

**Natural Science**  
**Question Numbers 71 to 150**

71. The first clinical gene therapy was tested in 1990 in the case of :  
 (A) Adenosine deaminase deficiency.  
 (B) Cystic fibrosis  
 (C) Emphysema  
 (D) Phenyl ketonuria
72. The vascular bundles are conjoint, collateral, open with endarch protoxylem in :  
 (A) Dicot Stem  
 (B) Monocot Stem  
 (C) Dicot Leaf  
 (D) Monocot Leaf
73. Lungfish is a connecting link between :  
 (A) Amphibians and birds  
 (B) Annelids and arthropods  
 (C) Fishes and amphibians  
 (D) Arthropods and molluscs
74. Typhoid fever can be confirmed by :  
 (A) Western Blot  
 (B) Widal Test  
 (C) ELISA  
 (D) Northern Blot
75. Match the following and choose the CORRECT answer.
- |             |       |                                    |
|-------------|-------|------------------------------------|
| (a) IBA     | (i)   | Inhibition of seed germination     |
| (b) GA3     | (ii)  | Helps to overcome apical dominance |
| (c) Kinetin | (iii) | Rooting                            |
| (d) ABA     | (iv)  | Promotes bolting                   |
- (A) (a) (b) (c) (d)  
 (B) (i) (ii) (iv) (iii)  
 (C) (iii) (iv) (ii) (i)  
 (D) (iv) (ii) (iii) (i)
76. During nitrogen fixation, ammonia is first oxidized to nitrite which is further oxidized to nitrate and the reactions are given below  

$$2\text{NH}_3 + 3\text{O}_2 \rightarrow 2\text{NO}_2^- + 2\text{H}^+ + 2\text{H}_2\text{O} \dots\text{(i)}$$

$$2\text{NO}_2^- + \text{O}_2 \rightarrow 2\text{NO}_3^- \dots\text{(ii)}$$
 The reaction (i) is facilitated by the action of :  
 (A) *Nitrosomonas*  
 (B) *Nitrococcus*  
 (C) *Nitrosomonas and/or Nitrococcus*  
 (D) *Nitrobacter*
77. Somatostatin is produced by :  
 (A) Pituitary  
 (B) Pancreas  
 (C) Hypothalamus  
 (D) Thymus
78. *Adiantum* is coming under the Class  
 (A) Psilopsida  
 (B) Lycopsidea  
 (C) Sphenopsida  
 (D) Pteridopsida
79. Interkinesis is a stage between :  
 (A) G2 and M Phase  
 (B) Meiosis I and Meiosis II  
 (C) Telophase and Cytokinesis  
 (D) Diakinesis and Metaphase

80. Continuous self pollination results in inbreeding depression. Among the following which one DOES NOT favour self pollination and encourages cross pollination ?
- Self incompatibility
  - Production of bisexual flowers
  - Non-synchronous pollen release and stigma receptivity.
  - Anther and stigma placed at different positions in some flowers
81. The strategy adopted to prevent the infection of *Melioidogyne incognita* in the roots of tobacco plants is based on the principle of :
- Antisense RNA
  - Bt
  - DNA hybridization
  - RNAi
82. Which among the following is the only one mechanism that brings genetically different types of pollen grains to stigma ?
- Autogamy
  - Cleistogamy
  - Geitonogamy
  - Xenogamy
83. Replacement of glutamic acid by valine in haemoglobin causes :
- Thalassemia
  - Sickle cell anaemia
  - Haemophilia.
  - Albinism
84. Identify the set of hormones produced in women only during pregnancy :
- Human Chorionic gonadotropin and estrogen
  - Relaxin and progesterone
  - Progesterone and human Chorionic gonadotropin
  - Human chorionic gonadotropin and relaxin
85. The function of green glands is :
- Excretion
  - Respiration
  - Reproduction
  - Locomotion
86. The reserve food in Rhodophyceae is :
- Starch
  - Floridean starch
  - Mannitol
  - Laminarin
87. \_\_\_\_\_ is a hydrocolloid produced by some Phaeophyceae.
- Algin
  - Carrageen
  - Cellulose
  - Starch
88. Which one of the following is a hermaphrodite ?
- Leech
  - Pinworm
  - Ascaris
  - Hookworm
89. The scientist who is known as "The Darwin of the 20<sup>th</sup> Century" is :
- Ernst Haeckel
  - Ernst Mayr
  - Meyerhof
  - Embden
90. Sexual reproduction in Volvox is :
- Isogamous
  - Anisogamous
  - Oogamous
  - Zoospores



