

Grassroots Academy New Delhi

NET JRF TEST 14

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Contact Number: 9350232207, 9891602060

TEST-14
(FULL SYLLABUS TEST)

1. *Canine leishmaniasis* is not found in
 - (a) South America
 - (b) Kenya
 - (c) India
 - (d) China
 - (e) Central America

2. The examples of spread sheet applications are
 - (a) Text editor
 - (b) Word star
 - (c) LOTUS
 - (d) D-Base
 - (e) Oracle

3. Who compared the evolution in software technology of the field of intelligence to the growth of the tree
 - (a) Dennis Ritchi
 - (b) Erust Tello
 - (c) Richards
 - (d) Kernighan
 - (e) Ken Thompson

4. Coenzyme NAD participates in
 - (a) Oxidation & reduction reactions
 - (b) Phosphorylation reactions
 - (c) Hydration reactions
 - (d) Dehydration reactions
 - (e) Lipofection reactions

5. Selecting from a bulk of seeds or a mass of seeds is known as
 - (a) mass selection
 - (b) pure line selectoin
 - (c) Pedigree selection
 - (d) hybridization
 - (e) Emasculation`

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6. Which of the following bird has teeth in beak?

- (a) Kiwi
- (b) Ostrich
- (c) Pelican
- (d) Archaeopteryx
- (e) Fleming

7. Variations according to the Darwin are known as

- (a) Variants
- (b) Mutants
- (c) Sports
- (d) Factors
- (e) Genes

8. The first carboxylation in C₄ plants leads to the synthesis of

- (a) Aspartate
- (b) Malic acid
- (c) Phosphoenol pyruvate
- (d) Oxaloacetate
- (e) Ribulose

9. The recycling industry of which of the following is one of the fastest industry in the U.S.

- (a) Aluminium
- (b) Iron
- (c) Cadmium
- (d) Bronze
- (e) Copper

10. Cooling of hot and proteinoids solution by Harada, Fox and Kendrick in 1959 has helped them find

- (a) Propane
- (b) Methane
- (c) Toluene
- (d) Microscopic elastic spherules
- (e) Both 1 and 2

11. Highly effective blocking an enzymatic activity by blocking its active site is

- (a) Competitive inhibition
- (b) Allosteric inhibition

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- (c) Feedback inhibition
- (d) Non-competitive inhibition
- (e) Constitutive inhibition

12. The maximum evolution of O₂ is by

- (a) Grass lands
- (b) Phytoplanktons of the sea
- (c) Crops
- (d) Forests
- (e) all

13. Machine level language translators that convert the source code to machine code and vice versa line by line are known as

- (a) Compilers
- (b) Interpreters
- (c) Executors
- (d) Text editors

14. Black water fever is due to

- (a) *Leishmania donovani*
- (b) *Plasmodium falciparum*
- (c) *Trypanosome cruzi*
- (d) *Trypanosome gambiense*
- (e) *Plasmodium vivax*

15. Gene battery model of transcription regulation model is proposed for the first time in 1969 by

- (a) Britten and Davidson
- (b) Jacob and Monad
- (c) Astbury and Bell
- (d) Mc leod and Mc Carty
- (e) Taylor et al

16. Linkage was discovered by

- (a) Sutton
- (b) Blackeslee
- (c) Muller
- (d) Bateson
- (e) Morgan

17. The loops formed in the lampbrush chromosomes are made up of

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- (a) DNA
- (b) Proteins
- (c) Both 1 and 2
- (d) None of the above

18. The chromomeres are caused by dense coiling of chromonemata, was postulated by

- (a) Leven et al
- (b) Waldeyer
- (c) Fleming
- (d) Strasburger
- (e) Ris

19. Bacteria and fungal spores are killed when they enter into pickles and jams due to

- (a) Endosmosis
- (b) Plasmolysis
- (c) Deplasmolysis
- (d) Presence of poisonous minerals
- (e) None of the above

20. Which of the following is not related to the spread sheet applications?

- (a) Marketing
- (b) Production planning
- (c) Pay roll
- (d) Structured language
- (e) Accounting

21. Transmission of characters that take place through pangenes was noticed by Haeckel

- (a) Wallace
- (b) Darwin
- (c) Von baer
- (d) Von mohl

22. Poikilothermic host in the life cycle of plasmodium is

- (a) Anopheles
- (b) Man
- (c) Culex
- (d) Bed bug
- (e) Lice

23. Secondary output devices always give you output in the form of

- (a) Hard copy

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- (b) Soft copy
- (c) Duplicate copy
- (d) Both 1 & 2
- (e) None

24. Which of the following apparently has evolved much faster and gave rise to many new species

- (a) Gymnosperms
- (b) Ferns
- (c) Angiosperms
- (d) Herbaceous angiosperms
- (e) None of the above

