

# MHT-CET Practice Question Paper

## Subject : Biology

**Time: 25 minutes****Test no : 01****Marks : 100**

All the questions are compulsory and contain two marks for each

- Motile zoospores are produced by
  - Chlamydomonas
  - Penicillium
  - Bacteria
  - Amoeba
- Which of the following wall layer of anther shows fibrous thickenings of callose?
  - Epidermis
  - Tapetum
  - Middle layer
  - Endothecium
- The wall of pollen tube is made up of
  - Cellulose and Pectin
  - Only sporopollenin
  - Lignin and Pectin
  - Pectin and Sporopollenin
- Which of the following in embryo sac of angiosperms shows filiform apparatus?
  - Antipodals
  - Polar nuclei
  - Egg
  - Synergids
- Asexual reproduction through formation of gemmule occurs in
  - Ascidian
  - Hydra
  - Planaria
  - Spongilla
- Each testicular lobule contains \_\_\_\_\_ convoluted seminiferous tubules
  - 1 to 4
  - 5 to 7
  - 8 to 10
  - 11 to 14
- Pick the ODD homologous pair out.
  - Bartholin's gland - Cowper's gland
  - Clitoris - Penis
  - Mons pubis - Glans penis
  - Labia majora - Scrotum
- During ovulation, the ovary releases
  - Oogonia
  - Ootid
  - Primary oocyte
  - Secondary oocyte
- Which of the following cross will give recessive progeny in F<sub>2</sub> generation?
  - TT x tt
  - Tt x TT
  - tt x tt
  - TT x TT
- In *Mirabilis jalapa*, when red and white varieties are crossed, the hybrid obtained will be \_\_\_\_\_ pink.
  - 25%
  - 50%
  - 75%
  - 100%
- When white eyed and miniature winged *Drosophila melanogaster* is crossed with its wild type, it produces following percentage of recombinants.
  - 1.3%
  - 37.2%
  - 62.8%
  - 98.7%
- In Griffith's experiment, the conversion of R-type to S-type of *Streptococcus pneumoniae* when mixed with heat killed S-type is called
  - mutation
  - transduction
  - transfection
  - transformation
- In one nucleosome, which one of the following histone molecule is not double?
  - H4
  - H3
  - H2
  - H1
- The two strands of DNA are
  - Similar and Parallel
  - Complementary and parallel
  - Complementary and antiparallel
  - Similar and discontinuous
- The first cell or primitive cells were
  - marine and heterotrophic
  - terrestrial and autotrophic
  - marine and autotrophic
  - terrestrial and heterotrophic
- Darwin's theory of Evolution cannot explain
  - Arrival of fittest
  - Natural selection
  - Prodigality of production
  - Struggle for existence

