	QUESTION BOOKLE Subject : Paper II :	
Question Booklet Version	Roll No.	Question Booklet Sr. No.
(Write this number on	Answer Sheet No). (Write this number on
your Answer Sheet)		your Answer Sheet)
Duration : 1 Hour 30 Minutes		Total Marks : 100

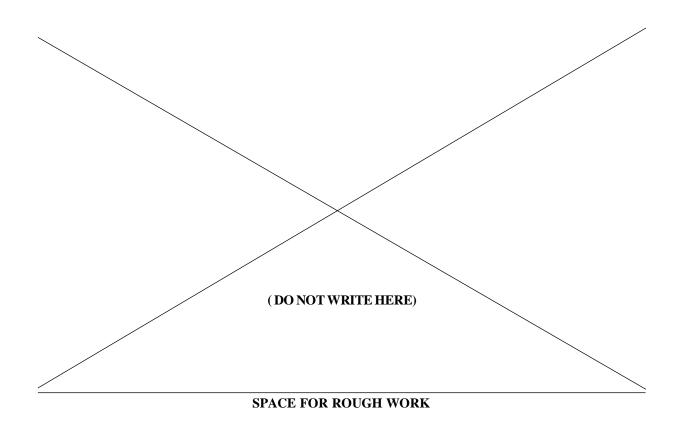
This is to certify that, the entries of Roll Number and Answer Sheet Number have been correctly written and verified.

Candidate's Signature

Invigilator's Signature

Instructions to Candidates

- 1. This question booklet contains 100 Objective Type Questions (Single Best Response Type) in the subjects of Biology.
- 2. The question paper and OMR (Optical Mark Reader) Answer Sheets are issued to examinees separately at the beginning of the examination session.
- 3. Choice and sequence for attempting questions will be as per the convenience of the candidate.
- 4. Candidate should carefully read the instructions printed on the Question Booklet and Answer Sheet and make the correct entries on the Answer Sheet. As Answer Sheets are designed to suit the OPTICAL MARK READER (OMR) SYSTEM, special care should be taken to mark appropriate entries/answers correctly. Special care should be taken to fill QUESTION BOOKLET VERSION, SERIAL No. and Roll No. accurately. The correctness of entries has to be cross-checked by the invigilators. **The candidate must sign on the Answer Sheet and Question Booklet**.
- 5. Read each question carefully.
- 6. Determine the correct answer from out of the four available options given for each question.
- 7. Fill the appropriate circle completely like this, for answering the particular question, with Black ink ball point pen only, in the OMR Answer Sheet.
- 8. Each answer with correct response shall be awarded **one (1) mark.** There is **no Negative Marking**. If the examinee has marked two or more answers or has done scratching and overwriting in the Answer Sheet in response to any question, or has marked the circles inappropriately e.g. half circle, dot, tick mark, cross etc, mark/s shall NOT be awarded for such answer/s, as these may not be read by the scanner. Answer sheet of each candidate will be evaluated by computerized scanning method only (Optical Mark Reader) and there will not be any manual checking during evaluation or verification.
- 9. Use of whitener or any other material to erase/hide the circle once filled is not permitted. Avoid overwriting and/or striking of answers once marked.
- **10.** Rough work should be done only on the blank space provided in the Question Booklet. **Rough work should not be done on the Answer Sheet.**
- 11. Immediately after the prescribed examination time is over, the Question Booklet and Answer sheet are to be returned to the Invigilator. Confirm that both the Candidate and Invigilator have signed on question booklet and answer sheet.
- 12. No candidate is allowed to leave the examination hall till the examination session is over.



