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**Subject: Biology**

**Topic: Biological Classification**

**M.M. 360 COMPETITIVE TEST**  **Time: 60 Min.**

1. Gram positive cells retain :

|  |  |  |  |
| --- | --- | --- | --- |
| a) Yellow stain | b) Pink stain | c) Green stain | d) Purple stain |

1. Which bacteria would function best in hot temperatures (60 – 80˚C )?

|  |  |
| --- | --- |
| a) Psychorphiles | b) Thermoacidophiles |
| c) Mesophiles | d) None of these |

1. Helically coiled shaped bacteria are called

|  |  |  |  |
| --- | --- | --- | --- |
| a) Spirillum | b) Coccus | c) Vibrio | d) Bacilli |

1. Bacteria having two or more flagella at one end

|  |  |  |  |
| --- | --- | --- | --- |
| a) Amphitrichous | b) Cephalotrichous | c) Peritrichous | d) Lophotrichous |

1. Archaebacteria different from bacteria in one of the following features.

|  |  |
| --- | --- |
| a) They have a rigid wall | b) Their cell walls lacks peptidoglycan component |
| c) They have different mode of nutrition | d) They are very ancient |

1. Sex factor in bacteria is

|  |  |
| --- | --- |
| a) Chromosomal replicon | b) F - factor |
| c) RNA | d) Sex-Pilus |

1. In bacteria the site of respiratory activity is found in

|  |  |  |  |
| --- | --- | --- | --- |
| a) Episomes | b) Microsome | c) Ribosome | d) Mesosome |

1. In prokaryotes, the genetic material is

|  |  |
| --- | --- |
| a) Linear DNA with histones | b) Circular DNA with histones |
| c) Linear DNA without histones | d) Circular DNA without histones |

1. Bacteria whose cell has only a comma shape is

|  |  |  |  |
| --- | --- | --- | --- |
| a) Vibrio | b) Cocci | c) Spirilla | d) Bacilli |

1. An organism having cytoplasmic DNA and RNA but no cell wall is

|  |  |  |  |
| --- | --- | --- | --- |
| a) Cyanobacterium | b) Mycoplasma | c) Bacterium | d) Virus |

1. In which of the following heterocysts are seen

|  |  |  |  |
| --- | --- | --- | --- |
| a) Chara | b) Polysiphonia | c) Spirogyra | d) Nostoc |

1. Which of the following fixes atmospheric N2?

|  |  |  |  |
| --- | --- | --- | --- |
| a) Nostoc | b) Algae | c) Methanogens | d) None of these |

1. Plasmodium the parasite, belongs to class:

|  |  |  |  |
| --- | --- | --- | --- |
| a) Sarcodina | b) Ciliata | c) Sporozoa | d) Dinophyceae |

1. In Protists, locomotary organ are:

|  |  |
| --- | --- |
| a) Flagella | b) Flagella , cilia & pseudopodia |
| c) Flagella & cilia | d) Flagella , cilia , pseudopodia & wrigglers |

1. Diatoms frustule/shell is made up of :

|  |  |  |  |
| --- | --- | --- | --- |
| a) Silica | b) Lime | c) Magnesium carbonate | d) None of these |

1. Amoebic dysentery is caused by

|  |  |  |  |
| --- | --- | --- | --- |
| a) *Entamoeba histolitica* | b) *Entamoeba gingivalis* | c) *Entamoeba coli* | d) A*moeba proteus* |

1. Fungi generally grow in :

|  |  |  |  |
| --- | --- | --- | --- |
| a) Cold & humid place | b) Warm & humid place | c) Cold & dry place | d) Warm & dry place |

1. Yeast is

|  |  |  |  |
| --- | --- | --- | --- |
| a) Unicellular protist | b) Multicellular protist | c) Multicellular fungi | d) Unicellular fungi |

1. Sequence of sexual cycle is

|  |  |
| --- | --- |
| a) Plasmogamy Meiosis Karyogamy | b) Plasmogamy Karyogamy Meiosis |
| c) Meiosis Karyogamy Plasmogamy | d) Karyogamy Plasmogamy Meiosis |

1. The basis of classification is

|  |  |
| --- | --- |
| a) Morphology of mycelium | b) Mode of spore formation |
| c) Fruiting bodies | d) All the above |

1. Thread-like structure found in the body of a fungus are

|  |  |  |  |
| --- | --- | --- | --- |
| a) Filamentous | b) Trichomes | c) Hypae | d) Both (a) & (b) |

1. Which is not produced in sexual reproduction of fungi

|  |  |  |  |
| --- | --- | --- | --- |
| a) Ascospores | b) Sporangiospores | c) Basidiospores | d) Oospores |

