S.No	Question	Choices			
1	_____estimated that incompatibility occurs in more than 3,000 species among 20 families of the flowering plants:	A.	D. De Winton	B.	M.B. Hughes
		C.	W.H. Gabelman	D.	E.M. East
2	_____provides the best documented example of long time effects of selection:	A.	Sugarcane	B.	Sweet sorghum
		C.	Sugar beet	D.	Sugar maple
3	_____ deteriorates drastically upon inbreeding:	A.	Carrot	B.	Okra
		C.	Brinjal	D.	Broccoli
4	_____ in Ladino clover is governed by two dominant alleles, one produces cyanogenic glycoside, while the other releases the enzyme to catalyze its release from gloycoside:	A.	Oxalic acid	B.	IAA
		C.	HCN	D.	NAA
5	_____ are examples of protandrous species:	A.	Avocados	B.	Walnuts
		C.	Carrots	D.	None of these
6	Origin of Species by means of Natural Selection' was given by:	A.	Lamark	B.	Linnaeus
		C.	Charles Darwin	D.	Erasmus
7	Radish' is an example of:	A.	Fusiform root	B.	Napiform root
		C.	Conical root	D.	Tuberous root
8	"Experiments in Plant Hybridization" a paper of G. Mendal was first published in the year	A.	1905	B.	1787
		C.	1866	D.	1896
9	"If a gene is represented in an infinitely large random-mating population by adaptively neutral alleles, A and a, in the ration of qA	A.	Stanford-Suneson law	B.	Weibe-Thomas law
		C.	Briggs-Harlan law	D.	Hard-Weinberg law
10	2n - 1 is a:	A.	Monosomic	B.	Transonic
		C.	Tetrasomic	D.	Alloploid
11	2n denotes:	A.	Number of homozygote	B.	Number of types of gametes produced
		C.	Number of types of heterozygote	D.	None of the above
12	A cell or an organism having one chromosome pair in addition to the normal somatic compliment of the species is:	A.	Monosomic	B.	Nullisomic
		C.	Tetrasomic	D.	Trisomic
13	A character dermined by many genes and does not show discrete variation is known as	A.	Qualitative character	B.	Oligogenic character
		C.	Quantitative character	D.	Multiple-allelic character
14	A complex of communities of plants and animals of a region existing under identical climatic conditions is called as	A.	Biome	B.	Ecosystem
		C.	Ecological complex	D.	Environment
15	A condition in which pollination and fertilization take place in an unopened flower is termed as:	A.	Homogamy	B.	Apogamy
		C.	Polygamy	D.	Cleistogamy
16	A criss-cross inheritance is shown by:	A.	Sex-influenced character	B.	Polygamy
		C.	Sex-linked character	D.	Sex-quantitative character
17	A cybrid is:	A.	A sex hybrid	B.	A hybrid formed by cell fusion
		C.	A plant produced by cell culture	D.	Synonym to hybrid
18	A dry, one chambered and one seeded fruit developing from a superior ovary with the hard and woody pericarp is:	A.	Achene	B.	Caryopsis
		C.	Composite fruit	D.	None of the above
19	A fruit, which develops from an inflorescence, is known as:	A.	Simple fruit	B.	Aggregate fruit
		C.	Composite fruit	D.	None of these
20	A fruit, which is collection of simple fruits developing from the apocarpous pistil of a flower, is known as:	A.	Multiple fruit	B.	Aggregate fruit
		C.	Complex fruit	D.	Simple fruit
21	A generative nucleus in the male gametophyte divides _____ to form two male gametes:	A.	Mitotically	B.	Meiotically
		C.	Mitotically and Meiotically	D.	None of these
22	A head or capitulum's is characteristic of:	A.	Compositeae	B.	Umbelliferae
		C.	Solanaceae	D.	Gramineae
23	Zamikand and Taro (Colocasia) are example of:	A.	Rhizome	B.	Tuber
		C.	Bulb	D.	Corm

24	A homozygous line developed by self-fertilization in a cross-pollinated crop is termed as:	A.	Pureline	B.	Inbred
		C.	Clone	D.	Mutant
25	A hybrid is always:	A.	Heterozygous	B.	Homozygous
		C.	Both of the above	D.	Often homozygous
26	A large unit of natural vegetation in an area under identical condition (climatic) is called:	A.	Plant formation	B.	Association
		C.	Community	D.	Climax
27	A maintainer line is:	A.	Male fertile and can restore fertility	B.	Male sterile but can restore fertility
		C.	Male sterile but cannot restore	D.	Male fertile but cannot restore
28	A male child would be born to parents if	A.	The father is healthier than the	B.	The mother eats well during
		C.	The genetic composition of the	D.	The genetic composition of the
29	A male gametophyte in angiosperms contains:	A.	Two male gamete One gamete	B.	only One male gamete
		C.	Two male gametes and one tube	D.	and one tube
30	A mendelian population means:	A.	Self-pollinated population	B.	Inbred population
		C.	Random-mating population	D.	Hybrid population
31	A method of breeding most commonly used when the desired variation is required to be induced in a vegetatively propagated crop	A.	Pedigree method of Polyploidy	B.	breeding Backcross method
		C.	Mutation breeding	D.	of breeding
32	A mixture of two immiscible liquids shaken up is:	A.	Saturated solution	B.	A suspension
		C.	An emulsion	D.	Colloid
33	A plant bearing both male and female flowers is said to be:	A.	Dioecious	B.	Monoecious
		C.	Polygamous	D.	None of above
34	A plant breeder is interested to control pollination to:	A.	Prevent cross-pollination	B.	Control pollination
		C.	None of these	D.	Both of these
35	A plant cell when put into a hypotonic solution, it unlike animal cell does not brust because:	A.	It has no semi-permeable	B.	It has inelastic cell wall
		C.	Both (a) & (b)	D.	None of the above
36	A plant with 2n = 20 will have how many linkage group:	A.	20	B.	10
		C.	40	D.	5
37	A plant with genotype Gg Ww will produce gametes of which of the following types?	A.	GW, gw, gW,Gw	B.	GG,WW,gg,ww
		C.	Gw,GG,GW	D.	All of them
38	With the increase in temperature, the solubility of solid in a liquid:	A.	Increases	B.	Decreases
		C.	Both (a) & (b)	D.	None of the above
39	A restorer gene is present in:	A.	Nucleus	B.	Cytoplasm
		C.	Both (a) & (b)	D.	None of these
40	A state of meiotic cell division when homologous chromosomes separate and move to different poles is known as:	A.	Metaphase I	B.	Anaphase I
		C.	Telophase I	D.	Anaphase II
41	A successful establishment of vegetation in a new locality means:	A.	Commensalisnt	B.	Ecesis
		C.	Succession	D.	Psammosere
42	. Differences among the individuals of a same species is called:	A.	Variation	B.	Inheritance
		C.	Zenia	D.	Ideotype
43	Wind pollination is also known as:	A.	Anemophyly	B.	Entomophyly
		C.	Zoophyly	D.	Hydrophyly
44	Acclimatisation is:	A.	A process of adjustm	B.	Related with the cla
		C.	Removal of female p	D.	Changing of climati
45	According to position of the ovule within the ovary, an ovule may be:	A.	Ascending	B.	Pendulous
		C.	Suspended	D.	All of the above
46	Actual petrified remains of ancient plants and animals or impressions left by them in rocks are called	A.	Fossils	B.	Models
		C.	Traces	D.	None of the above
47	Adjustment of individual to their environment by mean of special structures or of function of spoken of:	A.	Mutation	B.	Variation

		C.	Heredity	D.	Adaptation
48	Adventitious roots grow from:	A.	Radical	B.	Plumule
		C.	Hypophysis	D.	Any part of the plant body other
49	After the cell has undergone mitosis, the amount of DNA in daughter cells will be:	A.	Equal to the parent cell	B.	Half of the parent cell
		C.	Double of the parent cell	D.	None of the above
50	Albinism in plants is associated with:	A.	Epistatis	B.	Recessive lethal
		C.	Dominant lethal	D.	Chromosome duplication
51	Alternative forms of a gene is known a:	A.	Mutation	B.	Gamete
		C.	Allele	D.	Genotype
52	An anticodon is a sequence of three nitrogenous bases found on:	A.	DNA	B.	mRNA
		C.	r RNA	D.	t RNA
53	An association can be:	A.	Hydrophytic	B.	Halophytic
		C.	Xerophytic	D.	All of the above
54	An egg or sperm cell in plants is called:	A.	Gene	B.	Gamete
		C.	Zygote	D.	None of them
55	An embryo sac of angiosperms generally contains:	A.	Two nuclei	B.	Three nuclei
		C.	Four nuclei	D.	Eight nuclei
56	An endospermic cell of a seed after somatic chromosome number (2n = 20) will have:	A.	30 Chromosomes	B.	20 Chromosomes
		C.	10 Chromosomes	D.	40 Chromosomes
57	An individual having different alleles for any gene pair and producing two kinds of gametes is known as:	A.	Hemizygous	B.	Homozygous
		C.	Heterozygous	D.	Heterogenous
58	An organism having the gametic chromosome numbers is called as:	A.	Genome	B.	Hybrid
		C.	Gamete	D.	Haploid
59	An organism with one extra chromosome (2n + 1), is instead of the normal diploid (2n) is known as	A.	Monoploid	B.	Monosomic
		C.	Trisomic	D.	Tetrasonic
60	Ascending portion of the axis of the plant, developing directly from the plumule and bears leaves, braches and flower is known as	A.	Root	B.	Steam
		C.	Modified root	D.	None of above
61	At the molecular level point mutations are due to:	A.	Destruction of the bases	B.	Destruction of the double helix
		C.	Shifting of a portion of the helix and	D.	Alterations of sequences of base
62	At the stage incipient plasmolysis the turgor pressure is:	A.	Zero	B.	2 atm.
		C.	4 atm	D.	22.4 atm.
63	At the stage of fully turgid cell, the suction pressure will be:	A.	Equal to wall pressure	B.	Zero
		C.	Equal to osmotic pressure	D.	Maximum
64	ATP synthesis occurs in	A.	Chloroplast	B.	Chloroplast and mitochondria
		C.	Chloroplast, mitochomdria and	D.	Mitochondria
65	Bacteria, protozoa and other living plants and animals are	A.	Climatic factors	B.	Edaphic factors
		C.	Biotic factors	D.	Topographic factors
66	Baldness in human being is a	A.	Sex linked character	B.	Sex limited character
		C.	Sex-influenced character	D.	None of the above
67	Barely is a _____ pollinated crop:	A.	Often-cross	B.	Self and cross
		C.	Cross	D.	Self
68	Biffin in 1905 announced, that resistance to yellow rust of wheat is governed by _____ gene in crosses:	A.	Single dominant	B.	Single recessive
		C.	Double dominant	D.	Double recessive
69	Binomial system of Nomenclature means that the name of plant is made up of two words, which designate:	A.	Family and genus	B.	Order and family
		C.	Species and family	D.	Genus and species
70	Bread wheat is:	A.	Haploid	B.	Diploid
		C.	Tetraploid	D.	Auto-allopolyploid

71	Bulk population breeding is suitable for:	A.	Fruit crops	B.	Vegetable
		C.	Small grains	D.	Flower crops
72	Mazie plant is?	A.	Haploid	B.	Diploid
		C.	Tetraploid	D.	Auto-allopolyploid
73	Callus is	A.	An undifferentiated mass of cells	B.	A gamete
		C.	A tissue	D.	A modification of leaf
74	Mazie plant is _____	A.	Simple plant	B.	C3 Plant
		C.	C4 Plant	D.	None of the above
75	Cauliflower, cabbage, broccoli, kohlrabi and brussels sprouts have been derived from wild cabbage that, still grows in coastal regi	A.	Latin America	B.	Mesopotamia
		C.	Europe and N. Africa	D.	South Asia and South Africa
76	Who is regarded as the father of botany?	A.	Theofrastus	B.	Gregor Mendel
		C.	Carolus Linnaeus	D.	Oswald Tippo
77	Who is credited with the discovery of mitosis?	A.	Farmer and Moore	B.	Huxley
		C.	Flemming	D.	Robert Hooke
78	Characteristic feature of xerophytes is:	A.	Long taproot	B.	Leaves and stem with thick cuticle
		C.	Sunken stomata	D.	All of the above
79	Characteristic feature of the hydrophytes is:	A.	Reduced protective tissues	B.	Feebly developed root system
		C.	Spongy stem	D.	All the above
80	Chauncey Goodrich was the first _____ to publish a paper dealing with resistance of potatoes to the blight diseases:	A.	Britisher	B.	German
		C.	Dutch	D.	American
81	China rose is a :	A.	Herb	B.	Shrub
		C.	Tree	D.	Climber
82	Chromosome numbers in somatic cells of a maize plant are:	A.	22	B.	26
		C.	14	D.	20
83	Chromosome which pair at meiotic prophase and are similar size, shape, structure and function are known as:	A.	Homologous	B.	Iso-centric
		C.	Iso-chromosome	D.	Acentric
84	CIMMYT is located at:	A.	Mexico	B.	England
		C.	Spain	D.	Nigeria
85	Cliestogamy encourages:	A.	Self-pollination	B.	Cross pollination
		C.	Apomixes	D.	Inbreeding depression
86	Clone in general is:	A.	Homozygous	B.	Heterogeneous
		C.	Heterozygous	D.	None of the above
87	Commercial banana have _____ instead of 22 chromosomes of ordinary diploid varieties:	A.	13	B.	23
		C.	33	D.	43
88	Helianthus anus is the botanical name of :	A.	Banana	B.	Apple
		C.	Sunflower	D.	Coconut
89	Composites are developed by using:	A.	Advanced generation seed	B.	Hybrid directly from inter-varietal
		C.	Recurrent selection for specific	D.	The hybrid of an inbred with an
90	Conifers are abundant in:	A.	Tropical zone	B.	Alpine zone
		C.	Temperate zone	D.	Subtropical zone
91	Cotton	A.	Is a self-pollinated crop	B.	Is a cross pollinated crop
		C.	Is an often-cross pollinated crop	D.	Is an often self-pollinated crop
92	Plants are directly effected by:	A.	Temperature	B.	Humidity
		C.	Biotic factors	D.	All the above
93	Cross between cytoplasmic male sterile x cytoplasmic male fertile:	A.	Produce sterile F1	B.	Produce fertile F1
		C.	Produce fertile, sterile in 1:1 ratio	D.	None of the above
94	Cross of F1 hybrid with either parent is called:	A.	Test cross	B.	Single cross

		C.	Back cross	D.	None of them
95	Crossing over occurs at:	A.	Two strand stage	B.	Four strand stage
		C.	Three strand stage	D.	None of the above
96	Cuscuta is	A.	Total stem parasite	B.	Partial stem parasite
		C.	Partial root parasite	D.	Total root parasite
97	Cytogenetically, the definitive nucleus is:	A.	Haploid	B.	Diploid
		C.	Triploid	D.	Tetraploid
98	Date palm is	A.	Monoecious	B.	Dioecious
		C.	Polygamous	D.	None of the above
99	Degenerated parts of plants and animals, which do not serve any useful purpose, are known as:	A.	Un-useful structures	B.	Vestigial structures
		C.	Essential organs	D.	Unwanted structures
100	Despite conspicuous deterioration of maize upon continuous setting, it is more tolerant to inbreeding than:	A.	Limabean	B.	Barley
		C.	Alfalfa	D.	Buckwheat
101	The complete or partial absence of pigment in the skin, hair and eyes	A.	Albinism	B.	Plieotropy
		C.	Epistatis	D.	None of the above
102	Development and formation of pollen grains in anther of the stamen is known as:	A.	Pollination	B.	Fertilization
		C.	Microsporogenesis	D.	Megasporogenesis
102	Development of a fruit without fertilization is known as:	A.	Parthenogenesis	B.	Polyembrohy
		C.	Budding	D.	Apomixes
104	Who invented first compound microscope?	A.	Robert Hooke	B.	Jansen
		C.	Leeuwenhoek	D.	None of these
105	Development of seed without-sexual process is:	A.	Apomixes	B.	Polyembryony
		C.	Both (a) & (b)	D.	None of the above
106	Development of the pollen tube, the seed and the 3n endosperm, double fertilization is characteristic features of:	A.	Bryophytes	B.	Pteridophytes
		C.	Gymnosperms	D.	Angiosperms
107	Disease reaction is by and large, a process:	A.	Physical	B.	Chemical
		C.	Mechanical	D.	Manual
108	Disease rsistance in barley is:	A.	Quantitative characteristics	B.	Qualitative characteristics
		C.	Both (a) & (b)	D.	None of the above
109	DNA exists as a double helix as a result of hydrogen bonding between:	A.	Sugar molecules	B.	Phosphate groups
		C.	Nucleohistones	D.	Nucleosides
110	DNA polymerase:	A.	Helps is DNA replication	B.	Helps in RNA replication
		C.	Helps in protein synthesis	D.	None of the above
111	DPD is the index of sucking power and is also known as:	A.	Suction pressure	B.	Wall pressure
		C.	Osmotic	D.	Turgor pressure
112	During mitotic cell division the total chromosome number	A.	Remains the same	B.	Gets halved
		C.	Gets doubled	D.	None of them
113	Each cell of the female gametophyte is haploid except	A.	Egg cell	B.	Synergid cells
		C.	Antipodal cells	D.	Definitive nucleus
114	The study of inheritance and variation is called:	A.	Polyploidy	B.	Triploidy
		C.	Haploidy	D.	Genetics
115	Each mature anther has	A.	One pollen sac	B.	Two pollen sacs
		C.	Three pollen sacs	D.	Four pollen sacs
116	Each megaspore mother cell finally produces:	A.	Four megaspores	B.	Two megaspores
		C.	Only one megaspore	D.	None of the above
117	Each pollen mother cell produces four haploid cells as a result of:	A.	Mitosis	B.	Meiosis
		C.	One mitosis and then meiosis	D.	None of the above

