Total No. of Printed Pages: 13

## (DO NOT OPEN THIS QUESTION BOOKLET BEFORE TIME OR UNTIL YOU ARE ASKED TO DO SO)

#### CPG-EE-2018 (Life Sciences)-(SET-Y)

A

10889

			Sr. No.	
Time: 11/2 Hours	Total Questi	ons : <b>100</b>		Max. Marks: 100
Roll No. (in figures)	(in words)			
Candidate's Name			Date of Birth	
Father's Name		Mother's Name		
Date of Exam :				
(Signature of the Candidate)			(Signature of	the Invigilator)

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1.	Viruses are:		
	(1) Non-infective microorganisms	(2)	Infective microorganisms
	(3) Dead cells	(4)	None of the above
2.	Algae grows:		
	(1) In water	(2)	On damp soil
	(3) as epiphytes	(4)	All of the above
3.	The electron transport system of bacteria	a is lo	ocated in :
	(1) The plasma membrane	(2)	Mitochondria
	(3) Cristae	(4)	All of the above
4.	The male branch in <i>Aspergillus</i> is called		
	(1) Archicarp	(2)	Mycelium
	(3) Young ascus	(4)	Peridium
5.	Which of the following are not types of	lysos	some?
	(1) Primary lysosome	(2)	Residual bodies
	(3) Tertiary lysosomes	(4)	Autophagic vacuoles
6.	In which of the mitotic phases cytokine	sis be	egins:
	(1) Late metaphase	(2)	Late anaphase
	(3) Early telophase	(4)	Late telophase
7.	Which endoplasmic reticulum plays im	porta	ant role in detoxification of liver?
	(1) smooth	(2)	rough
	(3) sarcoplasmic	(4)	All of the above
8.	Centriole with cilium or flagellum is ca	lled :	
	(1) Basal body	(2)	Residual body
	(3) Corpuscle	(4)	All of the above
9.	Cells in which meiosis takes place are o	alled	
	(1) Germ cells	(2)	Somatic cells
	(3) Ageing cells	(4)	Meiocytes

10. Synthesis of two strands of DNA takes	place in :
(1) 5' to 3' direction	(2) 3' to 5' direction
(3) 3' to 3' direction	(4) 5' to 5' direction
11. In woody tissues the middle lamella is	commonly:
(1) Cutinized	(2) Lignified
(3) Suberized	(4) All of the above
<b>12.</b> In a pine tree, the resin canals are:	
(1) Vertical and horizontal	(2) Vertical
(3) Horizontal	(4) Not in a particular plane
13. Pyrenoid is present in the chloroplast	of:
(1) Riccia	(2) Marchantia
(3) Polystrichum	(4) Anthoceros
14. Seed named 'Chilgoza' used as dry fr	uit belongs to:
(1) Zamia	(2) Pinus longifolia
(3) Cedrus deodara	(4) Pinus gerardiana
<b>15.</b> Elators found in Marchantia sp. caps	ule are helpful in:
(1) Nutrition of spores	(2) Dispersal of spores
(3) Protection of spores	(4) None of the above
<b>16.</b> The phenotypic ratio expressed in a	dihybrid cross is:
(1) 1:2:2:1	(2) 9:1:3:3
(3) 9:3:3:1	(4) 2:1:1:2
17. Law of purity of gametes also know	n as:
(1) Law of dominance	(2) Reciprocal cross
(3) Law of segregation	(4) Law of Independent Assortment
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18.	The movement of chiasmata after crossing	ng over is called as:	
	(1) Synapsis	(2) Terminalisation	
	(3) Duplication	(4) Shifting	
19.	Turner's syndrome is caused by the abse	ence of one 'X' chromosome in:	
	(1) Female	(2) Male	
	(3) Both female and male	(4) None of the above	
20.	Which of the following not a kind of nu	iclear enzyme that act on DNA?	
	(1) Nucleases	(2) Polyhexases	
	(3) Ligases	(4) Polymerases	
21.	The presence of 'Rh' blood factor in both	h man and rhesus monkey is a kind of:	
	(1) Point mutation	(2) Somatic mutation	
	(3) Parallel mutation	(4) Gene mutation	
22.	In which stage of the cell cycle in huma	ans the sex chromatins are visible?	
	(1) Throughout cell cycle	(2) Late telophase	
	(3) Early Interphase	(4) Late Interphase	
23.	Sometimes a gene masks the expressi phenomenon is:	ion of another gene at a different locus. T	his
	(1) Co-dominance	(2) Epistasis	
	(3) Incomplete dominance	(4) None of the above	
24.	The smallest unit of DNA capable of re	ecombination is called:	
	(1) Cistron (2) Allele	(3) Recon (4) Muton	
25.	The sex linked lethals of man are the go	renes of :	
	(1) Juvenile Glaucoma	(2) Red-green blindness	
	(3) Haemophilia	(4) All of the above	
26.	Repair replication of DNA is:		
	(1) Semiconservative	(2) Conservative	
	(3) Non Conservative	(4) Dispersive	
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27	. Which process has a purpose to	conserve the entire Genome for next generation
	(1) Transcription	(2) Translation
	(3) Replication	(4) None of the above
28.	Alimontary conclination	
20.	y dariar is absent in .	
	(1) Trematoda	(2) Cestoda
	(3) Both of above	(4) None of above (1) and (2)
29.	The nervous system is without a	brain in:
	(1) Annelida	(2) Arthropoda
	(3) Echinodermata	(4) Hemichordata
30.	Excretion in Balanoglossus occurs	through:
	(1) Skin	
	(2) Flame cells	
	(3) Single glomerulus situated in	n the proboscis
	(4) Kidneys	
31.	Volatila oila ara abarra taritti di	
01.	out are characteristic of (	
	(1) Labiatae	(2) Papaveraceae
	(3) Cyperaceae	(4) Rosaceae
32.	Which of the following plants do	not flower in response to gibberellins?
	(1) Long-day plants with rosette	
	(2) Long-short-day plants	
	(3) Long-day plants but not rose	tte in form
	(4) All of the above	
33.	Pognonge of Minney	
55.	Response of <i>Mimosa pudica</i> to touc	ch shows:
,	(1) Thigmotropism	(2) Seismonasty
	(3) Nyctinasty	(4) Geotropism
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34.	Dormancy phytohormone is:		
	(1) Ascrobic acid	. ,	Abscisic acid
	(3) Indole acetic acid	(4)	Gibberellic acid
35.	An edible inflorescence is:		
	(1) Raphanus sativus	(2)	Brassica oleracea
	(3) Brassica rapa	(4)	Mustard
36.	A characteristic of angiosperms is:		
	(1) Flower (2) Root	(3)	Seed (4) All of the above
37.	Double fertilization is the character of:		
	(1) Gymnosperms	(2)	Dicots
	(3) Ferns	(4)	None of these
38.	Which among the following are pollina	ted 1	by bat?
	(1) Saliva	(2)	Ophrys
	(3) Kigellia	(4)	Brassica
39.	The fibres present in the xylem of stem	and	roots are known as:
	(1) Surface fibres	(2)	Wood fibres
	(3) Bast fibres	(4)	Extraxylary fibres
40.	The central cells in the stem that are en	clos	ed by the ring meristem are designated as:
	(1) Protocortex	(2	) Protoderm
	(3) Protopith	(4	) Protophloem
41.	. The fruit produced from the entire hyp	oant!	hodium inflorescence is known as:
	(1) Syconus	(2	
	(3) Pepo	(4	Hesperidium
42	. Germination of seeds within the fruit	whil	e still attach to mother plant is:
	(1) Ovipary	(2	2) Vivipary
	(3) After ripening	(4	1) Xenia