1. During sexual reproduction fusion of protoplasm (cytoplasm) of two mycelium is called as

|  |  |  |  |
| --- | --- | --- | --- |
| a) Plasmogamy | b) Meiosis | c) Karyogamy | d) Karyokinesis |

1. Dikaryophase has

|  |  |
| --- | --- |
| a) Pairs of cells | b) Two haploid nuclei per cell |
| c) One diploid nucleus per cell | d) Two diploid nuclei per cell |

1. Dikaryophase occurs in

|  |  |  |  |
| --- | --- | --- | --- |
| a) Deuteromycetes | b) Ascomycetes | c) Basidiomycetes | d) Both (b) & (c) |

1. Which is an edible fungus

|  |  |  |  |
| --- | --- | --- | --- |
| a) Claviceps | b) Agaricus | c) Aspergillus | d) Penicillium |

1. Antibiotic is got from

|  |  |  |  |
| --- | --- | --- | --- |
| a) Gelidium | b) Ulothrix | c) Yeast | d) Penicillium |

1. What is true about fungi

|  |  |
| --- | --- |
| a) They are heterotrophs | b) They lack nuclear membrane |
| c) They lack phagotrophs | d) They lack rigid cell wall |

1. Main component of fungus cell wall is

|  |  |  |  |
| --- | --- | --- | --- |
| a) Cellulose | b) Chitin | c) Pectin | d) Dextrin |

1. Algal fungi is name of

|  |  |  |  |
| --- | --- | --- | --- |
| a) Ascomycetes | b) Basidiomycetes | c) Phycomycetes | d) Deuteromycetes |

1. *Phytophthora infestans* causes

|  |  |
| --- | --- |
| a) Early blight of potato | b) Late blight of potato |
| c) White rust | d) Stem rust |

1. Fungus *albugo* is member of

|  |  |  |  |
| --- | --- | --- | --- |
| a) Phycomycetes | b) Ascomycetes | c) Basidiomycetes | d) Deuteromycetes |

1. Primary grouping of protozoan protists is based on

|  |  |  |  |
| --- | --- | --- | --- |
| a) Locomotary organelle | b) Size & shape | c) Mode of feeding | d) Mode of reproduction |

1. Protista includes:

|  |  |
| --- | --- |
| a) *Euglena, Gonyaulax* & *Yeast* | b) *Amoeba, Paramecium* & *Hydra* |
| c) *Euglena, Paramecium* & *Mushroom* | d) *Amoeba, Paramecium* & *Gonyaulax* |

|  |
| --- |
|  |

1. Which one of the following option is correct?

a) A – Cell wall ; B – Cell membrane ; C – Heterocyst ; D – DNA ; E – Mucilaginous sheath

b) A – Cell wall ; B – Cell membrane ; C – DNA ; D – Heterocyst ; E – Mucilaginous sheath

c) A – Mucilaginous sheath ; B – Cell membrane ; C – DNA ; D – Heterocyst ; E – Cell wall

d) A – Cell membrane ; B – Cell wall ; C – DNA ; D – Heterocyst ; E – Mucilaginous sheath

1. Which of the following statements given below are correct?
2. Biological classification is the scientific ordering of organisms in a hierachial series on the basis of their relationships i.e. morphological, evolutionary and others.
3. Whittaker classified organisms on the basis of autotropic and heterotropic mode of nutrition
4. In five kingdom classification living organisms can be divided into prokaryotes and eukaryotic cells on the basis of cell structure.

|  |  |  |  |
| --- | --- | --- | --- |
| a) (i) , (ii) & (iii) | b) (i) & (iii) | c) (ii) & (iii) | d) (i) & (ii) |

1. Considered the following statements with respect to characteristic features of the kingdom.
2. In Animalia, the mode of nutrition is autotropic.
3. In Monera, the nuclear membrane is present.
4. In Protista, the cell type is prokaryotic.
5. In Plantae, The cell wall is present.

