

Cat	NIA	1
Set	No.	1

18P/216/21

5351

niai No. of Printed Pages : 28	Question Booklet No
(To be filled up	by the candidate by blue/black ball-point pen)
Foli No.	
(i) No (Write the digits in words)	(2)
al No. of OMR Answer Sheet	
entre Code No.	
and Date	(Signature of Invigilator)

INSTRUCTIONS TO CANDIDATES

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

- Within 30 minutes of the issue of the Question Booklet, check the Question Booklet to ensure that at 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 Seperintendent/Invigilators immediately to obtain a fresh Question Booklet
- 2. Do not bring any loos, paper, written or blank, inside the Framination Hall except the Admit Card.
- A separate OMR Answer Sheet is given. It should not a failed or mutitated. A second OMR Answer Sheet shall not be provided. Only the OML Answer Sheet will be evaluated.
- 4. Write all the entries by blue/black ball on in he space provided above.
- On the front page of the OMR Answer Sheet write by pen your Holl Number in the space provided at the top, and by darkening the circle at the bottom. Also, write the Question Booklet Number, Centre Code Number and the Set Number (wherever applicable) in appropriate places.
- No overwriting is allowed in the entries of Roll No., Question Booklet No. and Set No. (if any) or OMR Answer Sheet and also Roll No. and OMR Answer Sheet Serial No. on the Question Booklet.

 Are change in the aforesaid entries is to be verified by the Invigilator, otherwise it will be taken as
- unthir means.
- Each question in this Booklet is lonewed by four alternative answers. For each question, you are to record the correct option on the OMR Answer Sheet by darkening the appropriate circle in the corresponding row of the OMR Answer Sheet, by ball-point pen as mentioned in the guidelines gives the first page of the OMR Answer Sheet.
- 9 Enceach question, darken only one circle on the OMR Answer Sheet. If you darken more than one circle or darken a circle partially, the answer will be treated as incorrect.
- that the answer once filled in ink cannot be changed. If you do not wish to attempt a question, the circles in the corresponding row blank (such question will be awarded zero mark)
- a cough work, use the inner back page of the title cover and the blank page at the end of this
- The expletion of the Test, the Candidate must handover the OMR Answer Sheet to the Invigilator the examination room/hall. However, candidates are allowed to take away Text Booklet and copy of the Answer Sheet with them.
- 13 Parvicates are not permitted to leave the Examination Hall until the end of the Test.
- 2 In the did 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.
- ाम विनेत्र वेपनी ये अस्तिम आवरण-पृष्ठ पर दिये गए हैं।



SPACE FOR ROUGH WORK

रफ़ कार्य के लिए जगह



No. of Questions: 120

Full Marks: 360

Note:

43)

- (1) Attempt as many questions as you can. Each question carries 3 marks.
 One mark will be deducted for each incorrect answer. Zero mark will be awarded for each unattempted question.
- (2) If more than one alternative answers seem to be approximate to the correct answer, choose the closest one.
- 1. The level of blood calcium is decreased due to the deficiency of
 - (1) thyroxine

(2) calcitonin

(3) parathormone

(4) cortisol

- 2. Which one of the following combinations is stored and secreted by the posterior pituitary?
 - (1) Vasopressin and Oxytocin
 - (2) Aldosterone and Cortisone
 - (3) Growth hormone and Gonadotropin releasing hormone
 - (4) Estrogen and Testosterone

1 (P.T.O.)



