82. The most stable carbocation is
1) 



2)

3)

83. $\mathrm{CaC}_{2}+2 \mathrm{H}_{2} \mathrm{O} \rightarrow \mathrm{X}$
$\mathrm{CH}_{3}-\mathrm{CH}_{2}-\mathrm{Cl} \xrightarrow{\text { alc } \mathrm{KOH}} Y$
$X \xrightarrow{Z} Y$
In this reaction the reagent ' $Z$ ' is

1) $\mathrm{Con}_{2} \mathrm{SO}_{4}$
2) $\mathrm{LiAlH}_{4}$
3) $\mathrm{Pd}+\mathrm{BaSO}_{4}$
4) $(\mathrm{Zn}-\mathrm{Hg})+\mathrm{ConHCl}$
84. $\mathrm{C}_{2} \mathrm{H}_{6} \xrightarrow{\left(\mathrm{CH}_{3} \mathrm{COO}\right)_{2} \mathrm{Mn}} X \xrightarrow{\mathrm{PCl}_{5}} Y \xrightarrow[\text { Anh.AlCl }]{\mathrm{C}_{6} \mathrm{H}_{6}} Z$. Identify $\mathbf{X , Y , Z}$.
1) $\mathrm{CO}_{2}, \mathrm{COCl}, \mathrm{C}_{6} \mathrm{H}_{5} \mathrm{COCl}$
2) $\mathrm{CH}_{3} \mathrm{CHO}, \mathrm{CH}_{3} \mathrm{CH}_{2} \mathrm{Cl}, \mathrm{C}_{6} \mathrm{H}_{5} \mathrm{CH}_{2} \mathrm{COCl}$
3) $\mathrm{CH}_{3} \mathrm{COOH}, \mathrm{CH}_{3} \mathrm{COCl}, \mathrm{C}_{6} \mathrm{H}_{5} \mathrm{COCH}_{3}$
4) $\mathrm{HCOOH}, \mathrm{HCOCl}, \mathrm{C}_{6} \mathrm{H}_{5} \mathrm{CHO}$
85. In $\mathrm{PO}_{4}{ }^{-3}$ ion the formal charge on each oxygen atom and $\mathrm{P}-\mathrm{O}$ bond order respectively are
1) $-0.75,1.25$
2) $-3,1.25$
3) $-0.75,1$
4) $-0.75,0.6$
86. The statements regarding hydrides of VI-A group elements are
i) The order of volatility $\mathrm{H}_{2} \mathrm{O}<\mathrm{H}_{2} \mathrm{Te}<\mathrm{H}_{2} \mathrm{Se}<\mathrm{H}_{2} \mathrm{~S}$
ii) The order of boiling point $\mathrm{H}_{2} \mathrm{O}>\mathrm{H}_{2} \mathrm{Te}>\mathrm{H}_{2} \mathrm{Se}>\mathrm{H}_{2} \mathrm{~S}$
iii) The order of bond angles $\mathrm{H}_{2} \mathrm{O}>\mathrm{H}_{2} \mathrm{~S}>\mathrm{H}_{2} \mathrm{Se}>\mathrm{H}_{2} \mathrm{Te}$

The correct combination is

1) Only (i) is correct
2) (ii) and (iii) are correct
3) (i) and (iii) are correct
4) All are correct
87. The halogen having greenish yellow gas reacts with hot and concentrated NaOHsolution and give products. The oxidation state of that halogen changes from
1) 0 to -1
2) 0 to +5
3) -1 to +1
4) 0 to -1 and +5 states
88. The distribution of electrons in metal ion in $\left[\mathrm{Mn}\left(\mathrm{H}_{2} \mathrm{O}\right)_{6}\right]^{2+}$ in splitted d- orbitals is
1) $t^{5}{ }_{2 g} e_{g}^{0}$
2) $t^{3}{ }_{2 g} e g^{2}$
3) $t_{2 g}{ }^{2} e_{g}{ }^{3}$
4) $t_{2 g}{ }^{4} e_{g}{ }^{1}$
89. Number of $\sigma$ bonds present in meta borate ion and borazole are
1) 14,15
2) 14,12
3) 18,12
4) 18,15
90. Name of structure of silicate in which three oxygen atoms of $\left[\mathrm{SiO}_{4}\right]^{4-}$ are shared is
1) Pyro silicate
2) Sheet silicate
3) Linear chain silicate
4) Three dimensional silicate

