

BIOLOGY

101. Which of the following is not the characteristic of Monera?
- (1) DNA is naked
 - (2) Vacuoles are absent in cytoplasm
 - (3) They are ubiquitous
 - (4) Reproduction is mainly through sexual reproduction
102. Transduction in bacteria was discovered by
- (1) Lederberg and Tatum
 - (2) Tatum and Zinder
 - (3) Griffith
 - (4) Zinder and Lederberg
103. Rabies Virus contains
- (1) ss-RNA
 - (2) ds-RNA
 - (3) ss-DNA
 - (4) ds-DNA
104. Potato spindle Tuber disease is caused by
- (1) Bacteria
 - (2) Virus
 - (3) Viroid
 - (4) Prion
105. Which of the following bacteria is oxygenic?
- (1) Archaeobacteria
 - (2) Cyanobacteria
 - (3) Actinomycetes
 - (4) Rickettsiae
106. Which of the following is an enveloped virus ?
- (1) TMV
 - (2) T₄-bacteriophage
 - (3) Potato mosaic virus
 - (4) Influenza virus
107. Col-plasmids of bacteria are useful for their
- (1) Reproduction
 - (2) Respiration
 - (3) Defence
 - (4) Nutrition
108. Which of the following is not characteristic of Gram +ve bacteria
- (1) Mesosomes are abundantly present
 - (2) Presence of Teichoic acid
 - (3) Presence of Pili
 - (4) Usually non-pathogenic forms
109. Which of the following bacteria is a symbiotic nitrogen fixing bacteria of non-legumes ?
- (1) *Rhizobium*
 - (2) *Azotobacter*
 - (3) *Thiobacillus*
 - (4) *Frankia*
110. Which of the following is not the characteristic of Archaeobacteria
- (1) They are most primitive bacteria
 - (2) Cell wall contains proteins and non cellulosic polysaccharides
 - (3) Can tolerate adverse condition like high temperature
 - (4) Presence of peptidoglycan
111. Which of the following forms symbiotic association with roots of *Cycas* plant?
- (1) *Azolla*
 - (2) *Nostoc*
 - (3) *Spirulina*
 - (4) *Oscillatoria*
112. An organism found to be a free RNA and lacking the protein coat of a virus is a
- (1) Virion
 - (2) Viroid
 - (3) Prion
 - (4) Rickettsiae
113. Flagella present all around a bacterium cell is called as
- (1) Monotrichous
 - (2) Lophotrichous
 - (3) Amphitrichous
 - (4) Peritrichous
114. Which of the following is caused by mycoplasma?
- (1) Witches Broom
 - (2) Citrus canker
 - (3) Red stripe of sugarcane
 - (4) Crown gall
115. Non-infective viral genome when integrated with host genome is called
- (1) Episome
 - (2) Prophage
 - (3) Plasmid
 - (4) Probacteria
116. The major component of bacterial cell wall is a polymer called
- (1) Xylan
 - (2) Chitin
 - (3) Cellulose
 - (4) Peptidoglycan
117. Diseases like yellow of Aster and Little leaf of brinjal are caused by
- (1) Mycoplasmas
 - (2) Rickettsiae
 - (3) Chlamydiae
 - (4) *Psuedomonas*

118. Polyhydroxybutyrate (PHB) found in bacterial cells is
- (1) An anticoagulant
 - (2) Heat stabilising agent
 - (3) Source of energy
 - (4) Buoyant
119. The smallest bacterium is
- (1) *Dialister pneumosintes*
 - (2) *Spirillum volutans*
 - (3) *Beggiatoa mirabilis*
 - (4) *Epulopiscium fishelsoni*
120. During conjugation in bacteria, transfer of a few genes from HFr to F⁻ bacteria gives rise to
- (1) Merozygote
 - (2) Mesokaryon
 - (3) Abortive conjugation
 - (4) Cryptic plasmid
121. Gram stain represents
- (1) A technique for staining bacteria, developed by Christian Gram
 - (2) A stain got from Gram
 - (3) A cytochemical technique for differentiation of mitochondria
 - (4) A trade name
122. *Frankia* is associated with nitrogen fixation and
- (1) an archeobacteria
 - (2) an actinomycetes
 - (3) a blue green algae
 - (4) a spirochaete
123. D/2, 130/40, X/X, B/O is cryptogram of
- (1) Polio virus
 - (2) T₄ bacteriophage
 - (3) TMV
 - (4) ϕ X174
124. Which of the following are archaeobacteria?
- (1) Green sulphur
 - (2) Methanogens
 - (3) Pseudomonas
 - (4) Chlamydiae
125. Which of the following reduces soil fertility?
- (1) *Nitrosomonas*
 - (2) *Nitrobacter*
 - (3) *Bacillus denitrificans*
 - (4) *Azotobacter*
126. Zymogens are
- (1) hormones that stimulate release of pancreatic enzymes
 - (2) enzymes attached to the brush border that hydrolyze nucleosides
 - (3) hydrolytic enzymes manufactured in inactive form to protect the cells that produce them
 - (4) protein-digesting enzymes that are produced by large intestine
127. Which of the following statements is *false*?
- (1) The average human has enough stored glycogen to supply calories for several weeks
 - (2) Eating less and/or exercising more can result in weight loss
 - (3) Conversion of glucose into glycogen takes place in the liver
 - (4) Excessive calories are stored as fat, regardless of their original food source
128. The purpose of antidiarrhoea medicine would most likely be to
- (1) speed up peristalsis in the small intestine
 - (2) speed up peristalsis in the large intestine
 - (3) kill *E. coli* in the intestine
 - (4) increase water reabsorption in the large intestine
129. Ruminants
- (1) have teeth adapted for an omnivorous diet
 - (2) use microorganisms to digest cellulose
 - (3) eat their faeces to obtain nutrients
 - (4) house symbiotic bacteria and microorganisms in oesophagus
130. The brush border of the small intestine is formed by
- (1) circular folds
 - (2) cilia
 - (3) villi
 - (4) microvilli
131. The acidic pH of the stomach
- (1) is due to activity of chief cells
 - (2) is regulated by the release of gastrin
 - (3) is neutralized by gastric juice
 - (4) is produced by pepsin
132. Chylomicrons are
- (1) nucleoproteins transported by the circulatory system
 - (2) small branches of the lymphatic system
 - (3) protein coated fat globules excreted out of epithelial cells into a lacteal
 - (4) small peptides acted upon by chymotrypsin
133. A plant cell has 12 chromosomes at the end of mitosis. How many chromosomes would it have in the G₂ phase of its next cell cycle?