3.	Hypothyroidism in an adult causes (1) Cretinism (2) Goiter (3) Acromegaly (4) Myxedema
4.	Under normal conditions, Parathyroid hormone (1) causes the blood phosphate levels to increase (2) stops the absorption of calcium from intestine (3) causes the blood calcium levels to decrease (4) stimulates release of calcium by the kidneys
5.	Which one of the following controls the secretion of Adrenocorticotropic Hormone (ACTH)? (1) Cortisol (2) Aldosterone (3) Epinephrine (4) Testosterone
6.	Which one of the following disease conditions is caused due to low levels of adrenal cortex hormone?
	(1) Addison's disease (2) Cushing's syndrome
	(3) Tetany (4) Goiter
7.	The pancreatic islet produces the following hormones
	(1) Pancreatin (2) ACTH and Aldosterone
	(3) Insulin and Glucagon (4) Cortisol and Oxytocin
8.	Which one of the following gland produces melatonin?
	(1) Pituitary (2) Pineal (3) Thyroid (4) Hypothalamus
(43)	2



9.	Which one of the following cells are	the	source of testosterone?	
	(1) Leydig cells	(2)	Gamma cells	
	(3) Kupffer cells	(4)	Sertoli cells	
10.	The hypothalamus that produces hor via the	rmor	es is connected to the pituitar	y gland
	(1) Infundibulum	(2)	Neurohypophysis	
	(3) Diencephalon	(4)	Cerebellum	
11.	Secretin is released by			
	(1) cells in the anterior hypothalami	us		
	(2) cells of gastric mucosa			
	(3) S-cells in the duodenal mucosa			
	(4) cells in the posterior hypothalan	nus		
	TTT : 1 C. 11in m in m nole	-6	ti2	
12.	Which one of the following is a role			
	(1) Decreasing the reuptake of gluco	ose i	n the kidneys	
	(2) Increasing the potency of the sp	ino-	thalamic tract	
	(3) Increasing the reuptake of sodiu	ım i	n the kidneys	
	(4) Promoting uterine contraction			
(43)	3			(P.T.O.)



13.	Vasopressin hormone belongs to family of	
	(1) amino acid and derivatives	(2) carbohydrates
	(3) polypeptides	(4) steroids
14.	Which one of the following cleavage zygote?	pattern is followed by the mammalian
	(1) Holoblastic rotational	(2) Meroblastic rotational
	(3) Holoblastic radial	(4) Meroblastic radial
15.	With respect to the functions of an following is incorrect?	amphibian 'organizer', which one of the
	(1) The ability to self-differentiate de	orsal mesoderm
	(2) The ability to ventralize the ecto- tube	derm and induce formation of the neural
	(3) The ability to initiate the movem	ents of gastrulation
	(4) The ability to produce molecules	like Chordin and Noggin
16.	Molting in insects is triggered by	
	(1) auxin	(2) ecdysone
	(3) juvenile hormone	(4) β-catenin
17.	Regeneration is possible in tadpoles	for amputated
	(1) tail and hind limbs	(2) jaws and eyes
	(3) intestine	(4) forelimbs
(43)	4	



18.	In the early stages of mammalian following is blood cells are formed?	development, within which one of the
	(1) Chorion (2) Yolk sac	(3) Allantois (4) Amnion
19.	Which one is the main reactant of Edi	man's reagent used in protein sequencing?
	(1) Densyl chloride	(2) Dabsyl chloride
	(3) Benzocyanate	(4) Phenylisothiocyanate
20.	Mutarotation in monosaccharides is b	est represented by the interconversion of
	(1) D vs. L isomers	(2) α vs. β isomers
	(3) Syn vs. Anti isoforms	(4) Keto vs. Enol isoforms
21.	Which one of the following option is c	orrect for a protein with $\alpha_2\beta_2$ composition?
	(1) A homotetrameric protein	(2) A heterotetrameric protein
	(3) A homodimeric protein	(4) Both (1) and (3)
22.	Exposure of a native protein to low protein. This happens due to change	pH results into partial denaturation of the ges in
	(1) disulphide bonds	(2) ionic bonds
	(3) hydrogen bonds	(4) peptide bonds
23.	A purified enzyme from liver shows shows Km value of 10 mM. Which regarding catalytic efficiency of the	Km value of 5 mM and that from brain one of the following is the best option enzyme?
	(1) Liver > Brain	
	(2) Liver = Brain	
	(3) Brain > Liver	
	(4) Km does not relate with enzym	e activity
43)	5	