## BIOLOGY

91. One of the following serve as quick referral systems in taxonomical studies.
1) Flora
2) Manuals
3) Herbaria
4) Monographs
92. Study the flow chart. Name the hormones labeled as A, B, C, D at each stage Choose the correct option


| A | B | C | D |
| :--- | :--- | :--- | :--- |
| 1) Gn-RH | ICSH | Androgen | FSH |
| 2) Gn-RH | LH | FSH | Androgens |
| 3) Gonadotropins | LH | FSH | Testosterone |
| 4) Gn-RH | FSH | LH | Androgens |

93. Conidia are
1) Exogenous, asexual spores
2) Endogenous, asexual spores
3) Exogenous, sexual spores
4) Endogenous, sexual spores
94. Identify the hormones that are secreted in large amount prior to ovulation.
A. LH
B. FSH
C. Estrogen
D. Progesterone
1) A only
2) A and B only
3) A, B and C only
4) A, B, C and D
95. Identify the wrong sentence
1) Ovules are ategmic in gymnosperms
2) $\mathrm{N}_{2}$ fixing coralloid roots are found in Cycas
3) Mycorrhizal roots are seen inPinus
4) Endosperm is triploid in angiosperms
96. A sexually transmitted disease that can be treated with antibiotics is
1) Genital warts
2) Hepatitis - B
3) Syphilis
4) Trichomoniasis
97. Match the following

## Set-I

A. Stem tendril
B. Leaf tendril
C. Phylloclade
D. Phyllode

## Set-II

1. Watermelon
2. Opuntia
3. Acacia melanoxylon
4. Pea
2) A-1, B-4, C-2, D-3
3) A-2, B-4, C-3, D-1
4) A-4, B-1, C-2, D-3
98. Lactationalamenorrhoea is a natural way of birth spacing. It is due to the high level of
1) FSH and LH hormones
2) Estrogen
3) Prolactin
4) Progesterone
99. Ovary is half- superior in
a) Mustard
b) Peach
c) Cucumber
d) Rose
e) Brinjal
f) Plum
1) b, d and e
2) a, b and f
3) b, d and f
4) b, c and f
100. Which of the following method is employed to assist the couple where there are problems with the sperms such as decrease in sperm count?
A. ZIFT
B. GIFT
C. ICSI
D. AI
1) A and B only
2) C and D only
3) C only
4) D only
101. Ebroyophytic, tracheoptytic, archegoniate, cryptogams are
1) Spermatophytes
2) Gymnosperms
3) Angiosperms
4) Pteridophytes
102. Which of the following are present in the muscles that exhibit high intensity contractions?
A. High myoglobin content
B. Low myoglobin content
C. Plenty of mitochondria
D. A few mitochondria
E. More amount of sarcoplasmic reticulum
F. Less amount of sarcoplasmic reticulum
1) A, C and E
2) B, D and F
3) A, C and F
4) B, D and E
103. The placentation not found in unilocular ovary is
1) Parietal
2) Basal
3) Marginal
4) Axile
104. Arrange the following events of 'cross bridge cycle' in an order
A. Power stroke
B. Another ATP binds to myosin head
C. $P_{I}$ released
D. Myosin head binds to active site and cross bridge formed
E. Energy released from hydrolysis of ATP in myosin head
F. ADP released
G. Myosin head releases active site
1) D, E, A, F, B, C, G
2) $E, D, F, A, C, B, G$
3) $B, D, E, F, A, C, G$
4) $E, D, C, A, F, B, G$
105. Living component in the xylem and dead component in the phloem respectively are
1) Xylem fibres and phloem parenchyma
2) Xylem parenchyma and phloem fibres
3) Tracheidsand phloem fibres
4) Xylem parenchyma and sieve cells
106. Which of the following cranial nerves innervate the muscles that are originated from ectoderm?
1) Optic
2) Pathetic
3) Occulomotor
4) Abducens
107. Vascular bundles are conjoint, open with endarchprotoxylem are found in
1) Dicot stem
2) Dicot root
3) Monocot stem
4) Monocot root
108. Which of the following end products of digestion are absorbed against concentration gradient into the cells of villi?
1) Glucose, amino acids
2) Fructose, amino acids
3) Amino acids
4) Water
109. The correct sequence of stages in cell cycle is
1) $G_{1} G_{2} S M$
2) $\mathrm{G}_{1} \mathrm{~S} \mathrm{G} \mathrm{G}_{2} \mathrm{M}$
3) $G_{1} G_{2} M S$
4) $\mathrm{G}_{1} \mathrm{SMG}_{2}$
110. Match the following List - A