118	Each stamen is differentiated into:	A.	Filament	B. Anther
		C.	Connective	D. All of the above
119	Electron microscope was invented by:	A.	Jansen	B. Leeuwenhoek
		C.	Knoll and Ruska	D. None of the above
120	Emasculation is:	A.	Removal of male parts from a	B. Removal of female parts
		C.	Removal of male and female parts	D. None of the above
121	Embryo-sac is:	A.	Male gametophyte	B. Micro-gametophyte
		C.	Saprophyte	D. Female gametophyte
122	Endosperm is store house for germinating embryo and it contains:	A.	Hormones	B. Vitamins
		C.	Enzymes	D. All the above
123	Epicalyx is the characteristic of the family:	A.	Gramineae	B. Solanaceae
		C.	Malvaceae	D. Compositeae
124	Epistasis should be carefully distinguished from dominance, which refers to non-additivity of alleles at	A.	The same locus of a homologues	B. Different loci of a homologous
		C.	The same locus of non-homologous	D. Different locus of non-homologous
125	Who founded the cell theory?	A.	Robert Hooke	B. Von Mohl and Nageli
		C.	Schwann and Schleiden	D. Gres and Malpigi
126	Exchange of genetic material takes place between non-sister chromatids of homologous chromosomes during the:	A.	Four stand stage in prophase I	B. Two strand stage in prophase I
		C.	Metaphase I stage in meiosis	D. Two strand stage in prophase II
127	Female reproductive organ in the flower is:	A.	Calyx	B. Corolla
		C.	Stamens	D. Carpals
128	Flower colour in plants is a:	A.	Qualitative character	B. Quantitative character
		C.	Both of them	D. None of them
129	Flower is specialized:	A.	Shoots	B. Leaf
		C.	Stem	D. Tendril
130	Flowers having both androecium's and gynoecium's are said to be:	A.	Hermaphrodite	B. Unisexual
		C.	Staminate	D. Pistilate
131	Two different inbred lines when crossed, results in:	A.	Hybrid	B. Mutant variety
		C.	Open pollinated variety	D. Mass selected variety
132	Formation of new genes takes place due to:	A.	Inversion	B. Transduction
		C.	Transversion	D. Mutation
133	Brassica campestris has chromosome number:	A.	18	B. 22
		C.	20	D. 16
134	Fruit of pea is known as:	A.	Legume	B. Follicle
		C.	Siliqua	D. Capsule
135	Fruit of sunflower is:	A.	Caryopsis	B. Samara
		C.	Cypsela	D. Nut
136	Fruits of calotropis are:	A.	Legume	B. Siliqua
		C.	Capsule	D. Follicle
137	Fusion of the one sperm (male gamete) and definitive nucleus results in the formation of:	A.	Endosperm	B. Embryo
		C.	Saprophyte	D. Zygote
138	Brassica campestris is	A.	Tetraploid	B. Diploid
		C.	Haploid	D. None of the above
139	Generally embryosac is:	A.	Monosporic	B. Bisporic
		C.	Tetrasporic	D. Octosporic
140	Genes are made up of	A.	RNA only	B. DNA only
		C.	RNA and DNA	D. Proteins
141	Genetics is the study of	A.	Genes	B. Gene interaction

			C.	Heredity and variation	D.	DNA
142	Genotype x Environment interaction would take place when there is/are:		A.	One genotype and two environments	B.	Two genotypes and one environment
			C.	Three genotypes and one environment	D.	Two or more genotypes and two
143	Germplasm means:		A.	A breeding method	B.	A collection of genetic material
			C.	A new disease	D.	None of the above
144	Gibberellins are now commercially used into increase sugarcane growth and sugar yields :		A.	China	B.	Hawaii
			C.	Japan	D.	Korea
145	Ginger and Turmeric are example of modified stem:		A.	Rhizome	B.	Tuber
			C.	Bulb	D.	Corm
146	Given that the somatic chromosome number of Triticum aestivum is 2n = 6x = 42, which one of the following pairs is correctly n		A.	Monosomy	B.	Trisomy
			C.	Tetrasomy	D.	Nullisomy
147	Mendel is famous for:		A.	Propounding the laws of inheritance	B.	Laws of limiting factors
			C.	The theory of mutation	D.	The discovery of penicillin
148	Group of plants with similar characteristics of any rank is termed:		A.	Taxon	B.	Species
			C.	Genus	D.	Order
149	Gynoecium or pistil in the female whorl differentiated into:		A.	Filament	B.	Style
			C.	Stigma	D.	All of the above
150	Holophytes growing on muddy swarms form special vegetation known as:		A.	Mangrove forests	B.	Coniferous forests
			C.	Evergreen forests	D.	Riparian forests
151	Heritability may be defined as the:		A.	Interaction product of genotype with	B.	Sum total of hereditary material
			C.	Degree of resemblance	D.	Proportion of phenotypic
152	Heterosis is commercially exploited in:		A.	Cross pollinated species	B.	Often cross-pollinated species
			C.	Self-pollinated species	D.	Vegetatively propagated species
153	Heterosis over the better parent is called as:		A.	Relative heteroisi	B.	Standard heterosis
			C.	Pseudoheterosis	D.	Heterbeltiosis
154	How many cells will be produced from a cell if the cell divides meiotically?		A.	1	B.	2
			C.	3	D.	4
155	Sudden heritable change in the genetic makeup of an organism is called:		A.	Pleiotropy	B.	Epistasis
			C.	Ideotype	D.	Mutation
156	Hybrid seeds can be produced through open pollination with the use of:		A.	Inbreds	B.	Clones
			C.	Pure lines	D.	Synthetic lines
157	Hydrilla is a:		A.	Hydrophyte	B.	Mesophyte
			C.	Hygrophyte	D.	Xerophyte
158	ICRISAT deals with:		A.	Cotton	B.	Maize
			C.	Millets	D.	Wheat
159	If a character is cytoplasmically controlled then:		A.	The progeny resembles female	B.	The progeny resembles male
			C.	It's segregation of 3:1 is observed in	D.	15:1 segregation in F1
160	If a dihybrid is test crossed, the phenotypic ratio of progeny will be:		A.	9:3:3:1	B.	9;3;4
			C.	1:1:1:1	D.	15;1
161	If a dihybrid without genic interaction is selfed the following ratio is obtained in F2:		A.	1:1:1:1	B.	9:3:3:1
			C.	9;7	D.	9;6;1
162	If a membrane allows the passage of both solvent and solute molecules it is said to be:		A.	Non-permeable	B.	Impermeable
			C.	Semi-Permeable	D.	Permeable
163	Diameter of DNA is:		A.	2 nm	B.	0.34 nm
			C.	1.8 nm	D.	3.4 nm
164	Most acceptable model for DNA replication is:		A.	Conservative	B.	Semi conservative
			C.	Dispersive	D.	Additive

165 Generally _____ number of back crosses are sufficient to retain the genotype of original variety:
A. 05- 06 Backcrosses B. 07-08 Backcrosses
C. 04-05 Backcrosses D. 08-09 Backcrosses

166 If the cells of a plant root tip contain 16 chromosomes, then how much chromosomes will be found in its pollen grains?
A. 4 B. 8
C. 16 D. 32

167 Insect pollination is called
A. Entomophily B. Hydrophily
C. Anemophily D. None of the above

168 In _____, pollen dispersal is poor and seed set is likely to be low on male sterile plants
A. Tomato B. Cauliflower
C. Broccoli D. Carrot

169 In _____ , the first studies on artificial hybridization were reported during the period between 1877 and 1882:
A. Sorghum B. Pearl millet
C. Maize D. Carrot

170 In Angiosperms:
A. Sporophyte is complex and B. Sporophyte simple and
C. Sporophyte and gametophyte D. Sporophyte and gametophyte

171 Brasscia napus is:
A. Diploid B. Tetraploid
C. Triploid D. Haploid

172 In bajra:
A. Cytoplasmic male sterility is found B. Genetic male sterility is found
C. Cytoplasmic genetic male sterility is D. Self-incompatibility is

173 Crossing over completes in _____ stages :
A. 3 B. 4
C. 5 D. None of these

174 Terminalization is the stage of crossing over in which it:
A. Starts B. Exchange the
C. genetic material D. Completes

175 Crossing over frequency decreases with:
A. Mutation B. X- radiations
C. Age D. None of the above

176 In cotton, the popularly grown commercial hybrid varalaxmi's is the product of:
A. Intraspecific hybridization in B. Interspecific hybridization in
C. Interspecific hybridization D. Intraspecific hybridization

177 Technical name of tobacco:
A. Nicotiana tabacum B. Cajanus cajan
C. Alium cepa D. None of the above

178 Technical name of cigarette tobacco:
A. Nicotiana tabacum B. Cajanus cajan
C. Alium cepa D. Nicotiana rustica

179 In Ficus (banyan, pepal, fig) the inflorescence is:
A. Cyathuim B. Verticillaster
C. Hypanthodium D. Spadix

180 Which sterility is exploited in hybrid seed production?
A. Male genetic sterility B. Cytoplasmic sterility
C. Cytoplasmic genetic male sterility is D. Genetic

181 Which one of the following is the site of protein synthesis?
A. Ribosomes B. t-RNA
C. m-RNA D. r-RNA

182 In mass selection, plants are selected on the basis of:
A. Phenotypes B. Genotypes
C. Homozygosity D. None of the above

183 In pedigree breeding single plants are selected in which one of the following generation:
A. F5 B. F3
C. F2 D. F

184 Chromosome numbers in potato:
A. 48 B. 46
C. 50 D. 44

185 In Primula sp:
A. Sporophytic incompatibility B. Gametophytic incompatibility
C. Heteromorphic incompatibility D. Homomorphic incompatibility

186 In RNA, nitrogen bases are same as in DNA except:
A. Uracil instead of Thymlnine B. Cytosin instead of Thymine
C. Adenine instead of Guanine D. Thymine instead of Adenine

187 In self-incompatibility system:
A. Pollen not produced B. Self pollination takes place
C. Pollen does not germinate on self- D. All are correct

188 Botanical name of maize is:
A. Zea mays L. B. Zea maize L.

		C.	Zey maize L.	D. Zey mays L.
189	In sorghum somatic chromosome number is 20. What would be its chromosome number in the endosperm?	A.	10	B. 20
		C.	30	D. 40
190	Which one of the following is not dioecious plant?	A.	Date palm	B. Vallisnaria
		C.	Maize	D. Papaya
191	Under the seed act of 1976 seed is divided into_____ classes:	A.	3	B. 5
		C.	4	D. 6
192	Back crossing of F1 with recessive homozygous parent:	A.	Back cross	B. Test cross
		C.	Bi parental cross	D. None of the above
193	Technical name of sugar beet is:	A.	Beta vulgaris	B. Allium cepa
		C.	Glysine max	D. None of the above
194	The designation 2n is used to indicate:	A.	Haploid chromosome	B. Diploid chromosome
		C.	Monoploid chromosome	D. None of the above
195	In the pitcher plant, the pitcher is modification of:	A.	Stem	B. Root
		C.	Leaf	D. Stem-branch
196	Cross in which only one trait is studied:	A.	Mono hybrid cross	B. Bi parental cross
		C.	Di hybrid cross	D. None of these
197	In wheat and oat there are _____ genes for red versus white kernels:	A.	Two	B. Three
		C.	Four	D. Five
198	In wheat, cross-pollination is:	A.	Less than 5%	B. More than 5%
		C.	15%	D. 50%
199	In which one of the following crops maximum exploitation of hybrid vigour during the last three decades has been done?	A.	Wheat	B. Rice
		C.	Maize	D. Cotton
200	In which part of the cell, does protein synthesis take place?	A.	Mitochondria	B. Nucleolus
		C.	Nucleus	D. Ribosomes
201	Inflorescence of wheat ear is:	A.	Catkin	B. Spike
		C.	Corymbs	D. Raceme
202	International Rice Research Institute (IRRI) is situated in:	A.	Philippines	B. Japan
		C.	China	D. Burma
203	It has been estimated that a maize tassel produces at least _____ pollen grains for each kernel.	A.	5,000	B. 15,000
		C.	25,000	D. 35,000
204	It is an established fact that higher and more complex forms of plants and animals have evolved from:	A.	Recent and simpler forms	B. Earlier and simple forms
		C.	Recent and complex forms	D. Xerophytic forms
205	Which one of the following chemicals is used to induce polyploidy?	A.	Ethyl methane sulphonate	B. Methyl methane sulphonate
		C.	Colchicine’s	D. Nitrous acid
206	One of the basic objective of plant breeding is development of:	A.	Improved varieties	B. Increased yield
		C.	Resistance to biotic stresses	D. All of the above
207	Kreb's cycle begins with:	A.	Glycogen	B. Lysine
		C.	Succinic acid	D. Acetyl COA
208	Botanical name of hexaploid wheat is:	A.	Triticum monocum	B. Triticum durum
		C.	Triticum aestivum	D. None of the above
209	Vertical resistance is:	A.	Oligogenic	B. Polygenic
		C.	Both of the above	D. None of the above
210	Magnification of an object by electron microscope is:	A.	1000 X	B. 1,00,000 X
		C.	1,000,000 X	D. More than 2.00.000 X
211	Maize is:	A.	Monoecious plant	B. Dioecious plant
		C.	Polygamous	D. None of the above

212 Most of the mutation have effect:
A. Deleterious
B. Good
C. Bad
D. Both (b) & (c)

213 Male gamete carries _____ chromosome numbers:
A. n
B. 2n
C. 3n
D. n - 1

214 Mango fruit is a:
A. Pepo
B. Pome
C. Berry
D. Drupe

215 Mangrove plants show adaptation like:
A. Stilt roots
B. Respiratory roots or pneumatophores
C. Vivipary
D. All of the above

216 Mating between two individuals related by descent is:
A. Selfing
B. Inbreeding
C. Outbreeding
D. Maintenance of population

217 Megaspore mother cell produces four megaspores out of which usually:
A. Only one megaspore is functional and the
B. Two megaspores are functional and
C. Three megaspores are functional and
D. All the four megaspores are

218 Meiosis is essential for the organism for:
A. Inducing polyploidy
B. Growth of the organism
C. Keeping the number of chromosomes
D. Increasing the number of cells

219 Meiosis occurs in:
A. Generative cells
B. New cells
C. Vegetative cells
D. None of the above

220 Which one of the following categories of seeds is the farmer expected to buy afresh every time?
A. Variety
B. Hybrid
C. Synthetic
D. Composite

221 Which of the fruit is capsule?
A. Beans
B. Mustard
C. Cotton
D. Wheat

222 Which of the following type(s) of male sterility is/are used in commercial seed production of double cross hybrid maize?
A. Cytoplasm alone
B. Genetic alone
C. Cytoplasm and genetic
D. Cytoplasmic and genetic with

223 Mendok is a gametocide used for inducing male sterility in:
A. Onion
B. Sunflower
C. Maize
D. Cotton

224 Method of breeding can be used for studying the ancestral characteristic:
A. Pure line
B. Pedigree method
C. Mass selection
D. None of these

225 Microsporogenesis occurs in:
A. Roots
B. Stems
C. Anthers
D. Ovules

226 Microsporogenesis occurs in:
A. Carpals
B. Gynoecium
C. Stamens
D. Thalamus

227 Pure line is:
A. Self-pollinated self-crop
B. Cross-pollinated self-cross
C. Self-pollinated cross-crop
D. None of the above

228 Monoploid is also a:
A. Haploid
B. Diploid
C. Monosomic
D. None of the above

229 Multiline varieties are mixtures of:
A. Several morphologically
B. Bulked progenies of different inbred
C. Several similar pure lines having
D. Morphologically ide

230 Mutation is known to be due to change in genes:
A. Loss
B. Degeneration
C. Addition
D. All the above

231 Father of Genetics:
A. Robert Shull
B. Mendel
C. Watson & Crick
D. None of the above

232 Chromosomes are present in:
A. Nucleus
B. Cytoplasm
C. Ribosomes
D. None of the above

233 Interaction between two non-allelic genes:
A. Epistasis
B. Pleiotropy
C. Crossing Over
D. None of the above

234 Segment of chromosome when inserted into a non-homologous chromosome:
A. Insertion
B. Duplication
C. Translocation
D. None of the above

235 Normal female in human being is:
A. Homogametic sex
B. Heterogametic sex

		C.	Homizygous for a gene	D.	Gynandromorph
236	Nucleus seed is:	A.	100% pure	B.	80% pure
		C.	50% pure	D.	40% pure
237	Number of chromosome in endosperm is:	A.	2n	B.	3n
		C.	n	D.	4n
238	Nutritional improvement for the tryptophan content has been achieved in a _____ cell-line:	A.	Tomato	B.	Cucurbits
		C.	Coffee	D.	Tobacco
239	Onion and Garlic are example of:	A.	Rhizome	B.	Tuber
		C.	Bulb	D.	Corn
240	Okra belongs to the family:	A.	Solanaceae	B.	Mallow
		C.	Cucurbitaceae	D.	Liliaceae
241	Orange or lemon fruit is known as:	A.	Balusta	B.	Pepo
		C.	Pome	D.	Citrus
242	Chromosome number of sugarcane:	A.	82	B.	80
		C.	78	D.	84
243	Botanical name of sugarcane is:	A.	Saccharum officinarum L.	B.	Sorghum Biclor L.
		C.	Zea mays L.	D.	None of these
244	Para-mutation in _____ is perhaps the one and only example of blending of alleles:	A.	Sorghum	B.	Maize
		C.	Pearl millet	D.	Foxtail millet
245	Pea has _____ chromosomes:	A.	14	B.	16
		C.	12	D.	18
246	Persons with the following blood group are universal donor:	A.	A	B.	B
		C.	AB	D.	O
247	Pisum sativum is:	A.	Diploid	B.	Tetraploid
		C.	Triploid	D.	None of the above
248	Physical and chemical properties of soil its water and air contents are included in:	A.	Climatic factors	B.	Edaphic factors
		C.	Biotic factors	D.	Topographic factors
249	Physiologically dry soil is:	A.	Poor in moisture content	B.	With adequate water
		C.	with saline water	D.	Normal soils
250	Pigment, which is responsible for skin colour, is:	A.	Melanin	B.	Glutin
		C.	Globulin	D.	Albumin
251	Pink (NN) flowered plants crossed with blue (nn) flowered plants gave black (Nn) flowered plants in F1 generation. If F1 plants are selfed, which of the following will be the phenotype of F2 progeny?	A.	All blue	B.	1/2 blue and 1/2 pink
		C.	All pink	D.	1/4 pink, 1/2 black, 1/4 blue
252	Which of the following scientists is called the father of genetics?	A.	Charles Darwin	B.	Robert Hooke
		C.	Gregor Mendel	D.	Gregor Morgon
253	Plants that attach themselves to any neighbouring object often by means of some special devices and climb it are called:	A.	Trailers	B.	Creepers
		C.	Climbers	D.	None of these
254	Plants that grown upon other plants but do not absorb food from them are called:	A.	Parasites	B.	Epiphytes
		C.	Saprophytes	D.	Symbionts
255	Plants, which feed upon insects and small animals absorbing only nitrogenous compounds, are called:	A.	Symbionts	B.	Epiphytes
		C.	Carnivorous	D.	Nocturnals
256	Plants that grow under average condition of temperature and moisture are:	A.	Hydrophytes	B.	Hygrophytes
		C.	Mesophyte	D.	Xerophytes
257	Plasmid can:	A.	Self-replicate	B.	Integrate into host genome
		C.	Express the genes in it	D.	Can do all the above
258	Pneumatophores or respiratory roots are meant for:	A.	Absorption of salts	B.	Absorption of water
		C.	Respiration	D.	Photosynthesis

