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ST.PAUL'S MATRICULATION HIGHER SECONDARY SCHOOL, BLOCK – 4, NEYVELI.

X STD **BIOLOGY INTERIOR QUESTIONS ONE MARK TEST** TOTAL MARKS : 280

PORTION : UNITS 12 to 23 TIME : 3 HRS

I. Choose the correct answer

1. Light reaction takes place in _____ of chloroplast.
   a) Stroma b) Grana c) Inner membrane d) Thylakoid
2. Dark reaction takes place in _____ of chloroplast.
   a) Stroma b) Grana c) Inner membrane d) Thylakoid
3. _____ is the ATP factory of the cell.
   a) Chloroplast b) Mitochondria c) Ribosome d) Golgi apparatus
4. *Hirudinaria granulosa* belongs to Phylum _____ .
   a) Annelida b) Arthropoda c) Platyhelminthes d) Aschelminthes
5. The scientific name of the common rabbit is_____ .
   a) Hirudinaria granulose b) Phalaris canariensis c) *Oryctolagus cuniculus* d) Pisum sativum
6. Rabbit represents Phylum _____ .
   a) Mollusca b) Chordata c) Mammalia d) Annelida
7. Rabbit belongs to class _____.
   a) Mollusca b) Chordata c) Mammalia d) Annelida
8. Leech belongs to Class.
   a) Annelida b) Gnathobdellida c) Hirudineria d) Hirudinea
9. In leech, cocoon is produced by _____ during the breeding season.
   a) Nephridia b) Ovary c) Testis d) Clitellum
10. In leech, _____tissue fills the entire coelom around the gut.
    a) Botryoidal b) Muscular c) Connective d) Vascular
11. In leech, the secretion of saliva contains _____ which prevents the coagulation of blood.
    a) Anesthesia b) Papillae c) Hirudin d) Proteolytic enzyme.
12. In leech, digestion takes place in stomach by the action of _____ enzyme.
    a) Lipase b) Proteolytic c) Amylase d) Hyaluronidase
13. In leech, _____ ganglion acts as brain.
    a) Circumpharyngeal b) Subpharyngeal c) Nephridia d) Suprapharyngeal
14. In leech, excretion takes place by_____.
    a) Nephridia b) Testis c) Ovary d) Ganglion
15. In rabbit, PNS is formed of _____ pairs of cranial nerves and _____pairs of spinal nerves.
    a) 12 and 31 b) 12 and 32 c) 12 and 37 d) 12 and 39
16. The right and left cerebral hemispheres are connected by transverse band of nerve tissue called_____.
    a) Corpora quadrigemina b) Hypothalamus c) Corpus callosum d) Thalamus
17. In rabbit, the common tube is formed by the union of urinary bladder and the vagina and is called the _____.
    a) Urinogenital canal b) Vestibule c) Urethra d) Both a and b
18. _____ utilizes energy to pump molecules against a concentration gradient.
    a) Osmosis b) Passive transport c) Diffusion d) Active transport
19. The _____ movement of water occurs exclusively through the intercellular spaces and the walls of the cells.
    a) Apoplastic b) Symplast c) Osmosis d) Diffusion
20. _____ pathway In this method, water molecules move to the adjacent cells, through the plasma membrane, cytoplasm and plasmodesmata.
    a) Apoplastic b) Symplast c) Osmosis d) Diffusion
21. The mechanism of translocation of sugars from source to sink is through_____.
    a) Hydathodes b) Stomata c) Xylem d) Pressure flow hypothesis
22. Glucose prepared by photosynthesis is converted to _____during the translocation from source to link.
    a) Sucrose b) Fructose c) Starch d) Glycogen
23. The upward movement of water and minerals from roots to different plant parts is called_____.
    a)Transpiration b) Osmosis c) Ascent of sap d) Translocation
24. The force of attraction between molecules of different substances is called_____.
    a) Adhesion b) Guttation c) Cohesion d) Diffusion
25. Exudation of excess of water from the plants in the form of liquid due to root pressure is called _____ .
    a) Adhesion b) Guttation c) Cohesion d) Diffusion
26. Guttation takes place through specialized cells called_____.
    a) Stomata b) Cuticle c) Epidermis d) Hydathodes
27. Life span of RBC is about _____ days.
    a) 8 – 10 b) 120 c) 80 d) 60
28. Life span of platelets is _____ days.
    a) 8 – 10 b) 120 c) 80 d) 60
29. Arthropods, Molluscs and Ascidians possess _____ type of circulatory system.
    a) Closed & Open b) Closed c) Open
30. Annelids and most of arthropods have _____ type of heart beat.
    a) Myogenic b) Neurogenic
31. Mollusca and Vertebrates have _____ type of heart beat.
    a) Myogenic b) Neurogenic
32. Normal pulse rate ranges from_____.
    a) 70 – 90 / min b) 50 – 70 / min c) 100 – 120 / min d) 80 – 120 / min