List - B
A. Cricoid cartilage
i) Smallest cartilages
B. Thyroid cartilage
ii) Paired cartilages
C. Corniculate cartilages
iii) ventral and lateral walls of larynx
D. Cuneiform cartilages
iv) Largest cartilage
v) Lower and posterior part of wall of larynx

1) A-i, B-iv, C-ii, D-v
2) A-v, B-iii, C-ii, D-i
3) A-v, B-iv, C-i, D-iii
4) A-v, B-iii, C-i, D-ii
111. Arrange the following in decreasing order based on the number of layers present around them
I) Ribosome
II) Vacuole
III) Mitochondrion
IV) Endospore of bacterium
1) I II III IV
2) II I III IV
3) IV III II I
4) IV III I II
112. Statement $1:$ Emphysema is a disorder in which alveolar walls are damaged.

Statement 2 : The lungs show smaller but fewer alveoli and more fibrous and less elastic

1) Both the statements are true
2) Both the statements are false
3) Statement 1 is true
4) Statement 2 is true
113. Arrange the following series descendingly based on the number of cohorts (orders)
I) Heteromerae
II) Bicarpellatae
III) Thalamiflorae
IV) Calyciflorae
1) I II IV III
2) III IV II I
3) III IV I II
4) IV III II I
114. Functional Residual capacity $=$
1) $T V+I R V+E R V$
2) $V C+R V$
3) $E R V+R V$
4) $T V+I R V$
115. Identify the wrong pair regarding secondary metabolites
1) Alkaloid-Codeine
2) Toxin-Ricin
3) Lectin-Concanavalin $A$
4) Drug-Abrin
116. Flat T - wave in ECG indicates.
1) Hyperkalemia
2) Hypokalemia
3) Hypercalcemia
4) Hypocalcemia
117. A ds DNA of $\mathbf{1 7 0} \mathrm{A}^{\mathbf{0}}$ length consists of $\mathbf{1 5 \%}$ Adenine. The number of hydrogen bonds existed in that DNA is
1) 125
2) 135
3) 130
4) 140
118. Which of the following statements are correct?
A. Exchange of NaCl and $\mathrm{H}_{2} \mathrm{O}$ takes place only through the descending limb of vasa recta
B. Exchange of NaCl and $\mathrm{H}_{2} \mathrm{O}$ takes place through both descending and ascending limbs of vasa recta
C. $\mathrm{K}^{+}$ion reabsorption takes place through proximal convoluted tubule.
D. ANF inhibits the secretion of renin and aldosterone
1) $A, C, D$
2) $B, C, D$
3) C, D
4) BD
119. Arginosuccinase enzyme belongs to major class
1) Hydrolases
2) Lyases
3) Ligases
4) Transferases
120. Necrosis of cardiac muscle tissue leads to
1) Heart failure
2) Heart attack
3) Chest pain
4) Ischemia
121. The correct sequence of events that occur in Meiosis $I$ is
I) Synapsis
II) Crossing over
III) Terminalisation
IV) Segregationof chromosomes
1) I II IV III
2) I III II IV
3) I II III IV
4) II I III IV
122. Which of the following statements are correct?
A. The left ward shift of oxygenhaemoglobin dissociation curve indicates that the haemoglobin has an increased affinity for oxygen
B. The plateau portion of oxygenhaemoglobin dissociation curve is the range that exists at the pulmonary capillaries
C. The steep portion of curve is the range that exists at the systemic capillaries
D. In a resting person [ $\mathrm{pO}_{2}=\mathbf{4 0} \mathrm{mm} \mathrm{Hg}$ ], haemoglobin always carries about $\mathbf{7 5 \%}$ oxygen.
1) $A B C$
2) BCD
3) AD
4) $A B C D$
123. Match the following