43	<ol> <li>Which of the following is an Amniot</li> </ol>	a?
	(1) Aves	(2) Mammalia
	(3) Reptilia	(4) All of the above
44	. Herpetology is the study of :	
	(1) Amphibians	(2) Reptiles
	(3) Birds	(4) Mammals
45.	Notochord is confined to proboscis in	<b>1:</b>
	(1) Urochordata	(2) Hemichordata
	(3) Cephalochordata	(4) Chordata
46.	Living fossil of reptiles is:	
	(1) Chelonia	(2) Sphenodon
	(3) Matamata	(4) Draco volans
47.	Which is not a poisonous snake?	
	(1) Kobra	(2) Kraits
	(3) Crotalus	(4) Python
48.	Vertebrae of birds are:	
	(1) Amphicoelous	(2) Heterocoelous
	(3) Platycoelous	(4) Gastrocoelous
49.	Oviparous mammal is:	
	(1) Ornithorhynchus	(2) Opposum
	(3) Otter	(4) Kangaroo
50.	Gnawing mammals are characterised by	by the absence of :
	(1) Premolars	(2) Incisors
	(3) Canines	(4) Molars
51.	Non-protein part of conjugated enzym	es is called :
	(1) Holoenzyme (2) Apoenzyme	
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<b>52.</b>	Fats are absorbed in the intestine:	
	(1) As such	(2) After hydrolysis
	(3) After digestion	(4) After emulsification
53.	Liquid which collects in cavity of Bown	nan's capsule is :
	(1) Concentrated urine	(2) Plasma minus blood proteins
	(3) Glycogen and water	(4) Water
54.	Respiration is controlled by:	
	(1) Cerebellum (2) Cerebrum	(3) Medulla (4) Spinal cord
55.	Vitamin K is essential for the formation	of:
	(1) Fibronogen	(2) Prothrombin
	(3) Accelerin	(4) All of the above
56.	Atrioventricular valve open towards:	
	(1) Atria	
	(2) Ventricles	
	(3) Atria and close towards the ventric	cles
	(4) Ventricles and close towards the at	ria
57.	Rapid rise of depolarisation wave and	rapid fall of repolarisation wave are called :
	(1) Negative after potential	(2) Positive after potential
	(3) Spike potential	(4) Action potential
58.	Follicle cells are derived from:	
	(1) Zona pellucida	(2) Germinal epithelium
	(3) Vitelline membrane	(4) Oocyte
59.	What is the effect of pH if it is high, on	the sperms?
	(1) Higher activity leading to early de	ath
	(2) Sluggish, longer life	
	(3) Higher activity, longer life	
	(4) No effect	

60	<ul> <li>Balance of calcium in the body cont</li> </ul>	trolled by:
	(1) Thyroxine	(2) Calmodulin
	(3) Calcitonin	(4) None of the above
61	Intracellularly, photorespiration occ chloroplast and mitochondria?	curs in which of the organelles in association wit
	(1) Lysosomes	(2) Vacuoles
	(3) Golgi apparatus	(4) Peroxisomes
62.	Usually plants show high rate of ph	otosynthesis in:
	(1) Blue & green light	(2) Blue & yellow light
	(3) Green & red light	(4) Blue & red light
63.	Total amount of soil water available	to plant is:
	(1) Holard	(2) Echard
	(3) Chesard	(4) Both (1) and (2)
64.	Rhizobia produce the plant hormone	
	(1) Abscisic Acid	(2) Indole acetic acid
	(3) Glyceric acid	(4) All of the above
65.	Sporangia are well protected by:	
	(1) Peristome	(2) Strobilus
	(3) Indusium	(4) All of the above
66.	Cyclosis in a plant cell is:	
	(1) Induced movement	(2) Spontaneous movement
	(3) Growth movement	(4) None of the above
67.	Which of the following are O <sub>2</sub> derivat	tives of carotenes containing 1-8 oxygen atoms?
	(1) Phycocyanins	(2) Xanthophils
	(3) Phycoerythrins	(4) Phycobilins
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68.	Dark reactions occur in the stroma of chl are used to:	oroplasts where the product of light rea	action
	(1) Incorporate C from CO <sub>2</sub> to carbohyda	rate	
	(2) Incorporate H from H <sub>2</sub> O to carbohyd	rate	
	(3) Incorporate O <sub>2</sub> from CO <sub>2</sub> to carbohyo	lrate	
	(4) All of the above		
69.	C <sub>4</sub> cycle is energy expensive and requires	5:	
001	(1) 18 ATP for synthesis of one glucose		
	(2) 20 ATP for synthesis of one glucose		
	(3) 30 ATP for synthesis of one glucose		
	(4) 40 ATP for synthesis of one glucose		
70	The most mobile mineral in the plant bo		
70.	(1) Nitrogen	(2) Carbon	
	(3) Iron	(4) Phosphorous	
71.	<ul><li>Which of the following theories is also c</li><li>(1) Theory of catastrophism</li><li>(2) Cosmozoic theory</li><li>(3) Theory of spontaneous generation/</li><li>(4) Theory of naturalism</li></ul>		
72.	Common food chain among grassland &	aquatic ecosystems is:	
	(1) Grassland food chain	(2) Organic food chain	
	(3) Grazing food chain	(4) Detritus food chain	
73.	Which of the following is a biotic comm	nunity?	
	(1) Microbial community	(2) Plant community	
	(3) Animal community	(4) All of the above	
74	Pollutant that directly affects the nervo	us system is :	
/ -	(1) D.D.T.	(2) Aldrin	
	(3) Lindane	(4) Organic Phosphates	
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75	Niche of a species is:	
	(1) Place of living	(2) Specific functions & competitive power
	(3) Habitat & specific functions	(4) None of the above
76.	Tropical forests are dense due to:	
	(1) Wild animals	(2) High temperature and less rain
	(3) Low temperature & excess rain	o F
77.		(4) High temperature & excess rain
	Which of the following is not a prosth  (1) NAD	
	(3) Flavin	(2) Heme
		(4) Biotin
78.	of the following is flot a priase of	of cell respiration?
	(1) Glycolysis	(2) Oxidation of pyruvic acid
	(3) Reductive phosphorylation	(4) TCA cycle
79.	Compound lipids are:	
	(1) Natural fats	(2) Steroids
	(3) Beeswax	(4) Cholesterol
80.	Plant tissue culture generally grow bes	stat:
	(1) Constant temperature & high light	
	(2) Constant light intensity & low tem	
	(3) High light intensity & high temper	
	(4) Constant temperature & low light i	
04		
81.		plant tissue culture history came from hybrid:
	(1) Wheat plant	(2) Tobacco plant
	(3) Maize plant	(4) Rice plant
82.	Protoplasts from different varieties or s	pecies can be fused with the help of
	(1) Electrofusion	(2) Polyethyl glycol
	(3) Sodium chloride	(4) Both (1) and (2)
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83.	A major application of embryo culture i	is:	
	(1) Embryoids production	(2) Overcoming hybridization barriers	
	(3) Induction of somaclonal variations	s (4) Clonal propogation	
84.	Obtaining genetically engineered plant is called:	nt by introducing gene from some other genera	1
	(1) Transgenes	(2) Transgenesis	
	(3) Recombinant DNA technology	(4) None of these	
85.	In tissue culture medium, the embryoic	ids formed from pollen grains is due to:	
	(1) Cellular totipotency	(2) Organogenesis	
	(3) Double fertilization	(4) Test tube culture	
86.	Patented invention or technique of pro	oduction can be used by the :	
	(1) Patentee	(2) Source Country	
	(3) Both (1) & (2)	(4) Patentee & Licence	
87.	Science of improving the human race is	is:	
	(1) Eugenics	(2) Euthenics	
	(3) Epigenesis	(4) None of these	
88.	Grafting between two members of the	e same species is :	
	(1) Autograft	(2) Allograft	
	(3) Xenograft	(4) None of the above	
89.	First genetically engineered human in	nsulin was launched in:	
	(1) America (2) India	(3) U.K. (4) China	
90.	Autoantibody fingerprinting protocol	l involves :	
	(1) Preparation of antigen	(2) Antibody fingerprint assay	
	(3) Extraction of DNA	(4) Both (1) and (2)	
91.	High risk of genetic disease in an emb	bryo can be find out by :	
	(1) Amniocentasis	(2) Genetic engineering	
	(3) Chromatography	(4) Ultrasonography	
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92	2. In later stages of gastrulation in frog as to form:	, the oral and pharyngeal endoderm expands so
	<ul><li>(1) Foregut</li><li>(3) Hindgut</li></ul>	(2) Mesenteron
		(4) Coelenteron
93	developed chick gastrula consis	ts of:
	(1) Ectoderm	(2) Chordamesoderm
	(3) Endoderm	(4) All of the above
94	Which of the following extra-embryo the placenta?	nic membranes makes no direct contribution to
	(1) Amnion (2) Chorion	(3) Yolk Sac (4) Allantois
95.	Plants can be made disease resistant b	y:
	(1) Treatment with fungicides	(2) Heat treatment of seeds
	(3) Causing mutations	(4) Breeding with wild relatives
96.	Progamic fertilization ususally takes p	
	(1) Circinotropous ovule	
	(3) Campylotropous ovule	<ul><li>(2) Anatropous ovule</li><li>(4) Orthrotropous ovule</li></ul>
97.	Vegetation with vertical gradient of surface is:	gradually decreasing temperature from the
	(1) Thermocline	(2) Metalimnion
	(3) Hypolimnion	(4) Epilimnion
98.	Rice weevil which grubs feed on all cer	eals:
	(1) Calandra oryzae	(2) Tribolium castaneum
	(3) Pyrilla	(4) None of the above
99.	Fish are rich source of minerals like:	
	(1) Calcium (2) Phosphorous	(3) Iron (4) All of the above
100.	Due to presence of which pigment the c	
	(1) Sclerotic (2) Choroid	eyes of certain animals shine in the dark :  (3) Retina  (4) Lens
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В			10790
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Candidate's Name ————————————————————————————————————		Date of Birth	
Date of Exam :			
(Signature of the Candidate)		(Signature of	f the Invigilator)