BIOLOGY

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- What will be the genotype of parents of a child with 'O' blood group ?
 A) I^A I^A × I^A I^A
 B) I^B I^B × I^B I^B
 C) I^A I^A × I^B I^B
 D) I^A i × I^B i
- 2. In Angiosperms, megaspores formed after meiosis of megaspore mother cell are arranged in _____
 - A) Isobilateral tetrad B) Linear tetrad
 - C) Tetrahedral tetrad D) T-shaped tetrad
- 3. During replication of DNA, the two strands of the double helix are separated from each other under the influence of enzyme _____
 - A) rep-protein B) SSBP
 - C) initiator protein D) DNA polymerase
- 4. Identify the <u>INCORRECT</u> statement from the following with reference to lac operon.
 - A) It is a unit of gene expression and regulation for lactose sugar metabolism in *E. Coli*.
 - B) Lactose sugar enters the cell due to the activity of enzyme permease.
 - C) Operators are present between promoters and structural genes.
 - D) The structural gene 'z' codes for β -galactosidase, 'y' for transacetylase and 'a' for permease.
- 5. High levels of Aspartic acid, low nitrogen and sugar content in maize plants prevent the attack by _____
 - A) Aphids B) Jassids
 - C) Boll worms D) Stem borers
- 6. The common feature in CAM and C_4 plants is _____
 - A) Stomata open only during night
 - B) Acid concentration increases during night
 - C) Both C_3 and C_4 pathway occur
 - D) Having Kranz anatomy
- 7. Which one of the following electron acceptor is present in respiratory chain ?
 - A) Cytochrome f B) Cytochrome a₃
 - C) Plastocyanin D) Ferredoxin

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- 8. The codon sequence on coding strand of transcription unit is ATG GTG AGC TAC GCG. What will be the codon sequence on mRNA formed on template strand ?
 A) ATG GTG AGC TAC GCG
 B) GCG TAC AGC GTG ATG
 C) TAC CAC TGC ATG CGC
 D) AUG GUG AGC UAC GCG
- 9. A cross between two pea plants tall with axial flowers and dwarf with terminal flowers produced offsprings tall with axial flowers and tall with terminal flowers in the ratio 1 : 1. What will be the genotype of parents ?
 - A) TTAa \times ttaa B) TtAa \times ttaa
 - C) $TtAA \times ttaa$ D) $TTAA \times ttaa$
- 10. Which one of the following is used by green sulphur bacteria for reduction of CO_2 to CH_2O ?
 - A) H_2S B) H_2O C) CH_4 D) NH_4
- 11. The CORRECT sequence of events during double fertilization in Angiosperms is
 - A) Triple fusion, syngamy, porogamy
 - B) Syngamy, triple fusion, porogamy
 - C) Porogamy, syngamy, triple fusion
 - D) Syngamy, porogamy, triple fusion
- 12. When genomic DNA is fragmented and cloned, the screening of the desired gene is done by using
 - A) Plasmid DNA B) DNA probes
 - C) Southern blotting D) PCR technique
- 14. In an angiosperm a female plant having 2n = 24 is crossed with a male plant having 2n = 12. What will be the chromosome number of the endosperm ?
 - A) 12 B) 18
 - C) 24 D) 30
- 15. Two alternative forms of a gene or alleles are located on _____
 - A) Identical loci of the same chromosome
 - B) Non-identical loci of the same chromosome
 - C) Identical loci of homologous chromosomes
 - D) Non-identical loci of homologous chromosomes

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16.	In Kreb's cycle Guanosine Triphosp	hate is formed during the conversion of	
	A) Isocitrate to oxalosuccinate	B) Oxalosuccinate to α -ketoglutarate	
	C) Succinyl CoA to succinate	D) Fumarate to malate	
17.	Mycorrhiza is		
	A) Alga	B) Fungus	
	C) Bacteria	D) Virus	
18.	During PCR technique, the pairing of J	primers to ssDNA segment is called	
	A) Denaturation	B) Annealing	
	C) Polymerisation	D) Isolation	
19.	is the most convenient a	and cheap method of artificial vegetative	
	propagation.		
	A) Grafting	B) Budding	
	C) Cutting	D) Micropropogation	
20.	Glycosidic bond exists in DNA mole	ecule between	
	A) Sugar and phosphate	B) Any two nitrogen bases	
	C) Sugar and nitrogen base	D) Purines and pyrimidines	
21.	Which of the following wall layer of callose ?	anther shows fibrous thickenings of	
	A) Epidermis	B) Tapetum	
	C) Middle layer	D) Endothecium	
22.	Photosynthesis is considered as an o	oxidation reaction because	
	A) CO_2 is oxidised	B) H_2O is oxidised	
	C) O_2 is released	D) CH_2O is oxidised	
23.	materials during biogas formation ?	<u>DRRECT</u> order of conversion of waste	
	A) Monomers \rightarrow polymers \rightarrow methane \rightarrow organic acids B) Organic acids \rightarrow methane \rightarrow nelymers \rightarrow monomers		
	B) Organic acids \rightarrow methane \rightarrow po C) Methane \rightarrow organic acids \rightarrow po		
	D) Polymers \rightarrow monomers \rightarrow organ		
	_,,		