259	Pointed gourd is a :	A.	Monoecious plant	B.	Hermaphrodite plant
		C.	Dioecious plant	D.	Polygamous plant
260	Pollination taking place between the flowers borne by the same parent is called:	A.	Geitonogamy	B.	Allogamy
		C.	Xenogamy	D.	None of the above
261	Pollination taking place between two flowers (bisexual or unisexual) borne by two separate plants of the same species is called:	A.	Self-pollination	B.	Cross pollination
		C.	Xenogamy	D.	Geitonogamy
262	Polygenes affecting the same trait, with each enhancing the phenotype are termed as	A.	Amnions	B.	Alcaptonuria
		C.	Allosteric effect	D.	Additive factors
263	Population improvement is used:	A.	To accumulate deleterious alleles	B.	To maintain homozygosity
		C.	To accumulate favourable alleles	D.	To increase heterozygosity
264	Pototo and Jerusalem artichoke are example of:	A.	Rhizome	B.	Tuber
		C.	Bulb	D.	Corn
265	In_____ flowers are hermaphrodite (bisexual)	A.	Autogamy	B.	Allogamy
		C.	Dichogamy	D.	None of the above
266	Progeny of a hybrid plant:	A.	Breds true	B.	Resembles maternal plant
		C.	Resembles paternal plant	D.	Segregation
267	Prop or still roots are found in:	A.	Acacia tree	B.	Tomato plant
		C.	Mango tree	D.	Banyan tree
268	Protoplasm is a:	A.	True solution	B.	Unsaturated solution
		C.	Suspension	D.	Polyphonic colloidal system
269	Pseudo-fertility may also occur late in the season as in:	A.	Tomato	B.	Tobacco
		C.	Tapioca	D.	Tea
270	Pure line is	A.	The progeny of selfed heterozygous	B.	The progeny of selfed homozygous
		C.	The progeny of Vegetatively	D.	The progeny of a nucleus seed
271	Pure line selection is:	A.	A method of accumulating	B.	Used to improve cross-pollinated
		C.	Used to improve self-pollinated crops	D.	Used in Vegetatively
272	Quarantine is:	A.	The name of a plant	B.	The name of a character
		C.	The process of observation of alien	D.	None of the above
273	Rainfall, temperature, light, wind and humidity are:	A.	Climatic factors	B.	Edaphic factors
		C.	Biotic factors	D.	Topographic factors
274	Random assortment of genes will occur if the gene are located on:	A.	Same chromosome	B.	Different chromosomes
		C.	Sex chromosome	D.	Autosome
275	Recessive lethal genes are carried in the	A.	Heterogeneous form	B.	Heterozygous form
		C.	Homozygous form	D.	Homogenous form
276	Recurrent selection is mostly used in:	A.	Cross pollinated crops	B.	Self-pollinated crops
		C.	Vegetatively propagated crops	D.	Apomictic crop plants
277	Botanical name of cabbage is:	A.	Brassica oleracea	B.	Brassica napus
		C.	Brassica juncea	D.	None of the above
278	Registered seed is directly produced from:	A.	Foundation seed	B.	Certified seed
		C.	Breeder's seed	D.	All the above
279	Replacement of purine by pyrimidine and vice-versa is known as:	A.	Transversion	B.	Transduction
		C.	Translocation	D.	All the above
280	Restorer gene is needed:	A.	To make a plant correct	B.	To bring fertility in male sterile plants
		C.	To make a plant resistant	D.	To enhance the yield
281	Rice varieties IR 20, IR 26 and IR 36 have shown better resistance to:	A.	Tungro	B.	Bacterial leaf blight
		C.	Blast	D.	Brown plant hopper
282	Root bear:	A.	Unicelluar hairs	B.	Multicellular hairs

C. Both (a) & (b) D. None of the above

283 Root has:
A. Root cap B. Region of cell division
C. Give proper anchorage to plant D. All of the above

284 Secondary nucleus in the embryo sac is:
A. Haploid B. Diploid
C. Triploid D. Hexaploid

285 Seeds of monocotyledons are:
A. Albuminous or non-endospermic B. Ex-albuminous
C. Both (a) & (b) D. Neither (a) nor (b)

286 Seeds of pea, gram and beans are:
A. Albuminous or non-endospermic B. Ex-albuminous
C. Both (a) & (b) D. None of the above

287 Selfing of a plant is done in order to:
A. Fix the desirable characters B. Eliminate deletirious genes
C. Both of the above D. None of the above

288 Sex in Drosophila is governed by the following mechanism:
A. XY methods B. OX method
C. ZZ method D. X autosomes ratio

289 Specific combining ability of the parents should be high in order to develop:
A. Hybrids B. Composites
C. Varieties D. Synthetics

290 Single gene affecting more than one character is:
A. Polymorphism B. Pleiotropy
C. Phenocopy D. Complete penetrance

291 Spikelet's are characteristic of the family:
A. Umbelliferae B. Gramineae
C. Malvaceae D. Leguminaceae

292 Sporogenesis means
A. Formation of zygote B. Formation of embryo
C. Germination of seed D. Development and formation of spores

293 Stems often bear:
A. Unicellular hairs B. Multicellular hairs
C. Both (a) & (b) D. None of above

294 Sterility is most pronounced in the F1 generation following:
A. Intervarietal hybridization B. Intravarietal hybridization
C. Intraspecific hybridization D. Interspecific hybridization

295 Sterility incompatibility of distant crosses can overcome to produce hybrids by:
A. Pollen culture B. Anther culture
C. Explants culture D. Embryo culture

296 Stilt roots are produced from:
A. Main root B. Secondary roots
C. Stem and branches D. None of above

297 Sudden and sharp change in individual and is directly inherited by the offspring is called:
A. Mutation B. Adaptation
C. Heredity D. Continuous variation

298 Sunflower is:
A. Annual herb B. Biennial herb
C. Perennial herb D. None of the above

299 Superiority of heterozygote leads to:
A. Fixation of recessive allele B. Fixation of dominant allele
C. Maintenance of both the alleles D. Depression of inbreeding

300 The end segments of chromosome are deleted in _____ deletion
A. Terminal B. Interstitial
C. Trasversion D. Inversion

301 Tetraploid potato has 48 chromosomes, whereas ordinary piploid species have _____ chromosomes:
A. 34 B. 24
C. 14 D. 10

302 Which of the following material makes the protein chain?
A. Carbohydrates B. Sugars
C. Fatty acids D. Aminoacids

303 Which of the following leads to the cross-pollination?
A. Unisexuality B. Dichogamy
C. Heterostyly D. All the above

304 The application of principles of genetics for the improvement of mankind is:
A. Herdity B. Linkage
C. Population genetics D. Eugenics

305 The attraction between two dissimilar molecules is:
A. Cohesion B. Adhesion
C. Surface tension D. None of the above

306 Which of the following is sub-aerial modification of stem?
A. Corm B. Stolon
C. Thorn D. Bulb

307 The basis on which evolution works is:
A. Simplicity B. Complexity
C. Variations D. Adaptation

308 Transfer of genetic material from parents to offsprings
A. Genetics B. Variations
C. Heridity D. None of the above

309 The best method to carry forward the maximum number of genotypes/genes to the advanced generations against the force of natu
A. Pedigree method B. Bulk method
C. Single seed descent method D. Back cross method

310 The best method to break the unfavourable linkage is:
A. Single seed descent method B. Diallel selective mating
C. Pedigree method D. Bulk method

311 The botanical name of the onion is:
A. Allium sativum B. Allum cepa
C. Pisum sativium D. Tagetes erecta

312 The branch of genetics concerned with the study of frequencies of mating populations is:
A. Quantitative genetics B. Behavioural genetics
C. Population genetics D. Eugenetics

313 The chromosomal aberrations include:
A. Duplication or deficiency B. Translocations or inversions
C. Multiplication or polyploidy D. All of these

314 The chromosomes are attached to the spindle fibre by means of:
A. Pellicle B. Telomere
C. Satellite body D. Centromere

315 The commonest form of the ovule is:
A. Orthotropous B. Anatropous
C. Amphilotropous D. Campylotropous

316 The components of synthetic population would have already been tested for:
A. SCA B. Genetic advance
C. GCA D. Both GCA & SCA

317 Which of the following is ploidy level of common wheat?
A. Tetraploid B. Hexaploid
C. Diploid D. Octaploid

318 The condition in which the anthers and stigmas of a bisexual flower mature at the same time is known as:
A. Cleistogamy B. Heterogamy
C. Syngamy D. Homogamy

319 The condition in which the pollen of a flower has no fertilizing effect on the stigma of the same flower is called:
A. Herkogamy B. Dichogamy
C. Dicliny D. Self-sterility

320 Mechanism Promoting Cross Pollination:
A. Herkogamy B. Dichogamy
C. Dicliny D. Self-sterility

321 The definitive nucleus on fertilization gives:
A. Secondary B. Zygote
C. Oospore D. Primary endosperm

322 The diffusion of water through a differentially permeable membrane is called:
A. Osmosis B. Imbibition
C. Diffusion D. Water movement

323 The DNA is made up of the following four bases:
A. A.T.G.E. B. A.T.G.C.
C. A.T.U.C. D. A.G.U.C.

324 The edible part of the apple is:
A. Mesocarp and endocarp B. Endosperm
C. Only mesocarp D. Fleshy thalamus

325 The effect of the genotype of the pollen grain on the phenotype of the seed is termed as:
A. Apospory B. Pollinia
C. Endopolyploidy D. Xenia

326 The embroid (formed by vegetative cell) develops into a plant, which, in fact, grows out of anther as in
A. Tobacco B. Wheat
C. Barley D. Sorghum

327 The evolutionary history of a species is referred as
A. Phylogeny B. Progeny
C. Organic evolution D. Natural selection

328 Hybridization is carried out in:
A. Cross pollinated B. Self-polinated
C. Vegetatively propaga D. None of the above

329 The fibrous fruit of coconut is dispersed by:
A. Air B. Water Potential

		C.	Animals	D. None of the above
330	The first easily observed sign of a water deficit in a plant is decrease in the tugor of its:	A.	Root hairs	B. Stem cells
		C.	Xylem vessels	D. Leaf cells
331	The first generation progeny of a hybrid are called:	A.	Pure lines	B. Segregates
		C.	Parents	D. F1 plants
332	The first inbreeding experiments with maize were those reported by:	A.	Sprengel in 1866	B. Darwin in 1876
		C.	Sprague in 1886	D. Baird 1896
333	Which of the following is not xerophytic plant?	A.	Aloe	B. Cacti
		C.	Gum tree	D. Mango
334	The flattened, lateral, outgrowth of the stem or the branch, developing exogenously from a node and having a bud in its axil as known as:	A.	Tendril	B. Thorn
		C.	Leaf	D. Flower
335	The fleshy edible part of the mango fruit is:	A.	Epicarp	B. Endocarp
		C.	Mesocarp	D. Pericarp
336	The fleshy food storage tissue, lying immediately with in perisperm is called:	A.	Endosperm	B. Testa
		C.	Cruncle	D. None of the above
337	The following organelles also contain DNA:	A.	Endoplasmic reticulum	B. Centrosomes
		C.	Vacuoles	D. Chloroplast
338	The following part of the chromosome is responsible for the movement of chromosome/chromatid to different poles:	A.	Chromatin	B. Centromere
		C.	Chromomere	D. Satellite
339	Which of the following ions is involved in the opening and closing of stomata?	A.	Mg2+	B. Fe2+
		C.	K+	D. Na+
340	The quickest method of Plant Breeding is	A.	Introduction	B. Hybridization
		C.	Selection	D. Mutation Breeding
341	The fruit of Acacia is:	A.	Lomentum	B. Double samara
		C.	Regma	D. Cypsela
342	The fruit of cumin or coriander is known as:	A.	Lomentum	B. Cremocarp
		C.	Regma	D. Cypsela
343	The fruits of cucurbitaceae is:	A.	Pepo	B. Pome
		C.	Berry	D. Drupe
344	The fusion of a male gamete with two polar nuclei is often termed:	A.	Fertilization	B. Syngamy
		C.	Triple fusion	D. Pollination
345	The genes that intensify or diminish the effect of major genes are known as factors:	A.	Modifying	B. Nullifying
		C.	Falsifying	D. None of these
346	The green expanded part of leaf is called as:	A.	Leaf blade or lamina	B. Petiole
		C.	Pulvinous	D. Leaf base
347	The group of plants, which bear flowers and seeds, are known as:	A.	Crytogams	B. Phanerogams
		C.	Pteridophyta	D. None of the above
348	The haploid phase in plants is called :	A.	Sporophyte	B. Gametophyte
		C.	Zygote	D. None of the above
349	The hydrophytes float on water because of the presence of:	A.	Aerenchyma	B. Parenchyma
		C.	Chlorenchyma	D. Sclerenchyma
350	The inflorescence of banana is known as:	A.	Catkin	B. Raceme
		C.	Spike	D. Spadix
351	The initial pool of a composite population is composed of:	A.	Inbred lines	B. Isoline
		C.	Pure lines	D. None of the above
352	The initial gene pool of a synthetic population is composed of:	A.	Isolines	B. Pure lines
		C.	Inbred lines	D. None of the above

353 The jointed stem with solid nodes and hollow internodes is called:
A. Caudes B. Culm
C. Scape D. None of above

354 The life first originated in:
A. Air B. Soil
C. Water D. All of the above

355 The life-cycle of an angiosperm is consist of:
A. Sporophytic stage B. Gametophytic stage
C. Both stages D. None of above

356 The main body of ovule is called:
A. Hilum B. Chalaza
C. Nucellus D. Integuments

357 When the pistil has all the carpals united together it is said to be:
A. Apocarpous B. Syncarpous
C. Simpler types D. None of the above

358 The main patterns concerning origin and domestication of cultivated plant species are:
A. Mendelian variation B. Inter-specific hybridization
C. Polyploidy D. All of these

359 The main reason for the classification of plants is:
A. The difficulties arising in the study B. Their mechanical separation
C. The nature of man D. The environmental conditions

360 The main type of endosperm development is:
A. Nuclear type B. Cellular type
C. Both (a) & (b) D. None of above

361 The majority of halophytes show:
A. Mesomorphic character B. Hydromorphic character
C. Xeromorphic caracter D. None of above

362 The male sterile line is a cross to produce hybrid seed is known as:
A. A line B. R line
C. C line D. None of them

363 The mechanism of male sterility in self-pollinated crops can be successfully utilised to obtain:
A. Selfed seed B. Mutated seed without radiation
C. Hybrid seed without emasculation D. Sterile seed

364 The mendel's laws of inheritance were rediscovered in 1900 by:
A. Bateson and Punnet B. Beadle, Tatum and Leader-berg
C. Watson and Crick D. Correns, de Varies and Tschermak

365 The minute scaly outgrowths borne at the upper end of the leaf sheath, as in Gramineae are called:
A. Bract B. Bracteole
C. Stipule D. Ligule

366 The mode of arrangement of ovules in the cavity of ovary is known as:
A. Pollination B. Aestivation
C. Placenatation D. Fertilization

367 Which of the following breeding procedures are not used for producing new varieties of self-pollined crop?
A. Recurrent selection B. Mass selection
C. Pure line selection D. Hybridization

368 Which is the monoecious plant?
A. Maize B. Datepalm
C. Rice D. Mango

369 The net movement of a substance from an area of its own high concentration into another area of lesser concentration of molecule
A. Diffusion B. Osmosis
C. Imbibition D. Plasmolysis

370 The normal eye colour in Drosphila is red. But mutants occur having white eye and also different shades ranging between white and red which are all recessive to red, while white colour is recessive to all others. This phenomenon is due to:
A. Pseudodominance B. Pseudoallelism
C. Codominance D. Polygenes

