

MHT-CET Practice Question Paper

Subject : Biology

Time: 25 minutes

Test no : 05

Marks : 100

All the questions are compulsory and contain two marks for each

1. _____ is the most convenient and cheap method of artificial vegetative propagation.
a) Grafting b) Budding
c) Cutting d) Micropropagation
2. Which one of the following is NOT a disadvantage of self-pollination?
a) No scope for developing improved varieties
b) Progeny becomes weaker
c) Genetic stability can be maintained
d) Less adaptability to climatic variations
3. In some species of family Asteraceae seeds are produced without fertilization. It is called as _____.
a) apomixis b) amphimixis
c) parthenocarpy d) vivipary
4. Which character of angiosperms helped in their dominance on earth
a) Formation of seeds
b) Formation of endosperm
c) Double fertilization
d) Presence of xylem vessels
5. The suspensor during the development of an angiosperm embryo is formed from ____
a) basal cell
b) apical cell
c) embryonal cell
d) generative cell
6. The megasporangium proper of an angiosperm ovule is represented by
a) integument b) funicle
c) nucellus d) micropyle
7. Assisted Reproductive Technology does not include
a) Zygote extra fallopian transfer
b) In vitro fertilization and Embryo transfer
c) Artificial insemination
d) Gamete intra fallopian transfer
8. Incubation period of *Treponema pallium* is about
a) 2 to 14 days b) 7 to 21 days
c) 1 to 2 weeks d) 3 to 4 weeks
9. The technique used to block the passage of sperm in male _____.
a) Tubectomy b) Vasectomy
c) Coitus interruptus d) Rhythm method
10. What is "After birth" referred to?
a) Amniotic fluid passing out
b) Expulsion of baby
c) Expulsion of placenta, umbilical cord and foetal membrane
d) Secretion of hormone relaxin
11. Ectoderm gives rise to
a) cornea, heart, bronchi, dentine
b) adrenal cortex, tongue, liver, retina
c) lungs, adrenal medulla, dermis, thyroid
d) enamel of teeth, nails, adrenal medulla, hair
12. The prostatic fluid forms about _____ of total volume of semen.
a) 60% b) 50%
c) 40% d) 30%
13. Among the following characters, which one was NOT considered by Mendel in his experiments on pea?
a) Stem-Tall or Dwarf
b) Trichomes -Glandular or non-glandular
c) Seed-Green or Yellow
d) Pod- Inflated or Constricted
14. The number of phenotype recombinant offsprings formed during F₂ generation of a dihybrid cross are _____.
a) 9/16 b) 7/16
c) 6/16 d) 4/16
15. A cross between two pea plants tall with axial flowers and dwarf with terminal

flowers produced offsprings tall with axial flowers and tall with terminal flowers in the ratio 1: 1. What will be the genotype of parents?

- a) TTAa x ttaa b) TtAa x ttaa
c) TtAA x ttaa d) TTAA X ttaa

16. A couple, both carriers for the gene sickle cell anaemia planning to get married, want to know the chances of having anaemic progeny?

- a) 100% b) 75%
c) 50% d) 25%

17. Which one of the following RNA polymerase subunits recognizes and binds to promoter?

- a) α - subunit b) β - subunit
c) γ - subunit d) σ - subunit

18. Restriction endonuclease. DNA fingerprinting. carries out following process

- a) Fragmentation of DNA
b) Getting copies of DNA
c) Loading DNA on agarose plate
d) Synthesis of DNA

19. Alec Jeffreys used _____ as genetic marker.

- a) HUMULIN
b) Radioactive probe
c) RFLP
d) VNTR

20. How many sense codons code for 20 known essential amino acids?

- a) 61 b) 62
c) 63 d) 64

21. Genetic drift operates in

- a) slow reproductive population
b) small isolated population
c) large isolated population
d) non-reproductive population

22. Which of the following is not a connecting link?

- a) *Archaeopteryx*
b) *Dryopithecus*
c) *Ichthyostega*
d) *Seymouria*

23. A column of water within xylem vessels of tall trees does not break under its weight

because of

- a) Positive root pressure
b) Dissolved sugars in water
c) Tensile strength of water
d) Lignification of xylem vessels

