

**SCERT 5-10 FULL
MOCK TEST**



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**10th PRELIMINARY
2022**



1. The term “molecular stitcher” refers to
 - A) DNA polymerases
 - ☒ B) DNA ligase
 - C) DNA glycosylases
 - D) DNA methylation
2. A DNA strand having the base sequences ATTGCCAATAC is mutated to ATTGCCAAGAC, the mutation that occurs is termed as
 - A) Transduction
 - B) Translocation
 - C) Transition
 - ☒ D) Transversion
3. When the temperature and pressure remains constant the rate of diffusion of a gas will be inversely proportional to the square root of the density states is the
 - ☒ A) Graham’s Law of diffusion
 - B) Max Planck theory
 - C) Bohr theory
 - D) Avagadro’s law
4. Glutamate is the precursor of aminoacids
 - ☒ A) Proline and arginine
 - B) Proline and cysteine
 - C) Glycine and cysteine
 - D) Arginine and glycine
5. Sensory hair cells in the cristae ampullaries contact
 - A) Striavascularis
 - ☒ B) Gelatinous cupola
 - C) Basilar membrane
 - D) Associated hairs
6. The fight, flight and fright hormone is
 - ☒ A) Adrenalin
 - B) Pituitary
 - C) FSH
 - D) Aldosterone
7. Severe combined immune deficiency is a genetic defect due to deficiency of
 - A) Adenosine triphosphatase
 - B) Maleyl acetoacetic acid
 - C) Transaminase
 - ☒ D) Adenosine deaminase
8. An inborn error in the metabolism of the amino acid tyrosine is associated with
 - A) Alkaptonuria
 - B) Phenylketonuria
 - ☒ C) Albinism
 - D) Cretinism
9. Which one of the following is not an extraembryonic membrane ?
 - A) Amnion
 - ☒ B) Albumin
 - C) Chorion
 - D) Allantois



10. Egg of petromyzoneis
A) Isolecithal
☒ C) Mesolecithal
B) Macrolecithal
D) Microlecithal
11. Galactosaemia is a congenital disease when normal metabolism of galactose is lacking an enzyme
☒ A) Galactose-1-phosphate uridylyltransferase
B) Galactose-1-phosphatase
C) Galactose-1-2-phosphatase
D) Galactose-1-phosphate transferase
12. The physiologically active form of pantothenic acid essential for metabolism
A) Acetylcholine
☒ C) Coenzyme A
B) Choline
D) None of the above
13. Bitot's spots is caused by the deficiency of
☒ A) Vitamin A
B) Vitamin D
C) Vitamin K
D) Vitamin B
14. Erythrocytes do not transport the enzyme
☒ A) Choline esterase
B) Carbonic anhydrase
C) Permease
D) Methaemoglobin reductase
15. Composite molecule of DNA in which a foreign DNA has been inserted into a vector molecule are called
A) Foreign DNA
☒ B) DNA chimaeras
C) Target DNA
D) Passenger DNA
16. In 1970, an enzyme for cutting the DNA was discovered from the bacterium
☒ A) Haemophilous influenzae
B) Escherichia coli
C) Methanosarcina
D) Helicobacter pylori
17. Bidder's canal is present in kidney of
☒ A) Frog
B) Crocodile
C) Tortoise
D) Snake



18. First test tube baby of the world was born on
A) 26th July 1978
☒ C) 25th July 1978
B) 26th May 1987
D) 25th May 1987
19. An instrument used to scan a patients body, by a narrow X-ray beams guided by computer and thin sections of organs are photographed from several angles
A) CTS
☒ B) CAT
C) NMR
D) CET
20. Deficiency of an enzyme beta-D-N-acetyl-hexosaminidase causes
A) Beta-thalassemia
☒ B) Tay Sachs disease
C) Galactosemia
D) Alkaptonuria
21. 45 + XX in human indicates
A) Patau's syndrome
B) Jacob's syndrome
C) Klinefelter's syndrome
☒ D) Down's syndrome
22. Warm blooded animals are larger in size in the colder region when compared to hotterregions
☒ A) Bergman's law
B) Cope's law
C) Allen's law
D) Dollow's law
23. During glycolysis glucose is phosphorylated into
☒ A) Glucose 6 phosphate
B) Glucose 1-6-diphosphate
C) Fructose 1, 6-diphosphate
D) Fructose 6 phosphate
24. A method used for sequencing whole genomes by breaking the DNA is
☒ A) Shotgun sequencing
B) Western blotting
C) Southern blotting
D) Northern blotting
25. Chemical degradation of DNA protocol was developed by
A) Sanger
B) Miller
☒ D) Maxam-Gilbert
C) Gilbert