371 The nucleus of the cell was first discovered by:
A. Robert Brown B. Robert hHooke
C. Strasburger D. Boveri

372 The necleus of the functional megaspore divides:
A. Meiotically B. Asexually
C. Apomictically D. Mitotically

373 The number of chromosome in common wheat is:
A. 36 B. 38
C. 48 D. 42

374 The number of stamens is indefinite in:
A. Cruciferae B. Solanaceae
C. Papillionaceae D. Malvaceae

375 Wheat belongs to family:
A. Graminaceae B. Solanaceae
C. Papillionaceae D. Malvaceae

376 The seeded fruit of rice or maize grain is called:
A. Berry B. Pepo

C. Siliqua D. Caryopsis

377 The only force responsible for the movement of water through a membrane is:

A. Molecular activity B. Hydrostatic pressure

C. Osmotic pressure D. All the above

378 Self incompatibilty promotes:

A. Autogamy B. Allogamy

C. Inbreeding D. All the above

379 Self incompatibilty controlled by genetic constitution of gametes:

A. Gametophytic SI B. Sporophytic SI

C. SI due to Heterostvlv D. None of the above

380 Self incompatibilty controlled by genotype of the pollen producing plant:

A. Gametophytic SI B. Sporophytic SI

C. SI due to Heterostvlv D. None of the above

381 The physical basis of heredity is termed as:

A. Gene pool B. Gene frequency

C. Germplasm D. None of the above

382 The place on the stem or branch where one or more leaves arise is known as:

A. Internode B. Node

C. Apex D. Sheath

383 The placentation is mustard is:

A. Marginal B. Parietal

C. Axile D. Basal

384 The plant that grow in very dry places and can withstand a prolonged period of drought uninjured are:

A. Hydrophytes B. Hygrophytes

C. Mesophytes D. Xerophytes

385 The plant, which is growing in saline soils or saline water with preponderance of soil in it, is said:

A. Mesophytes B. Xerophytes

C. Hygrophytes D. Halophytes

386 The plants, which grow in water or in very wet places, are

A. Hydrophytes B. Hygrophytes

C. Mesophytes D. Epiphytes

387 The plants, which grow in water deserts, are called:

A. Mesophytes B. Hydrophytes

C. Xerophytes D. Halophytes

388 The plants, which occur in moist shady places in forests or in the moist soil near waterlogged localities are:

A. Hydrophyte B. Hygrophytes

C. Xerophytes D. Mesophytes

389 The plasma membrane is:

A. Impermeable membrane B. Semi-permeable

C. Permeable D. None of the above

390 When the stamens and styles are of different length:

A. Homostyly B. Epistyly

C. Heterostyly D. None of the above

391 The pollen along with pollen tube is known as:

A. Microspore B. Pollengrain

C. Megaspore D. Male gametophyte

392 Which is the dioecious plant?

A. Maize B. Marigold

C. Date Palm D. Wheat

393 Removal of imature pollen from a female plant/flower//:

A. Emasculation B. Pollination

C. Hybridization D. None of the above

394 The process of formation of eggs in animals is called:

A. Oogenesis B. Telophase

C. Oogonium D. None of them

395 The process of formation of sperms in animals is known as:

A. Spermatogonium B. Spermatogenesis

C. Spematid D. None of them

396 The process of making the expression of a non-allelic gene by another gene or gene pair is known as

A. Epistasis B. Hypostasis

C. Nobilisation D. None of the above

397 The process of megasporogenesis occurs in:

A. Embryosac B. Egg cell

C. Pollensac D. Ovule

398 There are how many types of male sterilty:

A. 1 B. 2

C. 3 D. 5

399 The unability of pollen to fertilize female part:

A. Self Incompatibility B. Self Sterility

C. Both of the Above D. None of the above

400 Male sterility promotes:
A. Autogamy B. Allogamy
C. Inbreeding D. All the above

401 The production of double cross hybrid in maize was first suggested by:
A. Megasprogenesis B. Microsporgensis
C. Gametogenesis D. Sporogenesis

402 The production of sperms is known as:
A. Megagametogenesis B. Microsporogenesis
C. Microgametogenesis D. Megasporogenesis

403 The raw materials required for photosynthesis in vascular plants are:
A. CO2 and water B. CO2, water and mineral
C. CO2, water, mineral salts and chlorophyll D. CO2, water and mineral salt

404 The removal of apical buds and young leaves _____ branching.
A. Decreases B. Increases
C. Maintains D. No effect

405 The replication of DNA is:
A. Conservative B. Non-conservative
C. Semi-conservative D. Direpersive

406 Which is a common method used in cross-pollinated crops?
A. Mass selection B. Bulk method
C. Pure line method D. Pedigree method

407 The science dealing with variation and heredity is called:
A. Immunology B. Cytology
C. Genetics D. Radiology

408 The science, which deals with the study of interrelationship between the living organisms and the various factors of the environme
A. Botany B. Biology
C. Ecology D. Zoology

409 Male sterility controlled by cytoplasmic genes:
A. Genetic MS B. Cytoplasmic Genetic MS
C. Cytoplasmic MS D. None of the above

410 Male sterility controlled by the interaction of nuclear and cytoplasmic genes:
A. Genetic MS B. Cytoplasmic Genetic MS
C. Cytoplasmic MS D. None of the above

411 The scientific name of bread wheat is:
A. T. durum B. T. dicoccum
C. T. aestivum D. T. monecoccum

412 The scientific name of maize is:
A. Glycine max B. Hordeum vulgare
C. Zea mays D. None of them

413 The segregation of individuals in the F2 or in a later generation of a cross, which shows a more extreme development of a character than either parent is termed as:
A. Hybridisation B. Heterosis
C. Linkage D. Transgressive segregates

414 The series of changes in the vegetation of a pond, lake, marsh or a stream are together known as:
A. Hydrosere B. Xerosere
C. Biosphere D. None of above

415 The series of changes in the vegetation of bare rocky beds, rocky hill slopes sand beds into, extreme scarcity of water are together
A. Hydrosere B. Xerosere
C. Mesosere D. Xerophytes

416 The situation where an egg cell is developed into an embryo' without fertilization, is described as:
A. Apomixis B. Parthenocarpy
C. Sexual reproduction D. Parthenogenesis

417 The slender stalk by which ovule is attached to the placenta is known as:
A. Funicle B. Hilum
C. Raphe D. Chalaza

418 The structure of chromosome can best be observed during:
A. Prophase B. Metaphase
C. Anaphase D. Telaphase

419 The situation where a fruit develops without fertilization, is described as:
A. Apomixis B. Parthenocarpy
C. Sexual reproduction D. Parthenogenesis

420 Genes are present in:
A. Nucleous B. Cytoplasmic
C. Mitochondria D. All of the above

421 The sugar found in DNA is:
A. Deoxyribose B. Ribose
C. Fructose D. Maltose

422 The surface tension in any liquid is _____ related to the temperature:
A. Universally B. Directly
C. Indirectly D. Does not

423 The tap root system is normally meant to:
A. Absorb water and mineral salts from B. Conduct water and mineral salts to the

		C.	Give proper encharge to plant	D. All of the above
424	The term epistasis was originally used by _____ in 1909 to describe genes whose effects mark or cover the effects of other genes:	A.	Wagner	B. Bateson
		C.	Hayman	D. Atwood
425	The term genetics was coined by:	A.	Gregor Mendel	B. Bateson
		C.	T.H. Morgan	D. H.J. Mujer
426	The term heterosis was first used by:	A.	Mendel	B. Shull
		C.	Bateson	D. Punnet
427	The term used in sugarcane breeding to denote the crossing of Sacharum officinarum with related species followed by one or mor	A.	Mass selection	B. Crossing over
		C.	Cane improvement	D. Nobilisation
428	The theory of independent assortment of alleles was given by:	A.	Mendel	B. Shull
		C.	Bateson	D. Punnet
429	Plant Breeding is:	A.	Science	B. Art
		C.	Both A & B	D. None of the above
430	Synthesis of protein from RNA is:	A.	Translocation	B. Transcription
		C.	Translation	D. None of the above
431	The topographic factors include:	A.	Undulation	B. Altitude
		C.	Slope	D. All the above
432	The transference of pollengrain from the anther of a flower to the stigma of the same flower is known as:	A.	Self-polliniltion	B. Cross polination
		C.	Fertilization	D. Mating
433	The transference of pollengrains from the anther to the stigma is called:	A.	Fertilization	B. Double fertilization
		C.	Mating	D. Pollination
434	The two integuments of a ovule develop into:	A.	Seed coats	B. Disintegrate
		C.	Plumule	D. Pericarp
435	The type of male sterility used in hybrid seed production in pearlmilet is:	A.	Genetic male sterility	B. Cytoplasmic male sterility
		C.	Genetic cytoplasmic male sterility	D. None of the above
436	Scientific name of rice is:	A.	Oriza Sativa	B. Triticum aestivum
		C.	Zea mays	D. Pennisetum typhoids
437	Scientific name of pearl millet is:	A.	Oriza Sativa	B. Triticum aestivum
		C.	Zea mays	D. Pennisetum typhoids
438	Scientific name of oat is:	A.	Oriza Sativa	B. Avena sativa
		C.	Zea mays	D. Pennisetum typhoids
439	Scientific name of barley is:	A.	Oriza Sativa	B. Avena sativa
		C.	Hordeum vulgare	D. Pennisetum typhoids
440	Scientific name of sorghum is:	A.	Oriza Sativa	B. Sorghum bicolor
		C.	Hordeum vulgare	D. Pennisetum typhoids
441	The various modes in which the leaves are arranged on the stem or the branch, the term is called:	A.	Phyllotaxy	B. Phyllode
		C.	Phylloclade	D. Cladode
442	Theory of 'Acquired characters' was proposed by:	A.	Darwin	B. Lamark
		C.	Bateson	D. Weismann
443	Theory of overdominance states:	A.	Dominant homozygote is	B. Recessive homozygote is
		C.	Hetrozygote is superior to both the	D. None of the above
444	There are four stage of development of Genetics upto 20th century. The correct order of their occurrence is	A.	Darwinism, Lamarckism.	B. Lamarckism, Darwinism.
		C.	Lamarckism, Weismannism.	D. Weismannism, Lamarckism.
445	When two organisms live together for mutual help to each other are called:	A.	Saprophytes	B. Symbionts
		C.	Parasites	D. Epiphytes
446	When two genes show independent segregation, a genotype AaBb will produce _____ types of gametes:	A.	4	B. 3
		C.	2	D. 1

447 To produce hybrid seed we need:
A. A male sterile line, restorer, maintainer
B. A male fertile line and maintainer
C. A maintainer and restorer
D. Only male sterile line

448 When two alleles of a gene are identical, the plant is said to be:
A. Recessive
B. Dominant
C. Heterozygous
D. Homozygous

449 Tomato fruit is a:
A. Drupe
B. Berry
C. Siliqua
D. Hesperidium

450 Transmission of a gene in Bacterio-phase is known as:
A. Transversion
B. Transduction
C. Inversion
D. Fusion

451 Transmission of characteristics and qualities of parents of their offspring is known as:
A. Mutation
B. Heredity
C. Adaptation
D. Hybridization

452 Triticale is a cross between:
A. Wheat & barley
B. Barley & rye
C. Wheat & rye
D. Wheat & oat

453 tropical Evergreen or Rain Forests occur in areas with annual rainfall:
A. Exceeding 2,000 mm
B. 1000 - 1,500 mm
C. 500 - 1,000 mm
D. Scanty

454 Umbel inflorescence is characteristic of the family:
A. Mustard family
B. Okra family
C. Pea family
D. Coriander family

455 Unisexual flowers bear:
A. Only stamens
B. Only carpals
C. Either stamens or carpals
D. Both stamens and carpals

456 When the stamens are united throughout their whole length by both the filaments and the anthers, they are said to be:
A. Syngenesious stamens
B. Polyadelphous stamens
C. Synadrous stamens
D. Diadelphous stamens

457 Vivipary means:
A. Seed germinates inside the fruit while
B. Seed germinates as usual
C. Seed dormancy is very long
D. None of above

458 Wheat crop is:
A. Cross pollinated
B. Often cross pollinated
C. Self pollinated
D. Anemophily

459 Oat is said to be:
A. Cross pollinated crops
B. Self pollinated crop
C. Mixed pollinated crop
D. None of the above

460 When biological processes are made to occur outside the organism in test tube or vessel it is known as:
A. In vivo
B. In vitro
C. In breeding
D. Complete pentrance

461 When a cluster of leaves arises from the short underground item as in pineapple, such leaves are said to be:
A. Radical
B. Cauline
C. Pellate
D. Centric

462 When a group of phenotypically similar appearing plant is selected and harvested and their seeds are bulked, the process is known as:
A. Pedigree breeding
B. Mass selection
C. Bulk method of breeding
D. Pure line selection

463 When a plant heterozygous for two given characters Tt Rr, both of them are completely dominant, is self-pollinated, the resulting progeny will consist of:
A. Six phenotypes
B. Four phenotypes
C. Three phenotypes
D. Two phenotypes

464 When a Tall plant (Tt) in pea is crossed with another Tall plant (Tt), the probability of obtaining a dwarf plants is:
A. 1?2
B. 1?4
C. 1?8
D. 1?16

465 When an F1 is crossed with the recessive homozygote parent the cross is known as:
A. Back cross
B. Top cross
C. Test cross
D. Single cross

466 When an individual is having both the alleles of contrasting characters, it is said to be:
A. Monoecious
B. Homozygous
C. Dioecious
D. Heterozygous

467 When breaks occur in two chromosomes simultaneously in a nucleus and the broken chromosomes rejoin in a new manner, it resu
A. Dedeletion
B. Duplication
C. Translocation
D. Inversion

468 When homologous chromosomes fail to pair in prophase of meiosis, the phenomenon is known as:
A. Desynapsis
B. Non-disjunction
C. Asynapsis
D. Disjunction

469 When leaf fall of soon after it appears, then it is said to be:
A. Persistent
B. Deciduous
C. Evergreen
D. None of the above

470 When only one fruit develops from the single ovary of a flower it is said to be a:
A. Simple fruit
B. Aggregate fruit

		C.	Multiple fruit	D. Composite fruit
471	What are the repeating units of nucleic acids?	A.	phosphate molecule	B. nucleotides
		C.	bases	D. sugar molecules
472	Chromosomes measurements are generally taken during	A.	Interphase	B. Prophase
		C.	Anaphase	D. Non-of these
473	Resolving power of a light microscope is:	A.	0.1 micro metres	B. 0.2 micro metres
		C.	0.3 micro metres	D. 0.4 micro metres
474	Mitochondria were seen first in:	A.	1850	B. 1900
		C.	1940	D. 1975
475	Rice plants exposed to temperatures below _____ degree centigrade at the time of pollen-mother cell division will not produce	A.	22	B. 20
		C.	19	D. 16
476	The following percentage of water absorbed by herbaceous plants is lost in transpiration:	A.	80	B. 60
		C.	99	D. 40
477	A maize plant to produce one kg of grain (dry) transpires _____ kg of water:	A.	900	B. 800
		C.	700	D. 600
478	Prokaryota means:	A.	A cell with many nuclei	B. A cell without chloroplast
		C.	A cell with diffused nucleus	D. A cell with one nucleus
479	Which one of the following factors causes an increase in transpiration rate?	A.	A hot dry windy day	B. A cool damp windy day
		C.	A hot damp windy day	D. None of the above
480	Wilting of plant results from excessive:	A.	Absorption	B. Photosynthesis
		C.	Respiration	D. Transpiration
481	Blue green algae are:	A.	Actinomycetes	B. Acellular
		C.	Prokaryotes	D. Eukaryotes
482	Simplest amino acid is:	A.	Alanine	B. Glycine
		C.	Leucine	D. Aspartic acid
483	Fermentation is conducted by:	A.	All fungi	B. All bacteria
		C.	Some fungi and some bacteria	D. All microorganisms
484	Proteins are made up of:	A.	Amino acid	B. Nucleic acids
		C.	Sugars	D. Fatty acids
485	In unisexual plants sex can be changed by application of:	A.	Auxins	B. ABA
		C.	Ethanol	D. Cytokinins
486	Which of the following plants cannot fix atmosphere nitrogen directly?	A.	Bean	B. Castor
		C.	Pea	D. Gram
487	In land plants the gaseous exchange takes place through the open stomata, in submerged hydrophytes it takes place/through:	A.	By general surface of the cells by	B. Lenticels
		C.	Stomata	D. Hydathodes
488	Which is a micronutrient?	A.	Ca	B. Zn
		C.	P	D. Mg
489	Which of the following is a micronutrient?	A.	Calcium	B. Phosphorous
		C.	Copper	D. Magnesium
490	A trace element essential for plant grwoth and radio-isotope which is used in cancer therapy is known is:	A.	Calcium	B. Cobalt
		C.	Sodium	D. Iron
491	Which pair of structures is usually found in both plant and animal cell:	A.	Cell membrane and nucleolus	B. Cell membrance and cell wall
		C.	Nucleus and chloroplast	D. Nucleolus and cell wall
492	Which of the following structures controls the transport of the material into and out of living cell?	A.	Centrosome	B. Cell membrane
		C.	Cell wall	D. Ribosome
493	Atmospheric nitrogen in the soil is fixed by:	A.	Cereals	B. Pulses
		C.	Sugarcane	D. Cotton

494 The removal of apical buds and young leaves _____ branching:

A. Decreases
B. Increases
C. Maintains
D. No effect

495 The correct sequence in protein synthesis is:

A. DNA ? Amino acids ? RNA ? Proteins
B. DNA ? RNA ? Amino acids ?
C. Amino acid ? DNA ? RNA ? Proteins
D. RNA ? DNA ? Amino acids ?