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CPG-EE-2018(Life Sciences)-(SET-Y)/(B)

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	(1) Syconus (2) Amphisarca		Pepo (4) Hesperidium
2.	Germination of seeds within the fruit w	hile	still attach to mother plant is:
	(1) Ovipary	(2)	Vivipary
	(3) After ripening	(4)	Xenia
3.	Which of the following is an Amniota?		
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	(3) Reptilia	(4)	All of the above
4.	Herpetology is the study of:		
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	(3) Birds	(4)	Mammals
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	(3) Cephalochordata	(4)	Chordata
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	(3) Matamata	(4)	Draco volans
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	(3) Crotalus	(4)	Python
8.	Vertebrae of birds are:		
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	(3) Platycoelous	(4)	Gastrocoelous
9.	Oviparous mammal is:		
	(1) Ornithorhynchus	(2)	Opposum
	(3) Otter	(4)	Kangaroo

10.	Gnawing mammals are characterised by	the absence of :
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11.	The presence of 'Rh' blood factor in both	man and rhesus monkey is a kind of:
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12.	In which stage of the cell cycle in human	ns the sex chromatins are visible?
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	(3) Early Interphase	(4) Late Interphase
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	(3) Incomplete dominance	(4) None of the above
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	(3) Replication	(4) None of the above
18.	Alimentary canal is absent in:	
	(1) Trematoda	(2) Cestoda
	(3) Both of above	(4) None of above (1) and (2)

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P. T. O.

13.	The hervous system is without a brain	in:
	(1) Annelida	(2) Arthropoda
	(3) Echinodermata	(4) Hemichordata
20	Transline in Beloweless	1
20.	Excretion in <i>Balanoglossus</i> occurs throu	ign:
	(1) Skin	
	(2) Flame cells	
	(3) Single glomerulus situated in the	proboscis
	(4) Kidneys	
21.	Viruses are:	
<i>x</i> * .	(1) Non-infective microorganisms	(2) Infective microorganisms
	(3) Dead cells	(4) None of the above
22.	Algae grows:	
	(1) In water	(2) On damp soil
	(3) as epiphytes	(4) All of the above
23.	The electron transport system of bacte	ria is located in .
	(1) The plasma membrane	(2) Mitochondria
	(3) Cristae	(4) All of the above
0.4		
24.	The male branch in <i>Aspergillus</i> is called	
	(1) Archicarp	(2) Mycelium
	(3) Young ascus	(4) Peridium
25.	Which of the following are not types of	f lysosome?
	(1) Primary lysosome	(2) Residual bodies
	(3) Tertiary lysosomes	(4) Autophagic vacuoles
26.	In which of the mitotic phases cytokin	esis begins :
	(1) Late metaphase	(2) Late anaphase
	(3) Early telophase	(4) Late telophase
PC-F	F-2018/(Life Sciences) (SET V)/(D)	

27.	Which endoplasmic reticulum plays i	mportant role in detoxification of liver?
	(1) smooth	(2) rough.
	(3) sarcoplasmic	(4) All of the above
28.	Centriole with cilium or flagellum is o	alled:
	(1) Basal body	(2) Residual body
	(3) Corpuscle	(4) All of the above
29.	Cells in which meiosis takes place are	called:
	(1) Germ cells	(2) Somatic cells
	(3) Ageing cells	(4) Meiocytes
30.	Synthesis of two strands of DNA takes	s place in :
	(1) 5' to 3' direction	(2) 3' to 5' direction
	(3) 3' to 3' direction	(4) 5' to 5' direction
31.	High risk of genetic disease in an emb	ryo can be find out by :
	(1) Amniocentasis	(2) Genetic engineering
	(3) Chromatography	(4) Ultrasonography
32.	In later stages of gastrulation in frog, as to form:	the oral and pharyngeal endoderm expands so
	(1) Foregut (2) Mesenteron	(3) Hindgut (4) Coelenteron
33.	Fully developed chick gastrula consist	s of:
	(1) Ectoderm	(2) Chordamesoderm
	(3) Endoderm	(4) All of the above
34.	Which of the following extra-embryor the placenta?	nic membranes makes no direct contribution to
	(1) Amnion (2) Chorion	(3) Yolk Sac (4) Allantois
35.	Plants can be made disease resistant by	
	(1) Treatment with fungicides	(2) Heat treatment of seeds
	(3) Causing mutations	(4) Breeding with wild relatives
CPG-E	E-2018/(Life Sciences)-(SET-Y)/(B)	O HARMAN TOWN TO THE PARTY OF T

30.	Programic fertilization ususally takes p	lace in:	
	(1) Circinotropous ovule	(2) Anatropous ovule	
	(3) Campylotropous ovule	(4) Orthrotropous ovule	
37.	Vegetation with vertical gradient of surface is:	f gradually decreasing temperature from th	ıe
	(1) Thermocline	(2) Metalimnion	
	(3) Hypolimnion	(4) Epilimnion	
38.	Rice weevil which grubs feed on all cer	reals:	
	(1) Calandra oryzae	(2) Tribolium castaneum	
	(3) Pyrilla	(4) None of the above	
39.	Fish are rich source of minerals like:		
	(1) Calcium (2) Phosphorous	(3) Iron (4) All of the above	
40.	Due to presence of which pigment the	eyes of certain animals shine in the dark:	
	(1) Sclerotic (2) Choroid	(3) Retina (4) Lens	
41.	Intracellularly, photorespiration occurs chloroplast and mitochondria?	s in which of the organelles in association with	h
	(1) Lysosomes	(2) Vacuoles	
	(3) Golgi apparatus	(4) Peroxisomes	
42.	Usually plants show high rate of photo	osynthesis in :	
	(1) Blue & green light		
	(3) Green & red light	(4) Blue & red light	
43.	Total amount of soil water available to	plant is:	
	(1) Holard (2) Echard	(3) Chesard (4) Both (1) and (2)	
44.	Rhizobia produce the plant hormone:		
	(1) Abscisic Acid	(0) I 1-1	
	(3) Glyceric acid	(2) Indole acetic acid	
CPC 1		(4) All of the above	
CI G-1	EE-2018/(Life Sciences)-(SET-Y)/(B)	P. T. (	Э.

45.	Sporangia are well protected by:	
	(1) Peristome	(2) Strobilus
	(3) Indusium	(4) All of the above
46.	Cyclosis in a plant cell is:	
	(1) Induced movement	(2) Spontaneous movement
	(3) Growth movement	(4) None of the above
47.	Which of the following are O <sub>2</sub> deri	vatives of carotenes containing 1-8 oxygen atoms?
	(1) Phycocyanins	(2) Xanthophils
	(3) Phycoerythrins	(4) Phycobilins
48.	Dark reactions occur in the stroma are used to:	of chloroplasts where the product of light reaction
	(1) Incorporate C from CO <sub>2</sub> to car	bohydrate
	(2) Incorporate H from H <sub>2</sub> O to car	bohydrate
	(3) Incorporate O <sub>2</sub> from CO <sub>2</sub> to ca	rbohydrate
	(4) All of the above	
49.	C <sub>4</sub> cycle is energy expensive and re	equires:
	(1) 18 ATP for synthesis of one glu	acose molecule
	(2) 20 ATP for synthesis of one glu	acose molecule
	(3) 30 ATP for synthesis of one glu	icose molecule
	(4) 40 ATP for synthesis of one glu	acose molecule
50.	The most mobile mineral in the pla	ant body is:
	(1) Nitrogen	(2) Carbon
	(3) Iron	(4) Phosphorous
51.	Volatile oils are characteristic of th	e family:
	(1) Labiatae	(2) Papaveraceae
	(3) Cyperaceae	(4) Rosaceae
CPG-E	E-2018/(Life Sciences)-(SET-Y)/(B)	

