Shivaji University , Kolhapur

Seat No.	

Paper Code(ENT202019)

M.Sc Entrance Exam , MAY-2020

58714-Botany

Day And Date : Thursday 19/11/2020 **Total Marks :** 100

Time : 15:30 To 17:00

		Marks
1	Stamen like male flowers are seen in…….inflorescence. A) Hypanthodium B) Capitulum C) Cyathium D) Verticellaster	1
2	Phyllody is a major symptom of a disease caused by ----------. A) Fungi B) Bacteria C) PPLO D) Viruses	1
3	2n-2 indicates..... A) allopoliploid B) autopoliploid C) tetraploid D) nullisomy	1
4	Pathogen of a smut disease affects ---------- part of infected host. A) root system B) foliage C) inflorescence D) flower	1
5	---------- pollen grains are observed in Genus Pinus. A) Echinulate B) Boat shaped C) Needle like D) Winged	1
6	The organelles, those take part in photorespiration are _____. A) chloroplast & mitochondria B) mitochondria & ER C) mitochondria & peroxisomes D) chloroplast , mitochondria & peroxisomes	1
7	In any ecosystem pyramid of _____ is never inverted. A) energy B) biomass C) numbers D) species richness	1

8	Tobacco and tea leaves are fermented to give flavour and taste. This type of Fermentation is known as_____. A) Alcohol fermentation B) Curing C) Degradation D) Lactic acid fermentation	1
9	Penicillin is commercially produced by_____. A) P. notatum B) P. citrinum C) P. chrysogenum D) P. roquefortii	1
10	For the production of ethanol the raw material used is_____. A) Molasses B) Cellulose C) Sulphite waste liquor D) Rotten fruits	1
11	---------- microbes is used for commercial production of ethanol. A) Clostridium butylicum B) Streptococcus C) Saccharomyces cerevisiae D) Trichoderm apolysporum	1
12	Genus ---------- is commonly known as Peat Moss or Bog Moss. A) Sphagnum B) Plagiochasma C) Funaria D) Marchantia	1
13	During DNA replication, the sequence specificity of bases in newly synthesized strand is determined by ----------. A) DNA polymerase I B) Restriction endonuclease C) DNA polymerase II D) The template strand	1
14	---------- is a colonial alga. A) Oedogonium B) Nostoc C) Chlorella D) Polysiphonia	1
15	The most common form of diagrammatic representation of a grouped frequency distribution is ----------. A) Pie diagram B) Line graph C) Histogram D) Polygon	1
16	Solidification of culture media is carried out by addition of ----------. A) Agar agar B) Out flour C) Silica gel D) Blood serum	1

17 Most of the microbes obtain their carbon source from ----------. 1
A) Amino acids
B) Sugars
C) Alcohol
D) Organic acids

18 ……is the most primitive group of vascular land plants. 1
A) Thallophyta
B) Bryophyta
C) Pteridophyta
D) Spermatophyta

19 Dimorphic roots occur in…….. 1
A) Cycas
B) Pinus
C) Gnetum
D) Ephedra

20 The colony of Volvox is termed as……. 1
A) Coenobium
B) Colony
C) Cystocarp
D) Palmella

21 Gymnosperms generally lacks…… 1
A) vessels in xylem and companion cells in phloem
B) tracheids in xylem and companion cells in phloem
C) vessels of zylem and sieve tubes in phloem
D) tracheids in phloem and companion cells

22 The rules formulated by IBC are listed formally by code called as…….. 1
A) International code of Binomial nomenclature
B) Indian code of Biological nomenclature
C) International code of Botanical nomenclature
D) None of these

23 Citronella oil is extracted from leaves of ----------. 1
A) Artemisia annua
B) Jasminum sambac
C) Vetiveria zizanioides
D) Cymbopogon nardus

24 A bacterium associated with production of Bio-insecticide is ----------. 1
A) Bacillus thuringenesis
B) Agrobacterium tumefaciens
C) Bacillus subtilis
D) Agrobacterium rhizogenes

25 Premature leaf fall is caused due to the deficiency of--------. 1
A) Potassium
B) Sodium
C) Zinc
D) Phosphours

26 Chlorosis usually occurs-------. 1
A) in strong light
B) due to excessive respiration
C) in darkness
D) due to lack of Mg and Fe

27 ……is heterosporous. 1
A) Dryopteris
B) Selaginella
C) Lycopodium
D) Equistem

28 The order ……..……has only fossil Gymnosperms. 1
A) Cycadales
B) Conferales
C) Gnetales
D) Cycadofilicales

29 Bentham and Hooker have classified seed plants into ……families. 1
A) 202
B) 203
C) 204
D) 205

30 In inflorescence of Bougainvillea the coloured part is ----------. 1
A) Bract
B) Corolla
C) Leaf
D) Calyx

31 The net gain of ATP molecules in glycolysis is ----------. 1
A) 0
B) 2
C) 4
D) 8

32 The pigment essential for nitrogen fixation by leguminous plants is----------. 1
A) Phycocyanin
B) Leghaemoglobin
C) Phycoerythrin
D) Antycyanin