496 Functions and vital activities of the plants are studied under:

A. Ecology
B. Cytology
C. Physiology
D. Morphology

497 The condition under which transpiration would be lowest

A. Environmental conditions are very
B. When there is high humidity in the
C. High wind velocity
D. There is excess of water in the cells

498 The nucleoplasm and the cytoplasm are continuous with one another through the nuclear pores in:

A. Eukaryotic cells
B. Prokaryotic cells
C. Cells of blue green algae
D. Bacteria

499 Nitrogen is essential component of:

A. Fat
B. Protein
C. Carbohydrates
D. Mg

500 Osmosis means:

A. Flow of solute from low concentration to
B. Flow of solute from high
C. Flow of solvent from low
D. Flow of solvent from high

501 Most plants obtain their nitrogen from the soil in the form of:

A. HNO3
B. Nitrate
C. Free nitrogen
D. Nitrogen oxide

502 When a seed is placed in a suitable medium for germination, by which of the following first process water enter into the seed coat

A. Imbibition
B. Absorption
C. Osmosis
D. Root pressure

503 Plasma membrane is:

A. Impermeable
B. A selective barrier
C. A non-selective barrier
D. Made of up cellulose

504 The prokaryota are a group of organisms:

A. In which cells are a group of organisms
B. In which nuclear membrance.
C. In which chlorophyll is lacking
D. With a wall defined nucleus

505 Rotation of crops is practised in plants because:

A. It decreases the nitrogen content of
B. It increases the nitrogen content of
C. It kills harmful bacteria of the soil
D. It increases the water content of

506 Proteins are synthesized on:

A. Mitochondria
B. Centrosome
C. Golgi bodies
D. Ribosomes

507 Chlorophyll contains:

A. Mn
B. Fe
C. K
D. Mg

508 Organisms, which fix atmospheric nitrogen in the soil, are found among:

A. Mosses
B. Green algae
C. Soil fungi
D. Bacteria

509 In the nodules of roots in leguminous plants we find:

A. N2 producer bacteria
B. Denitrifying Bacteria
C. N2 fixing bacteria
D. Nitrifying bacteria

510 During 24 hours there is a time when plants neither give oxygen nor carbon dioxide. This is the time of:

A. Night
B. Day light
C. Twilight
D. None of these

511 The production of nitrates from Ammonia through Nitrosomonas is called:

A. Nitrification
B. Ammonification
C. Nitrogen fixation
D. Denitrification

512 Bacteria that change proteins to ammonia in nitrogen cycle are:

A. Nitrogen fixing bacteria
B. Nitrate bacteria
C. Decay bacteria (ammonifying
D. Denitrifying becteria

513 Bacterioids are:

A. Nitrosomonars bacteria in soil
B. A mobile bacterium
C. A bacterial cell infected with viruses
D. Enlarged non-mobile cellular

514 The loss of water in the form of vapour from aerial plant parts is known as:

A. Osmosis
B. Respiration
C. Photosynthesis
D. Transpiration

515 The loss of water in the form of vapour from aerial plant parts is known as:

A. Osmosis
B. Respiration
C. Photosynthesis
D. Transpiration

516 Stomata open because of:

A. Oxygen in the air
B. Increased turgidity of the guard cells
C. Vacuoles in guard cells
D. All the above

517 Minerals absorbed by roots move to the leaf through:

A. Phloem
B. Sleve rube

C. Xylem D. None of the above

518 Two chief functions of leaves are:
A. Photosynthesis and respiration B. Photosynthesis and transpiration
C. Transpiration and respiration D. Respiration and digestion

519 Alcohol is produced during the process of:
A. Photosynthesis and respiration B. Aerobic respiration
C. Anaerobic respiration D. None of the above

520 Which pigment is essential for nitrogen fixation by leguminous plants?
A. Phycocyanin B. Leghaemoglobin
C. Phycoerythrin D. Anthocyanin

521 Which level of protein structure is affected by DNA (or for which level of protein structure DNA carries information)?
A. Primary structure B. Secondary structure
C. Tertiary structure D. Quarternary structure

522 In anaerobic respiration the end product is:
A. Pyruvic acid B. Ethyl alcohol
C. Starch D. Sugar

523 The most effective wavelength of visible light in photosynthesis is in the region of which of the following?
A. Red B. Yellow
C. Violet D. Green

524 In nitrogen cycle which of the following plays an important role?
A. Rhizopus B. Mucor
C. Nitrobacter D. Spirogyra

525 If we separate the cell organelles of a living cell which part should be alive?
A. Ribosome B. Endoplasmic reticulum
C. Chloroplast D. Cell wall

526 Which of the following is the site of respiration within the cell?
A. Ribosomes B. Nucleus
C. Golgi body D. Mitochondrion

527 Instantaneous source of energy is:
A. Amino acid B. Fats
C. Glucose D. Proteins

528 Chlorosis occur in plants growth in:
A. Shade B. Iron free medium
C. Dark D. Strong light

529 Plants synthesis protein from:
A. Starch B. Sugar
C. Amino acids D. Fatty acids

530 Guard cells are found in:
A. Stomata B. Root tips
C. Ovary D. Lenticels

531 Transpiration occurs through:
A. Stomata B. Cuticle
C. Lenticles D. All the above

532 A bulk of nitrogen in nature is fixed by:
A. Symbiotic bacteria B. Chemical industries
C. Lightning D. Denitrifying bacteria

533 Which one of the following is most limiting factor for nitrification in the soil?
A. Temperature B. Tillage
C. Soil reaction (pH) D. Moisture

534 A trace element is:
A. That which draws other elements out B. Radoactive can be traced by Geiger
C. Required in very minute amounts D. That which was first found in

535 Without adding nitrogenous manures good yield or rice crop can be obtained because:
A. Their roots have nitorogen-fixing B. There are nitrogen fixing algae in rice
C. Rice plants do not require nitrogen D. They require minute quantities

536 Members of bean family are of particular importance in crop rotation programmes primarily because:
A. They add nitrates to the soil B. They manufacture nitrogenous
C. They have nitrogen-fixing bacteria D. They provide green manure

537 It is not advisable to sleep under the trees at night because:
A. They release carbon dioxide during night B. They release oxygen during
C. They have nitrogen-fixing bacteria D. None of the above

538 How do most of the plants obtain air?
A. Through a system of branches B. Through the tips of branches
C. Through opening in the leaves D. From water that comes up from soil

539 The process by which proteins are synthesized in a cell is called:
A. Translation B. Transduction
C. Translocation D. Transcription

540 Which of the following leaves would dry up last?
A. Upper surface greased B. Lower surface greased
C. Both surface greased D. Both surface ungreased

541 Enzymes are basically:

A. Vitamins B. Fats
C. Protein D. Carbon

542 The normal form of a plant is maintained by the presence of:

A. Water B. Gases
C. Solid D. None of these

543 Which one of the following is a long day plant?

A. Wheat B. Jowat
C. Bajara D. Soyabean

544 Most of the _____ flowers contain carotenoid especially xanthophyll type and it is believed that they benefit certain plants by attracting pollinating insects:

A. White B. Red
C. Pink D. Yellow

545 Respiration is:

A. Exothermic process B. Endothermic process
C. Endergonic process D. Anabolic process

546 Which of the following is the source of respiration?

A. Stored food B. RNA
C. DNA D. ATP

547 The chances of contacting bird flu from a properly cooked (above 100°C) chicken and egg are

A. very high B. high
C. moderate D. none

548 (A x B) x C is:

A. Single cross B. Double cross
C. Three way cross D. Top cross

549 Alley cropping' means:

A. Growing of pastures in between two B. Growing of field crops in between
C. Growing of only short duration crops D. Growing of only fooder crops in

550 Ascent of cell sap' from root to the treetop is exercised by:

A. Phloem B. Xylem
C. Cambium cell D. Lanticles

551 Layering' is useful for propagation of:

A. Rose B. Garlic
C. Lemon D. Sugarcane

552 Range' is the measurement between:

A. Highest and lowest B. Medium and owest
C. Average and highest D. None of above

553 Record keeping' should be characterized by:

A. Completeness B. Accuracy
C. Simplicity D. All of the above

554 1 nm is equal to:

. 10-8 cm B. 10-9 m
C. 10-10 m D. None of the above

555 2n + 1 state is refered to as:

A. Monosomy B. Trisomy
C. Tetrasomy D. Nullisomy

556 Sugars present in DNA and RNA respectively are:

A. Glucose and Fructose B. Deoxyribose and Ribose
C. Galactose and Raffinose D. Erythrose and Starchvos

557 A character determined by a gene present on X-chromosome is called:

A. Sex linked character B. Sex-limited character
C. Sex-influenced character D. Hollandric character

558 A combination of horticultural crops, field crops and tree species is called:

A. Agro-forestry B. Silvi-pastoral system
C. Multipurpose forest tree plantation D. None of the above

559 A recessive gene for resistance to disease can be transferred from one parent to another using:

A. Pureline selection B. Backcross breeding
C. Pedigree method D. Buld method

560 A short duration crop in between two main seasonal crops is termed as:

A. Cash crop B. Inter crop
C. Companion crop D. Catch crop

561 A single seed plant of tobacco may produce as many as:

A. 1,000 seeds B. 10,000 seeds
C. 1,00,000 seeds D. 2,00,000 seeds

562 A variety produced by crossing in all combination a number of lines that combine well with each other is:

A. Composite B. Hybrid
C. Synthetic D. Elite variety

563 A variety produced by mixing seeds of several phenotypically outstanding lines and allowing all combinations is:

A. Synthetic B. Composite
C. Hybrid D. Germplasm complexes

564 Aim of seed technology is:

A. Rapid multiplication of seeds B. Assured high quality seeds

C. Timely supply of improved seeds D. All of the above

565 All fruits are in general _____ in nature:
A. Acidic B. Basic
C. Neutral D. All of the above

566 An agent that causes gene mutations is known as:
A. Mutant B. Mutation
C. Mutagen D. Mutator

567 An area in which seeding are raised to be transplanted elsewhere is called:
A. Brashing B. Shifting cultivation
C. Crop rotation D. Nursery

568 An enzyme excreted by a microorganisms into the environment is called:
A. Exoenzyme B. Endoenzyme
C. Coenzyme D. None of the above

569 An individual having the genotype AA is known as:
A. Heterozygote B. Hybrid
C. Homozygote D. F1

570 An unorganized mass of cells developed on an agar medium is known as:
A. Callus B. Mass
C. Explant D. Suspension

571 Anthesis is a phenomenon, which occurs:
A. When the flower opens first B. After pollination
C. When anthers are formed in the flower D. When fruit drops due to low soil

572 Which one of the following is dioecious plant?
A. Peach B. Pomegranate
C. Pea D. Pointed gourd

573 Which one of the following is a warm season vegetable?
A. Okra B. Pea
C. Cabbage D. Turnip

574 At molecular level mutation represents a change in:
A. Base-pair sequence B. Phosphate-sugar backbone
C. Hydrogen bonds D. Deoxy-ribose

575 Auxin is:
A. An enzyme B. A vitamin
C. A hormone D. A protein

576 Bacillus thuringsis is:
A. Virus B. Bacteria
C. Fungi D. Insecticide

577 Bacterial diseases are controlled by use of chemicals:
A. Antibiotics B. Viricides
C. Fungicides D. Kelthane

578 Bacterial leaf blight of rice is caused by:
A. Xanthomonas B. Erwinia
C. Pseudomonas D. Bacillus

579 Blue colour tag is used for seed production:
A. Nuclear B. Certified
C. Foundation D. Registered seed

580 Breeder seed is produced by:
A. Plant Breeder B. Government Agencies
C. Registered Growers D. N.S.C.

581 Bulk population breeding is suitable for:
A. Fruit crops B. Vegetable crops
C. Small grain crops D. Flower crops

582 Bunchy top in sugarcane is caused by
A. Root borer B. Stock borer
C. Internode borer D. Top shoot borer

583 By means of 'Bulbs' which of the following crop is propagated?
A. Rose B. Garlic
C. Lemon D. Sugarcane

584 Cajanus cajon belongs to family:
A. Composite B. Euphorbiacea
C. Leguminoceae D. Cruciferae

585 Cause of deterioration of variety is:
A. Mendelian variation only B. Mutation only
C. Mechanical mixture only D. All of the above

586 Chloroplasts are absent in:
A. Fungi B. Blue-green algae
C. Photosynthetic bacteria D. All of the above

587 Chorchorus capsularis belongs to family:
A. Tiliaceae B. Malvaceae
C. Euphorbiaceae D. Compositae

588 Yellow coloured fruits and vegetables are rich source of:

A. Vit. 'E' B. Vit. 'C'
C. Vit. 'A' D. Vit. 'B'

589 Conversion of proteins into ammonia is called:

A. Ammonification B. Nitrification
C. Nitrogen fixation D. None of above

590 Cucurbits in early stage are mainly damaged by:

A. Aphids B. Jassids
C. Borers D. Red pumpkin beetle

591 Cultivation of the apical meristems, particularly of shoot apical meristem, is known as:

A. Embryo culture B. Meristem culture
C. Pollen culture D. Tissue culture

592 During prophase-I of meiosis crossing over occurs at:

A. Zygotene B. Pachytene
C. Diplotene D. Diakinesis

593 Effect of one gene on the phenotypic expression of another non-allelic gene is called:

A. Dominance B. Epistasis
C. Linkage D. Penetrance

594 Eubacteria belong to:

A. Eukaryote B. Prokaryote
C. Cyanobacteria D. None of these

595 Evaluation of an inbred includes:

A. Single cross evaluation B. Top-cross test
C. Phenotypic evaluation D. All of the above

596 Exchange of homologous segment of chromatin between homologous chromosomes is known as:

A. Linkage B. Segregation
C. Crossing over D. Repulsion

597 Factor, which affects the dormancy of seed:

A. Dormant embryo B. Rudimentary embryo
C. Germination inhibitor D. All of the above factors

598 For obtaining haploid plant _____ is useful:

A. Maltiplication stage of a variety B. Level of genetic purity
C. Level of physical purity D. All of the above

599 Foundation seed is obtained from:

A. Certified seed B. Registered seed
C. Farmer's seed D. Breeder seed

600 Generally seedless watermelon is:

A. Diploid B. Triploid
C. Tetraploid D. Hexaploid

601 Genetic basis of evolution is:

A. Availability of genetic variability B. Selection from diversity
C. Isolation D. All of the above

602 Genotypes of zygotes of cross-pollinated cross are:

A. Homozygous B. Heterozygous
C. Homogenous D. Hetrogenous

603 Grapes are good example of:

A. Tree B. Shrub
C. Vine D. Herb

604 Growing of honey producing trees with bee keeping is called:

A. Sericulture B. Silviculture
C. Apiculture D. Aqua-silviculture

605 Haploids are having:

A. Somatic chromosome B. Small chromosomes
C. Very long chromosomes D. Gametic chromosome

606 Heterosis can be easily fixed in:

A. Self pollinated crops B. Cross pollinated crops
C. Apomictic crops D. Cleistogamaus crops

607 Hormones that regulate growth are called:

A. Growth regulators B. Growth hormones
C. Both (a) and (b) D. None of above

608 How many genes (recessive) for short stature have been identified in sorghum?

A. 1 B. 2
C. 3 D. 4

609 Hybrid varieties are the first generations (F1) from crosses between _____ that are genetically dissimilar:

A. Two pur lines B. Two inbreds
C. Two open pollinated varieties D. All of the above

610 Hybrid varieties were first commercially exploited in:

A. Bajra B. Tomato
C. Cotton D. Maize

611 Hybridization can be:

A. Intervarietal B. Interspecific

C. Intergeneric D. All of the above

612 IBRD is synonyms to:

A. World Bank B. Asian Development Bank

C. International Monetary Fund D. World Trade Organization

613 If n inbreds were to be tested in all possible single cross combinations, there would be _____ single crosses.

A. n (n-1)/2 B. n2/2

C. n(n-2)/2 D. n(n+1)/2

614 Importance of fruits and vegetables in human diet is primarily because they are:

A. Good source of carbohydrates B. Good source of proteins

C. Good source of fats D. Good source of vitamins and

615 Important achievements of plant breeding are:

A. Production of dwarf cereal varieties B. Production of hybrid varieties

C. Development of disease and pest D. All of the above

616 In an apomictic plant:

A. Heterosis is increased B. Heterosis is fixed

C. Heterosis is reduced D. Heterosis is eliminating

617 In C4 plants the initial acceptor of CO2 is:

A. Phosphoenol pyruvic acid B. Rubulose 1 - 5 biphosphate

C. Both (a) and (b) D. None of above

618 Which one is not correctly matched?

A. Ginger - Rhizome B. Garlic - Bulb

C. Potato - Tuber D. Sweet potato - Stolon

619 In normal production of hybrid maize seed which class of seed is produced?

A. Inbred B. Single cross

C. Double cross D. All of the above

620 In sugarcane breeding the initial selection after hybridisation is done in the generation:

A. F0 B. F1

C. F2 D. F6

621 In which of the plot design the number of replications equals the number of varieties:

A. In systematic design B. Randomized block design

C. Latin square design D. None of the above

622 Incompatibility can be:

A. Heteromorphic B. Homomorphic

C. Both (a) and (b) D. None of the above type

623 Introduced material can be utilized by:

A. Releasing directly as a variety B. Using it in hybridization

C. Keeping it as a germplasm D. All of above methods

624 Isolation depends upon:

A. The nature of material to be B. The nature of contaminant

C. The direction and speed of the D. All of the above factors

625 Isolation distance for the production of double cross seed in maize should be at least:

A. 100 to 200 m B. 200 to 300 m

C. 300 to 400 m D. 400 to 500 m

626 Which of the following media can be used for vegetative propagation?

A. Soil B. Sand

C. Coconut coir D. All of the above

627 Which of the following is visible through nacked eyes?

A. Mould B. Yeast

C. Bacteria D. None of the above

628 Lateral roots formation is the root hairs zone of:

A. Cortex B. Pericycle

C. Endodermis D. Epidermis

629 Which of the following is stem vegetable?

A. Potato B. Tomato

C. Cauliflower D. Spinach

630 Linkage groups in maize are:

A. 5 B. 10

C. 20 D. 40

631 Which of the following are often cross-pollinated?

A. Wheat B. Rice

C. Soyabean D. Pigeon pea

632 Meiosis leads to:

A. Reduction in cell number B. Reduction in chromosome

C. Doubling of the chromosome D. Doubling of cell number

633 Mendel's laws of inheritance operate during:

A. Mitosis B. Meiosis

C. Plant gametogenesis D. Fertilization

634 Meristem culture is useful for:

A. Vegetative propagation B. Recovery of virus-free stocks

C. Germplasm conservation D. All of the above

635 Mitchondria and chloroplast both:

A. Are basically lipoprotein
B. Contain respiratory enzymes
C. Produce ATP
D. All of the above

636 Mitochondria are found in:

A. Vacuole of eukaryotic cells
B. Cytoplasm of prokaryotic cells
C. Cytoplasm of prokaryotic cells
D. Cytoplasm of eukaryotic cells

637 Most serious disease of pea is:

A. Early blight
B. Powdery mildew
C. Late blight
D. Anthracnose

638 Movements of a plant organ in response to directional fluxes or gradients in environmental stimuli are called:

A. Nastic movement
B. Epinasty
C. Mutation
D. Tropism

639 Mulching is an importnt agricultural practice. One of the chief aim of this practice is to:

A. Decrease the evaporation of
B. Prevent insect pests from attacking
C. Provide support for the plant
D. Encourage the plant to grow taller

