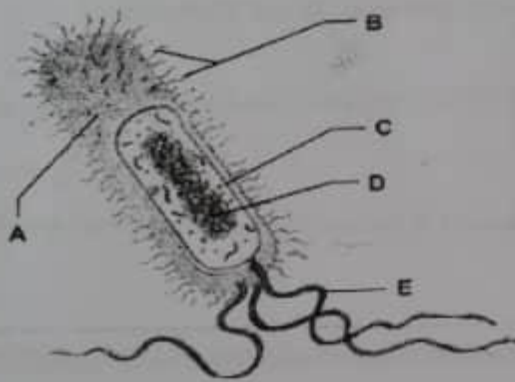


INDEX NUMBER

- c. Sense changes in nutrient concentration.
- d. Are pathways for the secretion of exoenzymes?



- 23. The DNA-containing region of this bacterial cell is indicated by the letter
- 24. Surface appendages that allow a bacterium to stick to a surface is indicated by the letter
- 25. The flagella arrangement of this bacterium is called
- 26. The term that refers to the presence of flagella all over the cell surface is.....

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- X 19. The statement, "In the laboratory, a sterile inoculating loop is moved across the agar surface in a culture dish, thinning a sample and isolating individuals", describes which technique?

Indicate True or False by all the answers to the questions (20 and 22) below

20. I. - Parasitic organisms

II. - Bacteria

- a. All members of I are also members of II, but not all members of II are members of I. ☒ F
- b. All members of II are also members of I, but not all members of I are members of II. ☒ F
- c. All members of I are members of II, and all members of II are members of I. ☒ F
- d. No member of I is also a member of II. ☒ F
- e. Some members of I are members of II and some are not and some members of II are members of I and some are not. ☒ T

21. Capsules and slime layers

- a. They consist of secreted material lying outside of the bacterial cell wall. ☒ T
- b. They can prevent desiccation of bacteria cells. ☒ F
- c. They are required for bacteria to grow normally in culture. ☒ F
- d. They help bacteria resist phagocytosis by macrophages.

22. Fimbriae

- a. Attach bacteria to various surfaces. ☒ T
- b. Cause bacteria move through fluids. ☒ F

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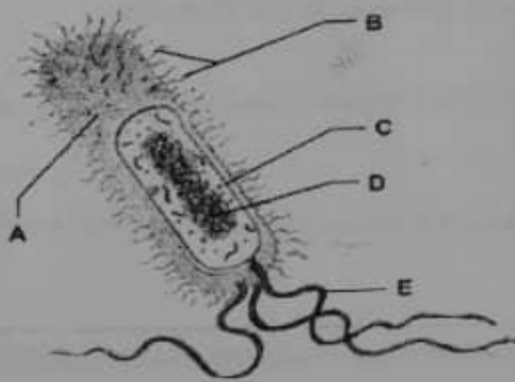
- III. _____ Division in two planes; spherical cells arranged in a square of four
- IV. _____ Division in one plane; rods completely separate after division.
- V. _____ Division in one plane; rods arranged in chains.
- VI. _____ A thin, flexible spiral.
- VII. _____ A thick, rigid spiral.
- VIII. _____ Division in three planes; spherical cells arranged in cube-like group of eight
3. The phase of the bacterial growth curve in which newly inoculated cells are adjusting to their new environment, metabolizing but not growing is the.....
4. The most commonly encountered bacteria are roughly spherical. The microbiological term describing this shape is.....
5. Another common bacterial shape is that of a rod, often called.....
6. Match the descriptions below with the best type of cellular organization.
- | A. eukaryotic | B. prokaryotic |
|--|----------------|
| I. _____ no nuclear membrane, circular chromosome of DNA, no mitosis | |
| II. _____ capable of endocytosis, sterols in membrane, 80S ribosomes | |
| III. _____ mitochondria, Golgi apparatus, endoplasmic reticulum | |
| IV. _____ cell wall contains peptidoglycan | |
7. A bacillus bacterium with a single flagellum at each end is described as
8. Give **ONE** example each of the following
- a. A bacterium that genetically has varying shapes.....

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- c. A method often used in the dairy industry to enumerate bacteria numbers.....
- d. A bacterium with a capsule
9. The major protein component within a bacterium flagella is
10. Define the following terms as used in Microbiology:
- a. facultative anaerobe
- b. Aerotolerant anaerobe
- c. Microaerophilic
- d. Generation time
11. A gram stain of discharge from an abscess shows spherical cells in irregular, grape-like clusters. What is the most likely genus of this bacterium?
12. Bacteria that have a thick peptidoglycan outer layer and that stain with a characteristic purple (crystal violet) are called
13. Movement of a bacterium towards or away from a stimulus is called.....

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