



RAN - 2103000203026001



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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.: **2103000203026001**

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