

SAMPLE HINTS AND SOLUTIONS

INSTITUTE NAME & LOGO

NEET – EXAM YEAR

Time : 90 Min

Bio : Full Portion Paper

Marks : 360

Hints and Solutions

91) Ans: 2) Multinucleated

Sol: Smooth muscle fibre is a spindle-shaped, thick in the middle and thin at either ends uninucleated and has no sarcolemma. Contraction is slow, involuntary under the control of ANS.

92) Ans: 1) Antipodal cells

Sol: Antipodal cells participate in nourishing the embryo. For this, the antipodal cells often develop haustoria.

93) Ans: 2) Blue light

Sol: As blue colour comes first in spectrum light.

94) Ans: 4) DNA fragments of a genome maintained by cloning in cultured cells

95) Ans: 1) Nucleases

96) Ans: 2) Vessels

Sol: Porous wood (In angiosperms) consists mainly vessels.

97) Ans: 3) CO₂ and ammonia

Sol: Ornithine cycle removes two waste products from the food in liver which are NH₃ and CO₂.

98) Ans: 3) Chemical messenger

Sol: Hormone is a chemical messenger which is produced by endocrine glands and secreted directly into the blood stream to exert a specific effect on a distant part of the body.

99) Ans: 4) All the above

Sol: The fusion of alveoli sac to produce large alveolus or reduction in the internal lung surface.

100) Ans: 1) Chl. a, Chl b, carotenes and xanthophylls

Sol: Ulothrix is green algae.

101) Ans: 1) Potato mosaic

102) Ans: 2) Temperature

Sol: Temperature directly affects the transpiration. Since the temperature rises so does the transpiration. Temperature in its turn is effected by light.

103) Ans: 2) Plants absorb one thing at a time either water or inorganic salt

Sol: Since, inorganic salts are absorbed with water.

104) Ans: 2) Anaphase I-Homologous chromosomes are separated

Sol: Anaphase I Homologous chromosomes are separated

105) Ans: 1) Lack of vascular tissue

Sol: In Bryophytes vascular tissue (i.e., xylem and phloem) are completely absent. Water and nutrients enter cell by diffusion when in pteridophytes vascular tissue consists of xylem (without true vessels) and phloem (without companion cells).

106) Ans: 1) Acetic acid

107) Ans: 2) Maximum light absorption

108) Ans: 4) It lives both on land and water

109) Ans: 2) V

Sol: The trigeminal cranial nerve that supplies to the upper and lower jaw.

110) Ans: 3) Pitcher of Nepenthes

Sol: Pitcher is insectivorous plant whose leaves are modified variously to catch the insects.

111) Ans: 2) Glycogen and oil

112) Ans: 1) Sarcomere

113) Ans: 4) All the above

114) Ans: 4) All of these

115) Ans: 1) Elephant

116) Ans: 2) Leonardo da Vinci

117) Ans: 3) at the midgut

118) Ans: 3) Coconut endosperm

119) Ans: 4) Etiology

120) Ans: 2) Vipers

Sol: A viper can be easily identified by its triangular, pear shaped head bearing small cephalic scales.

121) Ans: 4) Hormone produced in placenta is URF

122) Ans: 2) Nerve fibre

123) Ans: 1) Controls more than one phenotype

124) Ans: 3) The germinal epithelium of the testes will degenerate, resulting in sterility

Sol: The germinal epithelium of testes needs a low temperature for their normal functioning.

125) Ans: 1) Monocot stem

126) Ans: 1) Hyperglycemia

Sol: High sugar level in blood is known as hyperglycemia.

127) Ans: 1) Amanita

128) Ans: 1) Does all the above works

129) Ans: 1) Slowest

Sol: It represents initial stage of growth. Rate of growth is very slow in lag phase.

130) Ans: 3) The small intestine

Sol: Villi are microscopic finger like projections which are found in the mucous membrane of the small intestine that provide a large surface area for the absorption of digested food.

131) Ans: 3) Vernalization

Sol: Winter cereal can be converted into spring cereal by providing artificial low temperature treatment (i.e. springification).

132) Ans: 2) Upright

Sol: The pyramid of number in forest is erect or upright as producers are maximum in number whereas top consumers are least in number

133) Ans: 3) Heart beat is increased

134) Ans: 3) In all living cells both in light and dark

135) Ans: 1) Vitamin A

136) Ans: 4) Control blood volume

Sol: So spleen is also known as the blood reservoir of human body.

137) Ans: 4) RBC of human

138) Ans: 2) Mucin

Sol: Mucin is a glycoprotein of saliva.

139) Ans: 3) Both together

Sol: This type of membranes allow selective passage of solutes along with solvent through them. Many biological membranes like cell membranes, tonoplast and the membranes surrounding the sub-cellular organelles are selectively permeable.