25. *Chryopsis* is the intermediate host of

- (a) *Trichenella*
- (b) *Dracunculus*
- (c) *Wuchereria*
- (d) *Loa*
- (e) *Trypanosoma*

26. End product of fermentation is

- (a) Pyruvic acid
- (b) Sucrose
- (c) Formaldehyde
- (d) Ethyl alcohol
- (e) Glucose

27. Stomatal opening occurs when

- (a) PH of guard cells is high
- (b) Malic acid in the guard cells is converted into starch
- (c) Guard cells loose turgidity
- (d) K^+ ions move out of guard cells

28. The main function of spherosomes is

- (a) Protein synthesis
- (b) Lipid synthesis
- (c) Both 1 and 2
- (d) None

29. The origin of life is an unknown miracle according to

- a) Watson

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- b) F.H.C. Crick
- c) Oparin
- d) Plato
- e) Spallanzani

30. Sun is made in the form of Giant Nebula ? This was from proposed under the theory of

- (a) Geocentric theory
- (b) Modern theory
- (c) Heliocentric theory
- (d) Germplasm theory
- (e) Recapitulation theory

31. Heamozoin is related to the

- (a) Yellow fever
- (b) Gambien fever
- (c) Malarial fever
- (d) Black water fever
- (e) Influenza

32. Which one of the following statements is not related to C language

- (a) a powerful and varied repertoire of operators;
- (b) the portability of the compiler;
- (c) an elegant syntax;
- (d) ready access to the hardware when needed;
- (e) none of these

33. Strcmp() is function that

- (a) Compares whether the strings are in same cases
- (b) Compares whether the length of the string is same or not
- (c) Compares the strings character by character till the end and returns details
- (d) Compares the strings character by character only until it encounters a mismatch
- (e) All the above

34. Previously the plasma membrane is otherwise known as?

- (a) Unit membrane
- (b) Tonoplast
- (c) Plasmalemma or ectoplasm
- (d) All the above
- (e) None of the above

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35. Which of the following are responsible for the mental abnormalities in humans?

- (a) XX and XXX
- (b) XXX and XY
- (c) XO and XXX
- (d) XX and XO
- (e) XX and XY

36. Identify the type of photosynthetic bacteria that evolve oxygen

- (a) Green sulphur bacteria
- (b) Cyanobacteria
- (c) Purple sulphur bacteria
- (d) Nitrobacter
- (e) All the above

37. Indicate the substance indispensable for fermentation in the following list

- (a) Formaldehyde
- (b) CO
- (c) Zymase
- (d) Pyruvic acid
- (e) Lipase

38. Chromosome number of Down's syndrome is

- (a) 47
- (b) 46
- (c) 45
- (d) 23
- (e) 22

39. The common feature for the nucleus, chloroplast and mitochondria is

- (a) Lamellae
- (b) Cristae
- (c) Nucleic acids
- (d) Double membranes
- (e) Thylakoids

40. During angiosperms life cycle, when the spore mother cell divides twice, there are following types of tetrads produced

- (a) Linear tetrads
- (b) Isobilateral tetrads
- (c) T-shaped tetrads
- (d) Tetrahedral tetrads

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(e) All of these

41. The enzymes are _____ at high temperatures (except Taq Polymerase)

- (a) Denatured
- (b) Killed
- (c) Inactivated
- (d) Dissolved

42. Pick out the non living thing from the following

- (a) Cell wall
- (b) Nucleus
- (c) Chloroplast
- (d) Mitochondria
- (e) None of the above

43. Cereal seeds should be stored at 35 to 40 degrees centigrade temperatures under moisture for ___ days to remove their dormancy

- (a) 2 to 3 days
- (b) 1 to 2 days
- (c) 3 to 4 days
- (d) 2 to 4 days
- (e) 5 to 10 days

44. Which one of the following products are formed when the electrons from the reduced FADH₂ are finally transferred to NO₃ through molybdenum

- (a) O₂ & H₂O
- (b) NO₂ & O₂
- (c) H₂O & CO₂
- (d) H₂O & CO
- (e) None

45. The term CELL was coined by

- (a) Robert hook
- (b) Robert brown
- (c) Kolliker
- (d) Schleiden and Schwann
- (e) J.D. Watson

46. Gene regulation is explained for the first time by

- (a) Tautum and Beadle
- (b) T. H. Morgan

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- (c) Bateson and Punnet
- (d) Jacob and Monad
- (e) Johan son

47. Allosomes are also known as?

- (a) Beaded structures on chromosomes
- (b) Sex-chromosomes
- (c) Node like structures on chromosomes
- (d) A group of plasmids
- (e) A set of certain genes

