

SECTION I- BIOLOGY AND COMPUTER

1. Transcription is the process where genetic information in RNA is used to produce a
 - a. mRNA
 - b. Complementary DNA strand
 - c. Ribosome

2.is a mating in which an individual showing a dominant phenotype is crossed with an individual showing its recessive phenotype
 - a. Test Cross
 - b. Dysfunctional
 - c. Mutation
 - d. All of the above

3. A and B antigens can also be present in saliva and other body fluids of some persons called
 - a. Pancreatic Fluid
 - b. Gall Bladder juice
 - c. Secretors
 - d. Both a and c

4. Steroids and triglycerides are examples of
 - a. DNA
 - b. Lipids
 - c. pH7
 - d. Disaccharide

5.act as solvent for ionic compounds in body fluid.
 - a. Globular Protein
 - b. Water
 - c. ATP
 - d. CoOH

6. A nucleotide of DNA is

- a. Tetravalent
 - b. Used in Catabolic Reaction
 - c. Insoluble in Water
 - d. dGTP
7. If the non-protein part is covalently bonded to the protein part of an enzyme, it is called.....
- a. Prosthetic group
 - b. Catalytic
 - c. Activator
 - d. Optimum
8. The optimum pH value for pancreatic lipase is?
- a. 8.00
 - b. 10.00
 - c. 7.00
 - d. 9.00
9. The polymerase chain reaction is an extremely versatile technique for copying
- a) DNA
 - b) RNA
 - c) Both of above
10. A cell with many nucleus is called
- a. Nucleolus
 - b. Centrosome
 - c. Multinucleate
 - d. Binary Fission
11. The haploid chromosome of human sperms and egg is
- a. 22

- b. 23
 - c. 21
 - d. 24
12. Vaccine?
- a. Mysterious brain infection in man
 - b. Protective agent used to stimulate immune system
 - c. Double stranded DNA
 - d. Nucleocapsid
13. Techoic and lipotechoic acids are present only inbacteria.
- a. Arthrax
 - b. Antone van leeuwenhock
 - c. Gram Positive
 - d. Saprophytic
14. Movement of bacteria in response to chemical signal is called
- a. Generation Time
 - b. Plasmid
 - c. Chemosynthetic
 - d. Chemotaxis
15. Causes amoebic dysentery in human.
- a. Limestone
 - b. Euglenoid
 - c. Foramis
 - d. Entamoeba histolytica
16. live as symbionts in the guts of termites
- a. Flagella
 - b. Trichonympha

- c. Tsetse
 - d. Silica
17. All algae except the members ofalgae have forms with flagellated motile cells.
- a. Red
 - b. Kelps
 - c. Apicomplexans
 - d. Euglenoid
18. Double fertilization is the characteristic feature of
- a. Axile
 - b. Solanaceae
 - c. Angiosperms
 - d. Scattered
19. Movement of sperms of liver worts, mosses and ferns is
- a. Epinasty
 - b. Chemotactic
 - c. Haptonastic
 - d. Turgor movement
20. A 10 nucleotide sequence i.e., RNA primer is constructed by:
- a. Polymerase III
 - b. DNA ligase
 - c. Synthetase
 - d. Primase
21. The bond that exists between N₂ bases of DNA is:
- a. Hydrogen
 - b. Covalent
 - c. Chemical

- d. Ionic
22. The replication of DNA is always from:
- a. 5' – 3'
 - b. 3' – 5'
 - c. Not Specific
 - d. At middle
23. Sequence of specific nucleotide that results in specific protein is called:
- a. mRNA
 - b. Chromosomes
 - c. Ligase
 - d. Gene
24. In-vivo therapy is best related to:
- a. To cure hemophilia
 - b. Cytokinin
 - c. Develop into mature plants
 - d. Mature Flowers
25. Change in the frequency of alleles occurring by chance is known as:
- a. Vestigial Organ
 - b. Genetic Drift
 - c. Glycogen
 - d. Darwin Theory
26. Cloning involves the removal of the nucleus from one cell and its placement
- a. Unfertilized egg cell
 - b. Fertilized egg cell
 - c. Stem cell
27. A gland capable of producing large quantities of a protein hormone would be likely to have well developed:

- a. Rough endoplasmic reticulum
 - b. Cilia
 - c. Centrioles
 - d. Smooth endoplasmic reticulum
28. The complex of sugar polymers and proteins which are patchily distributed on the plasma membranes of animal cells is called:
- a. Glyocalyx
 - b. Chitin
 - c. Cellulose
 - d. Cytoskeleton
29. Most abundant RNA of the cell of
- a. tRNA
 - b. rRNA
 - c. mRNA
 - d. None of them
30. The type of gene interaction in which the effects of one gene override or mask the effects of other entirely different genes is called:
- a. Pleiotropy
 - b. Mutation
 - c. Linkage
 - d. Epistasis
31. Which of the following tissues secrete hormones?
- a. Pancreas
 - b. Ovaries
 - c. Gastro-intestinal tract
 - d. Both a and b
32. Which is true of eukaryotic cells?