Of the above statements, which one is correct?

|  |  |  |  |
| --- | --- | --- | --- |
| a) only (i) | b) only (ii) | c) only (iii) | d) only (iv) |

1. Match column I and column II

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Column I | | Column II | | |
| A. Obligate aerobes | | I. Ordinary aerobic but may also grow in absence of O2 | | |
| B. Facultative anaerobes | | II. Can grow only in absence of O2 | | |
| C. Obligate anaerobes | | III. Ordinary anaerobic but may also grow in presence of O2 | | |
| D. Facultative aerobes | | IV. Can grow only in Presence of O2 | | |
| a) A – II ; B – III ; C – IV ; D – I | | b) A – IV ; B – I ; C – II ; D – III |
| c) A – IV ; B – I ; C – III ; D – II | | d) A – IV ; B – II ; C – III ; D – I |

1. Match column I and column II

|  |  |
| --- | --- |
| Column I | Column II |
| A. Rod shape | I. Coccus |
| B. Spherical | II. Bacillus |
| C. Spiral shape | III. Vibrio |
| D. Comma shaped | IV. Spirillum |

|  |  |
| --- | --- |
| a) A – III ; B – II ; C – I ; D – IV | b) A – IV ; B – III ; C – II ; D – I |
| c) A – II ; B – I ; C – IV ; D – III | d) A – I ; B – IV ; C – III ; D – II |

1. The given characters are seen in which of the following groups?
2. Unicellular, colonial, filamentous, marine and terrestrial.
3. The colonies are surrounded by a gelatinous sheath.
4. Some can fix atmospheric nitrogen in specialized cells.
5. They often forms algal blooms in water bodies.

|  |  |  |  |
| --- | --- | --- | --- |
| a) Archaebacteria | b) Cyanobacteria | c) Chrysopytes | d) Dinoflagellates |

1. Match column I and column II

|  |  |
| --- | --- |
| Column I  (Type of Protozoans) | Column II  (Examples) |
| A. Amoeboid protozoans | I. *Paramecium* |
| B. Ciliated protozoans | II. *Plasmodium* |
| C. Flagellated protozoans | III.  *Amoeba* |
| D. Sporozoans | IV. *Trypanosoma* |

|  |  |
| --- | --- |
| a) A – I ; B – III ; C – IV ; D – II | b) A – III ; B – I ; C – II ; D – IV |
| c) A – III ; B – I ; C – IV ; D – II | d) A – III ; B – IV ; C – I ; D – II |

1. LSD is obtained from

|  |  |
| --- | --- |
| a) *Claviceps purpurea* | b) *Papaver somniferum* |
| c) *Cannabis sativa* | d) *Aspergillus oryzae* |

1. Which one produces alcohol

|  |  |
| --- | --- |
| a) *Clostridium Botulism* | b) *Torulopsis utilis* |
| c) *Leuconostoc citrovorum* | d) *Saccharomyces cerevisiae* |

1. Yeast and penicillin are included under

|  |  |  |  |
| --- | --- | --- | --- |
| a) Basidiomycetes | b) Ascomycetes | c) Phycomycetes | d) Deuteromycetes |

1. Which one of the fungi is a laboratory weed

|  |  |  |  |
| --- | --- | --- | --- |
| a) *Penicillium* | b) *Aspergillus* | c) *Yeast* | d) *Neurospora* |

1. Which is not applicable to ascomycetes

a) Mycelium is aseptate and coenocytic

b) Commonly called as “sac fungi”

c) Conidia as asexual spores produced exogenously

d) Sexual spores ascospores produced endogenously

1. *Neurospora,* the drosophila of plant kingdom belongs to

|  |  |  |  |
| --- | --- | --- | --- |
| a) Ascomycetes | b) Basidiomycetes | c) Deuteromycetes | d) Phycomycetes |

1. Which of the following organisms are known as “Chief producers in the oceans”.

|  |  |  |  |
| --- | --- | --- | --- |
| a) Dinoflagellates | b) Diatoms | c) Euglenoids | d) Cyanobacteria |

1. Which of the following are found in extreme saline conditions?

|  |  |  |  |
| --- | --- | --- | --- |
| a) Eubacteria | b) Cyanobacteria | c) Mycobacteria | d) Archaebacteria |

1. Which of the following statements regarding cyanobacteria is incorrect?

a) It is also called blue green algae

b) They are chemosynthetic heterotrophs

c) It forms blooms in polluted water bodies

d) It is unicellular, colonial or filamentous, marine or terrestrial bacteria

1. The major source of Phylogenetic system of classification is

|  |  |
| --- | --- |
| a) Finding our lineages from fossils history | b) Anatomical studies |
| c) Complexity of structure | d) Chromosome studies |

1. Fusion of two motile gametes which are dissimilar in size are called

|  |  |  |  |
| --- | --- | --- | --- |
| a) Oogamy | b) Isogamy | c) Anisogamy | d) Zoogamy |

1. *Calviceps purpurea* is causal organism of

|  |  |  |  |
| --- | --- | --- | --- |
| a) Rust of wheat | b) Smut of Barley | c) Ergot of rye | d) Powdery mildew |

