

- 1. The term "molecular stitcher" refers to
 - A) DNA polymerases
 - C) DNA glycosylases

- B) DNA ligase
- 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
 - C) Bohr theory

B) Max Planck theory

B) Proline and cysteine

- D) Avagadro's law
- 4. Glutamate is the precursor of aminoacids
 - A) Proline and arginine
 - 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
 - C) FSH

- B) Pituitary
- D) Aldosterone
- 7. Severe combined immune deficiency is a genetic defect due to deficiency of
 - A) Adenosine triphosphatase
 - B) Maleyl acetoacetic acid
 - C) Transaminase

A) Alkaptonuria

Α

D) Adenosine deaminase

8. An inborn error in the metabolism of the amino acid tyrosine is associated with

- B) Phenylketonuria
- C) Albinism D) Cretinism
- 9. Which one of the following is notan extraembryonic membrane ?
 - A) Amnion B) Albumin
 - C) Chorion D) Allantois

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11. Galactosaemia is a congenital disease when normal metabolism of galactose is lacking

B) Vitamin D

B) Macrolecithal

D) Microlecithal

- A) Galactose-1-phosphate uridyltransferase
- 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 B) Choline
 - D) None of the above C) Coenzyme A

13. Bitot's spots is caused by the deficiency of

- A) Vitamin A
- 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
 - C) Methanosarcina D) Helicobacter pylori
- 17. Bidder's canal is present in kidney of
 - A) Frog
 - C) Tortoise

B) Crocodile

B) Escherichia coli

D) Snake

A) Isolecithal

an enzyme

C) Mesolecithal

10. Egg of petromyzoneis

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- 18. First test tube baby of the world was born on
 - A) 26th July 1978 B) 26th May 1987
 - C) 25th July 1978 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
 - C) Klinefelter's syndrome

- B) Jacob's syndrome
- D) Down's syndrome
- 22. Warm blooded animals are larger in size in the colder region when compared to hotterreagions
 - 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
 - C) Gilbert D) Maxam-Gilbert

A) B) C)		ool in biological sciend Dayhoff	ce is	s the contribution o	
pro		rogram for comparin sequences of DNA. B) FASTA	•		quences of different D) STAG
A)	e most suitable an HTML JAVA	d efficient language ι	B)	l in bioinformatics Perl and Python MAGE	
	e active swimming Zooplankton	organisms living in s B) Benthos			iters D) Neuston
A)	e true and comple Silver fishes Bed bugs	te metamorphosis oc	B)	s in Moths and mosqu Cockroach	uitos
A)	inkles in old age is Collagen fibres Myosin fibres	due to	,	Actin fibres Mucin	
A) B) C)	iscle glycogen can Arginase Glucose-6-phospl Glucose phospha Fructase		glu	cose due to the ab	osence of an enzyme
A)	nimum turnover nu Lysozyme DNA polymerase	imber of an enzyme i	B)	or Carbonic anhydra Sucrase	ase
is a A)	e direct cleavage c a characteristic of Lyases Amylase	of covalent bonds and	B)	noval of groups wit Ligases Lactase	thout addition of H ₂ O
Α		-6-			

-7-

A) Testosterone C) Oestrogen

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 B) Steroid
 - C) Cataecholamines 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 CI^+
 - C) Ca⁺⁺ K⁺⁺
 - D) Ca⁺⁺ and Mg⁺⁺
- Α

- 35. The technique used for opening partially blocked coronary vessels before they become totally occluded
 - A) Angiogram B) EEG D) ECG C) Angioplasty
- 36. Thrombosis in which coronary artery is related most frequently in myocardial infraction
 - A) Left coronary artery
 - B) Right coronary artery
 - C) Left pulmonary artery
 - D) Right pulmonary artery
- 37. Glands of swammerdams is associated with

38. Leydig cells are meant for the production of

- A) Reproductive system B) Nervous system
- C) Circulatory system D) Muscular system

B) Progesterone

D) Aldosteron

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- 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 Monord
 - D) Lewies
- 45. Homeotic genes of Drosophila include a 180-nucleotide sequence called the
 - A) Torpido
 - C) Spatzal