- a. They lack DNA
 - b. They evolved more recently than prokaryotic cells
 - c. They lack a nuclear membrane
 - d. They lack membrane bound organelles
33. Genetics is the study of the effect of genetic differences on organisms. Often this can be inferred by the absence of a normal component which may be
- a. gene
 - b. trait
 - c. protein
 - d. all of the above
34. Which of the following is NOT a mode of genetic exchange within a bacterial population?
- a. Translation
 - b. Transformation
 - c. Transduction
 - d. conjugation
35. The first digital computer built with IC chips was:
- a. IBM 7090
 - b. Apple-I
 - c. IBM system 360
 - d. VAX-80

36. Which tool bar shows the icon that will enable you to indent the text towards right:



37. Files have been moved to the Trash Bin. The Trash Bin has been emptied. Which of the following is true of these files?
- a. They are no longer accessible
 - b. The file names can be selected and changed
 - c. The file names are displayed in a light grey font
 - d. They can be retrieved, edited and saved in a new location.
38. You are about to print a page of a document. What happens when you select Print Preview?
- a. The printer is changed
 - b. The print dialogue box is displayed
 - c. The layout of the whole page is displayed
 - d. The document is printed with the word "Preview" across it.
39. You successfully created a slideshow with sound on your home computer. However, when you run the slideshow at school using the same version of the program, the sound file cannot be found. What is the most likely cause of this problem?
- a. The sound file was linked rather than embedded.
 - b. Speakers have not been connected to the school computer.
 - c. The sound file is of the wrong format for the school computers
 - d. The slideshow program needs to be a newer version to play the file.
40. software directly interacts with the hardware.
- a. Application
 - b. System
 - c. Dynamic
 - d. Distributed
41. This definition is true for which one of the following "A collection of data organized in such a fashion that the computer can quickly search for a desired data item"
- a. DBMA
 - b. MS Powerpoint
 - c. Data Modelling

- d. Database
42. E-mail client interacts with the -----for discovering and downloading new Email messaged:
- a. E-mail Client
 - b. SMTP Server
 - c. POP3 Server
 - d. None of the above
43. The pattern in which computer are connected together to form a network is called:
- a. Network topology
 - b. Network Transmission
 - c. Network Protocol
 - d. None of the above
44. VPN stands for:
- a. Virtual Public Network
 - b. Visual Private Network
 - c. Virtual Private Network
 - d. Visual Public Network
45.is a special purpose computer that directs the data traffic when several paths are available.
- a. Bridge
 - b. Router
 - c. Gateway
 - d. All of the above
46. The browser breaks down the URL intoparts.
- a. 2
 - b. 3
 - c. 4

- d. 5
47. What is the best way to prevent a computer virus from entering your computer?
- a. Log out of the computer each time you have finished using it.
 - b. Install and use anti-virus software on your computer
 - c. Do not use emails on your machine
 - d. Make sure all your files are safely stored to your Flash disks.
48. Which of the following systems will help to improve communications within the company?
- a. Excel
 - b. Power point
 - c. Email
 - d. Solitaire
49. Which is a use of e-commerce on the internet?
- a. Checking flight availability
 - b. Searching for a holiday
 - c. Researching holiday destinations
 - d. Booking a holiday

SECTION II- MATHEMATICS

50. The numerical figures obtained from any field of study are known as :
- a. Information
 - b. Data
 - c. Theory
 - d. Facts
51. The number of children in a family is avariable

- a. Continuous
 - b. Fixed
 - c. Discrete
 - d. Constant
52. The method of organizing and considering the raw data conversion into grouped data is known as:
- a. Octahedral distribution
 - b. Frequency distribution
 - c. Hexadecimal distribution
 - d. Number distribution
53. A value which is obtained by dividing the sum of all the values by their number of observation is known as:
- a. Relational Mean
 - b. Logical Mean
 - c. Arithmetic Mean
 - d. None of the above
54. Arithmetic mean of a set of values $x_1, x_2, x_3, \dots, x_n$ is denoted by:
- a. \bar{Z}
 - b. \bar{X}
 - c. \bar{Y}
 - d. X
55. If $a^y = x$, where $a, x, y \in \mathbb{R}$, with $a, x > 0$ and $a \neq 1$, then y is called theof x .
- a. logarithm
 - b. Natural logarithm
 - c. Anti Logarithm
 - d. Fraction
56. The logarithm with base e is called

