Mrc Plant Biatechnology

15P/287/3

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(Write the	e digits in	words)				• • • • • • • • • • • • • • • • • • • •		•••••		********	· · · · · · · · · · · · · · · · · · ·	
Serial No	o. of QMP	Answe	er Sheet .				.,					
Day and	Date		•••						Signatu	re of In	vigilator	r)

## INSTRUCTIONS TO CANDIDATES

(Use only blue/black ball-point pen in the space above and on both sides of the Answer Sheet)

- 1. Within 10 minutes of the issue of the Question Booklet, check the Question Booklet to ensure that it contains all the pages in correct sequence and that no page/question is missing. In case of faulty Question Booklet bring it to the notice of the Superintendent/Invigilators immediately to obtain a fresh Question Booklet.
- 2. Do not bring any loose paper, written or blank, inside the Examination Hall except the Admit Card without its envelope.
- 3. A separate Answer Sheet is given. It should not be folded or mutilated. A second Answer Sheet shall not be provided. Only the Answer Sheet will be evaluated.
- 4. Write your Roll Number and Serial Number of the Answer Sheet by pen in the space provided above.
- 5. On the front page of the Answer Sheet, write by pen your Roll Number in the space provided at the top, and by darkening the circles at the bottom. Also, wherever applicable write the Ouestion Booklet Number and the Set Number in appropriate places.
- **6.** No overwriting is allowed in the entries of Roll No., Question Booklet No. and Set No. (if any) on OMR sheet and also Roll No. and OMR sheet No. on the Question Booklet.
- 7. Any changes in the aforesaid entries is to be verified by the invigilator, otherwise it will be taken as unfairmeans.
- 8. Each question in this Booklet is followed by four alternative answers. For each question, you are to record the correct option on the Answer Sheet by darkening the appropriate circle in the corresponding row of the Answer Sheet, by ball-point pen as mentioned in the guidelines given on the first page of the Answer Sheet.
- **9.** For each question, darken only one circle on the Answer Sheet. If you darken more than one circle or darken a circle partially, the answer will be treated as incorrect.
- 10. Note that the answer once filled in ink cannot be changed. If you do not wish to attempt a question, leave all the circles in the corresponding row blank (such question will be awarded zero marks).
- 11. For rough work, use the inner back page of the title cover and the blank page at the end of this Booklet.
- 12. Deposit only the OMR Answer Sheet at the end of the Test.
- 13. You are not permitted to leave the Examination Hall until the end of the Test.
- 14. If a candidate attempts to use any form of unfair means, he/she shall be liable to such punishment as the University may determine and impose on him/her.

[ उपर्युक्त निर्देश हिन्दी में अन्तिम आवरण-पृष्ठ पर दिये गये हैं। ]

Total No. of Printed Pages: 14

No. of Questions: 120 पश्नों की संख्या : 120 (Full Marks: 360 Time: 2 Hours] *[ पूर्णा*ङ्कः ३६० समय : 2 घण्टे [ Note: (1) Attempt as many questions as you can. Each question carries 3 (three) marks. One mark will be deducted for each incorrect answer. Zero mark will be awarded for each unattempted question. अधिकाधिक प्रश्नों को हल करने का प्रयत्न करें। प्रत्येक प्रश्न 3 (तीन) अंक का है। प्रत्येक गलत उत्तर के लिए एक अंक काटा जायेगा। प्रत्येक अनुत्तरित प्रश्न का प्राप्तांक शून्य होगा। (2) If more than one alternative answers seem to be approximate to the correct answer, choose the closest one. यदि एकाधिक वैकल्पिक उत्तर सही उत्तर के निकट प्रतीत हो, तो निकटतम सही उत्तर दें। 1. PCR (polymerase chain reaction) is used to: (1) Grow E. coli in the laboratory (2) Power cell activity (3) Make many copies of a DNA sequence quickly (4) Clean dried DNA from laboratory glassware 2. Rice, corn, and wheat are: (4) Ferns (3) Multicots (2) Dicots (1) Monocots 3. The group of organisms which convert light into food are called: (4) Omnivores (3) Decomposers (2) Heterotrophs (1) Autotrophs 4. A genetically identical copy of another organism is called: (2) A clone (1) A genomorph (4) A monogene (3) A clown or sport Among the following, the richest source of protein is: (4) Apple (3) Potato (2) Rice (1) Ground Nut 6. AIDS stands for : (1) Acquired Immune Disease Syndrome (2) Acquired Immunity Dis-function Syndrome (3) Acquired Immuno Deficiency Syndrome