91. The number of microtubules in a centriole is :
- (A) Nine triplets  
(B) Nine doublets  
(C) 6 triplets  
(D) 6 doublets
92. The CORRECT relationship between the components that determines water potential is :
- (A)  $\Psi_s = \Psi_w + \Psi_p$   
(B)  $\Psi_s = \Psi_w - \Psi_p$   
(C)  $\Psi_w = \Psi_s + \Psi_p$   
(D)  $\Psi_w = \Psi_s - \Psi_p$
93. In Pea, the largest petal overlaps the two lateral petals, which in turn overlaps the two smallest petals. This type of aestivation is known as :
- (A) Valvate  
(B) Vexillary  
(C) Imbricate  
(D) Twisted
94. Shrinking of animal cells is known as :
- (A) Plasmolysis  
(B) Pyrolysis  
(C) Anaphylaxis  
(D) Crenation
95. Which one of the following is a member of the phylum platyhelminthes ?
- (A) Roundworm  
(B) Filariaworm  
(C) Hookworm  
(D) Tapeworm
96. YAC is :
- (A) Yeast Artificial Cell  
(B) Yeast Amplified Cell  
(C) Yeast Artificial Chromosome  
(D) Yeast Amplified Chromosome
97. Biofortification refers to :
- (A) Active uptake of minerals by plants  
(B) Breeding of crops for improved nutritional quality  
(C) Crop production by conventional methods  
(D) Reduction of nitrogen to ammonia by living organisms
98. The appearance of brown spots surrounded by chlorotic veins in leaves occurs due to the toxicity of :
- (A) Mg  
(B) Mn  
(C) Mo  
(D) Zn
99. Choose the INCORRECT statement related to facilitated diffusion in plants.
- (A) Requires special membrane proteins  
(B) It is highly selective  
(C) Requires ATP energy  
(D) Transport rate reaches saturation
100. Arrange the following in CORRECT sequential order on the basis of development :
- (A) Pollen grains, Sporogenous tissue, Microspore tetrad, Pollen mother cell, Male gametes  
(B) Sporogenous tissue, Pollen mother cell, Microspore tetrad, Pollen grains, Male gametes  
(C) Sporogenous tissue, Pollen grains, Pollen mother cell, Microspore tetrad, Male gametes  
(D) Pollen grains, Pollen mother cell, Sporogenous tissue, Microspore tetrad, Male gametes

101. The maximum volume of air a person can breathe in after a forced expiration is called :

- (A) Expiratory Capacity
- (B) Inspiratory Capacity
- (C) Residual Volume
- (D) Vital Capacity

102. The plant source of *Colchicine* is belonging to Family :

- (A) Malvaceae
- (B) Solanaceae
- (C) Leguminosae
- (D) Liliaceae

103. The liver does not produce :

- (A) Albumin
- (B) Gamma globulin
- (C) Fibrinogen
- (D) Prothrombin

104. Which among the following is NOT TRUE regarding Restriction endonucleases ?

- (A) They were named on the basis that the first letter of the name comes from the genus and the second two letters come from the species of the prokaryotic cell from which they were isolated
- (B) They function by inspecting the length of a DNA sequence
- (C) They add methyl groups to DNA
- (D) They recognize a specific palindromic nucleotide sequence in the DNA

105. In human karyotype, group G includes the chromosomes :

- (A) 19, 20
- (B) 20, 21
- (C) 21, 22
- (D) 18, 19

106. Thrombocytes are involved in :

- (A) Coagulation of blood
- (B) Immune responses
- (C) Osmotic balance
- (D) Inflammatory reactions

107. The primary CO<sub>2</sub> acceptor in Hatch and Slack pathway is :

- (A) OAA
- (B) PEP
- (C) PGA
- (D) RuBP

108. The upright pyramid of number cannot be seen with \_\_\_\_\_ ecosystem.

- (A) Lake
- (B) Grassland
- (C) Pond
- (D) Forest

109. Which among the following is NOT a characteristic of xylem tracheids ?

- (A) They are long cylindrical tube-like cells
- (B) These are dead without protoplasm.
- (C) The inner layers of the cell walls have thickenings which vary in form
- (D) They are water transporting elements

110. 'Kalyan Sona' and 'Sonalika', the high yielding and disease resistant wheat varieties were the outcome of :

- (A) Introduction
- (B) Selection
- (C) Interspecific hybridization
- (D) Distant hybridization



111. Polymer of fructose is :  
 (A) Inulin  
 (B) Codeine  
 (C) Gluten  
 (D) Lecithin
112. Podocytes are seen in :  
 (A) Alveoli  
 (B) Stomach  
 (C) Bowman's capsule  
 (D) Liver
113. Which is the primary  $\text{CO}_2$  fixation product in  $\text{C}_4$  plants ?  
 (A) OAA  
 (B) PEP  
 (C) PGA  
 (D) RuBP
114. Mule is :  
 (A) Inbreed  
 (B) Interspecific hybrid  
 (C) Intergeneric hybrid  
 (D) Cross-breed
115. The primary lymphoid organs are :  
 (A) Thymus and liver  
 (B) Thymus and spleen  
 (C) Bone marrow and thymus  
 (D) Spleen and bone marrow
116. The forebrain consists of :  
 (A) Cerebrum, Pons, Thalamus  
 (B) Cerebrum, Hypothalamus, Medulla oblongata  
 (C) Cerebrum, Pons, Hypothalamus  
 (D) Cerebrum, Hypothalamus, Thalamus
117. Peptide hormone which decreases blood pressure is secreted by :  
 (A) Atrial wall  
 (B) Ventricle wall  
 (C) Bundle of his  
 (D) Cordae tendinae
118. Greenhouse gases include :  
 (A)  $\text{CO}_2$ , CO  
 (B)  $\text{CO}_2$ ,  $\text{SO}_2$   
 (C)  $\text{CO}_2$ , Methane  
 (D) Methane,  $\text{SO}_2$
119. Taq polymerase is isolated from :  
 (A) Fungus  
 (B) Bacteria  
 (C) Protozoa  
 (D) Mycoplasma
120. Which among the following plant growth regulator is a terpene derivative ?  
 (A) ABA  
 (B) Ethylene  
 (C)  $\text{GA}_3$   
 (D) IAA
121. Which one is LEAST important in evaluating quality of a science text ?  
 (A) Modern Illustrations  
 (B) Publishers  
 (C) Presentation of materials  
 (D) Scientific correlations
122. Year plan includes :  
 (A) Concepts  
 (B) Evaluation tools  
 (C) Learning experience  
 (D) Objectives