- a. Natural
- b. Mantissa
- c. Characteristics
- d. Both of a & b

57. In $\log_x^{64} = 3$ the value of $x =$ -----

- a. 16
- b. 8
- c. 2.
- d. 4

58. The radius of earth is 32,00000m, its scientific notation is:

- a. $3.2 * 10^6$ m
- b. $3.2 * 10^{-6}$ m
- c. $32 * 10^6$ m
- d. 0.0000032m

59. If A contains 6 elements and B has 7 elements then the number of all possible binary relations are?

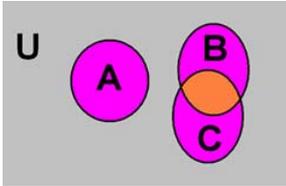
- a. $7 * 7$
- b. $6 * 6$
- c. 2^{7*6}
- d. 2^7

60. If A and B are two non-empty sets, then every subset R of set $A * B$ is called ?

- a. Non Binary Relation
- b. Binary Relation
- c. Logic Relation
- d. Logical Relation

61.is a quadrilateral, that all of its four sides are congruent but not all angles are congruent:

- a. Rhombus
 - b. Rectangle
 - c. Adjacent Angle
 - d. Angle
62. A line segment can beat one and only point?
- a. Perpendicular
 - b. Collinear
 - c. Ray.
 - d. Bisected
63. Degree of $4x^3y^2 + 5y^4 + 5x^4$ is =.....?
- a. 4
 - b. 5
 - c. 6
 - d. 3
64. An algebraic expression consisting of one or more terms, in each of which exponent of variable is zero or positive integer, is called?
- a. Polynomial
 - b. Irrational Expression
 - c. Monomial
 - d. Rational Expression
65. Factors of $x^4 + 64$ are.....
- a. $(x - 4)(x + 4)$
 - b. $(x + 8)(x + 4)$
 - c. $(x^2 + 4x - 8)(x^2 + 4x + 8)$
 - d. $(x^2 - 4x + 8)(x^2 + 4x + 8)$
66. When set B and C are mutually overlapping sets and A is mutually disjoint set with these?



- a. $C \cup (A \cup B)$
 - b. $(A \cup C) \cup B$
 - c. $A \cup (B \cup C)$
 - d. None of the above.
67. if $x + y = 2$ and $x^2 + y^2 = 4$ then a relation free from 'x' is
- a. $y^2 | 2y = 0$
 - b. $2y^2 + y = 8$
 - c. $8 + y^2 | 4y = 0$
 - d. $2y^2 | y = 0$
68. Mode of 2, 4, 2, 3 is?
- a. 7
 - b. 4
 - c. 2
 - d. 0
69. $\sum [x | x/n]^2$ is?
- a. Median
 - b. Variance
 - c. Range.
 - d. Arithmetic Mean
70. The Circle which passes through the three vertices of a triangle is called
- a. Concentric Circle
 - b. Semi-circle
 - c. Circum-Circle

d. Escribed Circle

71. If the distance between the centers of two circles is equal to the difference of their radii, then they touch.....

a. Tangent to the circle

b. Right angle

c. Internally

d. Centre of the Circle

72. $1 + \cot 30^\circ = \operatorname{Cosec}^2 \Theta$ -----

a. 90°

b. 30°

c. 60°

d. 45°

73. In right angled triangle ABC, $m\angle C = 90^\circ$ and $m\angle A = 60^\circ$ then $m\angle B = ?$

a. 50°

b. 30°

c. -30°

d. 45°

74. Length of diameter of a circle is:

a. Four times of radius

b. Half of radius

c. Thrice of Radius

d. Twice of Radius

75. A set of points of a plane which are equidistant from a fixed point is called

a. Cube

- b. Cone
- c. Sphere
- d. Circle

SECTION III - ENGLISH

76. After practice, the girls' softball team stated, "We're famished". Famished means:
- a. Fatigued
 - b. Hungry
 - c. Excited
 - d. Ready
77. When having a problem, it is best to dissect the situation then act. Dissect means:
- a. Control
 - b. Discuss
 - c. Ignore
 - d. Analyze
78. The wound exhibited signs of copious drainage requiring medical intervention. Copious means:
- a. Maximal
 - b. Minimal
 - c. Clear
 - d. Foul
79. The general tried to instill in his troops the hope of victory. Instill means:
- a. Delay
 - b. Inscribe
 - c. Indict
 - d. Infuse
80. The child apprized her father's authority and behaved herself in church. Apprized means:

- a. Appreciated
- b. Compromised
- c. Defied
- d. Noted

81. The increase in the number of newspaper articles exposed as fabrications serves to bolster the contention that publishers are more interested in boosting circulation than in printing the truth. Even minor publications have staffs to check such obvious fraud. The argument above assumes that:

- a. Newspaper stories exposed as fabrications are a recent phenomenon.
- b. Everything a newspaper prints must be factually verifiable
- c. Only recently have newspapers admitted to publishing intentionally fraudulent stories
- d. The publishers of newspapers are the people who decide what to print in their newspapers.

