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Total No. of Pages : 20

P. G. Re-Entrance Examination, 2024
M. Sc. (BOTANY)
Subject Code : 58714

Day and Date : Friday, 28-06-2024

Total Marks : 100

Time : 10.30 a.m. to 12.00 p.m.

Instructions :

- 1) All questions are compulsory.
- 2) Each question carries 1 mark.
- 3) Answers should be marked in the given OMR answer sheet by darkening the appropriate option.
- 4) Follow the instructions given on OMR sheet.
- 5) Rough work shall be done on the sheet provided at the end of question paper.

1) Eukaryotic cells contains ribosomes.

a) 80S

b) 60S

c) 40S

d) 70S

2) is mostly cultivated by shoot suckers.

A) Rose

B) Marigold

C) cut greens

D) Jasmine

3) Flowers with long stock are called as

A) loose flowers

B) cut flowers

C) Gerbera

D) dried flowers

4) used for preparation of perfumes in perfumery,

- | | |
|-------------|-----------------|
| A) Gerbera | B) Rose |
| C) Marigold | D) Catharanthus |

5) Propagation of plants through seeds is referred as method of reproduction.

- | | |
|---------------|-------------------|
| A) asexual | B) sexual |
| C) vegetative | D) parthenocarpic |

6)species of marigold is commonly cultivated in India.

- | | |
|---------------------|---------------------|
| A) Tagetus indica | B) Tagetus erecta |
| C) Tagetus africana | D) Tagetus austalis |

7) Nursery is a place where plants are grown for

- A) selling
- B) multiplication only
- C) ornamental purpose
- D) beautification

8) Carrot is a rich source of Vitamin

- | | |
|------|------|
| A) A | B) B |
| C) C | D) D |

9) Brindavan garden is situated on the river

- | | |
|-----------|------------|
| A) Ganga | B) Krishna |
| C) Kaveri | D) Yamuna |

10) 'Floribanda' is a variety of

- A) Rose B) Marigold
- C) Gerbera D) Jasmine

11) is commonly used in hanging basket.

- A) Clerodendrum sp.
B) Begonia sp.
C) Antigonon leptopus
D) Ipomoea palmata

12) The general chemical formula of carbohydrate is

- a) $C_n H_{2n} O$ b) $(CH_2O)_{2n}$
c) $(CHO)_n$ d) $(CH_2O)_n$

13) Which of the following is ketotriose

- a) Glyceraldehyde b) Dihydroxyacetone
- c) Ribulose d) Erythrose

14). The glucosidie linkage between glucose molecule of sucrose is

- a) a 1-4 b) B 1-4
c) a 1-2 d) B 1-6

15). Which of following is homopolysaccharide-

- a) cellulose b) Starch
- c) glycogen d) all of above

- 16) The number of isomer in glucose are
- a) 6
 - b) 8
 - c) 12
 - d) 16
- 17) Mutarotation refers to change in
- a) Optical rotation
 - b) pH
 - c) Conductance
 - d) Chemical properties.
- 18) Which of following is non reducing sugar
- a) Sucrose
 - b) Agar
 - c) Isomaltose
 - d) Trehalose
- 19) Sucrose consists of
- a) Glucose+ glucose
 - b) Glucose+fructose
 - c) Glucose+ galactose
 - d) Glucose+manose
- 20) Epimers of glucose is
- a) Fructose
 - b) galactose
 - c) ribose
 - d) deoxyribose
- 21). All protein contain the
- a) Same 20 amino acids
 - b) different amino acids
 - c) 300 amino acids occur in nature
 - d) only few amino acids

22) Zhukovsky proposedmegacenters or regions for diversity of cultivated plants.

- a)10 b)11
c) 12 d)13

23) *Triticum aestivum* belongs. to family

- a) Poaceae b) apocynaceae
c) cyperaceae d) fabaceae

24) Centre of origin of soyabean is

- a) India b) East Asia China
- c) America d) Australia two

25) Term bioinformatics was coined by to describe "the study of informatic processes in biotic systems"

- a) Watson
- b) T.H.Morgan
- c) Koelreuter
- d) Paulien Hogeweg and Ben Hesper

26). T-Test is defined as the ratio of difference between standard error ofmeans and difference between two means.

- a) live b) four
c) two d) three

- 27) part of *Syzigium aromaticum* is used
- a) opened flower bud.
 - b) fresh unopened flower bud.
 - c) Dried unopened flower bud.
 - d) fruit
- 28) In *Piper nigrum*..... major compound is present
- a) pyrol
 - b) pyroline
 - c) piperol
 - d) piperidines
- 29) In *Gossypium* sp..... type of fruit is present
- a) berry
 - b) loculicidal capsule
 - c)pepo
 - d) pod
- 30) The person who collects the data for statistical investigation is called as.....
- a) collector
 - b) investigator
 - c)supervisor
 - d) breeder
- 31) The number of items which belongs to same class called as.....
- a) frequency
 - b) class frequency
 - c) class limit
 - d) mid point
- 32) External as well as internal structures present in.....type of fossil.
- a) Impression
 - b) Petrification
 - c) Nodule
 - d) Pith cast