Kindly send me your questions and answerkeys to us : Padasalai.Net@gmail.com

33. Each cardiac cycle lasts about 0.8 second.
a) 0.8 b) 0.1 c) 0.3 d) 0.4
34. Atrial systole or Contraction of auricles lasts about_____ seconds.
a) 0.3 b) 0.4 c) 0.1 d) 0.8
35. Ventricular systole: Contraction of ventricles lasts about_____ seconds.
a) 0.4 b) 0.3 c) 0.1 d) 0.8
36. Ventricular diastole: Relaxation of ventricles lasts about_____ seconds.
a) 0.4 b) 0.8 c) 0.3 d) 0.1
37. In an healthy adult during normal resting condition systolic and diastolic blood pressure is expressed as
a) 120mm / 160 mm Hg b) 80mm / 120mm Hg c) 60mm / 80mm Hg d) 120mm / 80mm Hg
38. _____ is a clinical instrument used to measure blood pressure.
a) Thermometer b) Stethoscope c) Sphygmomanometer d) Glucometer
39. Persons with '_____' blood group are called 'Universal Recipient' as they can receive blood from persons with any blood group.
a) A b) B c) AB d) O
40. Persons with '_____' blood group are called 'Universal Donor' as they can donate blood to persons with any blood group.
a) A b) B c) AB d) O
41. The lymphatic capillaries of intestinal villi which absorb digested fats are known as _____.
a) Lymph nodes b) Lymph vessels c) Ileum d) Lacteals
42. The important neurotransmitter released by neurons is called _____ .
a) Acetylcholine b) Neurolemma c) Lactic acid d) Neuralgia
43. Mid brain consists of four rounded bodies called _____.
a) Corpus collosum b) Cerebellum c) Corpora quadrigemina d) Pons
44. The most crucial molecules that determine our brain's integrity and the ability are _____.
a) Minerals b) Fats c) Vitamins d) Essential Fatty Acids
45. In man, there are _____ pairs of cranial nerves.
a) 12 b) 17 c) 21 d) 31
46. In man, There are _____ pairs of spinal nerves.
a) 12 b) 17 c) 21 d) 31
47. Application of _____ delays the process of ageing in plants. This is called Richmond Lang effect.
a) Auxin b) Cytokinin c) Ethylene d) Abscisic acid
48. The branch of biology which deals with the study of the endocrine glands and its physiology is known as
a) Palaeontology b) Endocrinology c) Embryology d) Pathology
49. They first discovered the hormone secretin.
a) Oestrogen b) Testosterone c) Secretin d) Insulin
50. Excess secretion of growth hormone in adults results in_____ .
a) Myxoedema b) Acromegaly c) Cretinism d) Gigantism
51. _____ is a hormone produced by the pineal gland.
a) Melatonin b) c) d)
52. Thyroid gland requires "_____" of iodine everyday for the production of thyroxine.
a) 10 µg b) 60 µg c) 80 µg d) 120 µg
_____ is caused due to decreased secretion of the thyroid hormones in children.
a) Myxoedema b) Acromegaly c) Cretinism d) Gigantism
53. The world's largest and tallest wind turbine is situated in_____.
a) Tirunelveli b) Kanyakumari c) Hawaii d) California
54. _____ is caused by deficiency of thyroid hormones in adults.
a) Myxoedema b) Acromegaly c) Cretinism d) Gigantism
55. _____ helps to reabsorb sodium ions from the renal tubules.
a) Adrenaline b) Testosterone c) Aldosterone d) Cortisole
56. _____ form the endocrine part of the testes.
a) Leydig cells b) Sertoli Cells c) Seminiferous tubules d) Germinal epithelium
57. Desirable level for blood cholesterol should be less than _____ for Indians.
a) 100 mg/dl b) 200 mg/dl c) 300 mg/dl d) 400 mg/dl
58. Progesterone produced by corpus luteum.
a) Corpus Luteum b) Graafian follicles c) Primary follicles d) Uterus
59. _____ has a stimulatory effect on the immune function.
a) Thyroxine b) Adrenaline c) Lymphoctes d) Thymosin
60. The ovule is attached to the ovary wall by a stalk known as _____.
a) Nucellus b) Synergids c) Funiculus d) Pedicel
61. The pollination with the help of wind is called_____.
a) Entomophily b) Hydrophily c) Anemophily d) Zoophily
62. Pollination with the help of insects like honey bees, flies are called_____.
a) Entomophily b) Hydrophily c) Anemophily d) Zoophily
63. The process of spermatogenesis takes place in the _____.
a) Sertoli cells b) Leydig Cells c) Scrotum d) Seminiferous tubules
64. The _____are the supporting cells and provide nutrients to the developing sperms.
a) Sertoli cells b) Leydig Cells c) Scrotum d) Seminiferous tubules