33 In the study of Ecology, Relative density + Relative dominance + Relative frequency = ----. 1
A) Important Value Index
B) Abundance Index
C) Fidelity Index
D) Species Diversity Index

34 The correlation between the number of stomata and epidermal cells per unit area is known as ----------. 1
A) Stomatal abundance
B) Stomatal frequency
C) Stomatal density
D) Stomatal index

35 Climax community is ---------- community. 1
A) the first stable
B) the last stable
C) man made, hence unstable
D) naturally unstable

36 ……. type of fossil is useful to study even the internal structures also. 1
A) Impression
B) Compression
C) Petrification
D) Cast

37 Morphine, Codine and Narcotin are obtained from unripe fruits of genus ----------. 1
A) Aloe
B) Rauvolfia
C) Papaver
D) Withania

38 Which colour of light gives maximum absorption peak by chlorophyll- a -------. 1
A) Yellow
B) Red
C) Blue
D) Green

39 Bordeaux Mixture consists of copper sulphate and ----------. 1
A) Calcium carbonate
B) Sodium hydroxide
C) Calcium hydroxide
D) Sodium carbonate

40 Carrier proteins are involved in--------. 1
A) Active transport of ions
B) Passive transport of ions
C) Water transport
D) Water evaporation

41 The rate of photosynthesis is maximum in ---------- light. 1
A) Green
B) Blue
C) Red
D) None

42 The proteinaceous part of an enzyme is known as ----------. 1
A) Proenzyme
B) Coenzyme
C) Apoenzyme
D) Prosthetic group

43 The development of fruit without fertilization is termed as ----------. 1
A) Apomixis
B) Allogamy
C) Polyembryonae
D) Autogamy

44	During ATP synthesis electrons pass through..... A) CO_2 B) cytochromes C) H_2O D) O_2	1
45	……. term is used to explain microhabitats. A) Ecad B) Ecology C) Ecotype D) Niche	1
46	---------- ecosystem does not show variation depending upon geographic location and rainfall. A) Marine B) Desert C) Tropical D) Fresh water	1
47	In Gnetum the vascular bundles are..... A) conjoint collateral open and endarch B) conjoint collateral closed and endarch C) conjoint collateral and exarch D) conjoint bicollateral and endarch	1
48	Bacterial genome contains ..... A) DNA without histones B) DNA with histones C) RNA with histones D) RNA without histones	1
49	Removal of anther from a flower bud before dispersal of pollen is called as..... A) capsulation B) sterilization C) emasculation D) natural selection	1
50	Rhizobium is .....bacteria. A) parasitic B) commensalistic C) asymbiotic D) symbiotic	1
51	Asbestos is chemically ..... A) calcium chloride B) calcium bromide C) magnesium silicate D) magnesium bromide	1
52	Myoglobin is .....protein. A) bone B) muscles C) cartilage D) hair	1

53	The structural and functional system of communities and their environment is called ..... A) ecology B) life forms C) ecosystem D) niche	1
54	Sclerospora graminicola causes ..... disease. A) Grain smut of Jowar B) Anthracnose of Bean C) Downy mildew of Bajara D) Citrus canker	1
55	Magnesium and Iron are essential for plants in the ..... A) Stomatal movement B) Energy transfer C) Translocation of carbohydrates D) Synthesis of chlorophyll	1
56	The florigen concept was proposed by ..... A) Kreb B) Skoog C) Thimann D) Chailakhyan	1
57	---------- is the Father of Indian Phytopathology A) Sir J. D. Butler B) J .F. Dastur C) B. B. Mundakur D) Prof. K. C. Mehta	1
58	Lithophytic algae grow on moist ..... A) Roots B) Rocks and stones C) Trunks D) Leaves	1
59	Mean is affected by ..... A) Frequency B) Extreme values C) Experimental design D) Density	1
60	---------- was the first botanist who cultured fungi on the pieces of watermelon. A) Ashby B) Allen C) Micheli D) Czapek	1
61	Cruciform corolla is the characteristic feature of family ----------. A) Carsaipiniaceae B) Poaceae C) Arecaceae D) Brassicaceae	1

62 .....era is known as age of angiosperms 1
A) Pre-cambrium
B) Jurassic
C) Coenozoic
D) Triassic

63 .....are absent in Gnetum. 1
A) antheridia and archegonia
B) antheridia
C) elaters
D) archegonia

64 Lyginopteris is a.....fossil. 1
A) lower cretaceous
B) upper carboniferous
C) permanian
D) paleozoic

65 The synthesis of new DNA molecule from proexisting DNA is called as..... 1
A) DNA restrication
B) DNA conjugation
C) DNA twisting
D) DNA replication