(4) Acquired Infection Deficiency Syndrome

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7.	A healthy fresh water fish is placed in saltwater. The expected consequence of this would be that:
	(1) The fish becomes dehydrated and dies
	(2) The fish becomes bloated and dies
	(3) The fish suffers from fungal or bacterial disease and dies
	(4) There is no observable effect on the fish provided there is sufficient food
8.	A cell cycle consists of :
	(1) Mitosis and meiosis
	(2) G1, the S phase, and G2
	(3) Prophase, metaphase, anaphase and telophase
	(4) Interphase and mitosis
9.	<ul> <li>All plants exhibit alternation of generations. This means their life cycle:</li> <li>(1) Includes both haploid and diploid gametes</li> <li>(2) Shows only asexual reproduction</li> <li>(3) Has both a multicellular haploid stage and a multicellular diploid stage</li> <li>(4) Does not include meiosis</li> </ul>
10.	
	generally transports, whereas the phloem transports
	(1) water/sugar (2) sugar/water (3) water/water (4) sugar/sugar
11.	Tube feet is the locomotory organ in :
40	(1) Starfish (2) Jelly fish (3) Silver fish (4) Scoliodon
12.	Which of the following vitamins is soluble as well as anti-oxidant?
13.	(1) Vitamin - B1 (2) Vitamin-A (3) Vitamin-D (4) Vitamin-C
13.	What is the harm from the depletion of Earth's ozone layer?
	<ul> <li>(1) The average temperature of earth's surface will increase gradually</li> <li>(2) The oxygen content of the atmosphere will decrease</li> </ul>
	(3) Increased amount of Ultra violet radiation will reach earth's surface
	(4) Sea levels will rise as the polar ice caps will gradually melt
14.	Which of the following is a prime health risks associated with grouter LIV
	(1) Demonstration through the atmosphere due to depletion of stratospheric ozone?
	(3) Neurological disorder (2) Increased liver cancer (4) Increased skin cancer
15.	Which of the following is not a primary contributor to the greenhouse effect?
	(2) Carbon monoxide
	(3) Chlorofluorocarbons (4) Methane gas
	(2)
	·

6.	The entry of water into root hairs is due to the	ne force :
•	(1) Atmospheric pressure (2)	Osmotic pressure
		Suction pressure
17.	One of the most notable differences between	n gamete formation in animals and
	compto formation in plants is that:	
	(1) Plants produce gametes in somatic tiss	ue, write animais produce gametes
	in germ tissue.  (2) Plants produce gametes by mitosis, v	while animals produce gametes by
	meiosis. (3) Plants produce only one of each gan	nete, while animals produce many
	gametes.	id while animals produce gametes
	(4) Plants produce gametes that are diplo that are haploid.	id, while alditidis produce Business
18.	. During strenuous exercise; glucose is conve	rted into:
	(1) Glycogen (2) Pyruvic acid (3)	Starch (4) Lactic acid
19.	. A disease caused by fungus is	
	(1) Ringworm (2)	Encepalitis
•		Cardiovascular diseases
20.	In shoots, branching is inhibited by	from the tip of a growing shoot,
	but this effect is countered by from t	he roots.
	(1) Cytokinins auxins (2)	Gibberellins ethylene
	(3) Auxins cytokinins (4)	Gibberellins abscisic acid
21.	- c to come another by	
	(1) Louis Pasteur (2)	Rober Kotch
	(3) Rober Brown (4)	Anton De Barry
22.	to the femoral moth	nogens on the basis of their stomatal rovide these plants immunity from
	(1) Removing all of the stomata from the p	plant
	(2) Changing the spacing of stomatal pore	s in these plants
	(2) Painforcing the cell wall in the guard C	ells of stomatal pores
	(4) Increasing the number of trichome	s on the surfaces of these plants
	[wp_campaign_1]	
23.		Sheath (4) Rhizoid
	(1) Root (2) Stem (3	, -
	(3)	P.T.O.