24.	Which one of the following enzyme below	ongs to the major class hydrolases?
	(1) Ser-protease (2) Kinase (3	Aldolase (4) cis-aconitase
25.	The 'F ₀ ' domain of the mitochondrial l represents the domain	F ₀ -F ₁ complex is named so because
	(1) without any number	
	(2) that confers O-glycosylation	
	(3) that oxidizes the complex	
	(4) that confers oligomycin sensitivity	to the complex
26.	Prostaglandin is synthesized from	
	(1) stearic acid (2) phosphatidyl-ethanolamine
	(3) phosphatidylcholine (4	arachidonic acid
27.	Which one of the following contains a	pseudouracil?
	(1) A processed RNA synthesized by R	NA Pol-II
	(2) A processed RNA produced by RNA	Pol-III
	(3) A processed RNA produced from la	c operon
	(4) A DNA produced by reverse transcr	riptase
28.	The polymerase that synthesizes a independent manner is	polynucleotide chain in a templat
	(1) DNA Pol-I (2) DNA Pol-III
	(3) RNA polymerase (4) Poly-A polymerase
43)	6	



29 .	If absorption spectra solutions of tryptop show the maximum	han, tyrosine, pl				
	(1) Tyrosine		(2)	Glycine		
	(3) Phenylalanine		(4)	Tryptophan		
30.	Which of the event	is likely to prote	ct h	ost DNA from	EcoRI digestion?	
	(1) Methylation of t	he recognition si	te D	NA		
	(2) De-methylation	of the recognition	n sit	e DNA		
	(3) Phosphorylation	of the enzymatic	c pr	otein		
	(4) De-phosphorylat	ion of the enzyn	natio	protein		
31.	In the α -helix of α -ke the following position	eratin from hair a	to t	wool, the R grothe centre of th	ups are at which e helix?	one of
	(1) Extend inward		(2)	At centre		
	(3) Stay zig-zag	N.	(4)	Protrude outv	vard	
32.	Which one of the f	following amino	acid	s occurs frequ	ently in the β-be	end of
	(1) Serine (2) Threonine	(3)	Proline	(4) Arginine	
33.	The constituent of st united by 1 → 4 link points is known as	arch containing l kages in the cha	bran ins	ched chains of and by 1 → 6	24–30 glucose re inkages at the b	sidues oranch
	(1) amylose (2) amylopectin	(3)	glucosan	(4) glucan	
13)		7				(P.T.O.)



- 34. Which one of the following examples illustrates multiple allelism?
 - (1) Attached ear lobe
 - (2) Turner syndrome
 - (3) Sepia eye colour of Drosophila
 - (4) ABO blood group in human
- 35. clB technique in Drosophila is used to detect
 - (1) autosomal recessive mutations
 - (2) autosomal dominant mutations
 - (3) sex linked recessive lethal mutations
 - (4) sex linked dominant lethal mutations
- 36. An allele is considered dominant if its phenotype is expressed
 - (1) only in heterozygous condition
 - (2) in homo as well as heterozygous condition
 - (3) only in homozygous condition
 - (4) only in hemizygous condition
- 37. If a couple, husband having an X-linked deadly disease and wife homozygous normal, seeks your advice regarding having children, what will be your advice out of the following?
 - (1) They will have 50% chance of having the affected male child
 - (2) They can safely go for only female child
 - (3) They can safely go for only male child
 - (4) They should not plan to have a child





38.	The maximum frequency of recombination that can occur is				
	(1) 100%	(2) 75%	(3) 50%	(4) 25%	
39.		ns 23 pairs of c many chromatid		after completion of mito metaphase?	tic
	(1) 23	(2) 46	(3) 92	(4) 184	
40.	Somatic recom	bination in immu	noglobulin genes	account for	
	(1) class switch	hing			
	(2) allelic exclu	usion			
	(3) affinity ma	turation			
	(4) increased e	expression of IgG	gene		
41.	The following t	pedigree shows in	heritance of an a	autosomal trait :	
71.	The lonowing i	ouigree and to	70		
		_			
	Which one of	the following cond	clusion can be di	rawn from this pedigree?	
	(1) The trait is	s dominant	(2) The tra	it is semi-dominant	
	(3) The trait is	s recessive	(4) The cha	art is inconclusive	
42.	In a recombination indicate that t		% recombination	frequency between two ger	nes
	(1) 5cM distar	ice apart on a ch	romosome		
	(2) 50cM dista	ance apart on a c	hromosome		
	(3) tightly link	ed			
	(4) far apart a	and showing inde	pendent assortme	ent	
43)			9	(P. T	.0.)