48. The enzyme that is functional at a PH -2 is

- (a) Pepsin
- (b) Trypsin
- (c) Lipase
- (d) Ptyalin
- (e) Zymase

49. The common phase between aerobic and anaerobic respiration is called

- (a) Oxidative phosphorylation
- (b) TCA cycle
- (c) Glycolysis
- (d) Krebs cycle
- (e) None of the above

50. C language is well known for its versatile features and which one of the following is not one of those

- (a) Structured language
- (b) Portability
- (c) Permits all data conversions
- (d) Case sensitive
- (e) None of the above

51. Some genetic elements that are capable of maintaining both as chromosomes and as well as extra chromosomal entity are also known as

- a) Autosomes
- b) Allosomes
- c) Mesosomes
- d) Episomes
- e) Peroxysomes

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52. One of the following is not a type of RAM (random access memory), identify
- (a) F-RAM
 - (b) D-RAM
 - (c) S-RAM
 - (d) P-RAM
 - (e) None
53. Oncogenic strains of retroviruses differ from non-oncogenic strains by the presence of an extra gene called
- (a) Transgene
 - (b) Oncogene
 - (c) Retrogene
 - (d) Mutagene
 - (e) Polygene
54. One of the following belongs to the hydrolases group
- (a) Hexokinase
 - (b) Trypsin
 - (c) Aldolase
 - (d) Catalase
55. The oxysomes are present in/on ?
- (a) The inner membrane of mitochondria
 - (b) The outer membrane of mitochondria
 - (c) The nucleus
 - (d) The thylakoid membranes
 - (e) The chloroplasts
56. Esterases belong to the category of
- (a) Hydrolases
 - (b) Lyases
 - (c) Transferases
 - (d) Ligases
 - (e) Isomerases
57. AIDS disease was first reported in
- (a) Germany
 - (b) Russia
 - (c) America
 - (d) France
 - (e) China

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58. Chromosome theory was put forth by

- (a) Gregor Mendel
- (b) Waldeyer
- (c) Sutton and Boveri
- (d) Stephen Hales
- (e) Strausburger

59. The basic set of programs like BIOS (basic input output systems) is by default loaded into _____ during manufacture.

- (a) Random access memory
- (b) Read only memory
- (c) Virtual memory
- (d) Cache memory
- (e) Application memory

60. The phylum chordata was established by

- (a) Linnaeus
- (b) Leuwenhoek
- (c) Balfour
- (d) Bateson
- (e) Garstang

61. Population growth is mainly caused by

- (a) competition decrease
- (b) Predator decrease
- (c) Over killing
- (d) Introduction of exotic species
- (e) Both 1 & 2

62. What type of codes are necessary to control how long you want the compound statement to carry on repeating

- (a) Conditional Loops
- (b) Logical Expression
- (c) Local statements
- (d) Both 1 & 2
- (e) All the above

63. In albuminous seeds, food is stored in?

- (a) Plumule
- (b) Testa

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- (c) Scutellum
- (d) Cotyledon
- (e) Endosperm

64. The type of energy that is essential for the origin of life

- (a) Solar energy
- (b) Chemical energy
- (c) Radiation energy
- (d) Heat energy
- (e) Biomechanical energy

65. Control codes that are used in between the source code to control the output are called

- (a) Control characters
- (b) Escape characters
- (c) Alternative characters
- (d) Modifying characters
- (e) All the above

66. Urinary bladder is absent in

- (a) Aves
- (b) Reptiles
- (c) Mammals
- (d) Amphibians
- (e) none of these

67. 5' to 3' exonuclease activity is found associated with

- (a) DNA polymerase II
- (b) DNA polymerase I
- (c) DNA polymerase III
- (d) EcoR I
- (e) T4 Ligase

68. _____ are exclusively reproduced from its genetic material.

- (a) Bacterial cell
- (b) Viruses
- (c) Animal cell
- (d) Plant cell
- (e) All of these

69. Diastase can digest one of the following

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- (a) Lipids
- (b) Protein
- (c) Aminoacids
- (d) Starch
- (e) Oligopeptides

70. Genetical make up of living beings is known as

- (a) Genotype
- (b) Phenotype
- (c) Morphogenesis
- (d) Heterozygous
- (e) Anatomy

71. The presence of whole sets of chromosomes is called

- (a) Polyploidy
- (b) Aneuploidy
- (c) Euploidy
- (d) Haploidy
- (e) None of the above

72. In C language arrays are always declared using

- (a) Flower braces
- (b) Round brackets
- (c) Square braces
- (d) Both 1 & 2
- (e) All the above

73. Nebular hypothesis was proposed by I.Kant regarding

- (a) Origin of complex organisms
- (b) Origin of life
- (c) Origin of earth
- (d) Centre of universe
- (e) Origin of life from non-living matter

74. Open type of circulatory system is seen in

- (a) Urochordates
- (b) Cephalochordates
- (c) Craniates
- (d) Hemichordates
- (e) Acraniata

