

Vidya Bhawan Balika Vidyapeeth Lakhisarai

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Class 12<sup>th</sup>

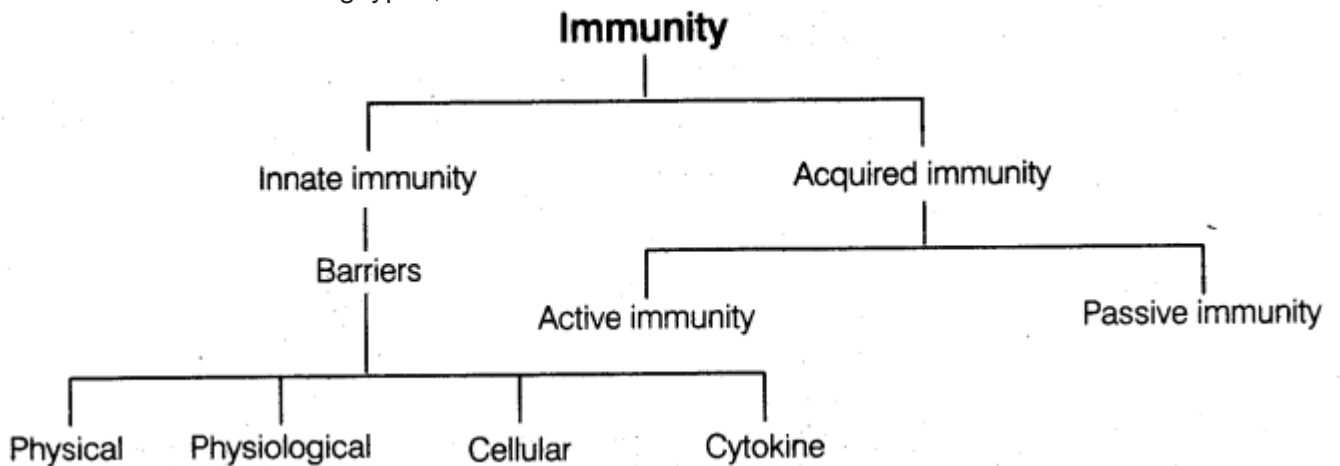
Sub. Biology

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**4. Prevention measures to avoid infectious diseases are:**

- (i) Maintenance of personal and public hygiene is important.
- (ii) Personal hygiene includes keeping the body clean, consumption of clean drinking water, food, vegetables, fruits, etc.
- (iii) Public hygiene includes proper disposal of waste excreta, periodic cleaning and disinfection of water reservoirs, pools, cesspools and tanks.
- (iv) Eradication of vectors and destroying their breeding sites.
- (v) Mosquito nets, repellants should be used.
- (vi) Vaccination and immunisation programmes for diseases should be strictly followed.
- (vii) Use of antibiotics and other drugs can significantly keep away infectious diseases.

**5. Immunity** is the capacity of an organism to resist or defend itself from the development of a disease. It is of the following types, as shown below:



**I. Innate immunity** is present from birth and is inherited from the parents.

- (i) It is non-specific.
- (ii) It consists as following types:
  - (a) Physical barriers prevent entry of microorganisms in the body e.g. skin, mucus coating of the epithelium lining the respiratory, gastrointestinal and urogenital tracts.
  - (b) Physiological barriers prevent microbial growth in the body, e.g. acid in the stomach, saliva in the mouth and tears from eyes.
  - (c) Cellular barriers phagocytose and destroy microbes. For example, some WBCs like Polymorphonuclear Leukocytes (PMNL), monocytes and natural killer cells (type of lymphocytes) in the blood as well as macrophages in tissues.
  - (d) Cytokine barriers are virus-infected cells, which secrete proteins called interferons. They

protect non-infected cells from further viral infection.