Name : Mudassir Hussain Shah I .D. 14652

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Assignment : Micro Biology

Q. No. 1***. STRUCTURE OF BACTTERIA*** :

Bacteria are the micro organisme which are first seen under a microscope by ‘Anton van leeuwenhoek in 1676 .

It is a prokaryotic organism in which the nucleare membrane is absant and the nucleus is not clear . It is a single celled organism . It is like a matrix which is composed of enzyme , water and nutrients .

The bacterial structure is made up of three major parts .

1 . INTERNAL STRUCTURE : In the internal structure there are cytoplasem, nucleoid, chromosomes etc. are present .

2 . CELL ENVELOP : The cell envelop is composed of cell membrane, peptidoglycan , cell wall or an outer lipid membrane which is only in gram negative bacteria .

3 . EXTERNAL STRUCTURE : In the external structure the flagella , fimbriae , sex pilus and glycocallax are present .

***CELL ORGANELLES OF BACTERIA*** :

1 . FLAGELLA : Flagella are usually found in gram negative bacteria . It is about 20 nm long and thin . Flagella are free at one end and attach to the bacteria at the other end .

**Function** : Flagella help the bacteria in his movement .

2 . PILI : Pili is a hair like structure which present on surface of bacteria . It is made up of proteins that produces from the cell surface .

**Function** : The primary function of pili are to attach the bacterial cell to specific surface or to other cell . Some bacteria are able to produce conjugation in order to transfer of DNA from one bacterial cell to other .

Q.No. 2 ***BACTERIAL CULTURE MEDIA :***

The medium in which we provide the nutrients such as corbon,nitrogen and oxygen in the form of available carbohydrates and amino asid to the bacteria .

Types Of Bacterial Culture Media :

1 . Basal Media : The culture media which have no required further substances or addetives after preparation called basal media .

2 . Enriched Media : The media which have required further addetivs from outside after its preparation is called enriched media .

3 . Storage Media : The media which is used for the storage of bacteria for long time is called storage media .

4 . Transport Media : The media which is used for the transport of the bacteria from one place to another is called transport media .

Q.No. 3

Disinfection is a process in which there is reducing or eliminating all type of pathogens except spores , while sterilization is process in which reducing or eliminating all type of pathogens including spores .

**Methods Of Sterilization** :

There are three methods of sterilization which are given below .

1. Physical Method : In physical method the sterilization occur through high temperature .
2. Chemical Method : In chemical method the sterilization occur through gases or solvents .
3. Mechanical Method : In the mechanical method the sterilization takes place through bacteria proof filter .

Q.No. 4

***STRUCTURE OF FUNGI :***

Fungi are the micro organism which exist in two main forms such as filamentous and single celled budding forms which is also called yeast . By the classification fungi are studied in foure classes moulds , yeast , yeast like and dimorphic fungi .

CELL WALL :

The structure of fungi is like an eukaryotic organisms . They have a cell wall which is composed of chitin and also layered by mannose , glucanes and many other polysaccharides . Some lower fungi possess cellulose in there cell wall .

CELL MEMBRANE :

Inner to the cell wall the plasma membrane is present which is typical bilayered in the presence of sterols . Fungal membrane possess ergosteroles as compered to cholestrole found in mammalians cells .

CYTOPLASM :

The cytoplasm consist of various organelles such as mitochondria , golgi apparatus , ribosomes , endoplasmic reticulum , lysosomes and membrane enclosed nucleus .

Q.No. 5

There are some disease or infections which are transfer from one to another person due to unhygienic condition . They includes Hepatitis A , food poisoning , gastroenteritise and giardiasis .