		18			
43.	If a dihybrid test cross yields 1:1:	1:1 ratio, then it indicates that the			
	(1) two genes are independently a	ssorting			
	(2) two genes are linked				
	(3) the alleles of a gene is segregated				
	(4) the genes are exclusively X-lin	ked			
44.	O-linked glycosylation exclusively	takes place in the			
	(1) lysosome	(2) ribosome			
	(3) golgi body	(4) endoplasmic reticulum			
45.	The two different domains of prok	aryotes are			
	(1) Archaea and Monera	(2) Eukarya and Monera			
	(3) Bacteria and Protista	(4) Bacteria and Archaea			
46.	Mechanically gated ion channel ar	e mainly present in			
	(1) nerve cells (2) rod cells	(3) cone cells (4) hair cells			
47.	The longest phase in meiosis I is				
	(1) prophase I	(2) metaphase I			
	(3) anaphase I	(4) telophase I			
48 .	Chromosome puff in polytene chro	mosome are the sites of active			
	(1) DNA synthesis	(2) RNA synthesis			
	(3) Protein synthesis	(4) Both (1) and (3)			
3)	1	0			



49.	in many tumors?	ain cause of immortalization of cancer cells
	(1) Shortening of telomere	
	(2) Complete loss of telomere	
	(3) Inactivation of telomerase enzym	ne
	(4) Reactivation of telomerase enzym	me
50.	Calcium ATPase pump in muscle ce	ells are present in
	(1) endoplasmic reticulum	(2) golgi body
	(3) lysosomes	(4) mitochondria
51.	Receptor-mediated endocytosis are o	often facilitated by
	(1) COP I vesicle	(2) COP II vesicle
	(3) Clatherin-coated vesicle	(4) Both COP I and COP II vesicle
52.	Lampbrush chromosomes are found	d in the oocytes of certain animals during
	(1) Leptotene stage	(2) Zygotene stage
	(3) Pachytene stage	(4) Diplotene stage
53.	During prophase I of meiosis, homolo a process called	logous chromosomes line up side-by-side in
	(1) genetic recombination	(2) meiosis II
	(3) synapsis	(4) crossing-over
43)	11	(P.T.O.)



- 54. The active transport of solute in the cell is characterized by
 - (1) its uptake along the concentration gradient utilizing energy
 - (2) requirement of a carrier to support the transport along the concentration gradient
 - (3) chemical modification of the solute during its uptake
 - (4) its uptake against the concentration gradient
- 55. Chiasmata are formed during meiosis
 - (1) before metaphase I
- (2) after metaphase I
- (3) during prophase II
- (4) during metaphase II
- 56. Cdk-1/cyclin A complex acts at
 - (1) $G_1 \rightarrow S$ transition point
- (2) S → G₂ transition point
- (3) restriction point

- (4) G₂ → M transition point
- 57. Polytene chromosome is generated due to
 - (1) failure of DNA replication
 - (2) repeated DNA replication without segregation of chromosome
 - (3) pairing of homologous chromosomes
 - (4) due to extensive transcription process

(43)