- 33) Cupulate seeds of Lyginopteris are known as
- a) Spenopteris b) Enigmocarpon
 - c) Telangium d) Laginostoma
- 34) Carbon dating method for determining age of fossil is based on.....
- a) physical activity b) chemical activity
 - c) biological activity d) radioactivity
- 35) fossils are just show impressions of plants or plant parts on sediments.
- a) Impression b) Compression
 - c) Amber d) Petrification
- 36) In naming a form genus of fossil.....suffix is applied to a stem genus.
- a)-dendron b) -phyllum
 - c)-xylon d) -strobis
- 37) pBR322 is a used as
- a) molecular probe b) Karyotype dye
 - c) Resistant marker d) Vector
- 38) Topoisomerase is involved in
- a. producing RNA primer b. secretion of DNA strand
 - c. producing nick in DNA d. T-RNA

39) A plasmid is....

- a.. is a circular DNA
- b. always contains an origin of replication
- c. usually contains one or more restriction sites
- d. all of the above

40)enzymes are molecular scissors.

- a. Restriction endonuclease
- b. Reverse transcriptase
- c. DNA polymerase
- d. RNA polymerase

41) Azotobacter strains are sold under the name.....

- a) Azotomycin
- b) Azotobacterian
- c) Azocyanin
- d) Azostrepsin

42) Nitrogen fixing BGA fix the atmospheric nitrogen with the help of.....

- a) Oidea
- b) Heterocyst
- c) Chlamydospores
- d) akinets

43) worm-farming" means

- a) apiculture
- b) fishery
- c) Vermiculture.
- d) Sericulture

- 44) Vesicular-arbuscular mycorrhiza (VAM) is formed by the symbiotic association between certain phycomycetous fungi and roots.
- a) Angiospermic b) Petridophytes
- c) Agae d) Bryophytes
- 45) Trichoderma is a ecofriendly fertilizer.
- a) Fungal b) Bacterial
- c) viral d) Algal
- 46) In Type of Classification, the drugs are arranged according to the morphological or external characters of the plant parts or animal parts.
- a) Morphological b) Anotomical
- c) taxonomical d) Chemical.
- 47) The drug which is obtained from the plants, animals and Bacteria or any natural resources to cure the diseases in the humans and animals are called.....
- a) Modified drugs b) Crude drugs
- c) synthetic drugs d) all of the above
- 48) Zingiber officinale is the Botanical name of the
- A) Heena B) Adrak.
- C) Pumpkin D) Amala

49) The main chemical constituent of *Zingiber officinale* is.....

- A) Ascorbic acid
- B) Butanol
- C) zinzanol
- D) Fumaric acid

50)helps to improve immunity in the humans.

- A) Tridax Sp.
- B) Argemone sp.
- C) Parthenium sp.
- D) Emblica sp.

51. The term alternation of generation was first used by.....

- a) Halfmeister
- b) Iyyangar
- c) Linnaeaceous
- d) T. Cooke

52. is more primitive type of sexual reproduction.

- a) Oogamy
- b) Anisogamy
- c) Isogamy
- d) parthenocarpy

53. In *Anthoceros* fertilization is

- a) Oogamous
- b) isogamous
- c) anisogamous
- d) parthenocarpy

54. Hornworts is the common term used for members of

- a) mosses
- b) anthocerotopsida
- c) bryopsida
- d) psilophyta

55. Naked ovules are present in

- a) Pteridophytes
- b) Angiosperms
- c) Gymnosperms
- d) Bryophytes

56. Somatic body of the fungi is made up of which constitute mycelium.

- a) Spore
- b) hyphae
- c) septa
- d) conidiophores

57. Sporangiospores in Mucor are

- a) triploid
- b) haploid
- c) diploid
- d) tetraploid

58. Pomegranate blight is.....disease.

- a) viral
- b) fungal
- c) bacterial
- d) mycoplasmal

59. The members of cyanophyta are commonly called as

- a) Green algae
- b) Blue green algae
- c) Red algae
- d) Brown algae

60. The naked single stranded RNAs are known as

- a) Satellites
- b) Viroids
- c) Prions
- d) Capsid

61. Indian father of angiosperm embryology

- a) P. Maheshwari
- b) M. S, Swaminathan
- c) B. G. Swami
- d) Lakshmanan

62. Embryo sac of angiosperm is

- a) 8- nucleated, 7-celled b) 8- nucleated, 7- celled
- c) 8- nucleated, 8- celled d) 7- nucleated, 7-celled

63. Flowers pollinated by bats is called as

- a) Malacophily b) ornithophily
- c) chiropterophily d) zoophily

64. Four radial vascular bundle are found in.....

- a) dicot root b) monocot root
- c) dicot stem d) monocot stem.