26. Bioinformatics as a tool in biological science is the contribution of
A) Richard Stallman
☒ B) Margaret Oakley Dayhoff
C) Stephen Hawking
D) Pearson
27. Most widely used program for comparing the amino acid sequences of different proteins or nucleotide sequences of DNA.
☒ A) BLAST B) FASTA C) ORF Finder D) STAG
28. The most suitable and efficient language used in bioinformatics
A) HTML ☒ B) Perl and Python
C) JAVA D) MAGE
29. The active swimming organisms living in surface and deeper waters
A) Zooplankton B) Benthos ☒ C) Nektons D) Neuston
30. The true and complete metamorphosis occurs in
A) Silver fishes ☒ B) Moths and mosquitos
C) Bed bugs D) Cockroach
31. Wrinkles in old age is due to
☒ A) Collagen fibres B) Actin fibres
C) Myosin fibres D) Mucin
32. Muscle glycogen cannot be converted into glucose due to the absence of an enzyme
A) Arginase
☒ B) Glucose-6-phosphatase
C) Glucose phosphatase
D) Fructose
33. Minimum turnover number of an enzyme is, for
☒ A) Lysozyme B) Carbonic anhydrase
C) DNA polymerase D) Sucrase
34. The direct cleavage of covalent bonds and removal of groups without addition of H_2O is a characteristic of
☒ A) Lyases B) Ligases
C) Amylase D) Lactase

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35. The technique used for opening partially blocked coronary vessels before they become totally occluded
- A) Angiogram
 - ☒ C) Angioplasty
 - B) EEG
 - D) ECG
36. Thrombosis in which coronary artery is related most frequently in myocardial infarction
- ☒ A) Left coronary artery
 - B) Right coronary artery
 - C) Left pulmonary artery
 - D) Right pulmonary artery
37. Glands of swammerdams is associated with
- A) Reproductive system
 - ☒ B) Nervous system
 - C) Circulatory system
 - D) Muscular system
38. Leydig cells are meant for the production of
- ☒ A) Testosterone
 - B) Progesterone
 - C) Oestrogen
 - D) Aldosteron
39. During polymerization the mismatched residues at the primer terminus is removed and the accuracy of DNA replication is done by
- A) Exonuclease
 - B) DNA polymerase II
 - C) DNA polymerase III
 - ☒ D) DNA polymerase I
40. A hormone which stimulate the activity of adenyl cyclase and increases the cAMP level
- A) Adrenocorticoid
 - ☒ C) Cataecholamines
 - B) Steroid
 - D) Pituitary
41. Deficiency of thyroid hormone in adults causes the disease
- A) Grave's disease
 - ☒ B) Gull's disease
 - C) Basidow's disease
 - D) Addison's disease
42. The activated adenyl cyclase serves as a biochemical amplifier and catalyses the hydrolysis of ATP to cAMP, in the presence of
- A) Na^+ and Cl^+
 - B) K^+ and Cl^+
 - C) Ca^{++} K^{++}
 - ☒ D) Ca^{++} and Mg^{++}



43. The ruptured follicle in mammalian ovary after the release of ovum which later gets fertilized to form
☒ A) Corpus luteum
B) Graafian follicle
C) Corpus callosum
D) Corpus albican
44. The Nobel prize in physiology in 1995 for their discovery concerned with the genetic control of early embryonic development was for
☒ A) Nusslein and Wieschaus
B) Wolpert
C) Jacob and Monod
D) Lewies
45. Homeotic genes of *Drosophila* include a 180-nucleotide sequence called the
A) Torpido
B) Homoeodomain
C) Spatzal
☒ D) Homeobox
46. Oxygen is directly used during
A) Fermentation
B) Krebs citric acid cycle
C) Biomethanisation
D) Glycolysis
47. Dissolved oxygen needed for microbes is measured by
A) COD
B) BOD
C) DO
D) TDS
48. A mutant strain of neurospora which falls to grow on a minimal medium unless supplemented with a nutrient is called
☒ A) Auxotroph
B) Mixotroph
C) Paratop
D) Holotroph
49. First Indian Scientist who got Nobel prize for deciphering the genetic code
A) Amartyasen
B) Venkatraman Ramakrishnan
C) C. V. Raman
☒ D) Khorana