Set-I
A. Bryophyllum
B. Agave
C. Water hyacinth
D. Ginger

Set-II
I. Offset
II. Rhizome
III. Bulbil
IV. Leaf buds

1) A-I, B-II, C-III, D-IV
2) A-IV, B-III, C-I, D-II
3) A-IV, B-III, C-II, D-I
4) A-III, B-IV, C-I, D-II
124. How many bones are present in pectoral girdle and pelvic girdle respectively?
1) 4,6
2) 6,6
3) 4,2
4) 5,6
125. If leaf cell of onion consists of 16 chromosomes, how many chromosomes are present in the endosperm cell of onion?
1) 8
2) 16
3) 24
4) 48
126. What is the name of the region of the brain that is responsible for the functions like breathing, heart beat and blood pressure?
1) Amygdala
2) Brain stem
3) Cerebrum
4) Both 1 and 2
127. Identify the correct sentence
1) Xenogamy occurs in dioecious plants only
2) In the plant with bisexual flowers autogamy only occurs
3) Autogamy occurs in bisexual flowers only
4) Either autogamy or geitonogamy occurs in dioecious plants
128. Match the following

| List - A | List - B |
| :--- | :--- |
| A. Most convincing evidence in favour of <br> organic evolution. | i. Atavistic organs |
| B. Strongly support the concept on organic <br> evolution. | ii. Evidences from cell and molecular <br> biology. |
| C. Clearly explain the path of evolution. | iii. Vestigial organs |
| D. The most detailed and convincing <br> evidence in favour of biological evolution | iv. Connecting links |

1) A - iii, B - iv, C - i, D - ii
2) A - i, B - iii, C - iv, D - ii
3) $A$ - ii, B - i, C - iii, D - iv
4) $A-i i i, B-i, C-i v, D-i i$
129. Observe the following diagram and identify $A, B$ and $C$ in the figure respectively

1) Coleoptile, Epiblast, Coleorhiza
2) Coleoptile, Shoot apex, Coleoptile
3) Coleorhiza, Epiblast, Coleoptile
4) Scutellum, Coleoptile, Coleorhiza
130. The dynamic nature of species was proposed by
1) Author of "The Origin of Species"
2) Author of "Natural History"
3) Author of "SystemaNaturae"
4) Author of "HistoriaGeneralisPlantarum"
131. Production of seeds without fertilization is called
1) Polyembryony
2) Apomixis
3) Parthenocarpy
4) Amphimixis
132. In the analysis of species area relationship among tropical rain forest, if the slope is more than $45^{\circ}$ the value of ' $Z$ ' is
1) 0.6
2) 1
3) 1.2
4) 1.7
133. Pioneers in xerarch and hydrarch successions respectively are
1) Bryophytes and Lichens
2) Lichens and Phytoplanktons
3) Lichens and bryophytes
4) Lichens and submerged plants
134. In which of the following organisms "blind sac plan" was first formed?
1) Cnidarians
2) Flat worms
3) Nematodes
4) Chordates
135. Drought evaders or escapers are
1) Ephemerals
2) True xerophytes
3) Non-succulents
4) Succulents
136. Primary induction can not be found in
1) Pseudocoelomates
2) Schizocoelomates
3) Eucoelomates
4) Human beings
137. In pteris, each sorus is protected by the reflexed margin of the fertile leaflet called
1) Ramenta
2) Indusium
3) False indusium
4) fronds
138. Epididymis is lined with
1) Stratified cuboidal epithelium
2) Pseudostratified ciliated epithelium
3) Pseudostratified non ciliated epithelium
4) Ciliated columnar epithelium
139. Arrange the following in ascending order based on their imbibing capacities
a) Wheat grains
b) Cotton fibres
c) Pea seeds
1) b, a, c
2) $\mathrm{c}, \mathrm{a}, \mathrm{b}$
3) a, b, c
4) $\mathrm{c}, \mathrm{b}, \mathrm{a}$
140. Which of the following statements is correct?
1) Histamine acts as vasodilator and bronchodilator
2) Histamine and bradykinin act as vasoconstrictors and bronchoconstrictors
3) Histamine acts as vasodilator and bronchoconstrictor
4) Seratonin acts as vasoconstrictor and bronchoconstrictor
141. The ratio of $e^{-}, \mathbf{H}^{+}$and ATP required for conversion of $\mathbf{N}_{\mathbf{2}}$ into $\mathbf{2} \mathbf{N H}_{\mathbf{3}}$ is
1)1:2:2
2) $1: 1: 1$
3) $1: 1: 2$
4) $2: 1: 2$
142. If 'the most abundant serum protein' level falls in blood plasma.
1) Hydrostatic pressure increases
2) Hydrostatic pressure decreases
3) Oncotic pressure decreases
4) Colloidal osmotic pressure increases
143. Inhibition of cell division occurs due to lack or low level of
1) N Zn Mo
2) N K S Mo
3) K N Zn Mo
4) Ca Mg K
144. Match the following.