- (1) 6 (2) 9
(3) 12 (4) 24
134. Which of the following is not true of a cell plate?
 (1) It forms at the site of the metaphase plate
 (2) It results from the fusion of microtubules
 (3) It fuses with the plasma membrane
 (4) A cell wall is laid down between its membranes
135. The rhythmic changes in cyclin concentration in a cell cycle are due to
 (1) its increased production once the restriction point is passed
 (2) the cascade of increased production once its enzyme is phosphorylated by MPF
 (3) the degradation by an enzyme phosphorylated by MPF
 (4) the changing ratio of cytoplasm to genome
136. The stomach does not digest itself because the :
 (1) Gastric mucosal cells transport H^+ out of the gastric mucosa
 (2) H^+ are completely neutralised by food
 (3) Gastric mucosal cells are not digestible
 (4) Stomach wall is rigid
137. If a person lives exclusively on a diet of milk, eggs and bread, he is likely to suffer from
 (1) Scurvy (2) Beri-beri
 (3) Rickets (4) Night blindness
138. The angle between adjacent triplets of centriole is
 (1) 90° (2) 40°
 (3) 60° (4) 120°
139. The non-dividing cells like RBC & muscle cells are in
 (1) G_1 -phase (2) G_0 -phase
 (3) G_2 -phase (4) S-phase
140. If you are provided with root-tips of onion in your class and asked to count the chromosomes, which of the following stages can you most conveniently look into?
 (1) Telophase (2) Anaphase
 (3) Prophase (4) Metaphase
141. Cross match the following :
 (a) Most dilated part of alimentary canal (i) Duodenum
 (b) Longest part of alimentary canal (ii) Oesophagus
 (c) C-shaped part of alimentary canal (iii) Small intestine
 (d) Skeletal muscles (iv) Stomach
 (1) a-iii, b-i, c-iv, d-ii (2) a-ii, b-i, c-iii, d-iv
 (3) a-iv, b-iii, c-i, d-ii (4) a-i, b-ii, c-iv, d-iii
142. Which of the following is not related to sodium transport ?
 (1) Glucose (2) Galactose
 (3) Fructose (4) Amino acids
143. Carnassial teeth are
 (1) Modified incisors
 (2) Present in some herbivores
 (3) Modified premolars & molars
 (4) Absent in terrestrial carnivores
144. Which of the following statement is false
 (1) Heart burn is same as pyrosis
 (2) Humans can't digest collagen
 (3) Humans don't have taste buds for distilled water
 (4) None of these
145. Peyer's patches are present in
 (1) Stomach mucosa
 (2) Buccopharyngeal cavity
 (3) Ileum (4) Rectum
146. The following statements are true in relation to saliva except that it :
 (1) Has important lubricating action
 (2) Has antiseptic action
 (3) Contains an enzyme which is essential for complete digestion of starch
 (4) Helps in speech
147. Gastric secretions :
 (1) Are enhanced by mere thought of food
 (2) Are stimulated by histamine injection
 (3) Contain factor which helps in vit. B_{12} absorption
 (4) All of these
148. The acidity in duodenum results in increased biliary and pancreatic secretions. The latter are rich in bicarbonate and poor in enzymes. Which of the following response accounts for all this :
 (1) Release of pancreozymin
 (2) Release of secretin
 (3) Release of gastrin (4) Release of CCK
149. The liver can synthesise following proteins except :
 (1) Albumin (2) Fibrinogen
 (3) Prothrombin (4) Gamma-globulin
150. In the intestinal chyme, final sugars normally found are :
 (1) Galactose and xylose
 (2) Glucose and fructose