24. Match the plant and the part in relation to Vegetative Propagation.

1) <u>Dahlia</u>	a) Eyes
2) <u>Solanum</u> <u>tuberosum</u>	b) Runner
3) <u>Begonia</u>	c) Fasciculated tuberous roots
4) <u>Cynodon</u>	d) Epiphyllous buds
A) $(1) - c$, $(2) - a$, $(3) - b$, $(4) - d$	B) $(1) - d$, $(2) - a$, $(3) - b$, $(4) - c$
C) $(1) - c, (2) - a, (3) - d, (4) - b$	D) $(1) - b$, $(2) - c$, $(3) - a$, $(4) - d$

25. Agrobacterium tumefaciens is most widely used for gene transfer because

- A) it causes crown gall tumours
- B) of its ability to insert Ti plasmid into nuclear genome
- C) it can grow anywhere
- D) it has ability to kill pathogenic bacteria
- 26. Which of the following event does NOT lead into secondary succession ?
 - A) All organisms that existed are lost
 - B) Where no living organisms ever existed
 - C) Abandoned crop field
 - D) Land affected by flood

27. A nucleosome along with linker DNA consists of _____

- A) eight molecules of histones and 146 base pairs
- B) eight molecules of histones and 200 base pairs
- C) nine molecules of histones and 146 base pairs
- D) nine molecules of histones and 200 base pairs
- 28. During aerobic respiration the final electron acceptor is

A) Cyto b	B) NADH ₂
C) Water	D) Oxygen

29. In quantitative inheritance, when a character is controlled by two pairs of genes, the ratio obtained in F_2 generation is _____

A) 1:2:1	2 -	B) 1:4:6:4:1
C) 9:3:3:1		D) 1:6:15:20:15:6:1

30. Which one of the following pigment functions as a reaction center in photosynthesis ?

A) Chlorophyll-a	B) Xanthophyll
C) Carotenoid	D) Anthocyanin

- 31. Remarkable increase in rice production from 35 million tones to 89.5 million tones during 1960 2000 was mainly due to _____
 - A) Improved semidwarf varieties
 - B) Introduction of Golden rice
 - C) Increased use of chemical fertilizers
 - D) Cultivation of wild varieties
- 32. Which of the following is the first cell of female gametophytic generation in Angiosperms ?
 - A) Megaspore mother cell B) Microspore mother cell
 - C) Functional megaspore D) Egg cell
- 33. During dihybrid cross, in the F_2 generation, the ratio of individuals showing one dominant and the other recessive character will be ______ of parents with contrasting characters.
 - A) $\frac{4}{16}$ C) $\frac{8}{16}$ B) $\frac{6}{16}$ D) $\frac{9}{16}$

34. In an ecological succession the pioneers are generally

- A) AutotrophsB) CarnivoresC) HerbivoresD) Detrivores
- 35. Given below are some antibiotics and their microbial source. Match the correct pairs.

<i>1)</i> Chloromycetin	a) <u>Streptomyces</u> griseus
2) Erythromycin	b) <u>Penicillium</u> <u>chrysogenum</u>
3) Penicillin	c) <u>Streptomyces</u> <u>erythreus</u>
4) Streptomycin	d) <u>Streptomyces</u> <u>venezuelae</u>
A) $1-a, 2-b, 3-c, 4-d$	B) $1-d$, $2-c$, $3-b$, $4-a$
C) $1 - b$, $2 - d$, $3 - a$, $4 - c$	D) $1-c$, $2-a$, $3-d$, $4-b$

- 36. In plasmid pBR 322, 'BR' stands for
 - A) Baculovirus and Retrovirus B) Boyer and Reed
 - C) Bolivar and Rodrigues D) <u>Bacillus</u> and <u>Rhizobium</u>
- 37. How many glucose molecules are required for the formation of 52 pyruvic acid molecules at the end of glycolysis ?
 - A) 52 B) 46
 - C) 32 D) 26