List - A
A. Baosphils

List - B
i. Large cytoplasmic granules
B. Acidophils
ii. Peripheral cytoplasm
C. Neutrophils
iii. Phagocytes
D. Lymphocytes
E. Monocytes
iv. Small cytoplasmic granules
v. Irregular cytoplasmic granules

|  | A | B | C | D | E |
| :--- | :--- | :--- | :--- | :--- | :--- |
| 1) | v | i | ii | iv | iii |
| $2)$ | i | v | iv | ii | iii |
| $3)$ | v | i | iii | iv | ii |
| 4) | v | i | iv | ii | iii |

145. If $\mathbf{2}$ glucose molecules are formed as net gain through Calvin cycle, how many Erythrose 4-phosphate molecules are formed in the $\mathbf{C}_{3}$ cycle ?
1) 2
2) 4
3) 6
4) 8
146. The people who live at higher altitudes generally show
1) Polycythemia
2) Erythrocytopenia
3) Leucocytopenia
4) Erythrocytosis
147. Elements involved in photolysis of water are
a) $\mathrm{Ca}^{2+}$
b) $\mathbf{M n}^{\mathbf{2 +}}$
c) $\mathrm{Cl}^{-}$
d) $\mathbf{K}^{+}$
1) a and b only
2) b and c only
3) a, b and c
4) b, c and d
148. Statocysts occur in
1) Hydra
2) Adamsia
3) Rhizostoma
4) Physalia
149. The ratio of substrate level phosphorylations that occur during glycolysis and Krebs cycle respectively is
1) $1: 1$
2) $2: 1$
3) $1: 2$
4) $3: 1$
150. Match the following

List-A
A. Echinococcus

## List-B

i) Syncytial epidermis
B. Ancylostoma
ii) Collagenous cuticle
C. Convoluta
iii) Bifurcated intestine

| D. Wuchereria | iv) Syncytial tegument |
| :--- | :--- |
| E. Bilharzia | v) Rhabdites |


|  | A | B | C | D | E |
| :--- | :--- | :--- | :--- | :--- | :--- |
| 1) | IV | V | I | II | III |
| 2) | IV | I | V | II | III |
| 3) | IV | II | III | I | V |
| 4) | V | I | III | II | IV |

151. Observe the figure and identify $A, B$ and $C$ respectively

1) Inner mitochondrial membrane, $F_{1}, F_{0}$
2) Inner mitochondrial membrane, $F_{0}, F_{1}$
3) Mitochondrial matrix, $F_{0}, F_{1}$
4) Outer membrance of mitochondrion , $\mathrm{F}_{0}, \mathrm{~F}_{1}$
152. Given below are four matchings of an animal and its kind of respiratory organ
A. Silver fish - Trachea B. Scorpion - Book lungs
C. Sea squirt - Pharyngeal gills
D. Dolphin - gills

