Biology - FSC Part 1 Biology English Medium Chapter 6 Preparation

Q1. Differentiate between hormogonia and akinetes.

Ans 1: Hormogonia: Hormogonia are formed when filaments break at different points into smaller pieces.This is due to death and decay of an ordinary cell.

Ans 2: Akinetes are thick walled,enlarged vegetative cells which accumulate food and become resting cells.On arrival of favourable conditions they form normal vegetative cells.

Ans 3:

1.

Q2. What are Pili? Give their function.

Ans 1: Pili are hallow, non-helical, filamentous appendages. They are smaller than flagella and bacteria and are not involved in motality.True Pili only present on gram negative bacteria. They are made up of special protein called pilin.They are mainly involved in a mating process between cells called conjugation. Some Pili function as a means of attachment of bacteria to various surfaces.

Q3. What are mesosomes in bacteria? Give also function.

Ans 1: Bacterial cell membrane invigilates into cytoplasm forming structure called as mesosomes; Mesosomes are in the form of vesicles, tubules and lamellae. Mesosomes are involved in DNA replication and cell divisions where as some mesosomes are involved in the export of exocellular enzymes. Respiratory enzymes are also present on the mesosomes.

Q4. Differentiate between streptococcus and staphylococcus.

Ans 1: Streptococcus: When cocci long chain of cells then arrangement is called streptococcus.

Ans 2: Staphylococcus: When division occurs in random planes it will produce a staphylococcus arrangement in which cocci are arranged in irregular,often grape-like cluster.

Q5. Differentiate between microbicidal and microbiostatic effect?

Ans 1: Microbicidal : Microbicidal effect is one that kills the microbes immediately.

Ans 2: Microbiostatic :Microbiostatic effects inhibit the reproductive capacities of the cells and maintain the microbial population at constant size.

Q6. What are akinetes?Give their functions.

Ans 1: Akintes are thick walled,enlarge vegetative which accumulate food and become resting cells.On the onset of favourable conditions they form normal vegetative cells.

Q7. Name taxonomic groups of bacteria on the basic of presence of flagella their number and pattern and attachment.

Ans 1: On the basis of presence of flagella, pattern of attachment of flagella and the number of flagella,bacteria are classified into different taxonomic groups. Atrichous: The bacteria are without flagella. Monotrichous: When a single polar flagellum is present then condition is known as monotrichous. Lophotrichous : If tuft of flagella is on at one pole of bacteria then these are lophotrichous flagella. Amphitrichous: It is condition when tuft of flagella at each of two poles is present. Peritrichous: In these condition flagella surrounds the whole cell.

Q8. Differentiate between Lophotrichous and Amphitrichous.

Ans 1: Lophotrichous: When tuft of flagella is present only at one people of bacteria.

Ans 2: Amphitrichous When tuft of flagella at each of two poles is present.

Q9. Write down the role of Pili in bacteria.

Ans 1: Role of Pili in bacteria are as follow: 1. They are primarily involved in a mating process between cells called conjugation process. 2. Some Pili function as a a means of attachment of bacteria to various substrates.

Q10. Write down the classification of bacteria on the basis of shapes.

Ans 1: On the basic of general shapes,bacteria are classified into following three categories.

1. Cocci
2. Bacilli
3. Spirillum