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3	 8. The pitch angle of deflection betwee double helix is A) 20° C) 36° 	en two successive base pairs in DNA B) 34° D) 360°
3		es involved in alcohol production is <u>NOT</u>
	A) MaltingC) Fermentation	B) MashingD) Distillation
4	 0. Which one of the following is formed A) NADPH₂ C) ATP 	 as a result of cyclic photophosphorylation ? B) O₂ D) H₂O
4	 Which of the following in embryo sac A) Antipodals C) Egg 	c of angiosperms shows filiform apparatus ? B) Polar nuclei D) Synergids
4	the first time as a vector by StanleyA) Salmonella typhimurium	sm's plasmid was used successfully forCohen and Herbert Boyer ?B) Streptococcus pneumoniaeD) Rhizobium leguminosarum
4	3. During a dihybrid cross with contr parental genotypes will appear in	rasting characters in the F ₂ generationratio.
	A) $\frac{1}{16}$	B) $\frac{2}{16}$
	A) $\frac{1}{16}$ C) $\frac{3}{16}$	D) $\frac{9}{16}$
4	4. The wall of pollen tube is made up of A) Cellulose and PectinC) Lignin and Pectin	of B) Only sporopollenin D) Pectin and Sporopollenin
4	5. The micro consumers are commonlyA) AutotrophsC) Decomposers	calledB) HerbivoresD) Carnivores
4	6. Which of the following is a characterA) UnisexualityC) Protandry	er of Castor plant to avoid autogamy ? B) Protogyny D) Heterostyly

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- 47. During hybridization offsprings with hybrid vigour superior to both parents are self pollinated for few successive generations to _____
 - A) retain their parental characters B) remove their parental characters
 - C) get homozygosity D) segregate characters
- 48. Which of the following is the <u>WRONG</u> match between the plant and its character for adaptation of cross pollination ?
 - A) <u>Zostera</u> \rightarrow Bright coloured flowers with nectar
 - B) <u>Bougainvillea</u> \rightarrow Petaloid bracts
 - C) Passion flower \rightarrow Corona
 - D) <u>Adansonia</u> \rightarrow Copious nectar
- 49. What is the outbreeding device, where the stamens and carpels mature at different times called ?
 - A) Monoecy B) Self sterility
 - C) Dichogamy D) Heterostyly
- 50. In anaerobic respiration acetaldehyde is reduced to form alcohol by utilising NADH₂ obtained from _____
 - A) Glycolysis B) Terminal oxidation
 - C) Kreb's cycle D) Acetylation
- 51. A pair of analogous organs is
 - A) Wing of bird flipper of whale B) Forelimbs of horse and man
 - C) Wing of bird forelimb of horse D) Wing of insect and wing of bird
- 52. In diploid set of chromosomes, deletion or addition of a member leads to
 - A) Aneuploidy B) Euploidy
 - C) Polyploidy D) Triploidy
- 53. Select the correct match :

Ι

- i) Competition
- ii) Commensalism
- iii) Mutualism
- iv) Parasitism
- A) i-d, ii-c, iii-b, iv-a
- C) i-c, ii-b, iii-d, iv-a

Π

- a) Tapeworm and man
- b) Lichen
- c) Cattle egret and cattle
- d) Lions and Leopards
- B) i d, ii b, iii c, iv a
- D) i a, ii b, iii d, iv c

- 54. Which one of the following statement is <u>CORRECT</u>?
 - A) Fertilization in human takes place in womb
 - B) Zygote contains haploid number of chromosomes
 - C) Fertilization membrane avoids polyspermy
 - D) Primary oocyte inhibits the process of oogenesis
- 55. Osmoreceptors are present in the
 - A) Hypothalamus B) Hypophysis
 - C) Epiphysis D) Epithalamus
- 56. The interaction observed in this diagram is



- A) Commensalism
- C) Mutualism

- B) Competition
- D) Predation
- 57. Select the correct match :

	Ι	II		III
i)	Monocyte	a) Large round	nucleus	l) Antihistamine property
ii)	Lymphocyte	b) Twisted nucl	leus n	n) Release heparin
iii)	Basophil	c) Bilobed nuc	leus 1	n) Phagocytic
A) B) C)	Eosinophil i - d - n, ii - a - i - b - m, ii - a - i - c - n, ii - b - i - a - o, ii - d - i - a - o, ii - d - a - o, ii - d - a - o, ii - d - a - a - a - a - a - a - a - a - a	o, iii $-b - m$, iv $-l$, iii $-c - n$, iv $-c$, iii $-d - m$, iv $-d$	-c - l -d - o -a - l	b) Produce antibodies
58. Th	e parietal and ten	nporal lobes are	separated by	
A)	Central sulcus		B) Longitud	dinal fissure
C)	Lateral sulcus		D) Parieto-o	occipital sulcus

