



RAN - 2103001103030004



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**S. Y. B. Sc. (Sem. - III) Examination**

**March - 2023**

**Microbiology (A.T.K.T.)**

**MB - 301 : Principles of Bacterial Systematics**

**Time: 1 Hours ]**

**[ Total Marks: 50**

**સૂચના : / Instructions**

(1)

નીચે દર્શાવેલ નિશાનીવાળી વિગતો ઉત્તરવહી પર અવશ્ય લખવી.

**Fill up strictly the details of signs on your answer book**

Name of the Examination:

**S. Y. B. Sc. (Sem. - III)**

Name of the Subject :

**Microbiology (A.T.K.T.) MB - 301 : Principles of Bacterial Systematics**

Subject Code No.: **2103001103030004**

Seat No.:

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Student's Signature

- (2) This exam contains 50 multiple choice questions, each worth 1 mark.  
(3) All questions are compulsory.

***O.M.R. Sheet ભરવા અંગેની અગત્યની સૂચનાઓ આપેલ  
O.M.R. Sheetની પાછળ છાપેલ છે.***

***Important instructions to fillup O.M.R. Sheet  
are given on back side of the provided O.M.R. Sheet.***





- Q. 19.** Which class is considered as smallest among Proteobacteria?  
 A. Alpha-Proteobacteria                      B. Beta-Proteobacteria  
 C. Gamma-Proteobacteria                    D. Epsilon-Proteobacteria
- Q. 20.** Which is known for their aerobic endospore forming ability?  
 A. *Clostridia*                                    B. *Bacilli*  
 C. Both    D. None of these
- Q. 21.** Which bacteria produces lethal toxins which kills moths?  
 A. *E. coli*                                         B. *B. subtilis*  
 C. *P. aeruginosa*                               D. *B. thuringiensis*
- Q. 22.** Anthrax is caused by which bacteria?  
 A. *B. anthracis*                                 B. *B. thuringiensis*  
 C. *B. subtilis*                                    D. *B. megaterium*
- Q. 23.** Which organism produce lactic acid as their major fermentative product?  
 A. *E. coli*                                         B. *B. subtilis*  
 C. *L. lactis*                                        D. *B. thuringiensis*
- Q. 24.** Which bacteria gives hemolysis around its colony?  
 A. *Escherichia coli*                            B. *Bacillus subtilis*  
 C. *Lactobacillus lactis*                      D. *Streptococcus pyogenes*
- Q. 25.** \_\_\_\_\_ is associated with the formation of dental caries.  
 A. *S. pneumonia*                                B. *S. mutans*  
 C. *L. lactis*                                        D. None of these
- Q. 26.** \_\_\_\_\_ is associated with lobar pneumonia and otitis media.  
 A. *S. pneumonia*                                B. *S. mutans*  
 C. *L. lactis*                                        D. All of these
- Q. 27.** Which class of organisms commonly known as cell wall less organisms?  
 A. *Mollicutes*                                    B. *Bacilli*  
 C. *Alpha-Proteobacteria*                      D. None of these

- Q. 28.** Due to the \_\_\_\_\_, mycoplasma has made it the model organism for development of a synthetic organism.
- A. Small size of genome                      B. Big size of genome  
C. Presence of Plasmid                      D. Presence of Mega-plasmid
- Q. 29.** Which is the light harvesting pigment present in Cyanobacteria?
- A. Phycocyanin                      B. Chlorophyll  
C. Carotenoids                      D. All of these
- Q. 30.** Periplasmic flagellum is unique feature of the \_\_\_\_\_ phylum?
- A. Spirochaetes                      B. Cyanobacteria  
C. Bacteroidetes                      D. Chlamydiae
- Q. 31.** The Lyme disease is caused by \_\_\_\_\_.
- A. *Borrelia burgdorferi*                      B. *Bacillus subtilis*  
C. *Treponema pallidum*                      D. *Streptococcus pyogenes*
- Q. 32.** Among which is a benefit of gliding motility in phylum *Bacteroidetes*?
- A. Move away rapidly from prey  
B. To survive in extreme environments  
C. Digest insoluble macromolecular substrates  
D. All of these
- Q. 33.** Glide (Gld) proteins commonly found in \_\_\_\_\_.
- A. *Mollicutes*                      B. *Bacilli*  
C. *Cyanobacteria*                      D. *Bacteroides*
- Q. 34.** Among which is the branch specifically deals with assigning names to microorganisms.
- A. Taxonomy                      B. Systematics  
C. Nomenclature                      D. Classification
- Q. 35.** The determination of the genus and species of a newly isolated microorganisms is based on \_\_\_\_\_.
- A. Polyphasic taxonomy                      B. Natural Classification  
C. Phylogenetic                      D. All of these

- Q. 36.** The classification of organisms according to their biological features and morphological structures are also known as \_\_\_\_\_.
- A. Genotypic classification                      B. Natural classification  
C. Phenetic classification                      D. Phylogenetic classification
- Q. 37.** The evolutionary development of a species is known as \_\_\_\_\_.
- A. Phenotype                                      B. Phylogeny  
C. Genotype                                      D. None of these
- Q. 38.** In recent time, the microorganisms of several phyla that share a distinctive features and unique morphology or metabolic features are classified as in \_\_\_\_\_.
- A. Phylum                                      B. Proteobacteria  
C. Bacteria                                      D. Superphlum
- Q. 39.** A single, pure microbial culture designate as \_\_\_\_\_.
- A. Strain                                      B. Species  
C. Biovars                                      D. Morphovars
- Q. 40.** A \_\_\_\_\_ is a collection of individuals that share many stable properties and differ significantly from other groups of individuals.
- A. Strain                                      B. Biovars  
C. Serovars                                      D. Species
- Q. 41.** Among which is a correct hierarchical arrangement in taxonomy?
- A. Domain> Phylum> Class> Order> Family> Species> Genus  
B. Domain> Phylum> Order>Class>Family> Genus> Species  
C. Domain> Phylum> Class> Order> Family> Genus> Species  
D. Domain> Class> Phylum> Order> Family> Genus> Species
- Q. 42.** Classical characteristics in taxonomic classification includes:
- A. Morphological traits  
B. Physiological traits  
C. Biochemical and ecological traits  
D. All of these



**SPACE FOR ROUGH WORK**