24.	Biotic environment includes:	to ribri
	(1) Producers (2) Consumers	
25.		
	(1) Legumuanceae	(2) Cucurbitaceous
	(3) Papaveraceae	(4) Liliaceae
26.	A MARIE WALL OLDE TO CYCCOR OF !	
	(1) Transpiration	(2) Guttation
	(3) Translocation	(4) Active transport
27.	Plants synthesis protein from:	
	(1) Amino acids (2) Nucleotides	
28.	You are performing an experiment to	determine the nutricul
	men's discovered plant and hind th	At for come reason right with 11 17
	The second of the MidMin Wedi	um but do fine with aclose as 5 mants and
	million in solution. This suggests that (1) An essential macronutrient	poron is :
	(3) An essential micronutrient	
29.		(4) A nonessential macronutrient
	Each basis inheritable character is cor	
30.	(1) Chromosome (2) DNA	(3) RNA (4) Gene
	Gene is made up of	
	(1) Proteins (2) RNA	(3) DNA (4) All of them
31.	Sugarcane + Potato is an inter-croppin	ng system of :
	(1) Autumn season	(2) Zaid season
	(3) Spring season	(4) Rainy season
32.	In technique entire organ	ism can be grown from a single cell or
	tissue. (1) tissue culture	
	(3) genetic engineering	(2) cloning
33.	<del></del>	(4) transfusion
	A lipid membrane picked up by a viru (1) A capsid	is from its host cell is called:
	(3) an envelope	(2) a capsomere
34.	Which of the following is not done in a	(4) a gel capsule
	(1) Fauna is conserved	(2) Flora is appeared.
	(3) Soil and flora is utilized	<ul><li>(2) Flora is conserved</li><li>(4) Hunting is prohibited</li></ul>
<b>3</b> 5.	Which of the following cannot be used	as a vector ?
	(1) Phage	(2) Plasmid
	(3) Bacterium	(4) All can be used as vectors
		The same of the sa

36.						
	(1) nitrogen fixation	• •				
	(2) DNA vaccines					
	(3) resistance to glyphosate	in plants				
	(4) production of insecticidal proteins					
37.	Genetic engineering is the manipulation					
	(1) Genetic bacteria	(2) Genetic plant				
	(3) Genetic material	(4) Genetic animal				
38.	Cuts in DNA are sealed with:					
	(1) Restriction enzymes	(2) Ligases				
	(3) Reverse transcriptase	(4) Polymerase				
39.	Sticky ends are the result of :		,			
	(1) Treatment of a nucleotide sequence	e with DNA ligase				
	(2) Exposure of eukaryotic DNA to a p	prokaryotic plasmid	-0			
	(3) Cutting by restriction enzymes "of	ff center" in a specific nucleotide sequence				
	(4) DNA breaking down in the presen	ice of reverses transcriptase				
40.	You are conducting research on eight s	species of Tribolium flour beetles and yo	)LL			
		th of the following techniques might yo	,α			
	use?	(2) gene therapy				
	(1) genetic engineering	(4) polymerase chain reaction				
	(3) gel electrophoresis	(1) polymeruse summers				
41.	Pomato is somatic hybrid between:	(2) Tetato and tomato				
	(1) Poppy and Potato	(2) Potato and tomato				
	(3) Poppy and tamarind	(4) Poppy and Tomato				
42.	The first mammal to be successfully clo					
	(1) cow (2) sheep	(3) pig (4) human				
43.	When a plant structure such as a leaf i	is injured, it produces, which m	ay			
	cause the part to age and drop off.					
	(1) cytokinins (2) ethylene	(3) auxins (4) abscisic acid				
44.	Enzymes that can break the bonds th	nat hold the DNA backbones together a	ire			
	called:					
	(1) Nucleases (2) Fissionases	(3) Backbreakers (4) Debasers				
45.		f:				
	(1) RNA	(2) DNA				
	(3) Both RNA and DNA	(4) Either RNA or DNA				
	(5	i) P.1	Γ.Ο.			