65. Companion cells are found in.....

- a) Xylem b) phloem
- c) stomata d) endodermis

66. Safranin stains.....

- a) thick walled cells b) living cells
- c) suberized cells d) lignified cells

67. The first CO₂ acceptor in Ca plant is

- a) Phosphoenol pyruvic acid
- b) Ribulose diphosphate
- c) Oxalo acetic acid
- d) Phosphoglyceric acid

68. Sugarcane shows high efficiency of CO₂ fixation because it performs

- a) Calvin cycle
- b) HSK pathway
- c) TCA cycle
- d) Cs cycle

69. Donnan equilibrium is.....uptake of mineral.

- a) Active
- b) Passive
- c) Positive
- d) Negative

70.are micronutrients to the plants.

- a) Fe and Mn
- b) Ca and K
- c) P and K
- d) C and O

71. What is the expected phenotype ratio of a dihybrid cross between two heterozygous pea plants....

- a) 9:3:3:1
- b) 1:2:1
- c) 3:1
- d) 1:1

72. Kernel colour in wheat is controlled by

- a) Autogenes
- b) Plasmagenes
- c) Plastogenes
- d) Polygenes

73. Plastid inheritance studied in..... plant.

- a) Bougainvillea spectabilis
- b) Datura alba
- c) Mirabilis jalapa
- d) Pisum sativum

74.is Hardy-Weinberg equation for equilibrium.

- a) $p^2 + pq + q = 1$
- b) $p^2 + 2pq + q^2 = 1$
- c) $p + 2pq + q = 1$
- d) $p + pq + q = 1$

75. A condition in which the organisms have more than two complete sets of chromosomes is called.....

- a) Anueploidy
- b) Haploids
- c) Polyploidy
- d) None of these

76. Cytoplasmic inheritance was first reported by.....

- a) Correns
- b) Sutton
- c) Mendel
- d) Johnson

77. Any change in the nucleotide sequence of the DNA of a gene is called.....

- a) a mutation
- b) an anticodon
- c) a codon
- d) a translocation

78. Inversion with centromere is called.....

- a) Acentric
- b) Acrocentric
- c) pericentric
- d) Paracentric

79. What is the purpose of backcrossing in plant breeding.....

- a) To produce offspring with desirable traits
- b) To introduce genetic variation
- c) To improve the quality of the parent plant
- d) To increase the yield of the parent plant

80. When two or more genes interact to control a single trait, it is called.....

- a) Epistasis
- b) Pleiotropy
- c) Co-dominance
- d) dominance

81. The virus-mediated bacterial recombination is known as

- a) Transduction
- b) Conjugation
- c) Transformation
- d) Recombination

82. Bacterial transformation was discovered by

- a) Leaderberg and Tatum
- b) Beadle and Tatum
- c) Griflith
- d) Zinder

83. Transformation mechanism of recombination in bacteria is discovered by.

- a) Tatum
- b) Zinder
- c) F. Griffith
- d) Lederberg and Tatum

84. Fermentation is a Process.

- a) Physiological
- b) Biological
- c) Chemical
- d) Physical

85. Penicillin is commercially produced by

- a) P. notatum
- b) P. citrinum
- c) P. chrysogenum
- d) P. roqueforti

86. Zymase is obtained from

- a) *Saccharomyces ludwigi*
- b) *Saccharomyces cerevisiae*
- c) *Saccharomyces boulardii*
- d) *Saccharomyces crusiana*

87. Plant diseases caused by non-living agents are called as

- a) Biotic diseases
- b) Abiotic diseases
- c) Non-infectious diseases
- d) Infectious diseases

88. Whip Smut of Sugarcane is caused by.

- a) Bacteria
- b) Virus
- c) Fungi
- d) mycoplasma

89. Damping off is a

- a) Soil borne fungal disease
- b) Bacterial diseases
- c) air born fungal diseases
- d) viral diseases

90. Mushrooms are rich in

- a) Proteins
- b) lipids
- c) carbohydrates
- d) Minerals

91. *Pleurotus sajor caju* grows on -materials.

- a) Lignin cellulosic
- b) tannin
- c) fibres
- d) chitinous

92) Nucleoid is present in.....

- a) virus
- b) algae
- c) bryophyte
- d) bacteria

93) True nucleus is present in

- a) bacteria
- b) virus
- c) mitochondria
- d) eukaryotes

94) Mitosis is also called as cell division

- a) reductional
- b) equational
- c) parallel
- d) periclinal

95) Meiosis is also called as cell division

- a) reductional
- b) equational
- c) parallel
- c) periclinal

96) Chromosomes are present on middle line in

- a) prophase
- b) anaphase
- c) metaphase
- d) telophase

97) Karyokinesis is division of.....

- a) mitochondria
- b) chloroplast
- c) cytoplasm
- d) nucleus

98)are called power house of cell

- | | |
|-------------|-----------------|
| a) nucleus | b) lysosome |
| c) ribosome | d) mitochondria |

99)is the site of photosynthesis in cell of green plants.

- | | |
|---------------|----------------|
| a) amyloplast | b) Chloroplast |
| c) tonoplast | d) leucoplast |

100) are important in protein synthesis.

- | | |
|-------------|-----------------|
| a) nucleus | b) lysosome |
| c) ribosome | d) mitochondria |

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- Rough Work -

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