123. A teacher's 'mental and emotional visualization of classroom activities is' :
- Resource unit
  - Lesson plan
  - Unit plan
  - Year plan
124. The curricular approach which indicates continuity and linkage between successive years is :
- Spiral
  - Interdisciplinary
  - Topical
  - Unit
125. Which of the following is NOT seen in a science library ?
- Science Dictionaries
  - Science Encyclopaedia
  - Science Equipments
  - Science Manuals
126. 'Pedagogy of the Oppressed' is the book of :
- Howard Gardner
  - John Dewey
  - Paulo Freire
  - Vygotsky
127. Method of teaching which gives training in listening and taking rapid note is :
- Dalton plan
  - Lecture method
  - Project method
  - Problem method
128. A generalised idea of a class of things is :
- Attribute
  - Law
  - Concept
  - Theory
129. Hidden curriculum refers to :
- Cognitive objectives
  - Curriculum objectives
  - Instructional objectives
  - Unintended objectives
130. Which one is included in the four pillars of education proposed by UNESCO ?
- Learning to love
  - Learning to live
  - Learning to live together
  - Learning to lead
131. A person with scientific attitude is :
- Curious
  - Superstitious
  - Subjective
  - Unwilling to change beliefs
132. A model representing a scene with three-dimensional figures showing animals in their natural environment is :
- Diorama
  - Monuments
  - Still models
  - Specimens
133. Which one is included in the category of domains proposed by Mc Cormack and Yager ?
- Appreciation
  - Evaluation
  - Process
  - Synthesis
134. The test item which minimizes the guess work is :
- Essay type
  - Matching type
  - Multiple choice
  - Supply type

135. Teacher's Handbook includes :
- Remedial activities
  - Diagrams to be labelled
  - Instructional objectives
  - Theories of Teaching and Learning
136. Which one is NOT included in a Blueprint ?
- Weightage to content
  - Weightage to form of questions
  - Weightage to time
  - Weightage to objectives
137. An example of projected aid is :
- Blackboard
  - Bulletin board
  - Flannel board
  - Smart board
138. Who among the following proposed constructivist theory ?
- Herbart
  - Pavlov
  - Thorndike
  - Vygotsky
139. Which body is NOT directly related to in-service programmes for teachers ?
- DIET
  - NCTE
  - NCERT
  - SCERT
140. The approach emphasizes a single instance from a generalized theory is :
- Deductive approach
  - Direct approach
  - Enquiry approach
  - Inductive approach
141. 'Zone of Proximal Development' is :
- The area in which one can perform better by himself
  - The area in which one can achieve later
  - The area in which one can excel with assistance
  - The area which is unachievable
142. Which of the following journal is published by NCERT ?
- Journal of Indian Education
  - Review of Indian Education
  - Science for Schools
  - The Survival
143. Which one NOT a process of Scaffolding ?
- Asking thought provoking questions
  - Clearing doubts
  - Explaining how to do the task
  - Guiding weak groups
144. The chart which shows the developments and relationships of concepts is :
- Flow chart
  - Outline chart
  - Tree chart
  - Timeline chart
145. The Heuristic method was coined by :
- Helen Parkhurst
  - H.E. Armstrong
  - John Dewey
  - W.H. Kilpatrick



146. NCERT is :

- (A) Natural Council of Educational Research and Training
- (B) National Council of Educational Research and Training
- (C) Natural Council for Educational Research and Training
- (D) National Council for Educational Research and Training .

147. Collaborative learning is based on the principle of :

- (A) Group work is better than individual works .
- (B) Language has a limited role in learning
- (C) Learning is self centered
- (D) Peer interaction hinders learning

148. The expansion of VICTERS is :

- (A) Versatile ICT Enabled Resources for Students
- (B) Versatile ICT Enabled Resources for Schools
- (C) Virtual ICT Enabled Resources for Students
- (D) Virtual ICT Enabled Resources for Schools .

149. Which of the following comes under creativity domain ?

- (A) Decision making
- (B) Exploring human emotions
- (C) Integrating scientific process in problem solving.
- (D) Producing unusual ideas .

150. Which one is NOT true in a constructivist classroom ?

- (A) Active construction of knowledge
- (B) Passive absorption of information
- (C) Social learning environment
- (D) Students work in group

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