65. The membrane forming the surface layer of the ovum is called_____.
a) Zona Pellucida b) Vitelline membrane c) Corona radiata d) Cell wall
66. A cord containing blood vessels that connects the placenta with the foetus is called the_____.
a) Placenta b) Fallopian tube c) Umbilical cord d) Uterine wall
67. Normally gestation period of human last for about _____ days.
a) 200 b) 280 c) 350 d) 380
68. The phenotypic ratio of Monohybrid cross is is _____ .
a) 3:1 b) 1:2:1 c) 9:3:3:1 d) 1: 3
69. The genotypic ratio of Monohybrid cross is _____.
a) 3:1 b) 1:2:1 c) 9:3:3:1 d) 1: 3
70. If alleles are alike (Tt) they are referred to as _____.
a) Homozygous b) Heterozygous c) Allelomorphs d) Monozygous
71. If alleles are unlike (Tt) they are referred to as _____.
a) Homozygous b) Heterozygous c) Allelomorphs d) Monozygous
72. _____maintains and provides stability to the chromosomes.
a) Centromere b) Chromoneme c) Telomeres d) chromomere
73. _____ bonds between the nitrogenous bases make the DNA molecule stable.
a) Hydrogen b) Phosphodiester c) Covalent d) All the above
74. Each turn of the double helix in DNA is _____.
a) 32 A° (3.2 nm) b) 43 A° (4.3 nm) c) 38 A° (3.8 nm) d) 34 A° (3.4 nm)
75. There are _____ base pairs in a complete turn of the double helix in DNA.
a) 5 b) 8 c) 10 d) 12
76. The specific points on the DNA, where the replication begins, is the site of origin of replication.
a) Terminus b) Nucleotide c) Site of origin d)Nucleoside
77. The replication of DNA stops at site called _____ .
a) Terminus b) Nucleotide c) Site of origin d)Nucleoside
78. The enzyme Helicase separates the two strands of the DNA.
a) Restriction Endonucleases b) Helicase c)DNA Polymerase d) DNA ligase
79. The enzyme _____ separates the double helix above the replication fork and removes the twists formed during the unwinding process.
a) Topoisomerase b) Restriction Endonucleases c)DNA Polymerase d) DNA ligase
80. Okazaki fragments are joined together by the enzyme _____.
a) Topoisomerase b) Restriction Endonucleases c)DNA Polymerase d) DNA ligase
81. The condition in which the individual bears more than the usual number of diploid (2n) chromosomes is called _____ . a) Euploidy b) Gene mutation c) Point mutation d) Aneuploidy
82. The loss or gain of one or more chromosomes in a set is called _____.
a) Euploidy b) Gene mutation c) Point mutation d)Aneuploidy
83. Down's syndrome is a genetic condition in which there is an extra copy of chromosome in _____ pair.
a) 10 th b) 12 th c) 20 th d) 21st
84. Vermiform appendix, nictitating membrane, caudal vertebra, coccyx are examples for _____.
a) Atavism b) Vestigial organ c) Homologous organ d) Analogous organ
85. Presence of rudimentary tail in new born babies and presence of thick hair on the human body are examples for _____. a) Atavism b) Vestigial organ c) Homologous organ d) Analogous organ
86. _____ is the gradual change occurring in living organisms over a period of time.
a) Speciation b) Evolution c) Biognesis d) Ontogeny
87. Theory of Natural Selection was published in the book _____.
a) Evolution b) Biogenesis c) Philosophic Zoologique d) On the Origin of Species
88. The science which looks for the presence of extra terrestrial life in the universe is _____.
a) Space Biology b) Exobiology c) Astrobiology d) Options b and c
89. The organisms which live in extreme environmental conditions on earth are called _____ .
a) Extremophiles b) Xerophytes c) Mesophytes d) Panspermia
90. Genetically modified rice can produce beta carotene, that can prevent Vitamin A deficiency is _____.
a) Golden Rice b) IR 8 c) Silver Rice d) Ponni