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46.	Medicine of quinine is provided by	:
	(i) eucalyptus plant	(2) aconite plant
	(3) cinchona plant	(4) money plant
47.	Decomposers include:	7 L
	(1) bacteria (2) fungi	(3) both (4) animals
4 <b>8.</b>	Which of the following wastes ca compost?	annot be decomposed by bacteria to form
	(1) Kitchen wastes	(2) Plastic and polythene bags
	(3) Dead plants	(4) Bodies of insects living in the soil
49.	When trees are cut, amount of oxyge	
	(1) decreases	(2) increases
	(3) both (1) and (2)	(4) remains same
50.	If you could connect an active xyle sieve-tube member from a leaf us solution flow between the two?	m vessel from a shoot to an active phloem sing a "micropipe", which way would the
	(1) The solution would flow from x	ylem to phloem.
	(2) The solution would flow from pl	
	(3) The solution would flow back ar	nd forth from one to another.
	(4) The solution would not flow bet	
51.	The movement of water in the xylen	relies upon the :
	<ol> <li>ability of water molecules to hyd</li> </ol>	frogen-bond with each other
	(2) active transport	
	<ul><li>(3) evaporation of water from the le</li><li>(4) Both (1) and (3) are correct</li></ul>	ear surrace
52.		en, which of the following would work?
	(1) Treat the plant with abscisic acid	
	(2) Stimulate water movement into t	the guard cells
	(3) Stimulate water movement out of (4) Force the dermal cells around the	of the guard cells
	guard cells apart.	e stomata to dehydrate, thereby pulling the
<b>53</b> .	A term biotype means:	
	(1) All individuals having same pher	notype
	(2) All individuals having same gene	otype
	<ul><li>(3) All individuals with different pho</li><li>(4) All individuals with different ger</li></ul>	enotype
	17 remainded with different ger	notype

54.	Which of the following elements is a me (1) S (2) Se	etal ? (3)   [	(4) Ga		
55.	Most plant and animal cells are similar common:		• •		
	(1) Cytoplasm and cellulose (3) Cytoplasm and nucleus	(2) Cytoplasm an (4) Membrane an	d contractile vacuole d cell wall		
56.	Lamarck's theory of inheritance of acqu (1) August Weismann (3) Herbert Spencer	(2) Hugo De Vrie	ired characters was challenged by : (2) Hugo De Vries (4) Carl Linnaeus		
57.	Galvanised Iron sheets have a coating of (1) Tin (2) Lead	of: (3) Zinc	(4) Chromium		
58.	Endoplasmic reticulum is bound by: (1) Cellulose wall (3) Sclerotised layer	(2) Membranes (4) Chitinised wa	.11		
59.	Electric current is measured by:				
	(1) Voltmeter (2) Anemometer				
60.	Which of the following is most likely to of the Earth in the future?	cause a rise in the	average temperature		
,	(1) Atomic warfare	(2) $CO_2$ from fos	sil fuels		
	(3) Dust clouds from volcanoes	(4) Depletion of the	ne Earth's Ozone layer		
61.	A plant leaf appear to green because it :	:			
	(1) absorbs green light		yellow and green light		
	(3) reflect green light	(4) absorbs red at	nd yellow light		
62.	Which of the following is true of the bryo (1) It is the only group that shows an a		ations		
	(2) Bryophytes exhibit extensive vascu				
	(3) The sporophyte (multicellular diple	oid) is the conspicu	ous stage.		
	(4) The gametophyte (multicellular hap	ploid) is the conspic	cuous stage.		
63.	Which of the following is not character	istic of a monocot?			
	(1) leaves with parallel veins	diplos of three			
	<ul><li>(2) flower parts usually in threes or mu</li><li>(3) lateral meristems occurring rarely</li></ul>	anapies of timee			
	(4) seed with two cotyledons				
64.	A green leaf-like structures at the base flower is called:	of the petals prote	ecting the developing		
	(1) sepal (2) rhizoid	(3) calyx	(4) anther		
	(7)		P.T.O.		