1. Deuteromycetes commonly called as

|  |  |  |  |
| --- | --- | --- | --- |
| a) Club fungi | b) Bracket fungi | c) Sac fungi | d) Imperfect fungi |

1. *Aspergillus* belongs to

|  |  |  |  |
| --- | --- | --- | --- |
| a) Zygomycetes | b) Oomycetes | c) Ascomycetes | d) Basidiomycetes |

1. Cell wall of bacteria is formed of

|  |  |  |  |
| --- | --- | --- | --- |
| a) Cellulose | b) Chitin | c) Protein | d) Mucopeptide |

1. In archaebacteria cell wall is made up of

|  |  |
| --- | --- |
| a) Peptidoglycan | b) Non cellulosic polysaccharides |
| c) Pseudomurein | d) Both (B) & (C) |

1. Tricodesmium erythrium of red sea is

|  |  |  |  |
| --- | --- | --- | --- |
| a) Archaebacteria | b) Cyanobacteria | c) Saprophytic bacteria | d) Denitrifying bacteria |

1. Which one of the following matches is correct?

|  |  |  |  |
| --- | --- | --- | --- |
| (a) | *Alternaria* | Sexual reproduction absent | Deuteromycetes |
| (b) | *Mucor* | Reproduction by conjugation | Ascomycetes |
| (c) | *Agaricus* | Parasitic fungus | Basidiomycetes |
| (d) | *Phytophthora* | Aseptate mycelium | Basidiomycetes |

1. Edible mushroom *Agaricus* belongs to

|  |  |  |  |
| --- | --- | --- | --- |
| a) Zygomycetes | b) Oomycetes | c) Ascomycetes | d) Basidiomycetes |

1. Read the given statements and answer the following questions
2. It include unicellular as well as multicellular fungi
3. In multicellular form, hypae are branched and septate
4. Conidiophore produce conidia exogenously in a chain
5. Sexual spores are ascospores produced endogenously.
6. Fruiting body is ascocarps.

Which of the following class of fungi is being described by the above statements?

|  |  |  |  |
| --- | --- | --- | --- |
| a) Phycomycetes | b) Sac fungi | c) Club fungi | d) Fungi imperfecti |

1. Rhizopus is popularly called as

|  |  |  |  |
| --- | --- | --- | --- |
| a) Bread mould | b) Dung mould | c) blue green mould | d) Orange mould |

1. A fungus that form a pseudomycelium is

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| a) *Rhizopus* | b) *Penicillium* | c) *Alternaria* | d) *Saccharomyces* |  |

1. Ascomycetes multiply asexually through

|  |  |  |  |
| --- | --- | --- | --- |
| a) Sporangiospores | b) Endospores | c) Conidiophores | d) Ascospores |

1. Basidiospores are produced

|  |  |
| --- | --- |
| a) Exogenously, two form each basidium | b) Exogenously, four form each basidium |
| c) Endogenously, two in each basidium | d) Endogenously, four in each basidium |

1. Which of the following is wrong for fungi

|  |  |
| --- | --- |
| a) They are both unicellular and multicellular | b) They are eukaryotes |
| c) All fungi possess cellulosic cell wall | d) They are heterotropic |

1. Which of the following statements is correct?

a) Some of the organism can fix atmospheric nitrogen in specialized cells called sheath cells.

b) Fusion of two cells is called Karyogamy.

c) Fusion of protoplasm between two gametes is called plasmogamy.

d) Organisms that depend upon living plants are called saprophytes.

1. The cyanobacteria are also referred as

|  |  |  |  |
| --- | --- | --- | --- |
| a) Protists | b) Golden algae | c) Slime moulds | d) Blue green algae |

1. Organisms celled methanogens are must abundant in a

|  |  |  |  |
| --- | --- | --- | --- |
| a) Sulphur rock | b) Cattle dung | c) Polluted stream | d) Hot spring |

1. The motile bacteria are able to move by

|  |  |  |  |
| --- | --- | --- | --- |
| a) Fimbriae | b) Flagella | c) Cilia | d) Pili |

1. Read the given statements and answer the following questions
2. They are found in aquatic habitats and on decaying wood in moist and damp places
3. Mycelium is aseptate and coenocytic
4. Asexual reproduction takes place by zoospores or aplanospores
5. *Mucor , Rhizopus , Albugo* are examples of this class.

