

Seat No.

Total No. of Pages : 20

P.G. Entrance Examination, 2024**Subject : Botany****Subject Code : 58714****Day and Date : Thursday, 16-05-2024****Total Marks : 100****Time : 10:30 am to 01:30 pm****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. The term alternation of generation was first used by
 - a) Halfmeister
 - b) Iyyangar
 - c) Linnaeaceous
 - d) T. Cooke
2. is more primitive type of sexual reproduction.
 - a) Oogamy
 - b) Anisogamy
 - c) Isogamy
 - d) parthenocarpy
3. In Anthoceros fertilization is
 - a) Oogamous
 - b) isogamous
 - c) anisogamous
 - d) parthenocarpy
4. Hornworts is the common term used for members of
 - a) mosses
 - b) anthocerotopsida
 - c) bryopsida
 - d) psilophyta

12. 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
13. Flowers pollinated by bats is called as.....
- a) Malacophily
 - b) ornithophily
 - c) chiropterophily
 - d) zoophily
14. Four radial vascular bundle are found in.....
- a) dicot root
 - b) monocot root
 - c) dicot stem
 - d) monocot stem.
15. Companion cells are found in.....
- a) Xylem
 - b) phloem
 - c) stomata
 - d) endodermis
16. Safranin stains.....
- a) thick walled cells
 - b) living cells
 - c) suberized cells
 - d) lignified cells
17. The first CO₂ acceptor in C₃ plant is
- a) Phosphoenol pyruvic acid
 - b) Ribulose diphosphate
 - c) Oxalo acetic acid
 - d) Phosphoglyceric acid

18. Sugarcane shows high efficiency of CO₂ fixation because it performs
- a) Calvin cycle
 - b) HSK pathway
 - c) TCA cycle
 - d) C₅ cycle
19. Donnan equilibrium is.....uptake of mineral.
- a) Active
 - b) Passive
 - c) Positive
 - d) Negative
20.are micronutrients to the plants.
- a) Fe and Mn
 - b) Ca and K
 - c) P and K
 - d) C and O
21. 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
22. Kernel colour in wheat is controlled by
- a) Autogenes
 - b) Plasmagenes
 - c) Plastogenes
 - d) Polygenes
23. Plastid inheritance studied in.....plant.
- a) Bougainvillea spectabilis
 - b) Datura alba
 - c) Mirabilis jalapa
 - d) Pisum sativum

24.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) $p + pq + q = 1$
25. 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
26. Cytoplasmic inheritance was first reported by.....
- a) Correns b) Sutton
 c) Mendel d) Johnson
27. 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
28. Inversion with centromere is called.....
- a) Acentric b) Acrocentric
 c) pericentric d) Paracentric
29. 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

30. When two or more genes interact to control a single trait, it is called.....
- a) Epistasis
 - b) Pleiotropy
 - c) Co-dominance
 - d) dominance
31. The virus-mediated bacterial recombination is known as
- a) Transduction
 - b) Conjugation
 - c) Transformation
 - d) Recombination
32. Bacterial transformation was discovered by
- a) Lederberg and Tatum
 - b) Beadle and Tatum
 - c) Griffith
 - d) Zinder
33. Transformation mechanism of recombination in bacteria is discovered by.....
- a) Tatum
 - b) Zinder
 - c) F. Griffith
 - d) Lederberg and Tatum
34. Fermentation is a Process.
- a) Physiological
 - b) Biological
 - c) Chemical
 - d) Physical
35. Penicillin is commercially produced by
- a) *P. notatum*
 - b) *P. citrinum*
 - c) *P. chrysogenum*
 - d) *P. roqueforti*

36. Zymase is obtained from
- a) *Saccharomyces ludwigi* b) *Saccharomyces cerevisiae*
 c) *Saccharomyces boulardii* d) *Saccharomycescrusiana*
37. Plant diseases caused by non –living agents are called as
- a) Biotic diseases b) Abiotic diseases
 c) Non – infectious diseases d) Infectious diseases
38. Whip Smut of Sugarcane is caused by.....
- a) Bacteria b) Virus
 c) Fungi d) mycoplasma
39. Damping off is a -----
- a) Soil borne fungal disease b) Bacterial diseases
 c) air born fungal diseases d) viral diseases
40. Mushrooms are rich in-----
- a) Proteins b) lipids
 c) carbohydrates d) Minerals
41. *Pleurotuasajor –caju* grows on -----materials.
- a) Lignin cellulosic b) tannin
 c) fibres d) chitinous
42. Nucleoid is present in.....
- a) virus b) algae
 c) bryophyte d) bacteria

43 True nucleus is present in

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

44 Mitosis is also called as cell division

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

45) Meiosis is also called as cell division

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

46) Chromosomes are present on middle line in

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

47) Karyokinesis is division of

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

48) are called power house of cell

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

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

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

50) are important in protein synthesis.