640 Multiple effects of a gene are called:

A. Pleiotropy
B. Multiple
C. Crossing over
D. Polygenic effects

641 Nitrogen fixation is done by:

A. Bacillus
B. Striga
C. Agrobacterium
D. Rhizobium

642 Number of ATP molecules released from the oxidation of one molecule of glucose is:

A. Two
B. Thirty eight
C. Eight
D. Sixteen

643 Which of the following is genetically heterogeneous?

A. Hybrid
B. Composite
C. Clone
D. Pure line

644 Objectives of hybridization are:

A. To create genetical variability
B. To know the pattern of
C. To produce hybrid varieties
D. All of the above

645 Photoperiod required to induce flowering in plants is called :

A. Short day period
B. Long day period
C. Critical day length
D. Photoinductive cycle

646 Photosynthetically, Triticum aestivum is a:

A. C3 plants
B. C4 plants
C. CAM plants
D. SD plant

647 Photorespiration takes place in:

A. Cristae
B. Glyoxisomes
C. Peroxisomes
D. Lysosomes

648 Photorespiration is the characteristic of:

A. C3 plants
B. C4 plants
C. CAM plants
D. None of the above

649 Physical needs of a person is:

A. Physical assets
B. Food, shelter and clothing
C. Education
D. Entertainment

650 Plant food manufactured by the process of photosynthesis in the presence of a nutrient in chlorophyll is:

A. Calcium
B. Magnesium
C. Iron
D. Boron

651 Plants affected by seed born disease in certified seed production field must not be more than:

A. 1.50%
B. 1.00%
C. 0.50%
D. 2%

652 Which of the following is a ripening hormone?

A. Ethylene
B. Cytokinin
C. Auxin
D. Gibberellin

653 Powdery mildew disease is a serious problem in:

A. Capsicum
B. Okra
C. Cusurbits
D. Pea

654 Pure line may be defined as the progeny of:

A. Any individual
B. A homozygous individual
C. A self-fertilized individual
D. A homozygous and self-fertilized

655 Which of the following factors affects the dormancy of seed?

A. Seed coat impermeable to
B. Mechanical resistance of seed
C. Seed coat impermeable to
D. All of the above

656 Quantasomes are present in the:

A. Chloroplast
B. Nucleus
C. Mitochondria
D. Phytochromes

657 Rancidity in sunflower oil is caused by:

A. Reduction
B. Oxidation
C. Esterification
D. Nitrification

658 Registered seed is produced from:

A. Foundation seed
B. Registered seed

C. Both (a) and (b) D. Certified seed

659 Relationship between phenotypic variance (Vp) genotypic variance (Vg) and environmental variance Ve can be shown as:
A. Vp = Vg + Ve B. Vg = Vp + Ve
C. Ve = Vp + Vg D. None of these

660 Relationship among micro organisms where one organism hinders the growth of other, is known as:
A. Antibiosis B. Symbiosis
C. Synergism D. Commensalism

661 Relationship in which one organism gets benefited without affecting the other is called:
A. Symbiosis B. Commensalism
C. Synergism D. Antibiosis

662 Rhizobium bacteria is:
A. Symbiotic bacteria B. Non-symbiotic bacteria
C. Anaerobic bacteria D. Autotrophic bacteria

663 Breeder seed is the progeny of:
A. Foundation seed B. Registered seed
C. Nucleus seed D. Certified seed

664 Certification is not required for:
A. Nucleus seed B. Breeder seed
C. Foundation seed D. Certified seed

665 Headquarters of the Union for the Protection of New Plant varieties is in:
A. Thailand B. USA
C. Denmark D. Switzerland

666 Improved seed includes:
A. Nucleus seed B. Breeder seed
C. Foundation seed D. All of the above

667 Seed coat is derived from:
A. Testa B. Embryo
C. Endosperm D. Nucellus

668 Initial seed of an improved variety is called:
A. Nucleus seed B. Breeder seed
C. Foundation seed D. Certified seed

669 Plant Breeders' Rights are operaating in:
A. Germany B. Denmark
C. Netherlands D. All of the above

670 Progeny of a nucleus seed is referred to as:
A. Certified seed B. Foundation seed
C. Registered seed D. Breeder seed

671 Seed certification requires:
A. An improved variety B. Genetic purity
C. Physical purity D. All of the above

672 Seed meant for generation distribution to the farmers for commercial crop production refers to:
A. Foundation seed B. Breeder seed
C. Certified seed D. Nucleus seed

673 Freedom from inert matter and defective seeds:
A. Genetic purity B. Physical purity
C. Defective purity D. Normal purity

674 International Crop Improvement Association (ICIA) in _____ classified seed into different categories:
A. 1964 B. 1946
C. 1963 D. 1972

675 Seed is a:
A. Immature embryo B. Mature embryo
C. Developed embryo D. Undeveloped embrvo

676 Cotyledons in monocots are called:
A. Endosperm B. Mega-gametophyte
C. Embryo D. Integuments

677 First private seed company was:
A. Monsanto B. Namdhari
C. Sutton & Sons D. Takii

678 The hybrids developed by Government Agencies or Government Institutions and Agricultural Universities are called:
A. Private hybrids B. Institutional hvbrids
C. Public hybrids D. Government hvbrids

679 Breeder seed is _____ % pure:
A. 99 B. 100
C. 70 D. 99.99

680 In flowering plants a second seed coat is known as:
A. Integument B. Aleurone layer
C. Tegamen D. Inner ventral scale

681 A pure breeding tall pea plant was crossed to dwarf plant what will be the frequency of dwarf plants in F1
A. 0.25 B. 0.5
C. 0.75 D. 0

682 A pure breeding tall pea plant was crossed to dwarf plant what will be the frequency of dwarf plants in F2:

A. 0.25 B. 0.5
C. 0.75 D. 0

683 How many pairs of homologous chromosomes are present in Pisum sativum

A. Five pairs B. Six pairs
C. Seven pairs D. Eight pairs.

684 Which of the following characters of pea plant is dominant?

A. Axial flowers B. Yellow pods
C. White flowers D. Wrinkled seeds

685 A pea plant with yellow seed was crossed to a plant having green seeds. What will happen in F1; if plants are true breeding

A. All seeds will be yellow B. Half of seeds will be yellow
C. All the seeds will be green D. Both will be present in ratio of

686 The position of a gene on chromosome is called

A. Habitat B. Position
C. Locus D. Location

687 Filial is a Latin word. It means:

A. Spring B. Issue
C. Progeny D. Descendent

688 Which of the following condition is hybrid

A. TT B. Tt
C. tt D. All of these

689 Which of the following is monohybrid cross

A. TT x tt B. TTYy x Ttyy
C. Both of these D. None of these

690 A pure breeding tall plant was crossed to dwarf plant. What would be probability of "Tt" genotype in F2

A. 0.25 B. 0.5
C. 0.75 D. 0

691 A monohybrid cross yielded 3:1 in F2. What could be mode of inheritance?

A. Segregation B. Independent assortment
C. Both of these D. None of these

692 If a heterozygous individual shows the complete effect of both alleles, the type of inheritance would be

A. Complete dominance B. Non dominance
C. Incomplete dominance D. Co-Dominance

693 The gene which controls ABO group has how many alleles in an individual

A. One B. Two
C. Three D. Four.

694 How many genes control Rh blood group system?

A. One B. Two
C. Three D. Four

695 The trait "Kernel colour in corn" in controlled by how many pairs of genes

A. One pair B. Two pairs
C. Three pairs D. Many pairs.

696 Baldness is most frequent in

A. Men B. Women
C. Children D. Girls.

697 In nature, Garden pea is

A. Self-fertilized B. Cross fertilized
C. Cross pollinated D. None of these

698 The genes which do not follow law of independent assortment

A. Crossed genes B. Linked genes
C. Recessive genes D. Dominant genes

699 Phenotype represents

A. Morphology B. Physiology
C. Genetics D. None of these

700 During test cross, if all offsprings are phenotypically dominant then parents are

A. Homozygous B. Heterozygous
C. One homozygous other heterozygous D. None of these

701 True breeding variety is produced by

A. Self fertilization B. Cross fertilization
C. Both of these D. None of these

702 Which of the following is universal donor?

A. A B. B
C. AB D. O

703 Such inheritance in which traits vary quantitatively is

A. Continuously varying trait B. Incomplete dominance
C. Test cross D. Polygenic inheritance

704 Genes that affect growth rate in humans influencing both weight and height are

A. Codominant B. Epistasis
C. Pleiotropy D. Polygene

705 All of the following are continuously varying traits except

A. Kernel colour in wheat B. Skin colour in humans

		C.	Height in humans	D. Tongue rolling in humans
706	The number of linkage groups in humans is	A.	12	B. 23
		C.	46	D. 92
707	Recombination frequency between two linked genes can be calculated by	A.	Back cross	B. Test cross
		C.	Normal cross	D. None of these
708	Which of the following is male determining gene in humans?	A.	tfm	B. SRY
		C.	Both of these	D. None of these
709	The place of attachment of leaf with the shoot is called:	A.	Pith.	B. Pit.
		C.	Pulvinus.	D. Ecdysone.
710	Roots of a plant show	A.	Positive phototropism and	B. Negative phototropism and
		C.	Negative tactic movement and	D. Positive geotropism of stem
711	The site/s where most of the uptake of water and minerals take place is/are	A.	Root hairs	B. Root cells
		C.	Underground stem	D. All of these
712	The uptake of water in plants involves	A.	Active transport	B. Passive transport
		C.	Both of these	D. None of these
713	In plants, the neighbouring cells are connected with one another by.	A.	Plasmodesmata	B. Cell walls
		C.	Vacuoles	D. Both 'a' & 'b'
714	The movement of water molecules from a region of higher water potential to a region of lower water potential (through membran	A.	Deffusion	B. Osmosis
		C.	Active transport	D. None of these
715	All plants do not possess	A.	Lenticels	B. Cuticle
		C.	Stomata	D. All of these
716	Aerating openings formed in the bark through which exchange of gases takes place and water is lost in the form of vapours are	A.	Hydathods	B. Stomata
		C.	Lenticels	D. None of these
717	Stomatal transpiration is _____ of total transpiration	A.	90%	B. 91%
		C.	93%	D. 95%
718	Pulling upward of water and dissolved minerals towards the leaves through the xylem tissue is called	A.	Transpiration pull	B. Root pressure
		C.	Ascent of sap.	D. All of these
719	Period between two consecutive divisions is called	A.	Interphase	B. Resting phase
		C.	Mitotic phase	D. Cell cycle
720	DNA is synthesized and chromosome number is doubled in	A.	G1 phase	B. S phase
		C.	G2 phase	D. None of the above
721	Mitosis occurs in	A.	Diploid cells only	B. Haploid cells only
		C.	Both diploid and haploid cells	D. Monoploid cells
722	From each pair of centrioles _____ sets of microtubules originate	A.	2	B. 3
		C.	4	D. 5
723	Reverse of prophase is	A.	Interphase	B. Metaphase
		C.	Anaphase	D. Telophase
724	Meiosis occur in	A.	Diploid cells only	B. Haploid cells only
		C.	Both diploid and haploid cells	D. Monoploid cells only
725	Meiosis occurs at the time of	A.	Gamete formation in animals	B. Spore formattion in plants
		C.	Growth in animals	D. Both a and b
726	Homologous chromosomes are	A.	Similar and identical	B. Identical but not similar
		C.	Not similar and not identical	D. Similar but not identical
727	The longest phase of meiosis I is	A.	Metaphase	B. Anaphase
		C.	Prophase	D. Telophase
728	Pairing of homologous chromosomes is completed in	A.	Leptotene	B. Zygotene
		C.	Pachytene	D. Diplotene

729 Each bivalent has

A. 3 chromatids B. 4 chromatids

C. 5 chromatids D. 2 chromatids

730 Crossing over occurs between

A. Sister chromatids B. Non sister chromatids

C. Independent chromatids D. Each and every chromatid

731 Inability of chromosomes to segregate during anaphase and telophase of meiosis is called

A. Crossing over B. Chromosomal disiunction

C. Chromosomal nondisiunction D. None of these

732 Apoptosis

A. Cell death due to tissue damage B. Causes inflammation

C. Internal programme of events by which D. Damages neighboring cells

733 A cell of human being has 46 chromosomes; it divides to form some daughter cells, each having 23 pairs of chromosomes. The di

A. Mitosis B. Meiosis

C. Amitosis D. Budding

734 Mitosis takes place during

A. Healing of wound B. Development and growth

C. Vegetative propagation D. All of these

735 Morphology of chromosomes is best studied during

A. Telophase B. Metaphase

C. Prophase D. All of these

736 Cytokinins refers to

A. Division of nucleus B. Division of cytoplasm

C. Division of cell D. All of these

737 A significant happening of meiosis is / are

A. Crossing over B. Random assortment

C. Both of these D. None of these

738 Chromosomes are composed of

A. 40% protein and 60% DNA B. 50% protein and 50% DNA

C. 70% protein and 30% DNA D. 60% protein and 40% DNA

739 Chromosome is made of

A. 2 chromatids +1 centromere B. 1 chromated + 1 centromere +

C. 2 chromatids + 1 centromere + D. 2 chromatids + 2 centromere +

740 Histones have abundance of amino acids

A. Valine and lysine B. Arginine and lysine

C. Valine and arginine D. Histidione and threonine

741 A portion of chromatin that is condensed only during cell division is

A. Euchromatin B. Heterochromatin

C. Biochromatin D. Nucleochromatin

742 Transfer of genetic material from one cell to another that can alter the genetic makeup of recipient cell is called

A. Mutation B. Transuction

C. Replication D. Variation

743 DNA contains

A. Purines (A and G) pyrimidines (U and B. Purines (T and (c) pyrimidines (A and

C. Purines (A and (c) pyrimidines (U and D. Purines (A and G) pyrimidines (T and

744 In DNA

A. A forms two bonds with T B. G forms three bonds with C

C. A forms three bonds with T D. Both a and b

745 DNA has a helical shape with the diameter of

A. 3 nm B. 4 nm

C. 2 nm D. 5 nm

746 In semi-conservative replication

A. Sequence of original duplex is conserved B. Gererate DNA copies of entirely

C. Parental DNA become completely D. Each strand of daughter molecules

747 Repliication always proceeds in a direction

A. 3' ? 5' B. 5' ? 3'

C. Both directions D. None of these

748 Which statement is correct?

A. Leading strand elongates away from B. Lagging strand elongates towards

C. Lagging strand is constructed D. Both a and b

749 The sequence of nucleotides that determines the amino acid sequence of a protein is

A. Chromosome B. DNA

C. RNA D. Gene

750 In prokaryotes there are

A. Three types of DNA polymerases B. One type of RNA polymerase

C. Three types of RNA polymerase D. Both a and b

751 Methionine is specified by

A. Stop codon B. AUG

C. Start codon D. Both b and c

752 Point mutations are represented as

A. Presence of an extra chromosome B. Loss of chromosome

		C.	Alteration in sequence of DNA	D. Insertions and inversion of genes
753	A sugarcane cell has _____ chromosomes.	A.	20	B. 32
		C.	40	D. 80
754	Centromere represents	A.	Primary constriction	B. Secondary constriction
		C.	Tertiary constriction	D. Quaternary constriction
755	Which of the following statement about plants is incorrect?	A.	All are eukaryotes	B. They are multicellular.
		C.	Non-motile organisms	D. Are heterotrophes
756	The part of sporophyte which is called sporangium is	A.	Capsule	B. Foot
		C.	Stalk	D. None of these
757	Sporophyte is	A.	Monoploid	B. Haploid
		C.	Diploid	D. Polyploidy
758	Production of two types of spores is known as	A.	Heterospory	B. Homospory
		C.	Heterogamy	D. Gamospory
759	Plant breeding originated with:	A.	Human civilization	B. Ancient history
		C.	Human history	D. Classical breeding
760	An example of a heterozygous but homogenous population is	A.	Pureline	B. Inbred Line
		C.	Hybrid	D. Synthetic Variety
761	Green revolution in India occurred during	A.	1965	B. 1963
		C.	1970	D. 1960
762	Selection of homozygous plants is	A.	Mass selection	B. Pure line
		C.	Both of these	D. None of the above
763	Which of the following is not true for inbreeding?	A.	Always increases productivity	B. Leads to inbreeding depression
		C.	Expression of deleterious alles	D. None of the above
764	Breeding crops for improved nutritional quality is referred to as	A.	Biochromatin	B. Biofortification
		C.	Bioinformatics	D. All of the above
765	Triticale is developed through intergeneric hybridization of	A.	Wheat & Rye	B. Wheat & Barley
		C.	Barley & Rye	D. Rye & Oat
766	Heterosis lost due to continuous inbreeding known as	A.	Inbreeding depression	B. Outbreeding depression
		C.	Inbreeding vigor	D. None of the above
767	Semi dwarf rice variety IR8 was developed in	A.	Sri Lanka	B. India
		C.	Pakistan	D. Philphines
768	Which system is used for hybrid seed production in onion?	A.	Cytoplasmic male sterility	B. Genetic male sterility
		C.	Cytoplasmic Genetic Male	D. Both b and c
769	Centre of diversity refers to the area where cultivated plant species and or their wild relatives show	A.	low competition with	B. highest variation
		C.	high ecosystem diver	D. highest variation and
770	Triticale is	A.	interspecific cross	B. intraspecific cross
		C.	intergeneric cross	D. intrageneric cross
771	A mating among the following can not lead to heterosis	A.	AAbb x aaBB	B. AABBccdd x AABI
		C.	AABBccdd x aabbC(	D. aaBBcc x AABBCC
772	Study of the structure of organisms, looking at cells, tissues:	A.	Plant anaotmy	B. Plant Physiology
		C.	Plant Bioinformatics	D. Plant Genetics
773	Study of the function of cells, tissues, organs of living things	A.	Plant anaotmy	B. Plant Physiology
		C.	Plant Bioinformatics	D. Plant Genetics
774	Plant _____ are the basic building blocks:	A.	Cells	B. Tissues
		C.	Organs	D. All of the above
775	The outer most layer of plant tissues is:	A.	Dermal	B. Ground
		C.	Vascular	D. None of the above