- 59. The corpus callosum interconnects
 - A) Cerebral hemispheres
 - C) Corpora quadrigemina
- B) Cerebellar hemispheres
- D) Crura Cerebri

B) Spinal accessory D) Glossopharyngeal ano B) Production of Isinglass D) Production of soaps seases mainly include Bronchitis, Ranikhet D spergillosis torsis, Pullorum or mole on the skin is observed in B) Carcinoma D) Melanoma t ejaculated are reabsorbed in the B) Urethra D) Vas deferens are ape-men stages in origin of man EXCEPT B) <u>Kenvapithecus</u> D) <u>Australopithecus</u> be separated duringin meiosis. B) Synapsis D) Terminalization luted river in Maharashtra is B) Ganga D) Panchaganga		**	
D) Glossopharyngeal ano B) Production of Isinglass D) Production of soaps seases mainly include Bronchitis, Ranikhet D spergillosis torsis, Pullorum or mole on the skin is observed in B) Carcinoma D) Melanoma t ejaculated are reabsorbed in the B) Urethra D) Vas deferens are ape-men stages in origin of man <u>EXCEPT</u> B) <u>Kenyapithecus</u> D) <u>Australopithecus</u> be separated duringin meiosis. B) Synapsis D) Terminalization huted river in Maharashtra is B) Ganga D) Panchaganga	60. The parotid salivary glands are inr	nervated by branches of	_nerve.
ano B) Production of Isinglass D) Production of soaps seases mainly include Bronchitis, Ranikhet D spergillosis iosis, Pullorum or mole on the skin is observed in B) Carcinoma D) Melanoma t ejaculated are reabsorbed in the B) Urethra D) Vas deferens are ape-men stages in origin of man <u>EXCEPT</u> B) <u>Kenyapithecus</u> D) <u>Australopithecus</u> be separated duringin meiosis. B) Synapsis D) Terminalization luted river in Maharashtra is B) Ganga D) Panchaganga	A) Vagus	B) Spinal accessory	
D) Production of soaps beases mainly include Bronchitis, Ranikhet D sopergillosis toosis, Pullorum or mole on the skin is observed in B) Carcinoma D) Melanoma t ejaculated are reabsorbed in the B) Urethra D) Vas deferens are ape-men stages in origin of man <u>EXCEPT</u> B) <u>Kenyapithecus</u> D) <u>Australopithecus</u> be separated duringin meiosis. B) Synapsis D) Terminalization luted river in Maharashtra is B) Ganga D) Panchaganga	C) Facial	D) Glossopharyngeal	
D) Production of soaps beases mainly include Bronchitis, Ranikhet D sopergillosis toosis, Pullorum or mole on the skin is observed in B) Carcinoma D) Melanoma t ejaculated are reabsorbed in the B) Urethra D) Vas deferens are ape-men stages in origin of man <u>EXCEPT</u> B) <u>Kenyapithecus</u> D) <u>Australopithecus</u> be separated duringin meiosis. B) Synapsis D) Terminalization luted river in Maharashtra is B) Ganga D) Panchaganga	61. Lac is used in the		
D) Production of soaps beases mainly include Bronchitis, Ranikhet D sopergillosis toosis, Pullorum or mole on the skin is observed in B) Carcinoma D) Melanoma t ejaculated are reabsorbed in the B) Urethra D) Vas deferens are ape-men stages in origin of man <u>EXCEPT</u> B) <u>Kenyapithecus</u> D) <u>Australopithecus</u> be separated duringin meiosis. B) Synapsis D) Terminalization luted river in Maharashtra is B) Ganga D) Panchaganga	A) Production of guano	B) Production of Isinglass	
seases mainly include Bronchitis, Ranikhet D sspergillosis toosis, Pullorum or mole on the skin is observed in B) Carcinoma D) Melanoma t ejaculated are reabsorbed in the B) Urethra D) Vas deferens are ape-men stages in origin of man <u>EXCEPT</u> B) <u>Kenyapithecus</u> D) <u>Australopithecus</u> be separated duringin meiosis. B) Synapsis D) Terminalization luted river in Maharashtra is B) Ganga D) Panchaganga	C) Silvering mirrors	e e	
Bronchitis, Ranikhet D spergillosis tosis, Pullorum or mole on the skin is observed in B) Carcinoma D) Melanoma t ejaculated are reabsorbed in the B) Urethra D) Vas deferens are ape-men stages in origin of man <u>EXCEPT</u> B) <u>Kenyapithecus</u> D) <u>Australopithecus</u> be separated duringin meiosis. B) Synapsis D) Terminalization luted river in Maharashtra is B) Ganga D) Panchaganga none is B) Calcitriol	c) silvering minors	D) Houdenon of soaps	
D Aspergillosis losis, Pullorum or mole on the skin is observed in B) Carcinoma D) Melanoma t ejaculated are reabsorbed in the B) Urethra D) Vas deferens are ape-men stages in origin of man <u>EXCEPT</u> B) <u>Kenyapithecus</u> D) <u>Australopithecus</u> be separated duringin meiosis. B) Synapsis D) Terminalization luted river in Maharashtra is B) Ganga D) Panchaganga none is B) Calcitriol	62. Bacterial poultry diseases mainly	r include	
Aspergillosis tosis, Pullorum or mole on the skin is observed in B) Carcinoma D) Melanoma t ejaculated are reabsorbed in the B) Urethra D) Vas deferens are ape-men stages in origin of man <u>EXCEPT</u> B) <u>Kenyapithecus</u> D) <u>Australopithecus</u> be separated duringin meiosis. B) Synapsis D) Terminalization luted river in Maharashtra is B) Ganga D) Panchaganga	A) Avian influenza, Bronchitis, F	Ranikhet	