24. Stomata in grass leaf are

- a) rectangular b) kidney shaped
c) dumb-bell shaped d) barrel shaped

25. Define phenomenon called "Apical dominance" in plants is due to phytohormone

- a) Cytokinins b) Auxins
c) ABA d) Gibberellins

26. During seed germination, its stored food is mobilised by

- a) Ethylene b) Cytokinin
c) ABA d) Gibberellin

27. The following do not undergo cell division

- a) de-differentiated cells
b) liver cells
c) red blood cells
d) skin cells

28. Which is NOT the function of lymph?

- a) Transport RBCs
b) Drain excess tissue fluid
c) Transport lymphocyte and antibodies
d) Transport absorbed fat

29. In ECG, P-wave represents

- a) Ventricular repolarisation
b) Ventricular depolarisation
c) Atrial depolarisation
d) Atrial repolarisation

30. Deposition of fatty substances in the lining of arteries is termed as

- a) Arteriosclerosis b) Atherosclerosis
c) Arthritis d) Angiogenesis

31. The study of blood vessels is termed as

- a) angiology b) cardiology
c) haematology d) histology

32. Atrial systole lasts for _____ in cardiac cycle

- a) 0.1 second b) 0.3 second
c) 0.5 second d) 0.7 second

33. Muscular ridges at inner surface of ventricles are called
 a) chordae tendinae
 b) inter ventricular septum
 c) papillary muscle
 d) trabeculae carnae
34. Which of the following is an occupational respiratory disorder?
 a) Botulism b) Silicosis
 c) Anthracis d) Emphysema
35. Blind spot in retina is the area where _____.
 a) Rods and cones are absent
 b) Only cones are present
 c) Rods and cones are present
 d) Only rods are present
36. Hypercalcaemic hormone is
 a) Aldosterone b) Calcitriol
 c) PTH d) TCT
37. Cytotoxic T-cells are _____.
 a) Helper T-cells
 b) Killer T-cells
 c) Memory T-cells
 d) Suppressor T-cells
38. Heroin is extracted from the latex of plant _____.
 a) *Atropa belladonna*
 b) *Claviceps purpurea*
 c) *Erythroxylum coca*
 d) *Papaver somniferum*
39. "Pusa Sadabahar" is resistant to _____ disease
 a) Leaf curl and chilli mosaic virus
 b) Leaf and stripe rust
 c) Black rot
 d) Curl blight black rot
40. Mule is an example of _____.
 a) Cross-breeding
 b) Interspecific hybridization
 c) Out breeding
 d) Out crossing
41. Following are all breeds of cows, EXCEPT
 a) Jersey b) Nagpuri
 c) Sahiwal d) Sindhi
42. Transgenic animals are extensively used for all of the following procedures EXCEPT
 a) Bioremediation b) Chemical safety
 c) Vaccine safety d) Toxicity
43. Which of the following is NOT a feature of the plasmids?
 a) Transferable
 b) Single-stranded
 c) Independent replication
 d) Circular structure
44. What triggers activation of protoxin to active Bt toxin of the *Bacillus thuringiensis* in boll worm?
 a) Alkaline pH of gut
 b) Acidic pH of stomach
 c) Body temperature
 d) Moist surface of mid gut
45. In which field application of biotechnology occurs?
 a) Biomedicine b) Agriculture
 c) Environment d) All of the above
46. Insect pest resistant Bt-cotton plant was developed using
 a) Somaclonal variation
 b) Micropropagation
 c) Somatic hybridization
 d) Transgenic technology
47. Biological interaction between organisms of different species in which each individual receives benefit is called
 a) commensalism b) amensalism
 c) parasitism d) mutualism
48. The principle of competitive exclusion was stated by
 a) Verhulst and Pearl
 b) C. Darwin
 c) G.F. Gause
 d) MacArthur
49. The xerarch succession of organisms is seen in _____.
 a) River b) Ocean
 c) Air d) Desert
50. An international treaty known as Montreal Protocol was signed to control emission of
 a) UV rays b) Ozone
 c) CFC d) Oxygen

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