52.	Which of the following plants do not flo	owe	r in response to	gibb	erellins?
	(1) Long-day plants with rosette in for	m			
	(2) Long-short-day plants				
	(3) Long-day plants but not rosette in f	form	1		
	(4) All of the above				
<b>50</b>	D. (14)				
53.	Response of Mimosa pudica to touch sho	ws:			
	(1) Thigmotropism	(2)	Seismonasty		
	(3) Nyctinasty	(4)	Geotropism		
54.	Dormancy phytohormone is:				
	(1) Ascrobic acid	(2)	Abscisic acid		
	(3) Indole acetic acid	(4)	Gibberellic acid	d	
55.	An edible inflorescence is:				
	(1) Raphanus sativus	(2)	Brassica oleracea	1	
	(3) Brassica rapa	(4)	Mustard		
56.	A characteristic of angiosperms is:				
	(1) Flower (2) Root	(3)	Seed	(4)	All of the above
57.	Dauble fortilization is 11 1			(-)	Tim of the above
57.	Double fertilization is the character of:	(0)			
	(1) Gymnosperms (2) Dicots	(3)	Ferns	(4)	None of these
58.	Which among the following are pollinate	ted b	by bat?		
	(1) Saliva (2) Ophrys	(3)	Kigellia	(4)	Brassica
59.	The fibres present in the xylem of stem a	and	roots are known	as:	
	(1) Surface fibres	(2)	Wood fibres		
	(3) Bast fibres	(4)	Extraxylary fibi	res	
60.	The central cells in the stem that are enc	lose	d by the ring me	rista	rm ara designated as
	(1) Protocortex (2) Protoderm		Protopith		Protophloem
CPC-F	E-2018/(Life Sciences)-(SET-Y)/(B)		r	\-\	
	P. T. O.				

61.	<ul><li>Which of the following theories is also</li><li>(1) Theory of catastrophism</li><li>(2) Cosmozoic theory</li><li>(3) Theory of spontaneous generation</li><li>(4) Theory of naturalism</li></ul>	
62.	Common food chain among grassland	& aquatic ecosystems is:
	(1) Grassland food chain	(2) Organic food chain
	(3) Grazing food chain	(4) Detritus food chain
63.	Which of the following is a biotic comm	nunity?
	(1) Microbial community	(2) Plant community
	(3) Animal community	(4) All of the above
64.	Pollutant that directly affects the nervo	us system is :
	(1) D.D.T.	(2) Aldrin
	(3) Lindane	(4) Organic Phosphates
65.	Niche of a species is:	
	(1) Place of living	(2) Specific functions & competitive power
	(3) Habitat & specific functions	(4) None of the above
66.	Tropical forests are dense due to:	
	(1) Wild animals	(2) High temperature and less rain
	(3) Low temperature & excess rain	(4) High temperature & excess rain
67.	Which of the following is not a prosther	ic group?
	(1) NAD	(2) Heme
	(3) Flavin	(4) Biotin
68.	Which of the following is not a phase of	cell respiration?
	(1) Glycolysis	(2) Oxidation of pyruvic acid
	(3) Reductive phosphorylation	(4) TCA cycle
DC E	E-2018/(Life Sciences)-(SFT-V)/(B)	
A TOTAL	C-ZOTO/UTTE SCIENCESIAISE LAYI/IKI	

69.	Compound lipids are:	
	(1) Natural fats	(2) Steroids
	(3) Beeswax	(4) Cholesterol
70.	Plant tissue culture generally grow bes	tat:
	(1) Constant temperature & high light	
	(2) Constant light intensity & low temp	
	(3) High light intensity & high temper	
	(4) Constant temperature & low light i	
71.	First tissue to be cultured as a callus in	plant tissue culture history came from hybrid:
	(1) Wheat plant	(2) Tobacco plant
	(3) Maize plant	(4) Rice plant
72.	Protoplasts from different varieties or s	pecies can be fused with the help of
	(1) Electrofusion	(2) Polyethyl glycol
	(3) Sodium chloride	(4) Both (1) and (2)
73.	A major application of embryo culture i	is:
	(1) Embryoids production	(2) Overcoming hybridization barriers
	(3) Induction of somaclonal variations	(4) Clonal propogation
74.	Obtaining genetically engineered plant is called:	by introducing gene from some other genera
	(1) Transgenes	(2) Transgenesis
	(3) Recombinant DNA technology	(4) None of these
75.	In tissue culture medium, the embryoid	s formed from pollen grains is due to:
	(1) Cellular totipotency	(2) Organogenesis
	(3) Double fertilization	(4) Test tube culture
76.	Patented invention or technique of prod	uction can be used by the:
	(1) Patentee	(2) Source Country
	(3) Both (1) & (2)	(4) Patentee & Licence
CPG-E	E-2018/(Life Sciences)-(SET-Y)/(B)	P. T. O.
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77.	Science of improving the human race is	: ,,	
	(1) Eugenics	(2)	Euthenics
	(3) Epigenesis	(4)	None of these
78.	Grafting between two members of the s	ame	species is:
	(1) Autograft	(2)	Allograft
	(3) Xenograft	(4)	None of the above
79.	First genetically engineered human insu	ılin v	was launched in :
	(1) America (2) India	(3)	U.K. (4) China
80.	Autoantibody fingerprinting protocol in	nvol	ves:
	(1) Preparation of antigen	(2)	Antibody fingerprint assay
	(3) Extraction of DNA	(4)	Both (1) and (2)
81.	In woody tissues the middle lamella is o	comi	nonly:
	(1) Cutinized	(2)	Lignified
	(3) Suberized	(4)	All of the above
82.	In a pine tree, the resin canals are:		
	(1) Vertical and horizontal	(2)	Vertical
	(3) Horizontal	(4)	Not in a particular plane
83.	Pyrenoid is present in the chloroplast of	f:	
	(1) Riccia	(2)	Marchantia
	(3) Polystrichum	(4)	Anthoceros
84.	Seed named 'Chilgoza' used as dry fruit	belo	ongs to:
	(1) Zamia	(2)	Pinus longifolia
	(3) Cedrus deodara	(4)	Pinus gerardiana
85.	Elators found in Marchantia sp. capsule	are	helpful in :
	(1) Nutrition of spores	(2)	Dispersal of spores
	(3) Protection of spores	(4)	None of the above

CPG-EE-2018/(Life Sciences)-(SET-Y)/(B)

86.	The phenotypic ratio expressed in a di	hybrid cross is:
	(1) 1:2:2:1	(2) 9:1:3:3
	(3) 9:3:3:1	(4) 2:1:1:2
87.	Law of purity of gametes also known	as:
	(1) Law of dominance	(2) Reciprocal cross
	(3) Law of segregation	(4) Law of Independent Assortment
88.	The movement of chiasmata after cross	
	(1) Synapsis	(2) Terminalisation
	(3) Duplication	(4) Shifting
89.	Turner's syndrome is caused by the ab	sence of one 'X' chromosome in
	(1) Female	(2) Male
	(3) Both female and male	(4) None of the above
90.	Which of the following not a kind of no	aclear enzyme that act on DNA ?
	(1) Nucleases	(2) Polyhexases
	(3) Ligases	(4) Polymerases
91.	Non-protein part of conjugated enzyme	es is called :
	(1) Holoenzyme (2) Apoenzyme	
92.	Fats are absorbed in the intestine:	
	(1) As such	(2) After hydrolysis
	(3) After digestion	(4) After emulsification
93.	Liquid which collects in cavity of Bown	nan's capsule is :
	(1) Concentrated urine	(2) Plasma minus blood proteins
	(3) Glycogen and water	(4) Water
94.	Respiration is controlled by:	
	(1) Cerebellum (2) Cerebrum	(3) Medulla (4) Spinal cord
CPG-E	E-2018/(Life Sciences)-(SET-Y)/(B)	Р. Т. О.