and the skin is observed in B) Carcinoma D) Melanoma t ejaculated are reabsorbed in the B) Urethra D) Vas deferens are ape-men stages in origin of man <u>EXCEPT</u> B) <u>Kenyapithecus</u> D) <u>Australopithecus</u> be separated duringin meiosis. B) Synapsis D) Terminalization luted river in Maharashtra is B) Ganga D) Panchaganga hone is B) Calcitriol	B) Enteritis, TB, CRD		
or mole on the skin is observed in B) Carcinoma D) Melanoma t ejaculated are reabsorbed in the B) Urethra D) Vas deferens are ape-men stages in origin of man <u>EXCEPT</u> B) <u>Kenyapithecus</u> D) <u>Australopithecus</u> be separated duringin meiosis. B) Synapsis D) Terminalization luted river in Maharashtra is B) Ganga D) Panchaganga none is B) Calcitriol	C) Favus, Thrush, Aspergillosis		
B) Carcinoma D) Melanoma t ejaculated are reabsorbed in the B) Urethra D) Vas deferens are ape-men stages in origin of man <u>EXCEPT</u> B) <u>Kenyapithecus</u> D) <u>Australopithecus</u> D) <u>Australopithecus</u> be separated duringin meiosis. B) Synapsis D) Terminalization huted river in Maharashtra is B) Ganga D) Panchaganga	D) Bird Flu, Coccidiosis, Pullorur	m	
B) Carcinoma D) Melanoma t ejaculated are reabsorbed in the B) Urethra D) Vas deferens are ape-men stages in origin of man <u>EXCEPT</u> B) <u>Kenyapithecus</u> D) <u>Australopithecus</u> D) <u>Australopithecus</u> be separated duringin meiosis. B) Synapsis D) Terminalization huted river in Maharashtra is B) Ganga D) Panchaganga	63. A change in a wart or mole on the	e skin is observed in	
D) Melanoma t ejaculated are reabsorbed in the B) Urethra D) Vas deferens are ape-men stages in origin of man <u>EXCEPT</u> B) <u>Kenyapithecus</u> D) <u>Australopithecus</u> be separated duringin meiosis. B) Synapsis D) Terminalization luted river in Maharashtra is B) Ganga D) Panchaganga none is B) Calcitriol	A) Adenoma		
B) Urethra D) Vas deferens are ape-men stages in origin of man <u>EXCEPT</u> B) <u>Kenyapithecus</u> D) <u>Australopithecus</u> be separated duringin meiosis. B) Synapsis D) Terminalization luted river in Maharashtra is B) Ganga D) Panchaganga	C) Lymphoma	,	
B) Urethra D) Vas deferens are ape-men stages in origin of man <u>EXCEPT</u> B) <u>Kenyapithecus</u> D) <u>Australopithecus</u> be separated duringin meiosis. B) Synapsis D) Terminalization luted river in Maharashtra is B) Ganga D) Panchaganga		·	
D) Vas deferens are ape-men stages in origin of man <u>EXCEPT</u> B) <u>Kenyapithecus</u> D) <u>Australopithecus</u> be separated duringin meiosis. B) Synapsis D) Terminalization luted river in Maharashtra is B) Ganga D) Panchaganga hone is B) Calcitriol			
are ape-men stages in origin of man <u>EXCEPT</u> B) <u>Kenyapithecus</u> D) <u>Australopithecus</u> be separated duringin meiosis. B) Synapsis D) Terminalization luted river in Maharashtra is B) Ganga D) Panchaganga hone is B) Calcitriol	A) Ejaculatory duct	,	
B) <u>Kenyapithecus</u> D) <u>Australopithecus</u> be separated duringin meiosis. B) Synapsis D) Terminalization luted river in Maharashtra is B) Ganga D) Panchaganga	C) Vas efferns	D) Vas deferens	
B) <u>Kenyapithecus</u> D) <u>Australopithecus</u> be separated duringin meiosis. B) Synapsis D) Terminalization luted river in Maharashtra is B) Ganga D) Panchaganga	65. All of the following are ape-men	stages in origin of man EXCEPT	
be separated duringin meiosis. B) Synapsis D) Terminalization luted river in Maharashtra is B) Ganga D) Panchaganga none is B) Calcitriol	A) <u>Ramapithecus</u>		
B) Synapsis D) Terminalization luted river in Maharashtra is B) Ganga D) Panchaganga none is B) Calcitriol	C) <u>Dryopithecus</u>	D) <u>Australopithecus</u>	
B) Synapsis D) Terminalization luted river in Maharashtra is B) Ganga D) Panchaganga none is B) Calcitriol	66. Linkage groups can be separated	during in meiosis.	
D) Terminalization luted river in Maharashtra is B) Ganga D) Panchaganga none is B) Calcitriol	A) Crossing over	-	
B) Ganga D) Panchaganga none is B) Calcitriol	C) Tetrad formation		
B) Ganga D) Panchaganga none is B) Calcitriol	67 One of the most polluted river in	Maharashtra is	
D) Panchaganga none is B) Calcitriol	*		
none is B) Calcitriol	· · · · · · · · · · · · · · · · · · ·	, e	
B) Calcitriol	C) Jamana	D) I anchaganga	
	68. Hypercalcemic hormone is		
D) TCT	A) Aldosterone	B) Calcitriol	
	C) PTH	D) TCT	
e pill checks	69. An oral contraceptive pill checks		
B) Implantation	A) Fertilization		
/ I ··· / ···· · · ·	,		
•	A) AldosteroneC) PTH69. An oral contraceptive pill checks	B) GangaD) PanchagangaB) CalcitriolD) TCT	
	C) Infection	D) Ovulation	
D) Ovulation			