65,	In flower, male rep (1) corolla		iction consisting stamen		lament and anth	4 - 4	: epicalyx
66.	In plants: (1) Gametes are pr (2) Gametes are pr (3) No gametes ar (4) Seeds are always	oduc e mo	ed directly after			;31.5	• •
67.	Which of the follow	ving	problems is not	crea	ted by noise pol	lutio	n?
	(1) Diarrhoea	(2)	Hypertension	(3)	Deafness	(4)	Irritation
68.	Sucrose enters a ph	doer.	n sieve-tube cell	beca	use of :		
	(1) Osmosis				Water potentia		•
	(3) Active transpo			(4)	A process regu	lated	l by auxin
69.	Chordae tendinae	-					•
	(1) Heart	• •	Lung		Notochord	(4)	Tendon
70.	Nerve cell does no (1) Nucleus		ide because they Centrosome		not have : Golgi body	(4)	Mitochondria
71.	Khaira disease of r (1) protein deficie (3) $O_2$ depletion		caused by :	(2)	zinc deficiency pathogenic fungi		
72,	Yeast, used in mak	ing b	oread is a :			_	
	(1) plant	_	seed	(3)	bacteria	(4)	fungus
73.	Which of the follow (1) Nitrogen		nutrients is not Calcium		uctural compone Phosphorus		-
74.	Which of the follow quantities?	wing		d fro	om rice fields in		
	(1) Carbon dioxid			, .	Methane		
	(3) Carbon monox				Sulphur dioxid		
75.	The study of pheno	omer	na at very low te	-		;	
	<ul><li>(1) Heat transfer</li><li>(3) Crystallograph</li></ul>	w			Morphology Cryogenics		
76.	In which of the fol	lowi			, •	dy d	ivisions include
	cephalotorax and a		men (				
	(1) Crustacea only		shnida only				
	<ul><li>(2) Crustacea and</li><li>(3) Crustacea, Ara</li></ul>		-	shor	a only		
	(4) Crustacea, Ara				•		
	(-) www.meen/1110	11 IL	011, 011, 010 prior ( 9 )	(111	a cimopoda		

<i>7</i> 7.	'. The Ecological pyramid that is always upright :					
	(1) Pyramid of ene	ergy		Pyramid of bior		
	(3) Pyramid of nur	nber	<b>(4)</b>	None of the abo	ove	
78.	Mycorrhiza exhibit	s the phenomenon of	f:			
	(1) Symbiosis	(2) Antagonism	(3)	Parasitism	(4) (	Commensalism
79.	The largest and the	most powerful addu	ictor	muscles in flyir	g bird	l is the :
	(1) coracobrachiali	•		pectoralis majo	_	
	(3) pectoralis mino	or	(4)	tensor longus		
80.	Which one of the fo	ollowing does not ha	ve a	specialized hear	t?	•
	(1) Amphioxus	(2) Dog fish	(3)	Chameleon	(4) 5	icaly ant-eater
81.	Plant that eat insect	ts are called :				
	(1) Omnivorous		(2)	Insectivorous		
	(3) Caprophagous		(4)	Insecticidal plan	nts	
82.	The cryptozoite sta	ge in the life cycle o	f Pla	asmodium is fou	ınd in	which one of
	the following?					
	(1) Human erythro	-		Human hepato	•	
	(3) Salivary glands	of Anopheles	(4)	Intestinal epith	elium	of Anopheles
83.	Who among the fol	lowing is associated			f comp	puters?
	(1) Edison			Mac Millen		
	(3) Babbage		<b>(4)</b>	Rangabhashyar	n	
84.	Activity of brain is					
	(1) ECG	(2) EEG	(3)	MET	(4) (	CT
85.		rules must pass betw			the cy	toplasm?
	(1) DNA			Protein		
	(3) Lipids		•	Carbohydrates		
<b>\$</b> 6.		piece of a chromo		ne becomes at	tached	l to another
		berration is called a(r		<b>—</b> 1	2 () P	S . D . D
	(1) Inversion.	(2) Translocation. (	(3)	Deletion.	(4) L	Duplication.
87.	Fruit most suitable	<del>-</del>	4-1			_
	(1) Papaya	(2) Karonda	(3)	Mango	(4) E	Banana
88.		Vitamin C among the				
	(1) Lycopersicum			Cirus medica		, , , , , , , , , , , , , , , , , , ,
	(3) Capsicum anni		• ′	Phyllanthus em		_
89.		bones had a maxim	um	tendency towar	ds rec	duction in the
	vertebrate phyloge	ny?	/01	0	_	
	(1) Dermal bones		٠,	Sesamoid bone		
	(3) Appendicular l	oones	(4)	Replacing bone	5	
		(9)		•		P.T.O.