50. The part of an antigen that is recognised by the immune system, specifically by antibodies, B cells or T cells
- A) Antigens ☐ B) Epitopes
C) Haptens ☐ D) None of the above
51. T_H cells generally recognise antigen combined with
- A) Class I MHC molecules
B) Immunosuppressant
☐ C) Class II MHC molecules
D) None of the above
52. Which one of the following is considered as a third generation vaccines ?
- A) Recombinant microbial vaccines
☐ B) DNA vaccines
C) Conjugate vaccines
D) Killed vaccines
53. Addition of microbes to enhance health benefits is
- ☐ A) Probiotics ☐ B) Humulin
C) Prebiotics ☐ D) None of the above
54. The square root of the average will be equal to the squares of the individual observation from their arithmetic mean
- A) Standard error
B) Chi-square test
☐ C) Standard deviation
D) Variance
55. A group of distinct organism classified and assigned to a definite category.
- A) Species ☐ B) Taxon
C) Category ☐ D) Genus
56. The marginal zone of a pond merging with the surrounding land is an example of
- A) Biome ☐ B) Edge effect
C) Biota ☐ D) Ecotone
57. Gulf of mannar is a
- A) Protected area ☐ B) Biosphere reserve
C) National park ☐ D) Sanctuaries



58. Lion-tailed macaque is considered as
☒ A) Endangered species
B) Vulnerable species
C) Rare species
D) Extinct species
59. Populations reproductively isolated and live in different habitat but occupy same territory are known as
A) Ethological isolation
B) Temporal isolation
☒ C) Ecological isolation
D) Morphological isolation
60. The animals tend to develop huge size and birds lose the power of flight and bright colour in those Islands
A) Galapagos Islands
☒ B) Oceanic Islands
C) Ancient Islands
D) Continental Islands
61. If, DNA is found to have the base composition of A = 40, T = 22, C = 17 and G = 21 then the DNA will be
A) Double stranded
☒ B) Single stranded
C) Linear duplex
D) Circular duplex
62. Methylation of DNA most commonly occurs in the sequence of
A) Cp T
B) Cp C
C) Cp A
☒ D) Cp G
63. The example of inducible operon is
☒ A) lac-operon
B) try-operon
C) arginine operon
D) TRP operon

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64. In 2017, the discovery of molecular mechanisms controlling the circadian rhythm, won Nobel prize for
A) Rainer, Barry and Kip
B) Jacques, Joachim and Richard
☒ C) Jeffrey, Michael and Michael
D) None of the above
65. Sickle cell anaemia is caused by the substitution of
A) Glutamic acid at the 5th position in β chain of Hb by valine
B) Glutamic acid at the 6th position in β chain of Hb by arginine
C) Glutamic acid at the 6th position in β chain of Hb by alanine
☒ D) Glutamic acid at the 6th position in β chain of Hb by valine
66. The RNA polymerase recognize a seven-base sequence on the promoter region called
A) Pribnow box
☒ C) TATA box
B) Operons
D) Enhancers
67. During pregnancy intake of certain medicines causes foetal toxicity like hyperkalemia and hypertension.
A) Thalidomide
C) Valproic acid
☒ B) ACEI
D) 13-cis Accutane
68. Amnion is the foetal membrane developed from
☒ A) Somatopleure
B) Chorionic cavity
C) Chorionic villi
D) Amniotic cavity
69. Automictic diploidy occurs in
A) Hymenoptera and Coleoptera
B) Thysanoptera and Rotifers
C) Rotifers and Coleoptera
☒ D) Lepidopterans and Hymenopterans
70. The correct series of events representing the development of vertebrate
A) Cleavage, Blastula, Gastrulation, Organogenesis, Neurulation, Growth
☒ B) Cleavage, Blastula, Gastrulation, Neurulation, Organogenesis, Growth
C) Blastula, Gastrulation, Cell migration, Organogenesis, Growth
D) Blastula, Cell migration, Gastrulation, Neurulation, Growth