# DOMOCKTEST

17. The water present in the fine spaces of small non-colloidal soil particles is called \_\_\_\_\_ water.
- a) ground                      b) hygroscopic  
c) capillary                    d) gravitational
18. The adsorption of water by hydrophilic compounds like cellulose and pectin in root hair cell wall is called \_\_\_\_\_.
- a) diffusion                    b) imbibition  
c) guttation                    d) osmosis
19. Select and appropriate plant hormone responsible for epical dominance from the following.
- a) Auxins                      b) Ethylene  
c) Gibberellins                d) Cytokinins
20. What is the site of perception of photoperiod necessary for induction of flowering in plants?
- a) Shoot apex                b) Leaves  
c) Lateral buds                d) Pulvinus
21. Adam's apple is also called \_\_\_\_\_
- a) vestibule                    b) pharynx  
c) osteon                        d) larynx
22. Carbon monoxide combines with haemoglobin to form \_\_\_\_\_.
- a) Carbaminohaemoglobin  
b) Carbonic acid  
c) Carboxyhaemoglobin  
d) Cytochrome oxidas
23. In which one of the following human organs. the old and worn out RBC's are destroyed?
- a) Red bone marrow        b) Liver  
c) Lymph node                d) Kidney
24. Mitral valve and tricuspid valve are attached to the papillary muscles by \_\_\_\_\_.
- a) Corpus callosum        b) Columnae carnae  
c) Crura cerebri              d) Chordae tendinae
25. Temporal lobe of cerebrum is concerned with the detection of following sensations EXCEPT.
- a) Hearing                      b) Pressure  
c) Smell                        d) Taste
26. If cranial nerves: 12 pairs, then spinal nerves
- a) 30 pairs                      b) 31 pairs  
c) 32 pairs                      d) 33 pairs
27. In mechanism of hormone action, which of the following is NOT a second messenger?
- a) Cyclic AMP                b)  $IP_3$   
c)  $Ca^{++}$                       d)  $Mg^{++}$
28. The co-ordinator Nervous and between endocrine system is
- a) Thalamus                    b) Hypothalamus  
c) Epithalamus                d) Colliculus
29. The immunity developed by a child after attack of measles is \_\_\_\_\_ immunity
- a) natural acquired active  
b) artificial acquired active  
c) natural acquired passive  
d) artificial acquired passive
30. The malignant tertian malaria is caused by
- a) Plasmodium vivax  
b) Plasmodium falciparum  
c) Plasmodium ovale  
d) Plasmodium malariae
31. During hybridization offsprings with hybrid vigour superior to both parents are self pollinated for few successive generations to
- a) retain their parental characters  
b) remove their parental characters  
c) get homozygosity  
d) segregate characters
32. To induce formation of organs in a callus, it is necessary to provide
- a) growth hormones        b) water  
c) soil                            d) antibiotics
33. Which of the following is an algal source of SCP?
- a) Candida                      b) Methanobacillus  
c) Chlorella                    d) Saccharomyces
34. The enzyme Taq polymerase used in PCR technique is obtained from
- a) *Salmonella typhimurium*  
b) *Thermus aquaticus*  
c) *Rhizobium phaseoli*  
d) *Bacillus thuringiensis*

# DOMOCKTEST

35. A chimeric DNA is \_\_\_\_.
- a) r-DNA      b) replicating DNA  
c) phage DNA    d) complementary DNA
36. The clot formation can be prevented by treatment with \_\_\_\_ in gene therapy
- a) DNase      b) Recombinant vaccine  
c) TPA      d) TGF-B
37. Biopatent is granted for biological entities by \_\_\_\_ authority of a country.
- a) government    b) educational institute  
c) scientist      d) business
38. In India, research in genetic modification of organisms and safety issues are controlled by
- a) DBT      b) IARI  
c) CSIR      d) GEAC
39. A desirable change in genotype of an organism is obtained by
- a) DNA replication  
b) protein synthesis  
c) rDNA technology  
d) m-RNA formation
40. Density of population increases when \_\_\_\_
- a) Emigration increases  
b) Immigration decreases  
c) Mortality increases  
d) Natality increases
41. A cuckoo laying eggs in the nest of other species of birds, is an example of
- a) Adelphoparasitism    b) Brood parasitism  
c) Ectoparasitism      d) Hyperparasitism
42. The spatial pattern of density and distribution of species along a horizontal gradient is called as
- a) Stratification      b) zonation  
c) trophic niche      d) volume niche
43. The simplest of all nutrient cycles operating in an ecosystem is \_\_\_\_ cycle.
- a) carbon      b) phosphorous  
c) nitrogen      d) sulphur
44. A Red list of endangered species is maintained by
- a) CSIR      b) IUCN  
c) NEERI      d) WLS
45. Which one of the following represents natural pollutants?
- a) dusts, pollen and carbon monoxide  
b) pollen, dusts from desert and hydrocarbons from vegetation  
c) smog, fog and dust  
d) pollen fibres and sulphur dioxide
46. Which of the following is the first cell of female gametophytic generation in angiosperms?
- a) Megaspore mother cell  
b) Microspore mother cell  
c) Functional megaspore  
d) Egg cell
47. The glycoprotein, fertilizin is secreted by
- a) Ovum      b) Ovary  
c) Sperm      d) Testis
48. In higher unisexual animals, one pair of chromosomes is not identical in two sexes. It is called as \_\_\_\_.
- a) Non homologous chromosomes  
b) Homologous chromosomes  
c) Autosomes  
d) Sex chromosomes
49. Segment of DNA which is responsible for inheritance and expression of a particular character is known as
- a) recon      b) muton  
c) intron      d) cistron
50. In the second trimester of pregnancy, there is decline in the level of \_\_\_\_
- a) ACTH      b) ICSH  
c) hCG      d) MSH