- B) Homoeodomine
- 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) Auxotrop B) Mixotrop
 - C) Paratop D) Holotrop
- 49. First Indian Scientist who got Nobel prize for deciphering the genetic code
 - A) Amartyasen
 - B) Venkatraman Ramakrishnan
 - C) C. V. Raman
 - D) Khorana

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- 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_{μ} 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
- C) Category D) Genus

56. The marginal zone of a pond merging with the surrounding land is an example of

- A) Biome
- C) Biota

- B) Edge effect
- D) Ecotone

B) Taxon

- 57. Gulf of mannar is a
 - A) Protected area
 - C) National park

- B) Biosphere reserve
- D) Sanctuaries

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- 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-operonB) try-operonC) arginine operonD) TRP operon

- 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 6^{th} 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 6^{th} position in $\beta\,$ chain of Hb by valine
- 66. The RNA polymerase recognize a seven-base sequence on the promoter region called
 - A) Pribnow box B) Operons
 - C) TATA box D) Enhancers
- 67. During pregnancy intake of certain medicines causes foetal toxicity like hyperkalemia and hypertension.
 - A) Thalidomide B) ACEI
 - C) Valproic acid D) 13-cis Accutane
- 68. Amnion is the foetal membrane developed from
 - A) Somatopleure
 - B) Chorionic cavity
 - C) Chorionic villi
 - D) Amniotic cavity
- 69. Automicticdiplosis 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

C) Learning experiences

- 72. Optacon is a technical aid for
 - A) Mentally challenged pupils
 - C) Slow learners

B) Physically challenged pupils 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
 - C) Large slides

B) Lantern slides D) Transparent slides

B) Student

D) Learning aids

- 75. A group technique popularised by A.F. Osborn to develop creative thinking is
 - A) Panel discussion
 - C) Role playing

- B) Brain storming
- D) Group discussion
- 76. The type of research commonly used in behavioural sciences are
 - A) Action Research
 - C) Qualitative Research

- B) Conceptual Research
- D) All the above
- 77. Multistage sampling is a type of
 - A) Stratified sampling
 - C) Purposive sampling

- B) Non-probability 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
 - C) Governor

- B) Attorney General of India
- 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
 - C) Election Commission

- B) Finance Commission
- D) Public Service Commission
- 84. The residurary powers in India rest with
 - A) States
 - C) Union

- B) Courts
- 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
 - C) Bhagyalakshmi Yojana
- B) Dhanalakshmi 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 C) Vidya Varidhi

- B) Operation Blackboard
- D) Anthvodava
- 89. A new pension scheme launched by Union Government in 2015 which would benefit people in unorganised sector
 - A) Swavalamban
 - C) Jeevan Jyothi

- B) Atal Pension Yojana
- D) Jan Dhan Yojana
- 90. 'Collective Choice And Social Welfare' is a famous book written by
 - A) Walter I. Trattner C) Prabhath Patnaik

- B) David Macarov
- D) Amarthya Sen

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	Who has been appointed as the secretary A) Rajeev Kumar C) S. Aparna	B)	he President of India Sanjay Kothari Dhirendra Swarup	?
92.	The leader of Guruvayoor Satyagraha A) T. K. Madhavan C) K. Kelappan		K. P. Kesava Menon C. V. Kunjiraman	
93.	Which State will hoist the 36 th National Ga A) Goa C) Bihar	B)	s ? Keralam Hariyana	
94.	The International Day of peace was obser A) August 20 C) August 21	B)	on Sept. 20 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 AthleticsA) BeijingB) Paris			London
97.	The father of modern Kerala Renaissance A) Chattampi Swamikal C) Thacaud Ayya	B)	vement. Sri Narayanaguru Vakkam Moulavi	
98.	Which has been declared by Telangana as A) Telugu C) Urdu	B)	e State's second offici English Hindi	al language ?
99.	Which State launched India's first electricA) Madhya PradeshC) Himachal Pradesh	B)	service at high attituc Andhra Pradesh Gujarat	le ?
100.	 Who is known as Kerala scot ? A) C. V. Ramanpillai B) N. Krishnapillai C) M. T. Vasudevan Nair D) Vennikulam Gopalakurup 			

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