90.	,					
	(1) Cooling & mo		(2) Warming effect			
	(3) Increased rain	ıfall & greenery	(4) Desertification	n		
91.	_		soil which is deficie	nt in :		
	(1) Water	(2) Nitrogen	(3) Potassium	(4) Calcium		
92.	_	•	ment is indicative of	:		
	(1) A pollution fr	,				
		uted system due to e		_		
		•	bundant heterotrop	hs		
00		water with abunda	nce of autotrophs			
93.	The Casparian str		the best 1			
		raterproof a seam in	the bathtub.			
	_	lubricate a wheel. prevent fertilization				
		to hold things toget				
94.		9 5		of replication fork is:		
	(1) DNA gyrase	operang or or man	(2) DNA Polyme	-		
	(3) DNA ligase		(4) DNA topoisomerase			
<del>9</del> 5.	How many amino	acids are involved	in making proteins i	n humans ?		
			and the second of the second o			
	(1) 20	(2) 22	(3) 24	(4)30		
96.	(1) 20 Amino acids join	(2) 22	(3) 24			
	(1) 20 Amino acids join molecule(s)?	(2) 22 up into a large cl	(3) 24 hain (polymer) to o	(4)30 reate what biological		
96.	<ul><li>(1) 20</li><li>Amino acids join molecule(s)?</li><li>(1) Proteins</li></ul>	(2) 22 up into a large cl (2) Lipids	(3) 24 hain (polymer) to c (3) Sugars	(4)30 create what biological (4) Nucleic acids		
96.	<ul><li>(1) 20</li><li>Amino acids join molecule(s)?</li><li>(1) Proteins</li><li>Which amino acid</li></ul>	<ul><li>(2) 22</li><li>up into a large of</li><li>(2) Lipids</li><li>is coded for by the</li></ul>	<ul><li>(3) 24</li><li>hain (polymer) to c</li><li>(3) Sugars</li><li>three-letter code Me</li></ul>	(4)30 reate what biological (4) Nucleic acids		
96. 97.	<ul><li>(1) 20</li><li>Amino acids join molecule(s)?</li><li>(1) Proteins</li><li>Which amino acid</li><li>(1) Phenyl alanin</li></ul>	(2) 22 up into a large cl (2) Lipids l is coded for by the e (2) Metheonine	(3) 24 hain (polymer) to c (3) Sugars three-letter code Me (3) Arginine	(4)30 reate what biological (4) Nucleic acids it? (4) Lysine		
96.	<ul><li>(1) 20</li><li>Amino acids join molecule(s)?</li><li>(1) Proteins</li><li>Which amino acid</li><li>(1) Phenyl alanin</li><li>In fungi the reserve</li></ul>	(2) 22 up into a large cl (2) Lipids l is coded for by the e (2) Metheonine ve food invariably ac	(3) 24 hain (polymer) to c (3) Sugars three-letter code Me (3) Arginine ccumulated in the fo	(4)30 reate what biological (4) Nucleic acids et? (4) Lysine erm of:		
96. 97.	<ul> <li>(1) 20</li> <li>Amino acids join molecule(s)?</li> <li>(1) Proteins</li> <li>Which amino acid</li> <li>(1) Phenyl alanin</li> <li>In fungi the reserv</li> <li>(1) Protein and st</li> </ul>	(2) 22 up into a large of (2) Lipids lis coded for by the e (2) Metheonine ve food invariably acteroid	(3) 24 hain (polymer) to o  (3) Sugars three-letter code Me  (3) Arginine coumulated in the fo  (2) Sugar and oil	(4)30 reate what biological (4) Nucleic acids it? (4) Lysine rm of:		
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96. 97. 98.	<ul> <li>(1) 20</li> <li>Amino acids join molecule(s)?</li> <li>(1) Proteins</li> <li>Which amino acid</li> <li>(1) Phenyl alanin</li> <li>In fungi the reserv</li> <li>(1) Protein and st</li> <li>(3) Protein and st</li> <li>The part of cotton</li> <li>(1) Root hair</li> </ul>	(2) 22 tup into a large of (2) Lipids l is coded for by the (2) Metheonine we food invariably acteroid earch producing pure cel (2) Leaf hair	(3) 24 hain (polymer) to o  (3) Sugars three-letter code Me  (3) Arginine coumulated in the fo  (2) Sugar and oil  (4) Glycogen and lulose is:  (3) Seed hair	(4)30 reate what biological (4) Nucleic acids it? (4) Lysine rm of:		
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101.	Which cells decay faster, if exposed fre	ely to	the air ?	
	(1) Heart wood		Sap wood	
	(3) Wood rich in fibres	(4)	Softwood	
102.	Law of limiting factors is concerned wi	.th:		
	(1) Internal factors affecting transpirat	ion		
	(2) External factors affecting photosyn	thesi	s	
	(3) External factors affecting growth			
	(4) Internal factors affecting respiratio	n		
103.	In the context of alternative sources of	f ene	rgy, ethanol as a v	iable bio-fuel can
	be obtained from:			
	(1) Potato (2) Rice	(3)	Sugarcane (	4) Wheat
104.	RNA contains:			
	(1) Hexose (2) Ribose	(3)	Fructose (4	4) Glucose
105.	Parthenogamy represents the :			
	(1) Union of two vegetative nuclei		Union of two par-	* ·
	(3) Union of two gametes of one sex	(4)	Union of three ga	metes
06.	Euploidy is explained by :			
	(1) One chromosome more than one h	-		
	(2) One chromosome less than the hap			
	(3) One chromosome more than diploi			
	(4) Exact multiple of a basic set of chro		ome	
107.	Preserving germplasm in frozen state is		Cald atom as	
	(1) Cryopreservation		Cold storage Vernalisation	
	(3) In situ preservation	(4)	VEITIANISATION	
108.	Pure line breed refers to:			
	<ul><li>(1) Heterozygosity and linkage</li><li>(2) Heterozygosity and independent a</li></ul>	ssort	ment	
	(3) Heterozygosity only	55011		
	(4) Homozygosity only			
09.	DNA is associated with highly basic pr	otein	called:	
	(1) Histories (2) Non-histories			1) Non-albumin
110.	Photophosphorylation was discovered		•	,
	(1) Arnon		Hill	
	(3) Calvin		Ruben and Kama	n
111.	Taq DNA polymerase is isolated from :	:		
	(1) Thermus acquaticus		Thermus inequalis	
	(3) Bacillus thurengiensis		Bacillus amylovoa	
	(11)	}		P.T.O.
	\ · · · ·	,	•	