776	The inner most layer of plant tissues is:	A.	Dermal	B. Ground
		C.	Vascular	D. None of the above
777	Vascular tissues consists of :	A.	Xylem	B. Phloem
		C.	Epidermis	D. Both a and b
778	The main function of root is:	A.	Provide support for tl	B. Conduct water and r
		C.	Srtorage of food	D. All of the above
779	That part of leaf which connects blade to the stem and transport minerals to the leaf:	A.	Blade	B. Petiole
		C.	Midrib	D. Vertex
780	_____ promote cell growth and involved in gravitropism & phototropism:	A.	Auxin	B. Gibberellin
		C.	Cytokinin	D. Ethylinine
781	_____ promote cell elongaion:	A.	Auxin	B. Gibberellin
		C.	Cytokinin	D. Ethylinine
782	_____ promote cell division and organ differnciation:	A.	Auxin	B. Gibberellin
		C.	Cytokinin	D. Ethylinine
783	Sonalika and Kalyan Sona are high yielding varieties of :	A.	Wheat	B. Maize
		C.	Oat	D. Barley
784	Breeding for disease resistance requires:	A.	Good source of resist	B. Disease test
		C.	Planned Hybridizatio	D. All of the above
785	Genetic information is carried in the linear sequence of nucleotides in:	A.	DNA	B. RNA
		C.	mRNA	D. Both DNA & RNA
786	Genetic information contains instructions to synthesize	A.	DNA	B. RNA
		C.	Proteins	D. mRNA
787	_____is in nucleus in eukaryotes	A.	DNA	B. RNA
		C.	Proteins	D. mRNA
788	_____ are carried by Chromosomes	A.	Genes	B. Proteins
		C.	Lipids	D. mRNA
789	Genetic material must have the ability to:	A.	Store information	B. Express itself
		C.	Replicate itself	D. All of the above
790	There are _____ nucleotides in one complete turn of DNA	A.	10.4	B. 10.2
		C.	10.5	D. 10
791	The basic set of chromosome present in an organism	A.	Autosome	B. Genome
		C.	Sex Chromosome	D. Genotype
792	Total length of DNA about _____ meters long in a human cell	A.	2	B. 2.4
		C.	2.2	D. 2.3
793	Non-coding region of a gene:	A.	Intron	B. Exon
		C.	Centromere	D. Primary Constrictio
794	Highly condensed bead like structures on chromosome :	A.	Chromomere	B. Centromere
		C.	Primary constriction	D. None of the above
795	Histones are of _____ types:	A.	4	B. 5
		C.	3	D. 6
796	_____ chromosomes are a special form of chromosome found in the growing oocytes (immature eggs) of most anir	A.	Lampbrush	B. Artificial
		C.	Oocytes	D. None of the above
797	_____ is involved in the sorting of various proteins prior to their delivery	A.	Mitochondria	B. Ribosomes
		C.	Golgi apparatus	D. Endoplasmic reticul
798	Peroxisomes are so called because of their ability to produce or utilize:	A.	H2O	B. H_2O_2
		C.	HCL	D. All of the above
799	The smaller chromatid of chromosome is called_____ chromatid:	A.	P	B. Y

		C.	Q	D. R
800	The larger chromatid of chromosome is called_____ chromatid:	A.	P	B. Y
		C.	Q	D. R
801	Polyploidy is induced through	A.	Irradiation	B. Mutagenic chemical
		C.	Ethylene	D. Colchicine
802	The quickest method of plant breeding is	A.	introduction	B. Selection
		C.	Hybridisation	D. Mutation Breeding
803	The new varieties of plants are produced by	A.	Introduction and mut	B. Selection and hybric
		C.	Mutation and Selecti	D. Selection and Introd
804	Pure line breeding refers to	A.	heterozygosity only	B. homozygosity only
		C.	homozygosity and se	D. heterozygosity and l
805	A scientist wants to study the viral effects on plants. Which of the following part of the plant should be excluded?	A.	pith	B. shoot apex
		C.	phloem	D. cortex
806	Somatic hybridisation is achieved through	A.	Grafting	B. Conjugation
		C.	Protoplast fusion	D. Recombinant DNA
807	Bagging is done to	A.	Avoid cross pollinati	B. Avoid self pollinatic
		C.	Achieve desired polli	D. Prevent contaminati
808	Down syndrome is a condition in which there is _____ chromosome:	A.	One extra	B. One less
		C.	One extra pair	D. One less pair
809	_____is a test to identify and evaluate the size, shape, and number of chromosomes in a sample of body cells	A.	Ideotype	B. Idiotype
		C.	Karyotype	D. None of the above
810	_____is a biological model which is expected to perform or behave in a particular manner within a **defined** environment:	A.	Ideotype	B. Idiotype
		C.	Karyotype	D. None of the above
811	The DNA is supported and neatly packaged by _____ bound to it.	A.	Proteins	B. Ribosomes
		C.	Lipids	D. Fats
812	Each chromosome has a central constricted region called a _____ that serves as an attachment point for the machinery of m	A.	Centromere	B. Chromosomal disju
		C.	Chromomere	D. Secondary constricti
813	Diploid cells have _____ copies of each chromosome, one from each parent	A.	Half	B. One
		C.	Two	D. Four
814	_____ is the longest stage of mitosis, lasting about 20 minutes.	A.	Metaphase	B. Prophase
		C.	Anaphase	D. Cytokinisis
815	_____ is the shortest stage of mitosis, lasts only a few minutes.	A.	Metaphase	B. Prophase
		C.	Anaphase	D. Cytokinisis
816	Cleavage of cell into two halves occurs during:	A.	Metaphase	B. Prophase
		C.	Anaphase	D. Cytokinisis
817	An average eukaryotic cell has about _____ times more DNA then an average prokaryotic cell.	A.	10	B. 100
		C.	1000	D. 500
818	_____ synthesize the growing RNA molecule	A.	DNA Polymerases	B. RNA Polymerases
		C.	DNA Helicases	D. All of the above
819	_____change the amount of super coiling in DNA, helping it wind and unwind	A.	DNA Polymerases	B. RNA Polymerases
		C.	DNA Helicases	D. Topoisomerases
820	_____ is the first step of gene expression, in which a particular segment of DNA is copied into RNA (mRNA) by the enzyr	A.	Transcription	B. Transuction
		C.	Translation	D. Replication
821	Following _____ are nucleic acids, which use base pairs of nucleotides	A.	RNA and DNA	B. DNA and Proteins
		C.	RNA and Proteins	D. RNA, DNA and pro
822	During transcription, a DNA sequence is read by an RNA polymerase, which produces a complementary, anti-parallel RNA stran	A.	Secondary transcript	B. Tertiary transcript
		C.	primary transcript	D. None of the above

823	Only one of the two DNA strands serve as a _____ for transcription	A.	Transcript	B. Template
		C.	Source	D. Site
824	The WIPO secretariat is based in	A.	Singapore	B. Holland
		C.	Geneva	D. Germany
825	_____ seeks to "promote the protection of intellectual property throughout the world."	A.	GATT	B. IP
		C.	WIPO	D. WTO
826	Cotton belongs to family:	A.	Malvaceae	B. Gramineae
		C.	Cocurbitaceae	D. Paphilonaceae
827	_____ upland cotton, native to Central America, Mexico, the Caribbean and southern Florida (90% of world production).	A.	Gossypium barbaden	B. Gossypium hirsutun
		C.	Gossypium arboreum	D. Gossypium herbace
828	_____ is known for extra-long staple cotton	A.	Gossypium barbaden	B. Gossypium hirsutun
		C.	Gossypium arboreum	D. Gossypium herbace
829	_____ is native to India and Pakistan (less than 2%)	A.	Gossypium barbaden	B. Gossypium hirsutun
		C.	Gossypium arboreum	D. Gossypium herbace
830	Corchorus olitorius and Corchorus capsularis are the species of _____	A.	Line seed	B. Jute
		C.	Colocacia	D. Ginger
831	Jute belongs to family _____	A.	Malvaceae	B. Tilliaceae
		C.	Fabaceae	D. Gramineae
832	Corchorus capsularis is _____	A.	Diploid	B. Haploid
		C.	Tetraploid	D. Amphidiploid
833	Corchorus capsularis have _____ chromosomes	A.	10	B. 18
		C.	16	D. 14
834	Most historians believe maize was domesticated from _____	A.	Australia	B. South-East Asia
		C.	Mexico	D. Central Asia
835	In maize, female inflorescences, tightly enveloped by several layers of ear leaves commonly called _____	A.	Tassel	B. Cob
		C.	Husk	D. Spike
836	In mazie, the apex of the stem ends in the _____, an inflorescence of male flowers.	A.	Tassel	B. Cob
		C.	Husk	D. Spike
837	There are _____ species of cultivated sugarcane.	A.	3	B. 4
		C.	5	D. 6
838	There are _____ species of wild sugarcane.	A.	3	B. 4
		C.	5	D. 2
839	Sacchharam officinarum was grown by the natives of _____ region.	A.	Hawai	B. New Guinea
		C.	Barbadose	D. South Pacific
840	The Saccharam species are extremely _____	A.	Simple Diploids	B. Complex Polyploids
		C.	Rarely Amphidiploid	D. Complex Triploids
841	The most common basic chromosome numbers in Sugarcane are _____	A.	9 & 10	B. 7 & 10
		C.	8 & 10	D. 7 & 8
842	_____ can usually be made among the 5 species of sugarcane	A.	Interspecific cross	B. Intraspecific cross
		C.	Intervarietal	D. Intravarietal Crosses
843	Breeding work, emasculation and pollination in sugarcane is _____	A.	Very easy	B. Very Sipmle
		C.	Laborious	D. Both a and b
844	The term variety in cultivated sugarcane refers to a particular_____	A.	Hybrid	B. Apomictic Specie
		C.	Clone	D. Synthetic Variety
845	Sugarcane is propagated vegetatively by stem cuttings called :	A.	Fuzz	B. Seed
		C.	Setts or seedcanes	D. Both a and b
846	Sugarcane flowers very rarely except:	A.	Tropical areas	B. Subtropical areas

		C.	Temperate areas	D. None of the above
847	The sugarcane inflorescence consists of an open branched panicle called_____	A.	Fuzz	B. Flup
		C.	Spike	D. Arrow
848	In sugarcane normally _____ pollination occurs	A.	Cross	B. Self
		C.	Partial cross	D. Both a and c
849	The seeds produced in sugarcane are small in size and _____	A.	Viable	B. Inviable
		C.	Poorly developed	D. Both b and c
850	Chromosome number of sugar beet is:	A.	16	B. 20
		C.	18	D. 28
851	Originally sugarbeet was _____	A.	Tetraploid	B. Diploid
		C.	Triploid	D. Hexaploid
852	The genetic material must meet _____ criterias	A.	3	B. 4
		C.	5	D. 6
853	_____ are composed of a five-carbon sugar to which one or more phosphate groups and a nitrogen-containing base	A.	Nucleotides	B. Nucleosides
		C.	Nuclic acid	D. Both b and c
854	Purines consists of :	A.	Adenine & Guanine	B. Adenine & Cytosine
		C.	Thymine, Cytosine &	D. Thymine & Uracil
855	Pyrimidines consists of:	A.	Adenine & Guanine	B. Adenine & Cytosine
		C.	Thymine, Cytosine &	D. Thymine & Uracil
856	Purines consists of _____	A.	Double ring structure	B. Single ring structure
		C.	Triple ring structures	D. Four ring structures
857	Pyrimidines consists of _____	A.	Double ring structure	B. Single ring structure
		C.	Triple ring structures	D. Four ring structures
858	Watson & Crick model of DNA was published in:	A.	1954	B. 1951
		C.	1952	D. 1953
859	The sugar-phosphate backbones are on the_____ of the helix of the DNA	A.	Outside	B. Inside
		C.	Backside	D. Above
860	X ray diffraction studies show that DNA can exist in _____ different forms	A.	4	B. 3
		C.	2	D. 1
861	_____ form of DNA is dehydrated and normally not found in cells	A.	A-DNA	B. B-DNA
		C.	Z-DNA	D. mt-DNA
862	_____ form of DNA is hydrated and normally not found in cells	A.	A-DNA	B. B-DNA
		C.	Z-DNA	D. mt-DNA
863	The type of DNA with zigzag sugar-phosphate backbone:	A.	A-DNA	B. B-DNA
		C.	Z-DNA	D. mt-DNA
864	4 stranded DNA:	A.	Telomeric DNA	B. mt-DNA
		C.	A-DNA	D. Z-DNA
865	The _____ DNA is right handed, double stranded and anti parallel	A.	B-DNA	B. mt-DNA
		C.	A-DNA	D. Z-DNA
866	_____ has never been found in living cells	A.	A-DNA & B-DNA	B. mt-DNA
		C.	B-DNA	D. A-DNA & Z-DNA
867	Simple telomeric sequences are short, species-specific and _____ repeated	A.	Tandemly	B. Nucleosides
		C.	Nucleotides	D. None of the above
868	According to Erwin Chargaff ratio of base pairs, if there is 30% Adenine then what will be the percentage of Guanine:	A.	10%	B. 20%
		C.	30%	D. 40%
869	Adenine pairs with Thymine/Uracil via:	A.	Single Bond	B. Double Bond
		C.	Triple Bond	D. Both b and c

870 Guanine pairs with Cytosine via:
A. Single Bond B. Double Bond
C. Triple Bond D. Both b and c

871 Most DNA has a _____ twist with 10 base pairs in a complete turn:
A. Right Hand B. Left Hand
C. Zigzag D. None of the above

872 Left twisted DNA is called Z-DNA or _____ DNA
A. southpaw B. Rightpaw
C. Leftpaw D. Both b and c

873 DNA has to be copied _____ a cell divides
A. After B. During
C. before D. Ago

874 DNA is copied during the S or synthesis phase of :
A. Metaphase B. Prophase
C. Anaphase D. Interphase

875 Prokaryotes (bacteria) have a _____ origin of replication
A. single B. Double
C. Multiple D. Triple

876 Eukaryotes (bacteria) have a _____ origin of replication
A. single B. Double
C. Multiple D. Triple

877 Enzyme _____ unwinds and separates the 2 DNA strands by breaking the weak hydrogen bonds
A. Helicase B. Topoisomerases
C. DNA Polymerases D. Both b and c

878 _____is the enzyme that synthesizes the RNA Primer
A. DNA Polymerases B. Topoisomerases
C. Primase D. Helicase

879 DNA polymerase can only add nucleotides to the _____ of the DNA
A. 3’ end B. 5' end
C. Both 3' & 5' ends D. Forward Direction

880 The _____ is synthesized as a single strand from the point of origin toward the opening replication fork
A. Lagging Strand B. DNA
C. Leading Strand D. RNA

881 The _____ is synthesized discontinously away from the point of origin/relication fork:
A. Lagging Strand B. DNA
C. Leading Strand D. RNA

882 Okazaki Fragments are series of short segments on the _____
A. Lagging Strand B. DNA
C. Leading Strand D. RNA

883 The enzyme_____ joins the Okazaki fragments together to make one strand
A. Topoisomerases B. Primase
C. Helicase D. Ligase

884 DNA polymerase and DNA ligase replace and bond the new _____ together
A. nucleosides B. mt-DNA
C. nucleotides D. mRNA

885 What would be the complementary DNA strand for this 5’-CGTATG-3’ DNA sequence?
A. 5'-GCAT B. 3’-GCT
C. 3’-GCAT D. 3'-GCA

886 _____(also called restriction enzymes) recognize and cleave DNA at specific DNA sequences
A. Restriction endonucl B. Topoisomerases
C. DNA Polymerases D. Helicase

887 The DNA fragment to be cloned can be joined to a suitable cloning vector by using :
A. DNA Polymerases B. DNA ligases
C. Restriction endonucl D. Helicase

888 There are howmany types of restriction enzymes:
A. Three B. Two
C. Four D. Five

889 Some restriction endonucleases make staggered cuts on the two DNA strands, leaving two to four nucleotides of one strand unpaired at each resulting end, these unpaired strands are called:
A. Sticky ends B. Blunt ends
C. Unmodified ends D. Both b and c

890 Some restriction endonucleases cleave both strands of DNA at the opposing phosphodiester bonds, leaving no unpaired bases on t
A. Sticky ends B. Blunt ends
C. Unmodified ends D. Both b and c

891 Blunt ends can also be ligated, but less efficiently as compare to:
A. Sticky ends B. Modified ends
C. Unmodified ends D. Open ends

892 Plasmids are _____ molecules that replicate separately from the host chromosome:
A. Single Stranded DNA B. Double stranded DN
C. B-DNA D. Circular DNA

893 The recombinant DNA can be introduced into bacterial cells by a process called:
A. Transcription B. Translation

		C.	Transformation.	D. Modification
894	A virus which parasitizes a bacterium by infecting it and reproducing inside it:	A.	Bacteria	B. Virus
		C.	Bactriophage	D. Phage
895	BACs stands for:	A.	Blood Alcohol Conte	B. Bacterial Artificial C
		C.	Blood Alcohol Conc	D. Breath Alcohol Concentration
896	YACs stands for:	A.	Youth Advisory Cou	B. Youth Activity Cent
		C.	Yeast Artificial Chro	D. All of these
897	A _____ is a method used in molecular biology for detection of a specific DNA sequence in DNA samples.	A.	Nothern blot	B. Western blot
		C.	Southern blot	D. Eastern blot
898	A _____ is a method used in molecular biology for detection of a specific RNA sequence	A.	Nothern blot	B. Western blot
		C.	Southern blot	D. Eastern blot
899	A _____ is a method used in molecular biology for detection of a specific RNA sequence	A.	Nothern blot	B. Western blot
		C.	Southern blot	D. Eastern blot
900	In DNA extraction from plants, the breaking of the cell wall and cellular membranes is called:	A.	Wash	B. Precipitation
		C.	Resuspension	D. Lysis
901	During _____phenol denatures proteins and dissolves denatured proteins	A.	Wash	B. Precipitation
		C.	Resuspension	D. Lysis
902	Centrifugation is a process that uses _____ to separate and purify mixtures of biological particles in a liquid medium.	A.	Centripetal force	B. Gravitational force
		C.	Centrifugal force	D. Mechanical force
903	The more dense a biological structure is, the faster it sediments in:	A.	Centripetal field	B. Gravitational field
		C.	Centrifugal field	D. Mechanical field
904	The sedimentation rate of a given particle will be _____ when the density of the particle and the surrounding medium are equ	A.	Zero	B. High
		C.	Low	D. Normal
905	The denser the biological buffer system is, the _____ the particle will move in a centrifugal field	A.	Slower	B. Faster
		C.	Moderate	D. Normal
906	_____contains sequences of ribonucleotides which code for the amino acid sequences of proteins.	A.	mRNA	B. mt-DNA
		C.	rRNA	D. tRNA
907	_____ forms part of the structure of ribosomes, which are the sites of protein synthesis	A.	mRNA	B. mt-DNA
		C.	rRNA	D. tRNA
908	Pulses belong to the family :	A.	Graminaceae	B. Fabaceae
		C.	leguminosae	D. Tilliaceae
909	_____ have a wide range of usage, some are used as fodder or green manure, some are used as silage, while others are extra	A.	Legumes	B. Fiber Crops
		C.	Cereals	D. Sugar Crops
910	Symbiotic nitrogen fixation is the mutually beneficial relationship between the _____ host and Rhizobium bacteria.	A.	Cereals	B. Fiber Crops
		C.	Sugar crops	D. pulse (or any legum
911	Peanut is:	A.	Legumes	B. Fiber Crops
		C.	Cereals	D. Sugar Crops
912	_____ plant can also form symbiosis with nitrogen-fixing bacteria	A.	Legumes	B. Non-leguminous
		C.	Sugar crops	D. None of the above
913	Symbiosis is readily observable when the nodules are :	A.	Two to Five	B. Few
		C.	Small	D. numerous
914	Poor nodulation may occur even if good _____ practices were used	A.	Sed sowing	B. Seed Planting
		C.	seed inoculation	D. Seed rate
915	The rhizobia–legume symbiosis is the_____ source of biologically fixed nitrogen for agricultural system	A.	Secondary	B. primary
		C.	Tertiary	D. All of these
916	The interaction between a particular strain of rhizobia and legume is mediated by a:	A.	seed inoculation	B. Mode factor
		C.	pH value	D. Nod factor