58.	In a standard eukaryotic cell cycle,	'interphase' constitutes
	(1) only G ₁ phase	(2) only S phase
	(3) only M phase	(4) G ₁ , S and G ₂ phases
59 .	The phenomenon of divergent evolution	on can be explained by taking the example
	(1) steady increase in the body size	of different horse species
	(2) presence of flipper in whale and	uropod in Palaemon
	(3) mouth parts of insects having d	ifferent feeding nature
	(4) wings of a bird and wings of an	insect
60.	The type of horses which were four million years ago were	toed, browsers and survived nearly 55
	(1) Eohippus (2) Merychippus	(3) Equus (4) Mesohippus
61.	0	ed to a very small size resulting into the population. This may happen due to
	(1) natural selection	(2) gene flow
	(3) speciation	(4) genetic drift
62 .	Which one of the following factors n	nay cause a population to evolve?
	(1) Large population size	(2) Random mating
	(3) Absence of mutation	(4) Random genetic drift
.3)	13	(P.T.O.



63.	In a population of 200 individuals, 0.6 respectively. The number of bo	the frequency of A and a alleles is 0.4 and the homozygotes in this population will be		
	(1) 16 and 36 (2) 42 and 96	(3) 50 and 50 (4) 32 and 72		
64.	Which one of the following is the	example of exopeptidase?		
	(1) Trypsin	(2) Pepsin		
	(3) Carboxypeptidase	(4) Lipase		
65.	End product of the starch digestio	n in mammals is		
	(1) fructose (2) glucose	(3) galactose (4) sucrose		
66.	Most efficient and widely distributed	respiratory pigment in animal kingdom is		
	(1) hemerythrin	(2) chlorocruorin		
	(3) hemocyanin	(4) hemoglobin		
67.	During first inhalation in birds, air directly goes to			
	(1) Dorsobronchi	(2) Caudal sacs		
	(3) Cranial sacs	(4) Parabronchi		
68.	In certain conditions, some of the	fishes rely on RAM ventilation because		
	(1) they do not want to waste energy while swimming			
	(2) they are tired and unable to close mouth			
	(3) energy is not available to operate the respiratory muscles			
	(4) they achieve high ventilation at	low respiratory cost		
I3)	1	4		



69.	One of the major function of the per	psin is to digest		
	(1) albumin (2) elastin	(3) collagen (4) polypeptides		
70 .	Neutrophils invasion of the inflamed	d area is		
	(1) first line of defence	(2) second line of defence		
	(3) third line of defence	(4) fourth line of defence		
71.	Which one of the following region of ne	ephron is virtually impermeable to water?		
	(1) Bowman's capsule	(2) Proximal tubule		
	(3) Ascending loop of Henle	(4) Descending loop of Henle		
72.	The gas exchange in teleost fishes is	s greatly dependent on		
	(1) cross current flow of oxygenated	l water		
	(2) counter current flow of oxygenat	ted water		
	(3) uniform current flow of oxygenated water (4) intermittent current flow of oxygenated water			
73.	The protein that has ATPase activity	y is		
	(1) myosin (2) troponins	(3) topomyosin (4) actin		
74.	In photoreceptor cells, the photosen	nsitive compound is		
	(1) 11-cis-retinal (2) 11-cis-retinol			
43)	15	5 (P.T.O.)		
. 0,				



75.	Mechanoreceptors in cochlea are	
	(1) hair cells	(2) basilar membrane
	(3) Deiter's cells	(4) tectorial membrane
76.	Which one of the following is invol- potential?	ved in hyperpolarization phase of action
	(1) Voltage gated sodium channel	
	(2) Voltage gated potassium channe	1
	(3) Voltage gated calcium channel	
	(4) Na ⁺ -K ⁺ ATPase	
77.	Buffering action of the haemoglobin	is best achieved because it has
	(1) high histidine content	(2) dissociable N-terminal
	(3) dissociable C-terminal	(4) high alanine content
7 8.	The chemical nature of blood group	substances on RBC membrane is
	(1) carbohydrates	(2) proteins
	(3) glycoproteins	(4) glycosphingolipids
79.	Cervical vertebrae of birds are	
	(1) heterocoelous	(2) acoelous
	(3) amphicoelous	(4) procoelous
13)	16	
•0)	10	