95.	Vitamin K is essential for the formation	of:	
	(1) Fibronogen	(2)	Prothrombin
	(3) Accelerin	(4)	All of the above
96.	Atrioventricular valve open towards:		
	(1) Atria		
	(2) Ventricles		
	(3) Atria and close towards the ventric	les	
	(4) Ventricles and close towards the att	ria	
97.	Rapid rise of depolarisation wave and r	apid	fall of repolarisation wave are called.
	(1) Negative after potential		Positive after potential
	(3) Spike potential		Action potential
98.	Follicle cells are derived from:		
	(1) Zona pellucida	(2)	Germinal epithelium
	(3) Vitelline membrane	(4)	Oocyte
99.	What is the effect of pH if it is high, on t	the sp	erms?
	(1) Higher activity leading to early dea		
-	(2) Sluggish, longer life		
	(3) Higher activity, longer life		
	(4) No effect		
100.	Balance of calcium in the body controlle	ed by:	
	(1) Thyroxine	(2)	Calmodulin
	(3) Calcitonin	(4)	None of the above

#### (DO NOT OPEN THIS QUESTION BOOKLET BEFORE TIME OR UNTIL YOU ARE ASKED TO DO SO)

### CPG-EE-2018 (Life Sciences)-(SET-Y)

C			10807
		Sr. No.	
Time: 11/2 Hours	Total Questions: 100	,	Max. Marks : 100
Roll No. (in figures)	(in words)		
Candidate's Name ————			
Father's Name —————	Mother's Nan	ne	
Date of Exam :			
(Signature of the Candidate)		(Signature of	the Invigilator)

#### CANDIDATES MUST READ THE FOLLOWING INFORMATION/INSTRUCTIONS BEFORE STARTING THE QUESTION PAPER.

- 1. All questions are compulsory and carry equal marks. The candidates are required to attempt all questions.
- 2. The candidates must return the question booklet as well as OMR Answer-Sheet to the Invigilator concerned before leaving the Examination Hall, failing which a case of use of unfair-means/misbehaviour will be registered against him/her, in addition to lodging of an FIR with the police. Further the answer-sheet of such a candidate will not be evaluated.
- 3. In case there is any discrepancy in any question(s) in the Question Booklet, the same may be brought to the notice of the Controller of Examinations in writing within two hours after the test is over. No such complaint(s) will be entertained thereafter.
- 4. The candidate must not do any rough work or writing in the OMR Answer-Sheet. Rough work, if any, may be done in the question booklet itself. Answers must not be ticked in the question booklet.
- 5. Use only black or blue ball point pen of good quality in the OMR Answer-Sheet.
- 6. There will be negative marking. Each correct answer will be awarded one full mark and each incorrect answer will be negatively marked for which the candidate will get 1/4 discredit. Cutting, erasing, overwriting and more than one answer in OMR Answer-Sheet will be treated as incorrect answer.
- 7. Before answering the questions, the candidates should ensure that they have been supplied correct & complete question booklet. Complaints, if any, regarding misprinting etc. will not be entertained 30 minutes after starting of the examination.

CPG-EE-2018(Life Sciences)-(SET-Y)/(C)

1.	In woody tissues the middle lamella is c	omr	monly:
	(1) Cutinized	(2)	Lignified
	(3) Suberized	(4)	All of the above
2.	In a pine tree, the resin canals are:		
	(1) Vertical and horizontal	(2)	Vertical
	(3) Horizontal	(4)	Not in a particular plane
3.	Pyrenoid is present in the chloroplast of	:	
	(1) Riccia	(2)	Marchantia
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4.	Seed named 'Chilgoza' used as dry fruit	belo	ongs to:
	(1) Zamia	(2)	Pinus longifolia
	(3) Cedrus deodara	(4)	Pinus gerardiana
5.	Elators found in Marchantia sp. capsule	are	helpful in :
	(1) Nutrition of spores	(2)	Dispersal of spores
	(3) Protection of spores	(4)	None of the above
6.	The phenotypic ratio expressed in a dihy	ybri	d cross is:
1	(1) 1:2:2:1	(2)	9:1:3:3
	(3) 9:3:3:1	(4)	2:1:1:2
7.	Law of purity of gametes also known as	:	
	(1) Law of dominance	(2)	Reciprocal cross
	(3) Law of segregation	(4)	Law of Independent Assortment
8.	The movement of chiasmata after crossing	ng o	ver is called as :
	(1) Synapsis	(2)	Terminalisation
	(3) Duplication	(4)	Shifting

9.	Turner's syndrome is caused by the abs	sence	e of one 'X' chromosome in :
	(1) Female		Male
	(3) Both female and male	(4)	None of the above
10.	(1)		
	( ), = ==		Ligases (4) Polymerases
11.		уо са	an be find out by:
	(1) Amniocentasis	(2)	Genetic engineering
	(3) Chromatography	(4)	Ultrasonography
12.	In later stages of gastrulation in frog, t as to form:	the o	ral and pharyngeal endoderm expands so
	(1) Foregut (2) Mesenteron	(3)	Hindgut (4) Coelenteron
13.	Fully developed chick gastrula consists	of:	
	(1) Ectoderm	(2)	Chordamesoderm
	(3) Endoderm	(4)	All of the above
14.	Which of the following extra-embryon the placenta?	ic me	embranes makes no direct contribution to
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15.	Plants can be made disease resistant by		
	(1) Treatment with fungicides		Heat treatment of seeds
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16.	Progamic fertilization ususally takes pla	ace ir	n:
	(1) Circinotropous ovule		Anatropous ovule
	(3) Campylotropous ovule		Orthrotropous ovule
17.	Vegetation with vertical gradient of surface is:	grad	dually decreasing temperature from the
	(1) Thermocline	(2)	Metalimnion
	(3) Hypolimnion	, ,	Epilimnion

CPG-EE-2018/(Life Sciences)-(SET-Y)/(C)

18	<b>8.</b> Rice weevil which grubs feed on all cerea	als:			
	(1) Calandra oryzae	(2)	Tribolium castaneu	m	
	(3) Pyrilla	(4)	None of the above		
19	<b>9.</b> Fish are rich source of minerals like :	,			
	(1) Calcium (2) Phosphorous	(3)	Iron (4	All of the above	9
20	<b>0.</b> Due to presence of which pigment the ey	res (	of certain animals s	shine in the dark :	
	(1) Sclerotic (2) Choroid	(3)	Retina (4	Lens	
21	<ul><li>(1) Which of the following theories is also cannot (1) Theory of catastrophism</li><li>(2) Cosmozoic theory</li><li>(3) Theory of spontaneous generation/e</li><li>(4) Theory of naturalism</li></ul>			heory?	
00					
22	<ul><li>Common food chain among grassland &amp;</li><li>(1) Grassland food chain</li></ul>				
	(3) Grazing food chain		Organic food chair Detritus food chair		
22					
23	<ul><li>Which of the following is a biotic community</li><li>(1) Microbial community</li></ul>		y ? Plant community		
			All of the above		
24	<b>4.</b> Pollutant that directly affects the nervou				
	(1) D.D.T.		Aldrin		
	(3) Lindane		Organic Phospha	tes	
25	<b>25.</b> Niche of a species is :				
20	(1) Place of living	(2)	Specific functions	& competitive no	MOT
	(3) Habitat & specific functions		None of the above		VVCI
200					
26		(2)	III als to man and to me	41	
	(1) Wild animals		High temperature		
CDC	(3) Low temperature & excess rain	(4)	High temperature		) T ^
CFG	G-EE-2018/(Life Sciences)-(SET-Y)/(C)			1	P. T. O

27.	Which of the following is not a prosthe	etic group ?
	(1) NAD (2) Heme	(3) Flavin (4) Biotin
28.	Which of the following is not a phase of	of cell respiration ?
	(1) Glycolysis	(2) Oxidation of pyruvic acid
	(3) Reductive phosphorylation	(4) TCA cycle
29.	Compound lipids are:	
	(1) Natural fats	(2) Steroids
	(3) Beeswax	(4) Cholesterol
30.	Plant tissue culture generally grow bes	tat:
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	(2) Constant light intensity & low tem	perature
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	(4) Constant temperature & low light:	intensity
31.	Non-protein part of conjugated enzym	es is called :
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CPG-E	EE-2018/(Life Sciences)-(SET-Y)/(C)	

36.	<b>36.</b> Atrioventricular valve open towards:	
	(1) Atria	
	(2) Ventricles	
	(3) Atria and close towards the ventricles	
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37.	<b>37.</b> Rapid rise of depolarisation wave and rapid fa	all of repolarisation wave are called.
	(4) 37	Positive after potential
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38.	<b>38.</b> Follicle cells are derived from :	
	(1) Zona pellucida (2) C	Germinal epithelium
	(3) Vitelline membrane (4) C	Oocyte
39.	<b>39.</b> What is the effect of pH if it is high, on the spe	erms?
	(1) Higher activity leading to early death	
	(2) Sluggish, longer life	
	<ul><li>(3) Higher activity, longer life</li><li>(4) No effect</li></ul>	
40.	<b>10.</b> Balance of calcium in the body controlled by :	
		almodulin
	(3) Calcitonin (4) N	Ione of the above
41.	11. Volatile oils are characteristic of the family:	
	(1) I alainta	apaveraceae
	(3) Cyperaceae (4) R	osaceae
40	O TATE 1 C 1 C 1	
42.	plants do not nower in	response to gibberellins?
	(1) Long-day plants with rosette in form	
	(2) Long-short-day plants	
	(3) Long-day plants but not rosette in form	
	(4) All of the above	
PG-E	G-EE-2018/(Life Sciences)-(SET-Y)/(C)	P. T. O.