82. The sixteenth century was an age of great.....exploration.

- a. Cosmic
- b. Land
- c. Mental
- d. Common man

83. A soldier lost the favor of the king of Portugal when he became involved in political.....

- a. Entanglement
- b. Discussion
- c. Negotiation
- d. problems

84. Marie had a bright mind and a..... personality.

- a. Strong
- b. Lighthearted
- c. Humorous

d. Strange

85. When she learned that she could not attend the university in Chicago, she felt.....

a. Hopeless

b. Annoyed

c. Depressed

d. Worried

Q86 – Q90-> READING COMPREHENSION:

But man is not destined to vanish. He can be killed, but he cannot be destroyed, because his soul is deathless and his spirit is irrepressible. Therefore, though the situation seems dark in the context of the confrontation between the superpowers, the silver lining is provided by amazing phenomenon that the very nations which have spent incalculable resources and energy for the production of deadly weapons are desperately trying to find out how they might never be used. They threaten each other, intimidate each other and go to the brink, but before the total hour arrives they withdraw from the brink.

86. The main point from the author's view is that:

a. Man's soul and spirit can not be destroyed by superpowers

b. Man's destiny is not fully clear or visible.

c. Man's soul and spirit are immortal

d. Human society will survive despite the serious threat of total annihilation.

87. The phrase 'Go to the brink' in the passage means:

a. Retreating from extreme danger

b. Declare war on each other

c. Advancing to the stage of war but not engaging in it

d. Back to the stage of war but not engaging in it.

88. In the author's opinion:

a. Huge stockpiles of destructive weapons have so far saved from a catastrophe.

b. Superpowers have at last realized the need for abandoning the production of lethal weapons

c. Mankind is heading towards complete destruction.

- d. Nations in possession of huge stockpiles of lethal weapons are trying hard to avoid conflicts.

89. 'Irrepressible' in the second line means:

- a. Incompatible
- b. Strong
- c. Oppressive
- d. Unrestrainable

90. A suitable title for the above passage is:

- a. Destruction of mankind is inevitable
- b. Man's desire to survive inhibits use of deadly weapons
- c. Mounting cost of modern weapons
- d. Threats and intimidation between super powers.

Q91 – Q95-> Choose Antonyms:

91. ABOMINATE:

- a. Loathe
- b. Despise
- c. Adore
- d. Abhor

92. RECANT:

- a. Entangle
- b. Rescue
- c. Fail
- d. Assert

93. UPBRAID:

- a. Defer
- b. Laud
- c. Scold

d. Conjoin

94. PLENTITUDE:

a. Luxury

b. Magnificence

c. Scarcity

d. Contentment

95. DISTEND:

a. Deteriorate

b. Weaken

c. Constrict

d. Concentrate

Q96 – Q100 -> Choose the best amongst the given options, which when substituted corrects the whole sentence.

96. It is a special feature of cell aggregation in the developing nervous system that in most regions of the brain the cells not only adhere to one another and also adopt some preferential orientation.

a. To one another, and also adopt

b. One to the other, and also they adopt

c. One to the other, but also adopting

d. To one another but also adopt

97. Like Byron at Missolonghi, Jack London was slowly killed by the mistakes of the medical men who treated him.

a. Like Byron

b. Like Byron's death

c. Just as Byron died

d. Similar to Byron

98. One of every two new businesses fail within two years.

a. Fail

b. Fails

- c. Should fail
 - d. May have failed
99. Even today, a century after Pasteur developed the first vaccine, rabies almost always kills its victims unless inoculated in the earliest stages of the disease.
- a. Its victims unless inoculated
 - b. Its victims unless they are inoculated
 - c. Its victims unless inoculation is done
 - d. The victims unless there is an inoculation.
100. In ancient times, Nubia was the principal corridor where there were cultural influences transmitted between Black Africa and the Mediterranean basin.
- a. Through which cultural influences were transmitted
 - b. Where there were cultural influences transmitted
 - c. Where there was a transmission of cultural influences
 - d. For the transmitting of cultural influences