80.	Interclavicle in rep	ptiles is		17			
	(1) H-shaped	(2) T-shaped	(3)	W-shaped	(4)	A-shaped	
81.	Pecten is absent i	n which bird?					
	(1) Crow	(2) Pigeon	(3)	Kiwi	(4)	Peacock	
82.	In frog the sexual	embrace between	mal	e and female is	s ca	lled	
	(1) spawning	(2) amplexus	(3)	aplexus	(4)	swarming	
83.	Axolotl larva is th	e best example of					
	(1) regeneration		(2)	neoteny			
	(3) retrogressive n	netamorphosis	(4)	connecting lin	k	18	
84.	Poison secreted by	y parotid glands of	f am	phibians is			
	(1) fatty acid	(2) carbohydrate	(3)	alkaloid	(4)	alcohol	
85.	What forms stape	s of middle ear bo	ne?				
	(1) Hyomandibula	r	(2)	Quadrate			
	(3) Squamosal		(4)	Jaw			
86.	Pituitary gland is	situated in					
	(1) ethmoid plate		(2)	hypophysial fe	nes	tra	
	(3) olfactory caps	ule	(4)	basal plate			
43)		17	7				(P.T.O.)



87	Mouth of Branchiostoma is bordered by					
01 .	(1) oral sucker (2) oral frill (3) velum (4) oral hood					
88.	In cephalochordates, development is					
	(1) direct including a free-swimming larva					
	(2) indirect including a parasitic larva					
	(3) direct including a parasitic larva					
	(4) indirect including a free-swimming larva					
89.	In Myxiniformes, ear is with					
	(1) 2 semicircular canal (2) no semicircular canal					
	(3) 1 semicircular canal					
90.	Crossopterygii had scales of					
	(1) cycloid type (2) ctenoid type (3) placoid type (4) cosmoid type					
91.	Iridocytes are light reflecting cells. They have					
	(1) no pigments					
	(2) no pigment but contain guanine crystals					
	(3) pigment with guanine crystals					
	(4) only crystals					
3)	18					



92.	Heterocercal tail is present in		
	(1) Scoliodon (2) Cyclostomes	(3) Dipnoi (4) Latimeria	
93.	Epithelial lining in a true stomach of	contains	
	(1) salivary glands	(2) gastric glands	
	(3) mucous glands	(4) sebaceous glands	
94.	A chamber common to all types of	canal systems of sponges is called	
	(1) paragastric cavity	(2) radial chamber	
	(3) excurrent canal	(4) incurrent canal	
95.	Which one of the following helminth	h shows rhythmicity?	
	(1) Hymenolepis	(2) Diphyllobrothrium	
	(3) Loa loa	(4) Dipylidium	
96.	Metameric segmentation occurs in t	the individuals belonging to	
	(1) Cestoda (2) Annelida	(3) Trematoda (4) Rotifera	
97.	Pedicellariae in Asterias are meant	for	
	(1) excretion	(2) osmoregulation	
	(3) defence	(4) reproduction	
(43)	19	9 (4	P.T.O.)



98.	Which one of the following is pern malarial parasite?	icious quotidian, malignant and tropica
	(1) Plasmodium vivax	(2) Plasmodium falciparum
	(3) Plasmodium berghei	(4) Plasmodium volii
99.	Radial symmetry is found in	
	(1) Molluscs (2) Arthropods	(3) Starfishes (4) Annelids
100.	Staghorn coral is the common name	e of
	(1) Fungia (2) Pennatula	(3) Madrepora (4) Corallium
101.	Tsetse fly transmits the infective sta	age of
	(1) Plasmodium	(2) Trypanosoma
	(3) Leishmania	(4) Giardia
102.	Which one of the following glands are honey bees?	involved in the production of royal jelly by
	(1) Mandibular glands	(2) Hypopharyngeal glands
	(3) Oesophageal glands	(4) Thoracic glands
103.	Which one of the following is a livin	g fossil?
	(1) Holothuria (2) Antedon	(3) Ophiothrix (4) Echinus
43)	20	