Which of the following class of fungi is being described by the above statements?

|  |  |  |  |
| --- | --- | --- | --- |
| a) Ascomycetes | b) Phycomycetes | c) Basidiomycetes | d) Deuteromycetes |

1. Highly successful autotropic organism are

|  |  |
| --- | --- |
| a) Chemoautotrophic bacteria | b) Cyanobacteria |
| c) Photoautotrophic bacteria | d) Both (a) & (c) |

1. Which blue green algae is being used as food supplement for humans and animals

|  |  |  |  |
| --- | --- | --- | --- |
| a) Spirulina | b) Anabaena | c) Nostoc | d) Microcystis |

1. Which is true for mycoplasma?

|  |  |
| --- | --- |
| a) They lack cell wall | b) They have the smallest cells |
| c) They can survive without oxygen | d) All the above |

1. Which of the following component provide sticky character to bacterial cell.

|  |  |  |  |
| --- | --- | --- | --- |
| a) Cell wall | b) Nuclear membrane | c) Plasma membrane | d) Glycocalyx |

1. Oxygen is not produced during photosynthesis by

|  |  |  |  |
| --- | --- | --- | --- |
| a) Cycas | b) Nostoc | c) green sulphur bacteria | d) Chara |

1. Which species of plasmodium is least harmful

|  |  |  |  |
| --- | --- | --- | --- |
| a) P.ovale | b) P. vivax | c) P.flaciparum | d) P.malariae |

1. The beautiful diatoms and desmids are placed under

|  |  |  |  |
| --- | --- | --- | --- |
| a) Chrysophytes | b) Dinoflagellates | c) Euglenoids | d) Slime moulds |

1. Which of the following human pathogen is flagellated protozoan?

|  |  |  |  |
| --- | --- | --- | --- |
| a) Plasmodium | b) Trypanosoma | c) Taenia | d) Entamoeba |

1. Select the wrong statement

|  |  |
| --- | --- |
| a) The walls of diatoms are easily destructible | b) ‘Diatomaceous earth’ is formed by cell wall |
| c) Diatoms are chief producers in the ocean | d) Diatoms are microscopic and float passively |

1. Ciliates differ from other protozoan in

|  |  |
| --- | --- |
| a) Using flagella for locomotion | b) Having contractile vacuole for removing waste |
| c) Using pseudopodia for capturing prey | d) Having 2 types of nuclei |

1. Euglenoids have

|  |  |  |  |
| --- | --- | --- | --- |
| a) Cell membrane | b) Cell wall | c) Pellicle | d) Shell |

1. Euglenoids store reserve food as

|  |  |  |  |
| --- | --- | --- | --- |
| a) Glycogen | b) Glucose | c) Paramylon | d) Starch |

1. Euglena shows characters of both

|  |  |
| --- | --- |
| a) Algae & fungi | b) Plants & animals |
| c) Xerophytes and pteridophytes | d) Parasites & Free living |

1. One of the major component of cell wall of fungi is

|  |  |  |  |
| --- | --- | --- | --- |
| a) Chitin | b) Cellulose | c) Peptidoglycan | d) Hemicellulose |

1. After Karyogamy spores are produced exogenously in

|  |  |  |  |
| --- | --- | --- | --- |
| a) *Agaricus* | b) *Alternaria* | c) *Neurospora* | d) *Saccharomyces* |

1. Match column I and column II

|  |  |
| --- | --- |
| Column I | Column II |
| A. Ascomycetes | I.  *Rhizopus* |
| B. Basidiomycetes | II.  *Penicillium* |
| C. Deuteromycetes | III.  *Ustilago* |
| D. Phycomycetes | IV.  *Alternaria* |

|  |  |
| --- | --- |
| a) A – IV ; B – III ; C – I ; D – II | b) A – II ; B – III ; C – IV ; D – I |
| c) A – IV ; B – I ; C – II ; D – III | d) A – III ; B – IV ; C – II ; D – I |

1. The imperfect fungi Which are decomposers of little and help in mineral cycling belong to :

|  |  |  |  |
| --- | --- | --- | --- |
| a) Basidiomycetes | b) Deuteromycetes | c) Ascomycetes | d) Phycomycetes |

1. Fungi are filamentous with the exception of “X” which is unicellular. Identify “X”.

|  |  |  |  |
| --- | --- | --- | --- |
| a) *Yeast* | b) *Mucor* | c) *Albugo* | d) Lichens |

1. Clamp connection is found in :

|  |  |  |  |
| --- | --- | --- | --- |
| a) Basidiomycetes | b) Ascomycetes | c) Deuteromycetes | d) Phycomycetes |

**[Class =11th]**

**Answers**

**Topic: Biological Classification**

|  |
| --- |
| 1. d |
| 1. b |
| 1. a |
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| 1. a |