140) Ans: 4) The statement 1 is true but the statement 2 is false

Sol: The formation of small, underground resting, budlike structures called the tubers has also been reported in some mosses. Formerly these underground bud-like structures were called as the bulbils. The tubers develop singly on stem, leaves and rhizoids as small, spherical storage organs containing starch. These serve as means of perennation and enable the plant to tide over periods unfavourable for vegetative growth.

141) Ans: 3) Acacia

142) Ans: 1) Kinetin/BA

143) Ans: 1) 32 feet

Sol: Alimentary canal is a long and coiled tube which extends from mouth to anus in man. It is about 32 feet long.

144) Ans: 1) Dihybrid test cross

Sol: In dihybrid, test cross two pairs of contrasting characters are involved and the individual is crossed with recessive parent in F_1 generation.

145) Ans: 3) Nirenberg

Sol: Nirenberg and Matthaei used artificially synthesized mRNA in a cell free system. When they added a synthetic mRNA containing only one base uracil, the protein synthesized consisted only of one amino acid phenylalanine. It suggests that triplet UUU codes for the amino acid phenyl alanine.

146) Ans: 1) Areolar tissue

Sol: Areolar tissue either fixes skin to the underlying muscles or joins integument with muscles.

147) Ans: 3) Movement of energy is unidirectional

148) Ans: 4) Soil erosion or desertification of habitat

Sol: By deforestation the land is exposed to erosion as well as desertification.

149) Ans: 4) High aspartic acid, low nitrogen and low sugar content.

150) Ans: 4) All of these

151) Ans: 4) Treponema pallidum

152) Ans: 2) Generative cell

Sol: Generative cell divides into two male gametes, if it has not divided already.

153) Ans: 2) Arnon

Sol: Arnon et al. (1954) first of all demonstrated that isolated chloroplasts can produce ATP from ADP+ip. They named this ATP production as photo phosphorylation.

154) Ans: 4) Endogenous tissue the pro cambial strand or plerome

155) Ans: 1) Coenzyme

Sol: Coenzymes are loosely attached complex non-protein, low molecular weight, thermostable, organic or metallo-organic groups, that readily separate from the apoenzyme.

156) Ans: 4) Anaerobic respiration

Sol: Anaerobic respiration is toxic as accumulation of end product, insufficient amount of available energy and cause stoppage of many active process.

157) Ans: 3) 1969

Sol: R.H. Whittaker (1969), an American ecologist, divide all the organisms into five kingdoms.

158) Ans: 2) Glycogen

159) Ans: 1) Afforestation

Sol: Afforestation means to cultivate the forest. The soil is held by the roots of the forest plants by which soil erosion can be prevented.

160) Ans: 2) amoebiasis

161) Ans: 4) Plasmids

162) Ans: 4) Fasciculated tuberous

Sol: In Dahlia, swollen adventitious roots of definite shape that occur in groups or fascicles and arise from base of stem are found.

163) Ans: 2) Nagpur

164) Ans: 2) Produces identical gametes

165) Ans: 2) Urea

166) Ans: 3) Inhibits cell wall formation

167) Ans: 1) Phosphoenol pyruvate (PEP)

168) Ans: 3) Which has codons for synthesizing only one protein molecule

169) Ans: 2) Avian egg

170) Ans: 3) Homologous chromosomes undergo crossing over and chiasmata are seen

Sol: Homologous chromosomes move apart they remain attached to one another at specific points known as chiasmata.

171) Ans: 3) Xerophyte

172) Ans: 4) Habitat destruction

Sol: Falling of trees destroys the natural habitat which decreases the wild - life number.

173) Ans: 4) Nitrate concentration

174) Ans: 3) It is a dipeptide in mammals and localised in red blood corpuscles.

175) Ans: 3) 2, 3, 3, 3, 3

Sol: 1 humerus, 1 radius, 1 ulna, 8 carpal bones 5 metacarpal bones, hence 5 digits (14 phalanges) phalangeal formula is 2, 3, 3, 3, 3.

176) Ans: 1) Synsacrum

Sol: A synsacrum is formed by fusion of posterior thoracic, lumbar, sacral and anterior caudal vertebrae.

177) Ans: 4) It competes with O₂ for haemoglobin

Sol: CO is highly toxic and impairs respiration. It combines with haemoglobin of blood and reduces its O₂ carrying capacity.

178) Ans: 3) multiple alleles

179) Ans: 1) Man

Sol: As he made factories, automobiles etc which are most polluting.

180) Ans: 2) Reissner's membrane

Sol: The scala vestibuli and scala media are separated by Reissner's membrane that makes up the roof or dorsal wall of the scala media.