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75. Over-abundance of nutrients in lakes and water bodies is called

- (a) Eutrophication
- (b) Enrichment
- (c) Ecoline
- (d) Ecotone
- (e) None of the above

76. By the process of apospory the following plants have developed

- (a) Triploid
- (b) Diploid
- (c) Tetraploid
- (d) All the above
- (e) None of the above

77. Phytochrome is a

- (a) Pigment
- (b) Hormone
- (c) Both 1 & 2
- (d) None

78. Virus can survive in

- (a) Air
- (b) Soil
- (c) Water
- (d) Living tissue
- (e) None of the above

79. The DBMS consists of

- (a) Application developer
- (b) User interphase
- (c) Database engine
- (d) Data dictionary
- (e) All the above

80. A data type number that takes about seven digits of precision and a range of about $1.E-36$ to $1.E+36$ and associated with a decimal number is

- (a) Float
- (b) Integer
- (c) Double
- (d) Char

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(e) Real

81. In which period did the monocots originate?

- (a) Jurassic period
- (b) Cretaceous period
- (c) Triassic period
- (d) Miocene period
- (e) Pliocene period

82. Nucleolus was discovered by

- (a) Von mohl
- (b) Robert hook
- (c) Fontana
- (d) Robert brown
- (e) Virchow

83. Where is the commonwealth institute of biological control centre located in India?

- (a) Bangalore
- (b) Delhi
- (c) Jodhpur
- (d) Hyderabad
- (e) Chennai

84. The Cytoplasmic-Genetic male sterility was explained in sorghum by

- (a) Dhawan and Paliwal
- (b) Jones and Clarke
- (c) Sutton and Boveri
- (d) Stephen and Holland
- (e) Bateson and Punnet

85. Respiration as a catabolic process results in

- (a) No change in the weight
- (b) Increasing the dry weight
- (c) Decreasing the dry weight
- (d) Increasing the water content of the cell
- (e) None of the above

86. Pyruvic acid is the end product of _____

- (a) Krebs cycle
- (b) Glycolysis
- (c) Fermentation

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(d) Photophosphorylation

87. Which one of the following is an aromatic amino acid

- (a) Histidine
- (b) Phenyl alanine
- (c) Lysine
- (d) Leucine
- (e) Alanine

88. Indole acetic acid is a
Naturally occurring auxin

- (a) Synthetic auxin
- (b) Synthetic cytokinin
- (c) Natural cytokinin
- (d) None of the above

89. During the asexual reproduction of yeast (*Sacchromyces*), the nucleus of ascus divides into

- (a) Four
- (b) Two
- (c) Eight
- (d) Seven
- (e) Mostly 2, sometimes 4 or 8

90. Which of the following are not hormones?

- (a) Gibberellins
- (b) Auxins
- (c) Cytokinins
- (d) Abscissic acid
- (e) Biotin

91. C language is a

- (a) Middle level language
- (b) low level language
- (c) High level language
- (d) Object oriented language
- (e) Assembly language

92. A fresh red berry kept in a cupboard can perform

- (a) Respiration

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- (b) Photosynthesis
- (c) Transpiration
- (d) Both 2 & 3
- (e) Both 3 & 4

93. Gibberellins are isolated on a commercial basis for the first time by?

- (a) Mitchell and Stodola
- (b) Skoog and Thimann
- (c) Yabuta and Sumiki
- (d) Boyen Jensen
- (e) Kogl and H.Smit

94. The power house of a plant cell is

- (a) Golgi bodies
- (b) Nucleus
- (c) Mitochondria
- (d) Lysosomes
- (e) Peroxisomes

95. krebs cycle takes place in

- (a) Mitochondria
- (b) Cytoplasm
- (c) Golgi bodies
- (d) Nucleus
- (e) Cell wall

96. A nucleotide consists of a?

- (a) Sugar and phosphate
- (b) Sugar
- (c) Sugar, phosphate and nitrogenous bases
- (d) Phosphates only

97. To explain the movement of water in soil, plant and air system, the concept of the water potential was proposed by

- (a) R.O. Slatyer and S.A Taylor
- (b) Dixon and web
- (c) Curtis
- (d) Stephen hales
- (e) J. sachs

98. When ATP is converted to ADP, it releases

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- (a) Hormones
- (b) Electricity
- (c) Enzymes
- (d) Energy
- (e) Glucose

99. What type of nucleic acids are found in the bacteriophages

- (a) Single stranded RNA
- (b) Single stranded DNA
- (c) Double stranded DNA
- (d) Both 1 & 2
- (e) Both 2 & 3

100. A note to yourself (or others) that you put into your source code for understanding denoted by asterisk and slash in the beginning and the end. Such informative lines are known as

- (a) Comments
- (b) Notes
- (c) Captions
- (d) programmer lines
- (e) None of the above

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