43.	Response of Mimosa pudica to touch sho	)WS:	
	(1) Thigmotropism	(2)	Seismonasty
	(3) Nyctinasty	(4)	Geotropism
44.	Dormancy phytohormone is:		
	(1) Ascrobic acid	(2)	Abscisic acid
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	(1) Raphanus sativus	(2)	Brassica oleracea
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	(1) Flower (2) Root	(3)	Seed (4) All of the above
47.	Double fertilization is the character of :		(=) The drove
77.	(1) Gymnosperms	(2)	Disaka
	(3) Ferns		Dicots  None of these
48.	Which among the following are pollinated		
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	(3) Kigellia	(4)	Brassica
49.	The fibres present in the xylem of stem a	and 1	coots are known as :
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	(3) Bast fibres	(4)	Extraxylary fibres
50.	The central cells in the stem that are enc	losed	d by the ring meristem are designated as
	(1) Protocortex		Protoderm
	(3) Protopith	(4)	Protophloem
51.	The presence of 'Rh' blood factor in both	mai	a and whoove mentions in the 1.
	(1) Point mutation		
	(3) Parallel mutation		Somatic mutation  Gene mutation
			Serie mutation

CPG-EE-2018/(Life Sciences)-(SET-Y)/(C)

52.	In which stage of the cell cycle in hum	ans the sex chromatins are visible?
	(1) Throughout cell cycle	(2) Late telophase
	(3) Early Interphase	(4) Late Interphase
53.	Sometimes a gene masks the express phenomenon is:	sion of another gene at a different locus. This
	(1) Co-dominance	(2) Epistasis
	(3) Incomplete dominance	(4) None of the above
54.	The smallest unit of DNA capable of re	ecombination is called :
	(1) Cistron	(2) Allele
	(3) Recon	(4) Muton
55.	The sex linked lethals of man are the go	enes of :
	(1) Juvenile Glaucoma	(2) Red-green blindness
	(3) Haemophilia	(4) All of the above
56.	Repair replication of DNA is:	
	(1) Semiconservative	(2) Conservative
	(3) Non Conservative	(4) Dispersive
57.	Which process has a purpose to conserv	ve the entire Genome for next generation?
	(1) Transcription	(2) Translation
	(3) Replication	(4) None of the above
58.	Alimentary canal is absent in:	
	(1) Trematoda	(2) Cestoda
	(3) Both of above	(4) None of above (1) and (2)
59.	The nervous system is without a brain is	n:
	(1) Annelida	(2) Arthropoda
	(3) Echinodermata	(4) Hemichordata

60.	Excretion in Balanoglossus occurs throug	gh:
	(1) Skin	
	(2) Flame cells	
	(3) Single glomerulus situated in the pr	roboscis
	(4) Kidneys	
61.	The fruit produced from the entire hypa	eanthodium inflorescence is known as:
	(1) Syconus	(2) Amphisarca
	(3) Pepo	(4) Hesperidium
62.	Germination of seeds within the fruit w	vhile still attach to mother plant is:
	(1) Ovipary	(2) Vivipary
	(3) After ripening	(4) Xenia
63.	Which of the following is an Amniota?	?
	(1) Aves	(2) Mammalia
	(3) Reptilia	(4) All of the above
64.	Herpetology is the study of :	
	(1) Amphibians	(2) Reptiles
	(3) Birds	(4) Mammals
65.	Notochord is confined to proboscis in:	
	(1) Urochordata	(2) Hemichordata
	(3) Cephalochordata	(4) Chordata
66.	Living fossil of reptiles is:	
	(1) Chelonia	(2) Sphenodon
	(3) Matamata	(4) Draco volans
67.	Which is not a poisonous snake?	
	(1) Kobra	(2) Kraits
	(3) Crotalus	(4) Python
CPG-	EE-2018/(Life Sciences)-(SET-Y)/(C)	

68.	Vertebrae of birds are:		
	(1) Amphicoelous	(2)	Heterocoelous
	(3) Platycoelous	(4)	Gastrocoelous
69.	Oviparous mammal is:		
	(1) Ornithorhynchus	(2)	Opposum
	(3) Otter	(4)	Kangaroo
70.	Gnawing mammals are characterised l	oy the	absence of :
	(1) Premolars	(2)	Incisors
	(3) Canines	(4)	Molars
71.	Intracellularly, photorespiration occur chloroplast and mitochondria?	s in v	which of the organelles in association with
	(1) Lysosomes	(2)	Vacuoles
	(3) Golgi apparatus	(4)	Peroxisomes
72.	Usually plants show high rate of photo	synth	nesis in :
	(1) Blue & green light	(2)	Blue & yellow light
	(3) Green & red light	(4)	Blue & red light
73.	Total amount of soil water available to	plant	is:
	(1) Holard		Echard
	(3) Chesard	(4)	Both (1) and (2)
74.	Rhizobia produce the plant hormone:		
	(1) Abscisic Acid	(2)	Indole acetic acid
	(3) Glyceric acid	(4)	All of the above
75.	Sporangia are well protected by:		
	(1) Peristome	(2)	Strobilus
	(3) Indusium	(4)	All of the above
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76.	Cyclosis in a plant cell is:	
	(1) Induced movement	(2) Spontaneous movement
	(3) Growth movement	(4) None of the above
77.	Which of the following are O <sub>2</sub> derivativ	es of carotenes containing 1-8 oxygen atoms?
	(1) Phycocyanins	(2) Xanthophils
	(3) Phycoerythrins	(4) Phycobilins
78.	Dark reactions occur in the stroma of clare used to:	nloroplasts where the product of light reaction
	(1) Incorporate C from CO <sub>2</sub> to carbohy	drate
	(2) Incorporate H from H <sub>2</sub> O to carbohy	rdrate ,
	(3) Incorporate O <sub>2</sub> from CO <sub>2</sub> to carbohy	ydrate
	(4) All of the above	
79.	C <sub>4</sub> cycle is energy expensive and requir	es:
	(1) 18 ATP for synthesis of one glucose	molecule
	(2) 20 ATP for synthesis of one glucose	e molecule
	(3) 30 ATP for synthesis of one glucose	e molecule
	(4) 40 ATP for synthesis of one glucose	e molecule
80.	The most mobile mineral in the plant be	ody is:
	(1) Nitrogen	(2) Carbon
	(3) Iron	(4) Phosphorous
81.	Viruses are:	
	(1) Non-infective microorganisms	(2) Infective microorganisms
	(3) Dead cells	(4) None of the above
82.	Algae grows:	
	(1) In water	(2) On damp soil
	(3) as epiphytes	(4) All of the above

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83.	The electron transport system of bacteria is located in:		
	(1) The plasma membrane	(2) Mitochondria	
	(3) Cristae	(4) All of the above	
84.	The male branch in Aspergillus is called	d:	
	(1) Archicarp	(2) Mycelium	
	(3) Young ascus	(4) Peridium	
85.	Which of the following are not types o	of lysosome?	
	(1) Primary lysosome	(2) Residual bodies	
	(3) Tertiary lysosomes	(4) Autophagic vacuoles	
86.	In which of the mitotic phases cytoking	esis begins :	
	(1) Late metaphase	(2) Late anaphase	
	(3) Early telophase	(4) Late telophase	
87.	Which endoplasmic reticulum plays in (1) smooth (3) sarcoplasmic	nportant role in detoxification of liver?  (2) rough  (4) All of the above	
88.	Centriole with cilium or flagellum is ca	lled:	
	(1) Basal body	(2) Residual body	
	(3) Corpuscle	(4) All of the above	
89.	Cells in which meiosis takes place are c	alled:	
	(1) Germ cells	(2) Somatic cells	
	(3) Ageing cells	(4) Meiocytes	
90.	Synthesis of two strands of DNA takes	place in :	
	(1) 5' to 3' direction	(2) 3' to 5' direction	
	(3) 3' to 3' direction	(4) 5' to 5' direction	
91.	First tissue to be cultured as a callus in	olant tissue culture history came from hybrid:	
	(1) Wheat plant	(2) Tobacco plant	
	(3) Maize plant	(4) Rice plant	
CPG-E	E-2018/(Life Sciences)-(SET-Y)/(C)	D.T. O.	