II. MATCH THE FOLLOWING

Match the following - 1

91. Bulbils – a) Bryophyllum
92. Propagation by root – b) Strawberry
93. Propagation by stem – c) Agave
94. Propagation by leaf - d) Asparagus / Sweet Potato

Match the following - 2

95. Increase in blood sugar level - a) Glycosuria
96. Excretion of excess glucose in the urine - b) Polyuria
97. Frequent urination - c) Polydipsia
98. Increased thirst - d) Polyphagia
99. Increase in appetite - e) Hyperglycemia

Match the following - 3

100. Melatonin - a) Antibodies
101. Telomeres - b) Time messenger
102. Abscisic acid (ABA) - c) Aging clock
103. Thyroxine - d) Stress hormone
104. Lymphocytes - e) Personality hormone

Match the following - 4

105. Forebrain - a) Mesencephalon
106. Midbrain - b) Rhombencephalon
107. Hindbrain – c) Prosencephalon

Match the following - 5

108. Anaemia – a) Increase in the number of leukocytes
109. Leucocytosis - b) Decrease in number of erythrocytes
110. Leukopenia - c) Decrease in the number of thrombocytes
111. Thrombocytopenia – d) Decrease in number of leukocytes

Match the following - 6

112. Two chambered heart - a) Aves, Mammals and Crocodiles
113. Three chambered heart - b) Reptiles
114. Incomplete four chambered heart - c) Fishes
115. Four chambered heart - d) Amphibians

Match the following - 7

116. Purines - a) Nitrogen base + Sugar
117. Pyrimidines - b) Nucleoside + Phosphate
118. Nucleoside - c) Cytosine and Thymine
119. Nucleotide - d) Adenine and Guanine

Match the following - 8

120. Continuous strand of daughter DNA - a) Grand Anicut
121. Short segments of daughter DNA - b) Hydraulic fracturing technique
122. Shale gas - c) Lagging strand
123. Kallanai Dam - d) Leading strand