917	Most legume species have a_____ rhizobia strain that maximizes N_2 fixation	A.	More	B.	Common	C.	specific	D.	All of these
918	Effective root nodules are big and have a _____ color	A.	pink	B.	Red	C.	White	D.	Brown
919	In-effective root nodules that remain small and have_____color	A.	pink	B.	Red	C.	White	D.	Brown
920	N_2 fixation starts between _____days after infection:	A.	10 to 21	B.	05 to 10	C.	3 to 9	D.	8 to 12
921	Nodules occur at __ days after sowing	A.	6	B.	7	C.	8	D.	9
922	Nodulation of cowpea occurs at _____ DAS	A.	7	B.	8	C.	9	D.	10
923	Among environmental factors that influence the quantity of nitrogen fixed, the _____ is essential for nodule formation	A.	humidity	B.	temperature	C.	pH	D.	Atmospheric pressu
924	Legume productivity is limited by :	A.	soil acidity	B.	soil salinity	C.	soil pH	D.	Bacteria
925	Most leguminous plants require a _____ soil for growth	A.	neutral	B.	acidic	C.	basic	D.	Both b and c
926	Plants have _____relationships with several groups of bacteria that help make nitrogen more available.	A.	Parasitic	B.	Mutual	C.	Commensalism	D.	None of the above
927	No mineral nutrient is more limiting to plant growth than _____, which is required in large amounts for synthesizing proteins an	A.	nitrogen	B.	Phosporus	C.	Magnese	D.	Potassium
928	Roots emit chemical signals that attract :	A.	Virus	B.	Fungi	C.	Rhizobium bacteria	D.	E. coli
929	The bacteria then emit signals that stimulate root hairs to elongate and to form:	A.	Infection	B.	Thread like structure	C.	Holes	D.	infection thread
930	The infection thread containing the bacteria penetrates the :	A.	pith	B.	root cortex	C.	Epidermis	D.	Vascular bundle
931	_____ parts of the plant are “cleaner” than underground parts	A.	Aerial	B.	Stem	C.	Leaf	D.	None of the above
932	The smaller the _____ the better the chances to overcome specific phytopathological problems	A.	Sample	B.	Tissue	C.	explant	D.	Container
933	_____ tissues are less contaminated than exposed ones	A.	Inner	B.	Underground	C.	Terminal	D.	Meristemetic
934	Growing seed aseptically in vitro on artificial media:	A.	Seed culture	B.	Tissue Culture	C.	Embryo culture	D.	Bud Culture
935	Growing embryo aseptically in vitro on artificial nutrient media	A.	Seed culture	B.	Tissue Culture	C.	Embryo culture	D.	Bud Culture
936	Any plant organ used as an explant to initiate cultures is called:	A.	Seed culture	B.	Tissue Culture	C.	Embryo culture	D.	Organ culture
937	Production of virus free germplasm is known as:	A.	Seed culture	B.	Tissue Culture	C.	Shoot apical merister	D.	Organ culture
938	Preservation in cold storage or in vitro conservation of germplasm :	A.	Cryopreservation	B.	InVitro Preservation	C.	Ex Sito Preservation	D.	Both b and c
939	Production of haploid plants via:	A.	Shoot apical merister	B.	Ovary or ovule cultu	C.	Anther Culture	D.	Both b and c
940	Killing or excluding microorganisms or their spores with heat, filters, chemicals or other sterilants	A.	Fileration	B.	Sterilization				

		C.	Disintegration	D. Terminalization
941	Which one of the following is not aseptic condition:	A.	Sterile	B. Presence of pathoge
		C.	Conditions establishe	D. Free from the living
942	The isolation and culture of plant protoplasts in vitro :	A.	Protoplast culture	B. Chloroplast culture
		C.	Cytoplasmic culture	D. All of these
943	PCR stands for:	A.	Polymorphic chain re	B. Polymerase chain r
		C.	Poly chain reaction	D. Polymer chain react
944	It is a _____ aim to amplify a single or few copies of the DNA to thousands or millions of copies	A.	Breeding	B. Plant hybridization
		C.	molecular technology	D. Clonning
945	_____is now a common and often indispensable technique used in medical and biological research labs for a variety of applicati	A.	Biotechnology	B. Clonning
		C.	PCR	D. Plant hybridization
946	Sequencing, Genetic Engineering, DNA fingerprinting are the applications of :	A.	Clonning	B. PCR
		C.	Hybridization	D. Plant Breeding
947	Specific sequences are amlpified for:	A.	To monitor gene exp	B. To identify an indiv
		C.	To diagnose a genetic	D. All of these
948	Requirments for PCR are:	A.	Template DNA	B. Primers
		C.	Thermo-stable DNA	D. All of these
949	A ____ is a strand of nucleic acid that serves as a starting point for DNA synthesis	A.	DNA Polymerases	B. RNA Polymerases
		C.	primer	D. Topoisomerases
950	Usually inverted repeats and self-complementary sequences are _____ in the primers	A.	Allowed	B. Avoided
		C.	Added	D. Needed
951	*Thermus aquaticus* is example of :	A.	Thermostable DNA p	B. Thermostable RNA
		C.	DNA Polymerases	D. Both b and c
952	DNA can be extracted from:	A.	Roots	B. Shoots
		C.	Stems	D. Any plant part
953	CTAB buffer is used for:	A.	Cell lysis	B. Precipitation
		C.	Protein removal	D. Dehydration
954	DNA can survive for:	A.	10 minutes	B. 10 Days
		C.	10 years	D. May survive up to 1
955	DNA can be stored in:	A.	cold storage	B. Fresh water
		C.	Refrigerator	D. At any place
956	Methods Used for Plant Transformation	A.	Microinjection	B. .Pollen Tube Pathwa
		C.	Gene Gun Microproj	D. All of these
957	Transformation elements are:	A.	Explant	B. Agrobacterium tume
		C.	Selection marker and	D. All of these
958	Agrobacterium rhizogenes is _____ Plasmid:	A.	Root	B. Shoot
		C.	Leaf	D. Stem
959	The Gram-negative soil bacterium as pathogen results in crown gall tumors in plants	A.	E. Coli	B. Agrobacterium tume
		C.	Agrobacterium rhizoj	D. Virus
960	The systems to select the transformed cells, tissues or organisms from the non-transformed ones :	A.	selectable marker ger	B. Clones
		C.	Recombinant DNA te	D. Both b and c
961	In genetics, a _____ is a region of DNA that initiates transcription of a particular gene	A.	Marker	B. Promoter
		C.	DNA Polymerases	D. RNA Polymerases
962	The specific promoter activity is controlled by_____	A.	Exons	B. Codons
		C.	Introns.	D. Anticodon
963	A _____is a tag which allows to identify a place in a genome (locus).	A.	Proteins based marke	B. Physical marker
		C.	Promoter	D. genetic marker

964	Without polymorphism, _____ are useless.	A.	Promoter	B.	Markers
		C.	Codons	D.	Anticodon
965	A marker should be :	A.	Neutral	B.	Codominant
		C.	Polymorphic	D.	All of these
966	Markers are of _____ types:	A.	2	B.	3
		C.	4	D.	5
967	Molecular markers are:	A.	DNA based	B.	RNA Based
		C.	Protein Based	D.	Phenotypic Based
968	Biochemical markers are:	A.	DNA based	B.	RNA Based
		C.	Protein Based	D.	Phenotypic Based
969	Morphological Markers are:	A.	DNA based	B.	RNA Based
		C.	Protein Based	D.	Phenotypic Based
970	Mitochondrial DNA is:	A.	Circular	B.	Linear
		C.	Double stranded	D.	Single stranded
971	Simple sequence repeats (SSRs) or _____ are tandemly repeated	A.	macrosatellites	B.	Codons
		C.	microsatellites	D.	SNPs
972	Mendel did not observed linkage due to:	A.	Mutations	B.	Synopsis
		C.	Crossing over	D.	Independent assortm
973	Crossing over in diploid organisms is responsible for	A.	Dominance of genes	B.	Segregation of allele
		C.	Recombination of lin	D.	Linkage between ge
974	Complete linkage has been reported in	A.	Male Drosophila	B.	Maize
		C.	Wheat	D.	Female Drosophila
975	The experimental material Pea used by Mendel was:	A.	Cross fertilized	B.	self fertilized
		C.	Both A & B	D.	may vary with ecoty
976	A cross in which parents differ in a single pair of contrasting character is called:	A.	Monohybrid cross	B.	Dihybrid Cross
		C.	Trihybrid cross	D.	Tetrahybrid cross
977	The Hybrid progeny in the first generation is called	A.	F0	B.	F1
		C.	F2	D.	F3
978	Reason for success of Mendelian Experiments is:	A.	Pea was true breedin	B.	Pea was cross breed
		C.	pea was heterozygous	D.	pea was easily avail
979	When allles of two contrasting characters are present, one of the character expresses itself and other remains hidden. This is called	A.	Law of heredity	B.	Law of Inheritance
		C.	Law of dominance	D.	All of these
980	The character that expresses itself in F1 is called	A.	Dominant character	B.	Resessive character
		C.	Co dominant charact	D.	All of these
981	Resessive character will epress in	A.	F1	B.	F2
		C.	F3	D.	Both b and c
982	F3 generation is obtained by crossing:	A.	Selfing of F1	B.	Selfing of F2
		C.	Crossing of F1 and F	D.	None of the above
983	The genotypic ratio of monohybrid cross is	A.	3:01	B.	2:02
		C.	1:02:01	D.	None of the above
984	A dihybrid condition is	A.	Polygeneic Inheritanc	B.	dominance
		C.	segregation	D.	Independent assortm
985	Number of gametes produced by monohybrid cross	A.	2	B.	3
		C.	4	D.	1
986	Undesirable effects of Plant breeding are	A.	Reduction in diversit	B.	Narrow genetic base
		C.	Danger of uniformity	D.	All of these
987	The _____ institutions are World Bank and International Monitory Fund	A.	Bretton woods	B.	WTO

C. GATT D. ITO

988 There are how many types of epistasis:

A. 2 B. 3

C. 4 D. None of the above

989 Botanically Plant Kingdom is classified into _____ groups.

A. 2 B. 3

C. 4 D. 5

990 _____ are the lowest form of plants

A. Thallophytes B. Bryophytes

C. Teridiophytes D. Spermatophytes

991 _____ form of plants are classified into genus and species

A. Thallophytes B. Bryophytes

C. Teridiophytes D. Spermatophytes

992 which of the following is extranuclear inheritance:

A. Maternal inheritance B. Organelle inheritanc

C. Plastid inheritance D. All of these

993 Mirabilis jalapa is also called:

A. Red rose B. White rose

C. 4 o'clock plant D. Motia

994 In Mirabilis jalapa inheritance occurs via:

A. Plastid inheritance B. Nuclear inheritance

C. Mitochondria inherita D. None of the above

995 When centromere is locted in centre of chromosome:

A. Metacentric B. Submetacentric

C. Telocentric D. Acrocentric

996 When centromere is locted on one side of chromosome:

A. Metacentric B. Submetacentric

C. Telocentric D. Acrocentric

997 When centromere is locted near the telomere of chromosome:

A. Metacentric B. Submetacentric

C. Telocentric D. Acrocentric

998 When centromere is locted at one end of chromosome:

A. Metacentric B. Submetacentric

C. Telocentric D. Acrocentric

999 Folded Fiber Model of chromosome was presented by:

A. D. De Winton B. Du Praw

C. W.H. Gabelman D. E.M. East

Giant chromosome is example of:

A. Lampbrush chromos B. Normal chromosom

C. special chromosome D. None of the above

Correct
D
C
A
C
B
C
A
C
D
A
B
C
A
A
D
C
B
C
C
B
A
A
D

B

A

A

D

C

C

C

A

C

B

D

B

B

A

A

A

B

B

A

A

A

D

A

D

D

A

B

C

D

D

B

D

A

C

D

C

D

D

A

B

B

C

C

D

B

D

D

C

B

A

C

C

A

C

D

D

D

B

D

A

A

A

C

C

C

A

C

C

D

A

C

B

A

B

B

B

C

A

C

A

B

A

D

B

B

C

A

A

A

D

D

D

C

B

D

C

A

D

D

C

B

C

A

D

A

B

A

A

D

C

A

C

D

A

B

B

B

C

B

B

B

A

C

A

A

D

A

A

A

D

D

D

A

A

C

A

C

B

D

A

B

A

B

A

A

C

A

B

C

B

D

A

C

A

A

C

C

A

A

C

A

C

A

C

A

C

C

C

B

A

B

C

A

B

A

C

D

B

A

C

B

C

D

D

C

A

D

A

A

A

D

D

B

A

C

A

B

C

D

C

B

C

C

A

A

C

D

B

A

A

C

A

A

B

D

C

B

D

B

A

B

A

D

A

B

C

A

D

C

C

B

C

C

D

C

C

A

B

D

C

B

A

D

D

D

B

B

C

C

A

B

B

A

A

A

B

B

D

A

D

D

A

B

C

D

A

B

B

D

B

D

D

C

A

A

A

A

B

D

D

D

B

B

C

C

C

B

A

C

D

D

B

C

B

D

D

C

C

A

B

D

D

A

A

A

B

D

D

B

D

C

C

A

D

B

C

D

A

B

A

C

A

A

B

B

A

D

A

C

B

C

C

C

B

D

A

C

C

A

C

D

D

C

B

A

A

A

A

D

D

D

A

D

D

B

A

B

A

B

B

D

D

A

C

B

B

C

D

C

A

A

B

A

D

C

B

B

D

C

C

B

C

D

C

C

C

B

C

C

D

A

B

D

A

B

B

D

A

A

D

B

B

B

D

A

C

C

D

A

D

A

C

A

D

B

C

B

A

B

C

C

B

A

A

D

B

B

B

C

A

D

C

C

A

C

B

B

A

B

B

B

C

D

C

C

B

A

B

D

C

B

D

C

D

C

A

D

C

B

C

A

A

B

A

B

C

B

A

B

B

B

B

C

B

A

B

C

B

A

B

B

B

D

D

D

C

C

A

C

D

D

D

B

C

B

C

B

A

B

A

C

C

D

C

B

C

A

D

A

C

C

B

C

A

C

A

C

C

A

A

D

A

A

D

C

B

B

A

A

D

C

B

B

A

D

B

D

B

C

B

D

A

C

D

A

C

A

A

D

A

A

C

B

A

A

B

A

C

D

B

C

D

A

A

C

A

D

B

B

B

B

B

C

D

D

D

B

D

B

C

C

D

C

B

D

B

D

D

A

A

D

D

B

A

D

D

B

C

B

D

D

B

D

A

B

A

B

A

B

B

D

D

D

B

D

A

A

D

B

B

D

C

A

C

A

B

B

C

A

D

D

D

A

B

C

A

A

B

A

C

B

D

D

A

A

D

D

D

C

B

B

B

A

C

C

B

C

D

A

C

A

A

C

C

B

A

B

A

D

C

C

C

A

A

B

A

A

A

D

D

C

D

B

A

B

C

B

A

B

D

B

A

C

A

A

A

B

C

B

D

A

D

D

C

C

B

B

C

C

A

D

B

C

C

D

A

B

A

B

D

D

C

A

B

C

D

D

D

C

D

A

D

A

C

A

A

C

D

B

A

B

A

A

D

A

D

C

B

A

B

A

A

B

D

D

B

A

B

C

A

D

A

C

A

A

D

A

B

A

A

A

B

A

C

B

A

C

D

D

B

B

B

C

D

A

C

A

A

A

C

A

C

D

C

B

D

A

A

B

B

C

C

A

B

A

C

B

B

A

D

C

C

A

A

D

B

B

C

A

C

C

C

A

D

A

D

C

B

B

A

A

C

A

B

D

A

B

A

B

C

A

A

D

A

B

A

B

A

A

C

D

A

C

A

C

A

C

A

A

D

C

C

A

B

A

A

B

A

D

C

C

B

C

C

A

B

D

B

C

C

A

A

A

C

C

A

D

A

B

D

C

B

D

C

A

C

A

D

A

B

A

A

B

A

C

D

B

A

C

A

A

C

D

C

A

D

B

B

A

B

C

C

B

D

D

C

B

A

D

A

D

D

D

D

A

B

A

B

C

D

B

D

B

A

C

D

A

C

D

C

A

B

A

B

A

C

A

B

B

C

A

A

D

A

A

C

A

D

D

C

A

A

B

D

C

B

C