92.	Protoplasts from different varieties or species can be fused with the help of :		
	(1) Electrofusion	(2)	Polyethyl glycol
	(3) Sodium chloride	(4)	Both (1) and (2)
93.	A major application of embryo culture	is:	
	(1) Embryoids production		Overcoming hybridization barriers
	(3) Induction of somaclonal variations		
94.	Obtaining genetically engineered plant is called:	by i	introducing gene from some other genera
	(1) Transgenes	(2)	Transgenesis
	(3) Recombinant DNA technology	(4)	None of these
95.	In tissue culture medium, the embryoid	s for	med from pollen grains is due to:
	(1) Cellular totipotency		Organogenesis
	(3) Double fertilization	(4)	Test tube culture
96.	Patented invention or technique of proc	luctio	on can be used by the :
	(1) Patentee		Source Country
	(3) Both (1) & (2)	(4)	Patentee & Licence
97.	Science of improving the human race is	:	
	(1) Eugenics (2) Euthenics	(3)	Epigenesis (4) None of these
98.	Grafting between two members of the sa	ame	species is :
	(1) Autograft	(2)	Allograft
	(3) Xenograft	(4)	None of the above
99.	First genetically engineered human insu	ılin v	vas launched in :
	(1) America (2) India	(3)	U.K. (4) China
100.	Autoantibody fingerprinting protocol in	ivolv	res:
	(1) Preparation of antigen	(2)	Antibody fingerprint assay
	(3) Extraction of DNA	(4)	Both (1) and (2)

Total No. of Printed Pages: 13

## (DO NOT OPEN THIS QUESTION BOOKLET BEFORE TIME OR UNTIL YOU ARE ASKED TO DO SO)

## CPG-EE-2018 (Life Sciences)-(SET-Y)

D			10928
		Sr. No.	
Time: 1½ Hours	Total Questions: 100		Max. Marks: 100
Roll No. (in figures)	(in words)		
Candidate's Name		Date of Birth—	
Father's Name ——————	Mother's Name		
Date of Exam :			
(Signature of the Candidate)		(Signature of	the Invigilator)

## CANDIDATES MUST READ THE FOLLOWING INFORMATION/INSTRUCTIONS BEFORE STARTING THE QUESTION PAPER.

- 1. All questions are *compulsory* and carry equal marks. The candidates are required to attempt all questions.
- 2. The candidates *must return* the question booklet as well as OMR Answer-Sheet to the Invigilator concerned before leaving the Examination Hall, failing which a case of use of unfair-means/misbehaviour will be registered against him/her, in addition to lodging of an FIR with the police. Further the answer-sheet of such a candidate will not be evaluated.
- 3. In case there is any discrepancy in any question(s) in the Question Booklet, the same may be brought to the notice of the Controller of Examinations in writing within two hours after the test is over. No such complaint(s) will be entertained thereafter.
- **4.** The candidate *must not* do any rough work or writing in the OMR Answer-Sheet. Rough work, if any, may be done in the question booklet itself. Answers *must not* be ticked in the question booklet.
- 5. Use only black or blue ball point pen of good quality in the OMR Answer-Sheet.
- 6. There will be *negative* marking. Each correct answer will be awarded *one* full mark and each incorrect answer will be negatively marked for which the candidate will get ¼ discredit. Cutting, erasing, overwriting and more than one answer in OMR Answer-Sheet will be treated as incorrect answer.
- 7. Before answering the questions, the candidates should ensure that they have been supplied correct & complete question booklet. Complaints, if any, regarding misprinting etc. will not be entertained 30 minutes after starting of the examination.

CPG-EE-2018(Life Sciences)-(SET-Y)/(D)

1	<ol> <li>Which of the following theories is also constitution.</li> <li>Theory of catastrophism</li> <li>Cosmozoic theory</li> <li>Theory of spontaneous generation.</li> <li>Theory of naturalism</li> </ol>	
2	2. Common food chain among grassland &	z aquatic ecosystems is:
	(1) Grassland food chain	(2) Organic food chain
	(3) Grazing food chain	(4) Detritus food chain
3	3. Which of the following is a biotic comm	unity?
	(1) Microbial community	(2) Plant community
	(3) Animal community	(4) All of the above
4	4. Pollutant that directly affects the nervou	is system is:
	(1) D.D.T.	(2) Aldrin
	(3) Lindane	(4) Organic Phosphates
5	5. Niche of a species is :	
	(1) Place of living	(2) Specific functions & competitive power
	(3) Habitat & specific functions	(4) None of the above
6	6. Tropical forests are dense due to:	
	(1) Wild animals	(2) High temperature and less rain
	(3) Low temperature & excess rain	(4) High temperature & excess rain
7	7. Which of the following is not a prosthet	ic group ?
	(1) NAD (2) Heme	(3) Flavin (4) Biotin
8	<b>8.</b> Which of the following is not a phase of	cell respiration ?
	(1) Glycolysis	(2) Oxidation of pyruvic acid
	(3) Reductive phosphorylation	(4) TCA cycle
9	9. Compound lipids are :	
	(1) Natural fats (2) Steroids	(3) Beeswax (4) Cholesterol
CPG	G-EE-2018/(Life Sciences)-(SET-Y)/(D)	P. T. O.

10.	Plant tissue culture generally grow best at :		
	(1) Constant temperature & high light intensity		
	(2) Constant light intensity & low temperature		
	(3) High light intensity & high temperature		
	(4) Constant temperature & low light intensity		
11.	Non-protein part of conjugated enzymes is called:		
	(1) Holoenzyme (2) Apoenzyme (3) Coenzyme (4) Prosthetic group		
12.			
	(1) As such (2) After hydrolysis		
	(3) After digestion (4) After emulsification		
13.	Liquid which collects in cavity of Bowman's capsule is:		
	(1) Concentrated urine (2) Plasma minus blood proteins		
	(3) Glycogen and water (4) Water		
14.	Respiration is controlled by:		
	(1) Cerebellum (2) Cerebrum (3) Medulla (4) Spinal cord		
15.	Vitamin K is essential for the formation of:		
	(1) Fibronogen (2) Prothrombin		
	(3) Accelerin (4) All of the above		
16.	Atrioventricular valve open towards:		
	(1) Atria		
	(2) Ventricles		
	(3) Atria and close towards the ventricles		
	(4) Ventricles and close towards the atria		
17.	Rapid rise of depolarisation wave and rapid fall of repolarisation wave are called:		
	(1) Negative after potential (2) Positive after potential		
	(3) Spike potential (4) Action potential		
CPG-E	E-2018/(Life Sciences)-(SET-Y)/(D)		

18.	Fo	llicle cells are derived from:		
	(1)	Zona pellucida	(2	) Germinal epithelium
	(3)	Vitelline membrane		) Oocyte
19.	W	hat is the effect of pH if it is high, on	the	sperms?
		Higher activity leading to early dea		
	(2)	Sluggish, longer life		
	(3)	Higher activity, longer life		•
	(4)	No effect		
20.	Ba	lance of calcium in the body controll	ed b	y:
	(1)			Calmodulin
	(3)	Calcitonin	(4)	None of the above
21.	Vo	latile oils are characteristic of the fan	ailar	
		Labiatae		Papaveraceae
		Cyperaceae		Rosaceae
22.	Wh	ich of the following plants do not flo	wei	in response to gibberellins?
	(1)	Long-day plants with rosette in form	n	
	(2)	Long-short-day plants		
	(3)	Long-day plants but not rosette in f	orm	
	(4)	All of the above		
23.	Res	ponse of <i>Mimosa pudica</i> to touch sho	ATC •	
		Thigmotropism		Colomona
		Nyctinasty	(2)	
			(4)	Geotropism
24.	Dor	mancy phytohormone is:		
	(1)	Ascrobic acid	(2)	Abscisic acid
	(3)	Indole acetic acid	(4)	Gibberellic acid

25.	An edible inflorescence is:	
	(1) Raphanus sativus	(2) Brassica oleracea
	(3) Brassica rapa	(4) Mustard
26.	A characteristic of angiosperms is:	
	(1) Flower (2) Root	(3) Seed (4) All of the above
27.	Double fertilization is the character of :	
	(1) Gymnosperms	(2) Dicots
	(3) Ferns	(4) None of these
28.	Which among the following are pollinat	ated by bat?
	(1) Saliva (2) Ophrys	(3) Kigellia (4) Brassica
29.	The fibres present in the xylem of stem a	and roots are known as :
	(1) Surface fibres	(2) Wood fibres
	(3) Bast fibres	(4) Extraxylary fibres
30.	The central cells in the stem that are end	closed by the ring meristem are designated as:
	(1) Protocortex	(2) Protoderm
	(3) Protopith	(4) Protophloem
31.	In woody tissues the middle lamella is o	commonly:
	(1) Cutinized	(2) Lignified
	(3) Suberized	(4) All of the above
32.	In a pine tree, the resin canals are:	
	(1) Vertical and horizontal	(2) Vertical
	(3) Horizontal	(4) Not in a particular plane
33.	Pyrenoid is present in the chloroplast of	of:
	(1) Riccia	(2) Marchantia
	(3) Polystrichum	(4) Anthoceros