Match the following - 9

124. Monosomy - a) 2n+1
125. Trisomy - b) 2n-2
126. Nullisomy - c) 2n-1

Match the following - 10

127. Spores from outer space - a) Ginko biloba
128. Lamarck's theory of evolution - b) Goldilock zone
129. Living Fossil - c) Panspermia
130. Earth - d) Philosophic Zoologique

Match the following - 11

131. TV-29 - a) Transgenic fish
132. Gamma garden or Atomic garden - b) The first cloned sheep
133. Heterosis - c) Triploid variety of tea
134. DOLLY - d) Cobalt-60 and Caesium-137
135. Salmon or Rainbow trout or Tilapia – e) Hybrid vigour

Match the following - 12

136. Insulin Dependent Diabetes Mellitus (IDDM) - a) Atherosclerosis
137. Type-2 Non-Insulin Dependent Diabetes Mellitus (NIDDM) - b) Ischemia
138. Narrowing of blood vessels - c) Adult (Type – II)
139. Deficient blood supply to heart muscle - d) Juvenile (Type – I)

Match the following - 13

140. Myocardial infarction - a) High Density Lipoprotein (HDL)
141. Hypercholesterolemia – b) Low Density Lipoprotein (LDL)
142. Hypertension - c) Death of the heart muscle tissue
143. Good Cholestrol - d) High blood pressure
144. Bad Choletrol - e) High blood cholesterol

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Match the following - 14

145. Oncology - a) Epithelial and glandular tissues cancer
146. Gene Mutation - b) Connective and muscular tissue cancer
147. Carcinomas - c) Cervical cap
148. Sarcomas - d) The study of cancer
149. Coccyx - e) Sickle cell anaemia
150. Diaphragm - f) Non functional organ

III. Write the Scientist name(s).

151.Father of Plant Anatomy	
152.Classification of tissue system	
153.Artificial photosynthesis to produce - Hydrogen fuel	
154. Chemical pathway for photosynthesis / Calvin cycle / Dark reaction.	
155.Light dependent Reaction /Hill reaction \ Light reaction	
156.The mitochondria were first discovered by	
157.Closed circulatory system was discovered by	
158. Father of Modern Physiology.	
159. Rh factor was discovered in Rhesus monkey by	
160. Atrioventricular bundle (Bundle of His) was discovered by	
161. The term auxin was introduced by	
162. Dutch biologist demonstrated the existence and effect of auxin in plants.	
163. Father of Endocrinology	
164. English physiologists introduced the term *hormone* in 1909.	
165. The first person who crystallised thyroxine in 1914 was	
166. The molecular structure of thyroxine was identified in 1927 by	
167. Human insulin was first discovered by	
168. He was awarded Nobel Prize in 1993 for determining the role of chromosomes in heredity.	
169. The term ‘chromosomes’ was first coined by	
170. The rule of DNA base pairing was proposed by	
171. The 3–dimension double helix structure of DNA correctly elucidated by	
172. Father of Genetics	
173. The term mutation was introduced by	
174. Down’s syndrome condition was first identified in 1866 by	
175. Biogenesis theory was developed by	
176. The theory of Chemical Evolution of Life was developed by	
177. ‘Theory of inheritance of Acquired Characters” or “Use and Disuse theory” was postulated by	
178. Theory of Natural selection was postulated by	
179. Father of Paleobotany	
180. Father of Indian Paleobotany	
181. Radioactive carbon(C14) dating method method was discovered by	
182. The term Ethnobotany was coinedby	
183. Father of the Green Revolution	
184. Father of Indian Green Revolution	
185. Tamil agricultural scientist, environmental activist and organic farming expert	
186. Dolly was the first cloned female sheep, developed by	
187. DNA fingerprintingtechnique was developed by	

IV. Write the expansion for the following abbreviations.

188. ATP	
189. ADP	
190. NAD	
191. NADP	
192. FAD	
193. CNS	
194. PNS	
195. ANS	
196. EFA	
197. PAA	
198. IAN	
199. IBN	
200.NAA	
201. 2,4,5 - T	
202. IAA	