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

51) Eukaryotic cells contains ribosomes.

- a) 80S
- b) 60S
- c) 40S
- d) 70S

52) _____ is mostly cultivated by shoot suckers.

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

53) Flowers with long stock are called as _____.

- A) loose flowers
- B) cut flowers
- C) cut greens
- D) dried flowers

54) _____ used for preparation of perfumes in perfumery.

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

- 67) Mutarotation refers to change in.....
- a) Optical rotation
 - b) pH
 - c) Conductance
 - d) Chemical properties.
- 68) Which of following is non reducing sugar
- a) Sucrose
 - b) Agar
 - c) Isomaltose
 - d) Trehalose
- 69) Sucrose consists of
- a) Glucose+ glucose
 - b) Glucose+fructose
 - c) Glucose+ galactose
 - d) Glucose+manose
- 70) Epimers of glucose is
- a) Fructose
 - b) galactose
 - c) ribose
 - d) deoxyribose
- 71) 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
- 72) Zhukovsky proposed megacenters or regions for diversity of cultivated plants.
- a) 10
 - b) 11
 - c) 12
 - d) 13

- 73) *Triticum aestivum* belongs..... to family
- a) Poaceae
 - b) apocynaceae
 - c) cyperaceae
 - d) fabaceae
- 74) Centre of origin of soyabean is.....
- a) India
 - b) East Asia China
 - c) America
 - d) Australia two
- 75) 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
- 76) T-Test is defined as the ratio of difference betweenmeans and standard error of difference between two means.
- a) five
 - b) four
 - c) two
 - d) three
- 77) part of *Syzigium aromaticum* is used
- a) opened flower bud.
 - b) fresh unopened flower bud.
 - c) Dried unopened flower bud.
 - d) fruit

- 84) Carbon dating method for determining age of fossil is based on.....
- a) physical activity
 - b) chemical activity
 - c) biological activity
 - d) radioactivity
- 85)fossils are just show impressions of plants or plant parts on sediments.
- a) Impression
 - b) Compression
 - c) Amber
 - d) Petrification
- 86) In naming a form genus of fossil.....suffix is applied to a stem genus.
- a) -dendron
 - b) -phyllum
 - c)-xylon
 - d) -strobis
- 87) pBR322 is a used as
- a) molecular probe
 - b) Karyotype dye
 - c) Resistant marker
 - d) Vector
- 88) Topoisomerase is involved in -----
- a. producing RNA primer
 - b. secretion of DNA strand
 - c. producing nick in DNA
 - d. T- RNA

- 89) 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
- 90)enzymes are molecular scissors.
- a. Restriction endonuclease
 - b. Reverse transcriptase
 - c. DNA polymerase
 - d. RNA polymerase
- 91) Azotobacter strains are sold under the name-----
- a) Azotomycin
 - b) Azotobacterian
 - c) Azocyanin
 - d) Azostrepsin
- 92) Nitrogen fixing BGA fix the atmospheric nitrogen with the help of -----
- a) Oidea
 - b) Heterocyst
 - c) Chlamydo spores
 - d) akinets
- 93) worm-farming” means
- a) apiculture
 - b) fishery
 - c) Vermiculture.
 - d) Sericulture

- 94) Vesicular-arbuscular mycorrhiza (VAM) is formed by the symbiotic association between certain phycomycetous fungi androots.
- a) Angiospermic
 - b) Petridophytes
 - c) Agae
 - d) Bryophytes
- 95) Trichoderma is a----- ecofriendly fertilizer.
- a) Fungal
 - b) Bacterial
 - c) viral
 - d) Algal
- 96) 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 .
- 97) 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
- 98) Zingiber officinale is the Botanical name of the
- A) Heena
 - B) Adrak.
 - C) Pumpkin
 - D) Amala

99) The main chemical constituent of Zingiber officinale is

A) Ascorbic acid

B) Butanol

C) zinzerol

D) Fumaric acid

100).helps to improve immunity in the humans.

A) Tridax Sp.

B) Argemone sp.

C) Parthenium sp.

D) Emblica sp.

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