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- 70. AB blood group was discovered by
 - A) Decastello and Sturli B) Karl Landsteiner
 - C) William Harvey D) Wallace Alfred
- 71. The process by which primary germinal layers are formed is called
 - A) Blastulation B) Cleavage
 - C) Gastrulation D) Implantation
- 72. Select the group of animals adapted for ammonotelism, guanotelism and ureotelism respectively from the following
 - A) Tadpole larva of frog, spider, pigeon
 - B) Scorpion, turtle and labeo
 - C) Catla, penguin and cat
 - D) Cobra, cockroach and Bombay duck
- 73. Muscular ridges at inner surface of ventricles are called
 - A) Chordae tendinaeB) Inter ventricular septumD) Trabeculae carnae
- 74. Which of the following is NOT a breed of buffalo ?
 - A) Gir B) Nili
 - C) Nagpuri D) Surti

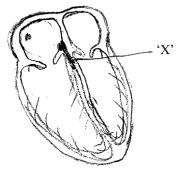
75.	Column A	Column B	Column C
i)	Coenozoic	2 – 65 mya	Origin of vertebrates
ii)	Palaeozoic	500 – 165 mya	Rise of egg laying mammals
iii)	Mesozoic	135 – 225 mya	Reptiles dominant
iv)	Proterozoic	350 – 500 mya	Trilobites dominant
The	e correct match of Col	umns A, B and C is	
A)	i	B) ii	

