c$

65. The area of the figure bounded by the curves y = |x-1| and y = 3 - |x| is : A) 2 B) 3 C) 4 D) 1

66. Value of
$$\int \frac{e}{\sqrt{4-e^{2r}}} dx$$
 is:
A) $\sin^{-1}\left(\frac{e^{r}}{4}\right) + c$
B) $\sin^{-1}(e^{r}) + c$
C) $\sin^{-1}(2e^{s}) + c$
D) $\sin^{-1}\left(\frac{e^{r}}{2}\right) + c$

67. Which of the following differential equations has $y = c_1 e^x + c_2 e^{-y}$ as the general solution :

A)
$$\frac{d^2y}{dx^2} + y = 0$$

B) $\frac{d^2y}{dx^2} - y = 0$
C) $\frac{d^2y}{dx^2} + 1 = 0$
D) $\frac{d^2y}{dx^2} - 1 = 0$

68. The general solution of the differential equation $\frac{ydx - xdy}{ydx} = 0$ is :

A)
$$xy = c$$
 B) $x = cy^2$ C) $y = cx$ D) $y = cx^2$

	A) 1	B) 2	dicular to the vectors $\vec{a} = \hat{i} + j$ C) 4	D) minue
0	If \ddot{a} is a non-zero vec		d λ is non-zero scaler, then (λ	\vec{a}) is unit vector of :
	AT IN THE REAL PROPERTY OF			4
	A) _Å = 1	B) $\lambda = -1$	C) $a = \lambda $	$D) a = \frac{1}{ \lambda } = $
71	If $\alpha \beta v$ are the an	oles which a directed li	ne makes with the +ve direct	ions of the co-ordinate axis
1.	than $\sin^2 \alpha + \sin^2 \beta$ +			
	10 3.94	B) 2	C) 3	D) None of these
72	A) 1 The planes $2x - v + $	4z = 5 and $5x - 2.5y +$	300001352	
· den	A) Perpendicular	And the substitution of the second second	B) Parallel	
			(005)	
	C) Intersect $y - axis$	1	D) Passes through $\left(0, 0, \frac{5}{4}\right)$	
73.	The equation $\left \vec{r}\right ^2$ -	$2(\overrightarrow{r}, \overrightarrow{a}) + \lambda = 0$ represented to $\lambda = 0$	esents a	
	A) Plane	B) Straight Line	C) Sphere	D) None of these
	primi annanati			
74.	$\inf P(A) = \frac{1}{2}, P(B) =$	0, than $P(A / B)$ is:		
	4			
	A) 0	B) $\frac{1}{2}$	C) Not defined	D) 1
70	If A and B are two e	vents, such that :		
13,	A) $A \subset B$	b) B⊂A	C) $B = \phi$	d) $A = \phi$
	A) A = 0	W. Mart	COLUMN STATE AN	
		GENARAL AWAR	ENESS OF THE SUBJECT	r
70	Itsit is the weed of			
10	A) Grain	B) Wheat	C) Maize	D) Sarson
		est of Cr	op	
.77	A) Wheat	B) Rice	C) Maize	D) Grain
77	A) wheat		les to plant	
	I leas is a chemical	substance which provid		
			C) Protection	D) Potassium
78	A) Nitrogen	B) Energy	C) Protection	D) Potassium
	 A) Nitrogen b. Flowering time of p 	B) Energy beas is	C) ProtectionB) February- March	D) Potassium
78	A) Nitrogenb. Flowering time of pA) October- Nove	B) Energy beas is	C) Protection	
78 79	 A) Nitrogen Flowering time of p A) October- Nove C) June- July 	B) Energy beas is	C) ProtectionB) February- MarchD) August- Septemb	
78	 A) Nitrogen Plowering time of p A) October- Nove C) June- July 	 B) Energy beas is ember be fruit plant of Amritsar 	C) ProtectionB) February- MarchD) August- Septemb	
78 79	 A) Nitrogen A) Notrober-Nove C) June-July A) Peach 	 B) Energy beas is ember be fruit plant of Amritsar B) Peas 	C) ProtectionB) February- MarchD) August- Septemb	er

82.	Seed rate of wheat per	acre in kg is				-	101	
	A) 10 kg	B) 20 kg		C)	30 kg	D)	40 kg	
83.	Reason of low market	price of potato is :						
	A) More production		0.00	1000	rt Problem			
	C) Bad quality produc	e	D)	All o	f these			
84.	Sowing/planting time of	of Sugar cane is :					New York Contraction of the Contract of	
		B) February- M	arch	C)	April-May	D)	August-September	
85.	Low temperature durin							
105260	A) Beneficial	and the second second	B)	Harm	ful			
	C) Neither harmful ne	ither beneficial	D)	None	of these			
86	Water required to pro-		ddy is :					
por	A) 30 litres		0.50202	C)	3000 litres	D)	30,000 litres	
87	East- West length of o		am					
	A) 36	B) 40		C)	44	D)	50	
22	Cotton sowing time in							
00.	A) January-February		B)	Marc	:h- April			
	C) June-July				ember-December			
00	From the following w	hich crops takes m	1000					
69.	A) Toria	B) Season			Pea	D)	Barseem	
00	Planting of potato is d			-				
90.	A) Dry soil	B) Wet soil		(C)	Puddled soil	D)	All of these	
01	Which crop require te		8	20				
915	A) Wheat	B) Rice	19 	C	Sugarcane	D)	Potato	
0.7	Which one is Rabi Cr	the former sector		1510				
92.		B) Lentil		C)	Arhar	D)	Cowpea	
02	 A) Soybean From the following w 		is fodde	Allow Contract	STACTOR.			
93.		B) Oat	D Tours	(C)	Wheat	D)	Rice	
-	A) Barley	/).	ie					
94,	Underground water ta		15	C	280 feet	D)	380 feet	
0.52	A) 80 feet	B) 180 fect			200 1001	.not.		
95.	Whose milk contain n			C)	Goat	D	Sheep	
	A) Cow	B) Buffalo		9	cion			- 1
96.	Maida is the product	01		0	Wheed	D)	Grain	
	A) Ricė	B) Maize						
97.	In the present period,		in mki	. com	50 SN	di	35	
		B) 65 kg		Topheren and	50	47		
98.	Machine used to harv		cat is ca	aned :	Combine harvester	D	Reaper	
	A) Haramba	B) Thresher		0	Combine harvester	19	realier	
99.	Loose smut (Kangian			-	C	n.	Sugarcane	
	A) Rice	B) Wheat		()	Sunflower	1)	nugareare	
100	. Geographical area of				101	IN	50 lac m ²	
	A) 50 lac hector	B) 50 lac km²		C	50 lac acres	1)	50 fac m	