104.	The number of daughter Param	ecia produced following conjugation i	s
	(1) 8 from one conjugant	(2) 8 from two conjugants	
	(3) 16 from two conjugants	(4) 12 from two conjugants	
105.	Pseudocoelom occurs as a body	cavity in	
	(1) Trematodes	(2) Cestodes	
	(3) Nematodes	(4) Turbellarians	
106.	Tube within a tube exists in		
	(1) Ancylostoma (2) Obelia	(3) Taemia (4) Parameci	um
107.	Veliger larva occurs in the life	cycle of	
	(1) Echinoderms	(2) Molluscs	
	(3) Arthropods	(4) Annelids	
108.	The most primitive invertebrate are	to possess musculo-epithelial and n	erve cells
	(1) Sycon (2) Spongilla	(3) Fasciola (4) Hydra	
109.	Which one of the following is r	ot the gaseous biogeochemical cycle?	•
	(1) Phosphorus cycle	(2) Sulphur cycle	
	(3) Nitrogen cycle	(4) Carbon cycle	
(43)		21	(P.T.O.



110. True ecosystem is , where

	(1) primary consumers are more than producers				
	(2) secondary consumers dominate the numbers and productivity				
	(3) producers are more than primary consumers				
	(4) primary consumers are independent of producers				
11.	. Shelford law of tolerance states that an organism with wide range of tolerance for environmental factors show				
	(1) narrow distribution with high population size				
	(2) narrow distribution with low population size				
	(3) wide distribution with high population size				
	(4) wide distribution with low population size				
12.	Which one of the following is the secondary pollutant?				
	(1) CO (2) CO ₂ (3) SO ₂ (4) O ₃				
13.	Gulf of Kutch is declared First Marine National Park by Government of India to conserve				
	(1) coral reefs (2) Gangetic dolphins				
	(3) salt water crocodile (4) whales				
13)	22				



114.	High density of Deer population in an area will lead to		
	(1) intraspecific competition	(2) interspecific competition	
	(3) mutualism	(4) commensalism	
115.	Which one of the following biolog Concept?	gists is known to give Biological Speci	ies
	(1) Mayr (2) Darwin	(3) Linnaeus (4) Candolle	
116.	colouration and availability of variou	ymorphic forms due to sexual dimorphism as mutants in the population. Which one siders each morphological form to be	of
	(1) Biological Species Concept	(2) Typological Species Concept	
	(3) Evolutionary Species Concept	(4) Ecological Species Concept	
117.	Hypophysation is a technique used	for	
	(1) induced breeding	(2) lac culture	
	(3) Apiculture	(4) Sericulture	
118.	The wax gland of honey bee is found in		
	(1) queen and workers	(2) workers	
	(3) queen	(4) drones	
(43)	2	(P.T.	.0.)



- 119. In the normal human being the concentration(s) of various antibodies in the serum is (are) in the order of
 - (1) IgM > IgA > IgG > IgE (2) IgG > IgA > IgM > IgE
- - (3) IgE > IgG > IgM > IgA (4) IgA > IgM > IgE > IgG
- 120. The T-cell receptor can bind to antigenic peptides
 - (1) only in the free form
 - (2) only when loaded on to MHC molecule
 - (3) only when complexed to hapten
 - (4) only when bound by antibody





SPACE FOR ROUGH WORK रफ़ कार्य के लिए जगह



अभ्यर्थियों के लिए निर्देश

(इस पुस्तिका के प्रथम आवरण-पृष्ठ पर तथा ओ॰एम॰आर॰ उत्तर-पत्र के दोनों पृष्ठों पर केवल नीली/काली बाल-प्वाइंट पेन से ही लिखें)