71. Dependent variable in the process of teaching is
A) Teacher ☐ B) Student ☒
C) Learning experiences ☐ D) Learning aids ☐
72. Optacon is a technical aid for
A) Mentally challenged pupils ☐ B) Physically challenged pupils ☐
C) Slow learners ☐ D) Visually challenged pupils ☒
73. Which among the new type of test items have premises and responses ?
A) Multiple choice test item ☐
☒ B) Matching type test items
C) Alternate response type test items ☐
D) Completion type test items ☐
74. Epi-position of the epidiascope is used to project the
☒ A) Flat opaque objects ☐ B) Lantern slides
C) Large slides ☐ D) Transparent slides ☐
75. A group technique popularised by A.F. Osborn to develop creative thinking is
A) Panel discussion ☐ B) Brain storming ☒
C) Role playing ☐ D) Group discussion ☐
76. The type of research commonly used in behavioural sciences are
A) Action Research ☐ B) Conceptual Research ☐
C) Qualitative Research ☐ D) All the above ☒
77. Multistage sampling is a type of
A) Stratified sampling ☐ B) Non-probability sampling ☐
C) Purposive sampling ☐ D) Complex random sampling ☒
78. Which one of the following source is not a primary source of data ?
☒ A) Information provided by a person who did not directly observe the event
B) Auto biographies ☐
C) Video recordings of interviews ☐
D) Legislative documents prepared by State Governments ☐
79. The URL consists of
A) a protocol ☐
B) a host name ☐
C) the path to the document and the specific file name ☐
☒ D) all the above
80. Which among the following is the expansion of PPA ?
A) Provisional Patent Agreement ☐ B) Patent Protection Act ☐
C) Patent Protection Application ☐ D) Provisional Patent Application ☒



81. Who can address the Parliament, being a non member ?
A) Chief Justice ☒ B) Attorney General of India
C) Governor D) Chief Election Commissioner
82. The decision of _____ is final as far as the nature of a Money Bill is concerned.
A) Prime Minister B) Vice-President
☒ C) Speaker D) Chief Justice
83. Which among the following is considered as an extra-constitutional body ?
☒ A) The Planning Commission B) Finance Commission
C) Election Commission D) Public Service Commission
84. The residuary powers in India rest with
A) States B) Courts
☒ C) Union D) Both Union and States
85. Choose the correct statement
A) Fundamental Rights are non-justiciable
☒ B) Fundamental Rights are justiciable
C) Directive principles are justiciable
D) Fundamental duties are justiciable
86. A comprehensive scheme for prevention of trafficking, rescue and rehabilitation and re-integration of victims of trafficking and commercial sexual exploitation.
☒ A) Ujjwala B) Mahila-E-Haat C) Narisakthi D) Swadhar Greh
87. _____ is the social campaign of government of India that aims to create awareness and improve the efficiency of welfare services intended for girls.
A) Sukanya Samrudhi B) Dhanalakshmi Yojana
C) Bhagyalakshmi Yojana ☒ D) Beti Bachao, Beti Padhao
88. Name the scheme launched by Union Government to boost community and private participation in government school.
☒ A) Vidyanjali Scheme B) Operation Blackboard
C) Vidya Varidhi D) Anthyodaya
89. A new pension scheme launched by Union Government in 2015 which would benefit people in unorganised sector
A) Swavalamban ☒ B) Atal Pension Yojana
C) Jeevan Jyothi D) Jan Dhan Yojana
90. 'Collective Choice And Social Welfare' is a famous book written by
A) Walter I. Trattner B) David Macarov
C) Prabhath Patnaik ☒ D) Amarthya Sen