CPG-EE-2018/(Life Sciences)-(SET-Y)/(D)

34.	Seed named 'Chilgoza' used as dry fruit belongs to:			
	(1) Zamia	(2) Pinus longifolia		
	(3) Cedrus deodara	(4) Pinus gerardiana		
35.	Elators found in Marchantia sp. ca	apsule are helpful in :		
	(1) Nutrition of spores	(2) Dispersal of spores		
	(3) Protection of spores	(4) None of the above		
36.	The phenotypic ratio expressed in	a a dihybrid cross is :		
	(1) 1:2:2:1	(2) 9:1:3:3		
	(3) 9:3:3:1	(4) 2:1:1:2		
37.	Law of purity of gametes also kno	own as :		
•	(1) Law of dominance	(2) Reciprocal cross		
	(3) Law of segregation	(4) Law of Independent Assortment		
38.	The movement of chiasmata after crossing over is called as:			
	(1) Synapsis	(2) Terminalisation		
	(3) Duplication	(4) Shifting		
39.	<b>39.</b> Turner's syndrome is caused by the absence of one 'X' chromosome in :			
	(1) Female	(2) Male		
	(3) Both female and male	(4) None of the above		
40.	Which of the following not a kind	of nuclear enzyme that act on DNA?		
	(1) Nucleases	(2) Polyhexases		
	(3) Ligases	(4) Polymerases		
41.	High risk of genetic disease in an embryo can be find out by:			
	(1) Amniocentasis			
	(3) Chromatography	<ul><li>(2) Genetic engineering</li><li>(4) Ultrasonography</li></ul>		
CPG-F	EE-2018/(Life Sciences)-(SET-Y)/(D)			
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42.	In later stages of gastrulation in frog, t as to form:	he oral and pharyngeal endoderm expands s
	(1) Foregut	(2) Mesenteron
	(3) Hindgut	(4) Coelenteron
43.	Fully developed chick gastrula consists	of:
	(1) Ectoderm	(2) Chordamesoderm
	(3) Endoderm	(4) All of the above
44.	Which of the following extra-embryon the placenta?	ic membranes makes no direct contribution to
	(1) Amnion (2) Chorion	(3) Yolk Sac (4) Allantois
45.	Plants can be made disease resistant by	
	(1) Treatment with fungicides	(2) Heat treatment of seeds
	(3) Causing mutations	(4) Breeding with wild relatives
46.	Progamic fertilization ususally takes pl	ace in :
	(1) Circinotropous ovule	(2) Anatropous ovule
	(3) Campylotropous ovule	(4) Orthrotropous ovule
47.	Vegetation with vertical gradient of surface is:	gradually decreasing temperature from th
	(1) Thermocline	(2) Metalimnion
	(3) Hypolimnion	(4) Epilimnion
48.	Rice weevil which grubs feed on all cer	eals:
	(1) Calandra oryzae	(2) Tribolium castaneum
	(3) Pyrilla	(4) None of the above
49.	Fish are rich source of minerals like:	
	(1) Calcium (2) Phosphorous	(3) Iron (4) All of the above
50.	Due to presence of which pigment the	eyes of certain animals shine in the dark:
	(1) Sclerotic (2) Choroid	(3) Retina (4) Lens

CPG-EE-2018/(Life Sciences)-(SET-Y)/(D)

51.	Intracellularly, photorespiration occurs chloroplast and mitochondria?	s in v	which of the organelles in association with
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	(1) Incorporate C from CO <sub>2</sub> to carbohy	drate	2
	(2) Incorporate H from H <sub>2</sub> O to carbohy	ydrat	e e
	(3) Incorporate O <sub>2</sub> from CO <sub>2</sub> to carboh	ydra	te
	(4) All of the above	-	
CPG-E	E-2018/(Life Sciences)-(SET-Y)/(D)		РТО

59.	• C4 cycle is energy expensive and require	es:	
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	(1) Nitrogen	(2) Carbon	
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62.	Protoplasts from different varieties or s		
	(1) Electrofusion		
	(3) Sodium chloride	(2) Polyethyl glycol	
		(4) Both (1) and (2)	
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64.	Obtaining genetically engineered plant is called:	by introducing gene from some other genera	
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65.	In tissue culture medium, the embryoid	s formed from pollen grains is due to :	
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	(3) Double fertilization	(4) Test tube culture	
66.			
	(1) Patentee	(2) Source Country	
	(3) Both (1) & (2)	(4) Patentee & Licence	
CPG-E	EE-2018/(Life Sciences)-(SET-Y)/(D)		

67.	Science of improving the human race is:				
	(1) Eugenics	(2)	Euthenics		
	(3) Epigenesis	(4)	None of these		
68.	Grafting between two members of the sa	afting between two members of the same species is:			
	(1) Autograft	(2)	Allograft		
	(3) Xenograft	(4)	None of the above		
69.	First genetically engineered human insu	ılin v	was launched in :		
	(1) America (2) India	(3)	U.K. (4) China		
70.	Autoantibody fingerprinting protocol involves:				
	(1) Preparation of antigen	(2)	Antibody fingerprint assay		
	(3) Extraction of DNA	(4)	Both (1) and (2)		
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	Synthesis of two strands of DNA takes (1) 5' to 3' direction (3) 3' to 3' direction	(2) 3' to 5' direction (4) 5' to 5' direction
81.	The presence of 'Rh' blood factor in bo (1) Point mutation (3) Parallel mutation	th man and rhesus monkey is a kind of:  (2) Somatic mutation  (4) Gene mutation
82.	<ul><li>In which stage of the cell cycle in huma</li><li>(1) Throughout cell cycle</li><li>(3) Early Interphase</li></ul>	ans the sex chromatins are visible?  (2) Late telophase  (4) Late Interphase
83.	Sometimes a gene masks the express phenomenon is:  (1) Co-dominance  (3) Incomplete dominance	ion of another gene at a different locus. This  (2) Epistasis  (4) None of the above
84.	The smallest unit of DNA capable of reconstruction (1) Cistron (2) Allele	combination is called :  (3) Recon  (4) Muton
CPG-E	E-2018/(Life Sciences)-(SET-Y)/(D)	

85.	The sex linked lethals of man are the genes of:				
	(1) Juvenile Glaucoma	(2) Red-green blindness			
	(3) Haemophilia	(4) All of the above			
86.	Repair replication of DNA is:				
	(1) Semiconservative	(2) Conservative			
	(3) Non Conservative	(4) Dispersive			
87.	Which process has a purpose to conser	erve the entire Genome for next generation?			
	(1) Transcription	(2) Translation			
	(3) Replication	(4) None of the above			
88.	Alimentary canal is absent in:				
	(1) Trematoda	(2) Cestoda			
	(3) Both of above	(4) None of above (1) and (2)			
89.	The nervous system is without a brain	n in :			
	(1) Annelida	(2) Arthropoda			
	(3) Echinodermata	(4) Hemichordata			
90.	Excretion in <i>Balanoglossus</i> occurs throu	ugh:			
	(1) Skin				
	(2) Flame cells				
	(3) Single glomerulus situated in the p	proboscis			
	(4) Kidneys				
91.	The fruit produced from the entire hyp	panthodium inflorescence is known as:			
	(1) Syconus	(2) Amphisarca			
	(3) Pepo	(4) Hesperidium			
92.	Germination of seeds within the fruit v	while still attach to mother plant is:			
	(1) Ovipary	(2) Vivipary			
	(3) After ripening	(4) Xenia			
CPG-E	E-2018/(Life Sciences)-(SET-Y)/(D)	Р. Т.	(		

(2) Incisors

(4) Molars

(3) Canines

	Answer K	EY of MDUC	EE-2018			
(Life Science)						
SR NO.	А	В	C	D		
1	2 /	11	21/	3 V		
2	4 🗸	2 V	1	3 V		
3	1 ~	4 🗸	4	4 V		
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30	3 ~	1 1	4~	21/		
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By 21/6/18
System 18

Answer KEY of MDUCEE-2018						
(Life Science)						
SR NO.	А	В	C	D		
93	41/	2 V	2 🗸	4 🗸		
94	1	3 V	1 🗸	2 🗸		
95	4 ~	2 V	1 V	2 🗸		
	2 V	4 V	4 V	2 V		
96	4	3 1/	1 🗸	4 V		
97	4 1	2 1	2 1/	2 V		
98	2 V	2 V		1 1		
99	4 V	1	1 1	1 /		
100	2 V	3 V	4 🗸	3 🗸		

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