- प्रथम-पुस्तिका मिलने के 30 मिनट के अन्दर ही देख लें कि प्रथमपत्र में सभी पृष्ठ मौजूद हैं और कोई पृष्ठ या प्र छुटा नहीं है। पुस्तिका दोषयुक्त पाये जाने पर इसकी सूचना तत्काल कक्ष-निरीक्षक को देकर सम्पूर्ण प्रथमपत्र की दूर पुस्तिका प्राप्त कर लें।
- 2. परोक्षा भवन में *प्रवेश-पत्र* के अतिरिक्त, लिखा या साटा कोई भी खुला कागज साथ में न लाये।
- 3. ओ॰एम॰आर॰ उत्तर-पत्र अलग से दिया गया है। इसे न तो मोड़ें और न ही विकृत करें। दूसरा ओ०एम॰आर॰ उत्त पत्र नहीं दिया जायेगा। केवल ओ०एम॰आर॰ उत्तर-पत्र का ही मृल्यांकन किया जायेगा।
- 4. सभी प्रविधियां प्रथम आवरण-पृष्ठ पर नीली/काली बाल पेन से निर्धारित स्थान पर लिखें।
- 5. ओ०एम०आर० उत्तर-पत्र के प्रथम पृष्ठ पर पेन से अपना अनुक्रमांक निर्धारित स्थान पर लिखें तथा नीचे दिये वृ को गाड़ा कर दें। जहाँ-जहाँ आवश्यक हो वहाँ प्रश्न-पुस्तिका का क्रमांक एवं केन्द्र कोड नम्बर तथा सेट का नम् उचित स्थानों पर लिखें।
- 6. ऑक्क्सर्वआरव उत्तर-पत्र पर अनुक्रमांक संख्या, प्रश्न-पुस्तिका संख्या व सेट संख्या (यदि कोई हो) नथा प्रश् पुरितवा पर अनुक्रमांक संव और ओवएमव्आरव उत्तर-पत्र संव की प्रविष्टियों में उपरिलेखन की अनुवाद नहीं
- उपर्युक्त प्रविष्टियों में कोई भी परिवर्तन कक्ष निरीक्षक द्वारा प्रभाणित होना चाहिये अन्यया यह एक अनुचित सा का प्रयोग माना जायेगा।
- 8. पण्य-्रिशिक्षा में प्रत्येक प्रश्न के चार वैकल्पिक उत्तर दिये गये हैं। प्रत्येक प्रश्न के वैकल्पिक उत्तर के लिये आण् अंत्युक्ष आरंग उत्तर-पत्र की सम्बन्धित पंक्ति के सामने दिये गये वृत्त को ओंग्राम्भाग उत्तर-पत्र के प्रथम । पर दिये गये निर्देशों के अनुसार पेन से गाड़ा करना है।
- 9. प्रत्येक प्रश्न के उत्तर के लिये केवल एक ही जुन को गाड़ा करें। एक से अधिक वृत्तों का गाल कर कर कि पक युन को अपूर्ण भरने पर यह उत्तर गलत माना अधिका।
- 10. १०० ३ कि एक बार स्थाही द्वारा अंकित उत्तर बदला नहीं जा सकता है। यदि आए किसी प्रथम का उत्तर नहीं देना भा हो तो सम्ब्रान्धित पंक्ति के सामने दिये गये मधी वृत्तों को खाली छोड़ दें। ऐसे प्रथमी का श्रांतर अब दिये उत्तर ।
- २३ आर्थ के लिये प्रश्न-पुस्तिका के मुखपुष्ठ थे अन्दर वाले पृष्ठ तथा अंतिम पृष्ठ का प्रयोग करें:
- 12. जोक्षा की समाप्ति के बाद अभ्यर्थी अपना ओ॰एम॰आर॰ उत्तर-पत्र परीक्षा कक्ष/हाल में कक्ष निरीक्षक का सीप हैं। इस् अपने साथ प्रश्न-पुस्तिका तथा ओ॰एम॰आर॰ उत्तर-पत्र की प्रति ले जा सकते हैं।
- 13. परीक्षा समाप्त होने से पहले परीक्षा भवन से बाहर जाने की अनुमति नहीं होगी।
- यदि कोई अभ्यर्थी परीक्षा में अनुचित साधनों का प्रयोग करता है, तो वह विश्वविद्यालय द्वारा निर्धारित दंड का/की, भा होगा/होगी।