112.	'Heart, of heart' is:				
	(1) Bundle of His (2) AV node	(3) SA node	(4) Purkinje fibers		
113.	'AIDS' is due to:				
	(1) Destruction of killer- T -cells	(2) Destruction of	•		
	(3) Lack of interferons	(4) Autoimmunit	<b>y</b> .		
114.					
	(1) Muscles of heart	(2) Vertebrae			
445	(3) Muscles of legs	(4). Public symph	ysis		
115.		(2) To 1.1.	70 B 3		
116.		(3) Paddy	(4) Barley		
	(1) gametophyte is prominent, and the sporophyte is dependent upon the				
	gametophyte.	ne sporopriyte is i	acpenaem apon me		
	(2) sporophyte is prominent, with the independently.	ne sporophyte and	gametophyte living		
	(3) sporophyte is prominent, and the	e gametonhyte is i	denendent unon the		
	sporophyte.	0	aspendent upon the		
	(4) gametophyte is prominent, and the sporophyte stage has disappeared.				
117.	Genome is:	· -	••		
	(1) Genes on nuclear DNA				
	(2) Nuclear DNA + mitochondrial DNA				
	(3) Nuclear DNA + chloroplast DNA				
	(4) Nuclear DNA + Mitochondrial DNA + Chloroplast DNA				
118.		•			
	(1) bacteria	(2) vertebrates			
	(3) all living organisms	(4) bacteriophage	8		
119.	The identification of the function of a	. w			
	The identification of the function of a gene in a genome can be accomplished using:				
	(1) Functional genomics	(2) Gene microare	avs		
	(3) Gel electrophoresis	(4) Bioinformatics	•		
120.	Three dimensional shape of tRNA is:	(+) Diomonimance	1		
	(1) L-shaped	(0) Character (12)			
	-	(2) Clover leaf-lik	e		
	(3) X-shaped	(4) Y-shaped			