203. 2, 4 D	
204. ABA	
205. TSH	
206. ACTH	
207. GTH	
208. FSH	
209. LH	
210. ADH	
211. BMR	
212. MCH	
213. RCH	
214. UTI	
215. IRRI	
216. DGWG	
217. NEFFFRGFST	
218. rDNA	
217. VNTRs	
218. GMSs	
218. POCSO	
219. NCPCR	
220. CPCR	
221. WHO	
222. IDDM	
223. NIDDM	
224. BMI	
225. CVD	
226. CHD	
227. HDL	
228. LDL	
229. PUFA	
230. AIDS	
231. HIV	
232. ELISA	
233. IBWL	
234. WWF	
235. WCN	
236. IUCN	
237. CITES	
238. BNHS	
239. LPG	
240. CFL	
241. LED	
242. PVC	

V. Write the date / year for the following events.

243. Insulin was first used in treatment of diabetes on	
244. Menstrual Hygiene day	
245. The First cloned female sheep Dolly was born on	
246. International Day against Drug Abuse and Illicit Trafficking ‹‹	
247. Anti Tobacco Act was passed on	
248. No Tobacco Day (World Anti-Tobacco Day)	
249. World Cancer Day	
250. National Cancer Awareness Day	
251. Jim Corbett, the first National Park in India, was established in the year	
252. The Chipko movement was a non-violent agitation started in the year	
253. Project Tiger was launched in the year	
254. Crocodile Conservation Project was launched in the year	
255. First HIV infection identified in India (In chennai) in the year	
256. Narcotic Drugs and Psychotropic Substances Act was introduced in the year.	
257. Gene Therapy was first successfully implemented in the year	
258. Project Elephant was launched in the year	
259. Sea Turtle Conservation Project was launched in the year	
260. POCSO Act came into force in the year	

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UNIT – 23 VISUAL COMMUNICATION.

VI. Choose the correct answer.

261. Which is used to store multiple files?
a) File saver b) Folder c) Storage space

262. Choose the Operating System from given option.
a) Windows b) My computer c) Bin

263. The out put we get from any application is referred as _____.
a) Data b) File c) Folder

264. The device which helps in explaining the concepts easily through pictures is known as _____.
a) Visual Device b) Visual Communication Device c) Smart Device

265. Which software is used to create animations?
a) Animating b) Scratch c) Paint

266. Scratch is a _____ programming language.
a) Visual b) Animating c) High level

267. The Scratch has _____ parts.
a) 2 b) 3 c) 4

268. Which is the background of the Scratch Window?
a) Stage b) Sprite c) Script

269. What is the default colour of background of scratch?
a) Yellow b) White c) Black

270. The characters on the background of Scratch window are known as _____.
a) Elements b) Sprite c) Script

271. What is the default character of Scratch?
a) Dog b) Flower c) Cat

272. Which is used to edit program in Scratch?
a) Ink space b) Sprite c) Script editor

273. What is the another name for Script editor?
a) Block editor b) Costume editor c) Sprite editor

274. The Script editor has _____ parts.
a) Three b) Four c) Five

275. Which is used to build Scripts?
a) Script area b) Block palette c) Stage

276. Where will you create category of blocks in Script editor?
a) Block menu b) Script area c) Block palette

277. Where will you choose the block to use in Script editor?
a) Block menu b) Script area c) Block palette

278. How will create a new project in Script editor?
a) File ⟶ New b) Edit ⟶ New c) File ⟶ Open

279. How will you run your program in Script editor ?
a) By clicking run option b) By clicking green flag c) By clicking execute option

270. The software SCRATCH was developed by _____.
a) Madras Institute of Technology (MIT) b) The Massachusetts Institute of Technology (MIT)
c) Maharashtra Institute of Technology (MIT)

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