- C) iii D) iv
- 76. Which of the following organisms is <u>NOT</u> involved in genome sequencing and mapping technique ?
 - A) Drosophila melanogasterB) E. ColiC) Mus musculusD) Salmonella typhi

77. The most common chemical compo were	unds formed in Urey-Miller's experiment
A) Amino acids	B) Ammonia
C) Methane	D) Vitamins
 78. Select the <u>CORRECT</u> pair of endod A) Adrenal medulla – Dermis of sk B) Lungs – Thyroid gland C) Lymphatic vessel – Vagina D) Retina – Tonsil 	
79. Peacock shows following genotype	
A) XX	B) XY
C) ZZ	D) ZW
80. Incubation period of <i>Treponema Po</i>	allidum is about
A) 2 to 14 days	B) 7 to 21 days
C) 1 to 2 weeks	D) 3 to 4 weeks
81. Acromegaly is caused by hypersect	
A) ACTH	B) GH
C) MSH	D) TSH
82. Restriction endonuclease, in DNA process.	finger printing, carries out following
*	B) Getting copies of DNA
C) Loading DNA on agaroseplate	
83. Which one of the following is <u>NOT</u>	the symptom of malaria?
A) Arthralgia	B) Fever
C) Dysentery	D) Shivering
84. In ECG, P – wave represents	
A) Ventricular repolarization	B) Ventricular depolarization
C) Atrial depolarisation	D) Atrial repolarization
85. The isthmus which connects right a fromtracheal carti	and left lobes of thyroid gland is located lages.
A) 1^{st} to 3^{rd}	B) 2^{nd} to 4^{th}
C) 5^{th} to 7^{th}	D) 6^{th} to 8^{th}

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86.	5. Asexual reproduction through formation of gemmule occurs in	
	A) Ascidian	B) Hydra
	C) Planaria	D) Spongilla
87.	ne marsupial mammal amongst the following animals is	
	A) Gibbon	B) Kangaroo
	C) Lemur	D) Spiny ant-eater
88.	When white eyed and miniature wing with its wild type, it produces follow A) 1.3% C) 62.8%	 ged <u>Drosophila melanogaster</u> is crossed ving percent of recombinants. B) 37.2% D) 98.7%
89.	Asiatic wild ass is an example of	
	A) Endangered species	B) Extinct species
	C) Rare species	D) Vulnerable species
90.	0. The quantitative and statistical study of human population is	
	A) Calligraphy	B) Demography
	C) Topography	D) Seismography
91.	Cystic fibrosis can be treated by	in gene therapy.
	A) TGF-B	B) TPA
	C) DNase	D) BGH
92.	 ADH carries out following functions <u>EXCEPT</u> A) Increases blood pressure B) Increases glomerular filtrate rate C) Increases permeability for water in DCT D) Increases Na⁺ excretion 	
93.	Which of the following are <u>NOT</u> pro-	oduced as transgenic animals?
	A) Sheep and Pig	B) Rat and Rabbit
	C) Dog and Banded Krait	D) Cow and Fish
94.	Temporal lobe of cerebrum is concerned with the detection of followin sensations <u>EXCEPT</u>	
	A) Hearing	B) Pressure
	C) Smell	D) Taste

- 95. The sterilization procedure in human female is
 - A) Coitus interruptus B) Rhythm method
 - C) Tubectomy D) Vasectomy
- 96. In the given diagram, the role of 'X' is to



- A) Generate cardiac impulse
- B) Cause atrial systole
- C) Cause ventricular diastole
- D) Carry cardiac impulse to ventricles
- 97. A pair of hormones produced by kidneys is
 - A) Erythropoietin and relaxin
 - B) Erythropoietin and calcitriol
 - C) Calcitonin and relaxin
 - D) Calcitonin and calcitriol

98. Alec Jeffreys used	as genetic marker.
A) HUMULIN	B) Radioactive probe
C) RFLP	D) VNTR

- 99. Which constituent of seminal fluid helps in coagulation of semen after ejaculation ?
 - A) FibrinB) FibrinogenC) FD) D
 - C) Fructose D) Prostaglandins
- 100. Which one of the following statement is <u>CORRECT</u>?
 - A) Lysergic acid diethylamide is a depressant
 - B) Heroin is diacetylmorphine
 - C) Hashish has hallucinogenic property
 - D) Cocaine is opioid drug

SPACE FOR ROUGH WORK