The correct matchings are

1) $A$ and $B$
2) $A, B$ and $C$
3) B and D
4) C and D
153. Identify wrong statement
1) NAA and 2,4-D are synthetic auxins
2) Gibberellins promote bolting in Cabbages
3) Ethylenepromotes female flowers in cucumbers
4) Auxins help to prevent the abscission of older mature leaves and fruits
154. Identify the incorrect matching of a class and its characters.
1) Chondrichthyes - amphicoelous vertebrae
2) Amphibia - Sternum ,columellauris
3) Reptilia - Sinus venosus, micro lecithal eggs
4) Mammalia - metanephric kidneys, Uriotelic
155. One of the following bacteria play a great role in re cycling nutrients like nitrogen, phosphorous, iron and sulphur
1) Chemo-autotrophic bacteria
2) Photo- autotrophic bacteria
3) Photo-heterotrophic bacteria
4) Chemo- heterotrophic bacteria
156. In the life cycle of Entamoeba, karyokinesis takes place during
A. Trophozoite stage
B. Pre cystic stage
C. Cystic stage
D. Metacystic stage
1) A, B and C
2) A, B and D
3) B, C and D
4) A, C and D
157. Potato spindle tuber disease is caused by
1) Prion
2) Virion
3) Bacterium
4) Viroid
158. The respective enzymes secreted by Entamoeba and Plasmodium are
1) Histolysins and lypolytic
2) Proteolytic and cytolytic
3) Cytolytic and proteolytic
4) Proteolytic and histolysins
159. In $F_{2}$ generation of Mendel's dihybrid cross the percentage of recombinants formed is
1) $25 \%$
2) $62.5 \%$
3) $50 \%$
4) $37.5 \%$
160. One of the following is the set of infective stages to erythrocytes in the life cycle of malaria parasite
1) Cryptozoite, micrometacryptozoite, erythrocyticmerozoite
2) Cryptozoite, mircromatacryptozoite, sporozoite
3) Cryptozoite, micrometacryptozoiteerythrocyticmerozoite
4) Cryptozoite, micrometacryptozoite, erythrocyticmerozoite, hypnozoite
161. The fraction of double homozygotes in the $F_{2}$ of Mendel's dihybrid cross is
1) $\frac{1}{4}$
2) $\frac{1}{8}$
3) $\frac{1}{16}$
4) $\frac{1}{2}$
162. In cockroach due to the contraction of which muscles wings are depressed and segments are telescoped respectively.
1) Dorsoventral muscles, ventral longitudinal muscles
2) Dorsolongitudinal muscles, ventral longitudinal muscles
3) Dorsoventral muscles
4) Ventral longitudinal muscles, Dorsolongitudinal muscles
163. Match the following Set-I

## Set-II

A. $\phi \times 174$ Bacteriophage

1. $6.6 \times 10^{9} \mathrm{bp}$
B. Bacteriophage lambda
2. $4.6 \times 10^{6} \mathrm{bp}$
C. E.coli
3. 48502 bp
D. Diploid content of Human DNA
4. 5386 nucleotides
5. $3.3 \times 10^{9} b p$
1) A-4, B-3, C-1, D-5
2) A-4, B-3, C-1, D-4
3) A-4, B-3, C-2, D-1
4) A-4, B-3, C-2, D-5
164. Which of the following activities occur in the secretary part of Malpighian tubule?
1) Secretion
2) Secretion and absorption
3) Secretion and reabsorption
4) Reabsorption
165. AAA, AAG are the codons for
1) Leucine
2) Lysine
3) Cysteine
4) Serine
166. Match the following

| List - I | List - II |  |  |
| :--- | :--- | :--- | :--- |
| A. | Stable population | I. | Triangular shape |
| B. | Declining population | II. | Exponential growth curve |
| C. | Density dependent growth curve | III. | Sigmoid growth curve |
| D. | Density independent growth curve | IV. | Urn shape |
| E. | Growing population | V. | Bell shape |


|  | A | B | C | D | E |
| :--- | :--- | :--- | :--- | :--- | :--- |
| 1) | V | IV | III | II | I |
| 2) | V | IV | II | III | I |
| 3) | IV | V | III | II | I |
| 4) | IV | III | II | III | I |