## अभ्यर्थियों के लिए निर्देश

(इस पुस्तिका के प्रथम आवरण-पृष्ठ पर तथा उत्तर-पत्र के दोनों पृष्ठों पर केवल *नीली। काली बाल-प्वाइंट पेन* से ही लिखे)

- 1. प्रश्न पुस्तिका मिलने के 10 मिनट के अन्दर ही देख लें कि प्रश्नपत्र में सभी पृष्ठ मौजूद हैं और कोई प्रश्न छूटा नहीं है। पुस्तिका दोषयुक्त पाये जाने पर इसकी सूचना तत्काल कक्ष निरीक्षक को देकर सम्पूर्ण प्रश्नपत्र की दूसरी पुस्तिका प्राप्त कर लें।
- 2. परीक्षा भवन में *लिफाफा रहित प्रवेश-पत्र के अतिरिक्त*, लिखा था सादा कोई भी खुला कागज साथ में न लाये।
- 3. उत्तर-पत्र अलग<sup>ं</sup> से दिया गया है। **इसे न तो मोड़ें और न ही विकृत** करें। दूसरा उत्तर-पत्र नहीं विया जायेगा। केवल उत्तर-पत्र का ही मूल्यांकन किया जायेगा।
- 4. अपना अनुक्रमांक तथा उत्तर-पत्र का क्रमांक प्रथम आवरण-पृष्ठ पर पेन से निर्धारित स्थान पर लिखें।
- 5. उत्तर-पत्र के प्रथम पृष्ठ पर पेन से अपना अनुक्रमांक निर्धारित स्थान पर लिखें तथा नीचे दिये वृत्तों को गाढ़ा कर दें। जहाँ -जहाँ आवश्यक हो वहाँ प्रश्न-पुस्तिका का क्रमांक तथा सेट का नम्बर उचित स्थानों पर लिखें।
- 6. ओ॰ एम॰ आर॰ पत्र पर अनुक्रमांक संख्या प्रश्न-पुस्तिका संख्या व सेट संख्या (यदि कोई हो) तथा प्रश्न-पुस्तिका पर अनुक्रमांक संख्या और ओ॰ एम॰ आर॰ पत्र संख्या की प्रविष्टियों में उपरिक्षेखन की अनुमति नहीं है।
- 7. उपर्युक्त प्रविष्टियों में कोई भी परिवर्तन कक्ष निरीक्षक द्वारा प्रमाणित होना चाहिये अन्यथा यह एक अनुचित साधन का प्रयोग माना जायेगा।
- 8. प्रश्न-पुस्तिका में प्रत्येक प्रश्न के चार वैकल्पिक उत्तर दिये गये हैं। प्रत्येक प्रश्न के वैकल्पिक उत्तर के लिये आपको उत्तर-पत्र की सम्बन्धित पंक्ति के सामने दिये गये वृत्त को उत्तर-पत्र के प्रथम पृष्ठ पर दिये गये निर्देशों के अनुसार बाल-प्वाइंट पेन से गाढ़ा करना है।
- 9. प्रत्येक प्रश्न के उत्तर के लिये केवल एक ही वृत्त को गाढा करें। एक से अधिक वृत्तों को गाड़ा करने पर अथवा एक वृत्त को अपूर्ण भरने पर वह उत्तर गलत माना जायेगा।
- 10. ध्यान दें कि एक बार स्याही द्वारा अंकित उत्तर बदला नहीं जा सकता है। यदि आप किसी प्रश्न का उत्तर नहीं देना चाहते हैं, तो सम्बन्धित पंक्ति के सामने दिये गये सभी वृत्तों को खाली छोड़ दें। ऐसे प्रश्नों पर शून्य अंक दिये जायेंगे।
- 11. रफ कार्य के लिये इस पुरितका के मुखपृष्ट के अंदर वाला पृष्ठ तथा अंतिम खाली पृष्ट का प्रयोग करें।
- 12. परीक्षा के उपरान्त केवल ओं० एम० आर० उत्तर-पत्र ही परीक्षा भवन में जमा करें।
- 13. परीक्षा समाप्त होने से पहले परीक्षा भवन से बाहर जाने की अनुमति नहीं होगी।
- 14. यदि कोई अभ्यर्थी परीक्षा में अनुचित साधनों का प्रयोग करता है, तो वह विश्वविद्यालय द्वारा निर्धारित वंड का/की भागी होगा/होगी।