91. Who has been appointed as the secretary to the President of India ?
A) Rajeev Kumar
C) S. Aparna
B) Sanjay Kothari
D) Dharendra Swarup
92. The leader of Guruvayoor Satyagraha
A) T. K. Madhavan
C) K. Kelappan
B) K. P. Kesava Menon
D) C. V. Kunjiraman
93. Which State will hoist the 36th National Games ?
A) Goa
C) Bihar
B) Keralam
D) Hariyana
94. The International Day of peace was observed on
A) August 20
C) August 21
B) Sept. 20
D) Sept. 21
95. The author of 'Advaita Chintapadhathi'
A) Chattambi Swamikal
B) Vaikunda Swamikal
C) Dayananda Swamikal
D) Brahmananda Sivayogi
96. Where was the 2017 World Para Athletics championship held ?
A) Beijing
B) Paris
C) Moscow
D) London
97. The father of modern Kerala Renaissance Movement.
A) Chattampi Swamikal
C) Thacaud Ayya
B) Sri Narayanaguru
D) Vakkam Moulavi
98. Which has been declared by Telangana as the State's second official language ?
A) Telugu
C) Urdu
B) English
D) Hindi
99. Which State launched India's first electric bus service at high attitude ?
A) Madhya Pradesh
C) Himachal Pradesh
B) Andhra Pradesh
D) Gujarat
100. Who is known as Kerala scot ?
A) C. V. Ramanpillai
B) N. Krishnapillai
C) M. T. Vasudevan Nair
D) Vennikulam Gopalakurup

FINAL ANSWER KEY
Question Paper Code: 051/2018

HIGHER SECONDARY SCHOOL TEACHER(JUNIOR)-ZOOLOGY-KERALA
HIGHER SECONDARY EDUCATION

Medium of Question: ENGLISH

Date of Test: 19/04/2018

Q No.	QUESTION BOOKLET			
	A	B	C	D
1	B	B	A	D
2	D	A	D	A
3	A	B	C	A
4	A	C	B	A
5	B	B	C	D
6	A	B	B	A
7	D	B	D	B
8	C	A	A	A
9	B	D	C	A
10	C	B	D	C
11	A	C	B	B
12	C	B	D	D
13	A	A	A	A
14	A	D	A	A
15	B	B	B	D
16	A	D	A	C
17	A	B	C	B
18	C	A	A	A
19	B	C	A	C
20	B	B	B	B
21	D	A	A	A
22	A	D	B	A
23	A	C	A	C
24	A	B	A	B
25	D	C	C	B
26	B	B	D	A
27	A	D	A	B
28	B	A	A	A
29	C	C	A	D
30	B	D	D	C
31	A	B	B	B
32	B	D	D	A
33	A	A	A	B
34	A	A	A	C
35	C	B	D	B
36	A	A	C	B
37	B	C	B	B
38	A	A	A	A
39	D	A	C	D
40	C	B	B	B
41	B	A	A	D
42	D	B	A	B
43	A	A	C	A
44	A	A	B	C
45	D	C	B	B
46	B	D	A	C
47	B	A	B	B
48	A	A	A	A
49	D	A	D	D
50	B	D	C	B

Q No.	QUESTION BOOKLET			
	A	B	C	D
51	C	B	B	A
52	B	D	A	D
53	A	A	B	C
54	C	A	C	B
55	B	D	B	C
56	D	C	B	B
57	B	B	B	D
58	A	A	A	A
59	C	C	D	C
60	B	B	B	D
61	B	A	C	B
62	D	A	B	D
63	A	C	A	A
64	C	B	D	A
65	D	B	B	B
66	C	A	D	A
67	B	B	B	C
68	A	A	A	A
69	D	D	C	A
70	B	C	B	B
71	B	D	D	B
72	D	A	D	D
73	B	B	D	B
74	A	D	A	D
75	B	B	B	D
76	D	D	A	D
77	D	D	B	B
78	A	D	D	A
79	D	B	B	D
80	D	A	D	A
81	B	D	B	B
82	C	A	D	A
83	A	B	D	B
84	C	A	A	C
85	B	B	A	B
86	A	C	C	D
87	D	B	B	A
88	A	D	C	C
89	B	A	B	D
90	D	C	A	A
91	B	B	C	A
92	C	C	A	D
93	A	A	B	B
94	D	D	C	C
95	A	B	A	C
96	D	C	D	A
97	B	C	B	A
98	C	A	C	D
99	C	A	A	B
100	A	D	D	C

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