66 Square of standard deviation is known as..... 1
A) coefficient of variance
B) correlation coefficient
C) wilting coefficient
D) concentration gradient

67 The TMV virus is .....shaped. 1
A) sqaure
B) rod
C) circular
D) triangular

68 PPLO is associated with ---------- tissue of infected host. 1
A) Epidermal
B) Phloem
C) Xylem
D) Parenchyma

69 Adaptation to changed environment is called..... 1
A) settelement
B) aggregation
C) acclimatization
D) clamping

70 Clover leaf model is proposed to explain the structure of ----------. 1
A) r-RNA
B) m-RNA
C) t-RNA
D) Z-DNA

71 During hypogeal germination the cotyledons remain ----------. 1

A) Inside the fruit

B) below soil

C) absent

D) above soil

72 Which one is C4 plant of following..... 1

A) Pea

B) Papaya

C) Maize

D) Potato

73 .....method of plant breeding is applied to improve plants those reproductive by vegetative means. 1

A) Clonal selection

B) Intraspcific cross

C) Interspcific cross

D) Natural selection

74 The plants serves as measure or index are called…..... 1

A) Plant indicators

B) Environmental indicators

C) Climatic Climax

D) None of above

75 .....is present in plants and absent in animals. 1

A) cellulose

B) starch

C) sugar

D) fats

76 Exchange of chromosomal segment between non-homologous chromosomes called 1

A) Dominance

B) Deletion

C) Crossing over

D) Translocation

77 The term ethnobotany was coined by 1

A) Richard Evans Schultes

B) John William Harshberger

C) Gadgil and Vertak

D) Batson and Punettee

78 Yeast pink species ..... can fix atmospheric nitrogen in the soil. 1

A) Rhizobium.

B) Rhodopseudomonas

C) Rhodomonas

D) Rhodotorula

79 Smut is a ---------- borne disease. 1

A) Insect

B) Air

C) Soil

D) Seed

80 The branch of horticulture which deals with cultivation and production of fruit plants is called 1

A) Pomology
B) Landscape gardening
C) Olericulture
D) Floriculture

81 Histones are rich in 1

A) Arginine
B) Arginine and Lysine
C) Amino acids
D) Carbohydrates

82 SCP stands for 1

A) Spirulina cell protein
B) Scyptococcus cell protein
C) Single cell protoplasm
D) Single cell protein

83 A cross made between an inbred line and an open pollinated variety is called as 1

A) Top cross
B) Synthetic cross
C) Test cross
D) Back cross

84 The superiority of the hybrid over parents is known as..... 1

A) new combination
B) fast growth
C) hybrid vigour
D) slow growth

85 The Tunica-corpus Theory was put forth by..... 1

A) Schmidt
B) Nageli
C) Hanstein
D) Watson

86 When the data is collected from published agency then it is called as 1

A) primary data
B) secondary data
C) tertiary data
D) none of these

87 The ability of each and every living cell of plant to produce a new individual is known as 1

A) totipotency
B) development
C) reproduction
D) morphogenesis

88 ..... is the first CO_2 acceptor in C4 plants. 1

A) RuBP
B) PEP
C) Malate
D) Succinate

89 The number of tube cells covering the body of nucule in Chara is 1

A) 5

B) 4

C) 3

D) 2

90 ------- symptom refers to the development of powdery mass on the surface of infected part. 1

A) Mildew

B) Blight

C) Anthracnose

D) Rots

91 A cross made between the plants belonging to 2 different varieties of same species is called 1

A) Intravarietal hybridization

B) Intervarietal hybridization

C) Interspecific hybridization

D) Introgressive hybridization

92 Vernalization means treating seeds with ----------. 1

A) Solar energy

B) weak acids

C) chilling treatment

D) hot water

93 Herbicides are used to reduce the population of ----------. 1

A) weeds

B) insects

C) nematodes

D) fungi

94 Nilgiri Biosphere Reserve is situated on the border of ---------- states. 1

A) Karnataka &Tamilnadu

B) Kerala &Tamilnadu

C) Karnataka & Kerala

D) Karnataka, Kerala &Tamilnadu

95 Pigment system- II is concerned with ----------. 1

A) Reducing of CO2

B) Photolysis of H2O

C) Flowering

D) None

96 Fuelgen test is specific for..... 1

A) Proteins

B) RNA

C) DNA

D) Lipids

97 Double fertilization is characterstic of..... 1

A) bryophytes

B) angiosperms

C) pteridophytes

D) gymnosperms

98 Meiotic division in an ovule takes place in..... 1

A) megaspore mother cell

B) nucellus

C) megaspore

D) archesporium

99 DNA ligase is also known as..... 1

A) polycarbons

B) polymer ligase

C) polynucleotide ligase

D) polypropylene

100 In an ecosystem bacteria are considered as…….. 1

A) Secondary Consumers

B) Primary Consumers

C) Producers

D) Micro consumers