167. Identify the correct statement
1) Ampicillin resistant gene is present at Bam H1 site on ${ }^{\text {pBR }} 322$ cloning vector
2) Gene gun method is used to introduce alien DNA into plant host cells
3) Lysozyme is used to break the fungal cell wall
4) Restriction endonuclease enzyme added methyl groups to DNA
168. Down's syndrome is caused by an extra copy of chromosome no 21. What percentage of offspring produced by an affected mother and a normal father would be affected by this disorder?
1) $100 \%$
2) $75 \%$
3) $50 \%$
4)25\%
169. Down stream processing includes
1) Separation and purification
2) Denaturation and purification
3) Annealing and purificartion
4) Denaturation and separation
170. A male human is heterozygous for autosomal genes ' $A$ ' and ' $B$ ' and is also hemizygous for hemophilic gene ' $h$ '. What proportion of his sperms will be with 'abh'?
1) $1 / 8$
2) $1 / 32$
3)1/16
3) $1 / 4$
171. Select the wrong pair
1) Round up ready soyabean - herbicide tolerant
2) Transgenic tomato- resistant to Phytophthora
3) Bt . Cotton - Resistant to insects
4) Transgenic papaya - Resistant to ring spot virus
172. Match the following

Part - I
A) Acromegaly
B) Giagantism
C) Addison's
D) Dwarfism
E) Ejection of milk
F) Cushing's

Part - II
I) Under secretion of GH in child
II) Oxytocin
III) Over secretion of glucocorticoid
IV) Over secretion of GH in child
V) Over secretion of GH in adult
VI) Hyposecretion of Glucocorticoid

|  | A | B | C | D | E | F |
| :--- | :--- | :--- | :--- | :--- | :--- | :--- |
| 2) | V | IV | VI | I | II | III |
| $4)$ | V | IV | VI | II | III | I |

173. Select the pair of correct combinations
I) Cauliflower- PusaShubhra - Resistance to black rot
II) Cowpea - PusaKomal - Resistance to white rust
III) Wheat - Himagiri - Resistance to hill bunt
IV) Brassica - PusaGaurav - Resistance to white rust
1) I II
2) I III
3) I IV
4) III IV
174. If a Rh positive Homozygus man marries a woman heterozygous for $R h$, what is the percentage of the children affected by erythroblastosis foetalis
1) Zero
2) $25 \%$
3) $50 \%$
4) $75 \%$
175. Match the following

Set -I
A) Vitamin A enriched crop
B) Vitamin C enriched crop
C) Iron and calcium enriched crop
D) Protein enriched crop4. Carrot

1) A-1 B-2 C-3 D-4
2) A-4 B-3 C-2 D-1
3) A-4 B-3 C-1 D-2
4) A-3 B-4 C-2 D-1
176. If a normal female whose father is color blind marries a normal person. In the Progeny percentage of color blind sons are
1) $0 \%$
2) $100 \%$
3) $25 \%$
4) $50 \%$
177. The following are produced without distillation
a) Wine
b) Brandy
c) Beer
d) Whisky
1) $a, b$
2) a, c
3) a, d
4) b, d
178. In a population in Hardy-Weinberg equilibrium, if the frequency of one allele $A$ of a gene with only two allelic forms is 0.2 , what is the frequency of heterozygotes for that gene in that population?
1) 0.8
2) 0.16
3) 0.32
4) 0.48
179. Select the correct combinations
I) Aspergillusniger - Fungus - Citric acid
II) Acetobacteraceti - Bacterium - Acetic acid
III) Clostridium butylicum - Fungus - Butyric acid
IV) Lactobacilus - Bacterium - Lactic acid
1) I II IV
2) II III IV
3) I III IV
4) I II III
180. Abingdon tortoise in Galapagos islands become extinct within a decade after goats were introduced on the island, this is an example for
1) Parasitism
2) Coexistence
3) Competitive exclusion
4) Commensalism
