## **Human Health and Disease**

**1. Assertion (A):** Tobacco contain nicotine type of alkaloids.

**Reason (R):** Nicotine can be used as a raw material for preparation of nicotinic acid.

- (1) Both (A) & (R) are true and the (R) is the correct explanation of the (A)
- (2) Both (A) & (R) are true but the (R) is not the correct explanation of the (A)
- (3) (A) is true but (R) is false
- (4) Both (A) and (R) are false
- **2. Assertion (A):** Opium is derived from latex of unripe fruits of *Papaver* somniferum.

**Reason (R):** Opium addict loses weight, fertility and interest in work.

- (1) Both (A) & (R) are true and the (R) is the correct explanation of the (A)
- (2) Both (A) & (R) are true but the (R) is not the correct explanation of the (A)
- (3) (A) is true but (R) is false
- (4) Both (A) and (R) are false
- Assertion (A): HIV virus is retrovirus.
   Reason (R): It can form viral DNA by reverse transcription.
  - (1) Both (A) & (R) are true and the (R) is the correct explanation of the (A)
  - (2) Both (A) & (R) are true but the (R) is not the correct explanation of the (A)
  - (3) (A) is true but (R) is false
  - (4) Both (A) and (R) are false
- 4. Assertion (A): Asthma often occurs in allergic person on exposure to allergen.
  Reason (R): Administration of antihistamine drugs to a person before exposure will prevent spasm.
  - (1) Both (A) & (R) are true and the (R) is the correct explanation of the (A)
  - (2) Both (A) & (R) are true but the (R) is not the correct explanation of the (A)
  - (3) (A) is true but (R) is false
  - (4) Both (A) and (R) are false

**5. Assertion (A):** Cocaine has a potent stimulating action on central nervous system.

**Reason (R):** Excessive dosage of cocaine causes hallucinations.

- (1) Both (A) & (R) are true and the (R) is the correct explanation of the (A)
- (2) Both (A) & (R) are true but the (R) is not the correct explanation of the (A)
- (3) (A) is true but (R) is false
- (4) Both (A) and (R) are false
- **6. Assertion (A):** All the infectious diseases are fetal like AIDs, common cold etc.

**Reason (R):** Infectious diseases are not common.

- (1) Both (A) & (R) are true and the (R) is the correct explanation of the (A)
- (2) Both (A) & (R) are true but the (R) is not the correct explanation of the (A)
- (3) (A) is true but (R) is false
- (4) Both (A) and (R) are false
- **7. Assertion (A):** Cancer causes major causality among the non-infectious disease.

**Reason (R):** Now a days cancer is established along with infectious disease.

- (1) Both (A) & (R) are true and the (R) is the correct explanation of the (A)
- (2) Both (A) & (R) are true but the (R) is not the correct explanation of the (A)
- (3) (A) is true but (R) is false
- (4) Both (A) and (R) are false
- 8. Assertion (A): A wide range of bacteria, viruses, fungi, protozoans, helminthes etc. could causes diseases in man. Such disease-causing organisms are called pathogens.

**Reason (R):** Pathogens have to adapt to life within the environment of the host.

- (1) Both (A) & (R) are true and the (R) is the correct explanation of the (A)
- (2) Both (A) & (R) are true but the (R) is not the correct explanation of the (A)
- (3) (A) is true but (R) is false
- (4) Both (A) and (R) are false







9. Assertion (A): Sustained high fever (30° to 40°C), weakness, stomach pain, constipation, headache and loss of appetite are some of the common symptoms of typhoid fever.

**Reason (R):** Typhoid is caused by gram positive bacteria *Clostridium typhi*.

- (1) Both (A) & (R) are true and the (R) is the correct explanation of the (A)
- (2) Both (A) & (R) are true but the (R) is not the correct explanation of the (A)
- (3) (A) is true but (R) is false
- (4) Both (A) and (R) are false
- **10. Assertion (A):** Mary Mallon nicknamed Typhoid Mary.

Reason (R): She was a typhoid carrier.

- (1) Both (A) & (R) are true and the (R) is the correct explanation of the (A)
- (2) Both (A) & (R) are true but the (R) is not the correct explanation of the (A)
- (3) (A) is true but (R) is false
- (4) Both (A) and (R) are false
- **11. Assertion (A):** In severe causes of Pneumonia; the lips and finger nails may turn gray to bluish in colour.

**Reason (R):** In Pneumonia the alveoli get filled with fluid leading to severe problems in respiration.

- (1) Both (A) & (R) are true and the (R) is the correct explanation of the (A)
- (2) Both (A) & (R) are true but the (R) is not the correct explanation of the (A)
- (3) (A) is true but (R) is false
- (4) Both (A) and (R) are false
- **12. Assertion (A):** Haemophilus influenzae causes pneumonia in human.

**Reason (R):** It's infection is more common in children.

- (1) Both (A) & (R) are true and the (R) is the correct explanation of the (A)
- (2) Both (A) & (R) are true but the (R) is not the correct explanation of the (A)
- (3) (A) is true but (R) is false
- (4) Both (A) and (R) are false

**13. Assertion (A):** Nasal congestion and discharge, sore throat, hoarseness, cough, headache, tiredness etc. are the usual symptoms of common cold.

**Reason (R):** Rhino virus infect the nose, and respiratory passage but not the lungs.

- (1) Both (A) & (R) are true and the (R) is the correct explanation of the (A)
- (2) Both (A) & (R) are true but the (R) is not the correct explanation of the (A)
- (3) (A) is true but (R) is false
- (4) Both (A) and (R) are false
- 14. Assertion (A): In common cold diseases, the droplets resulting from cough or sneezes of an infected person are either inhaled directly or transmitted through contaminated objects and cause infection in healthy person.

**Reason (R):** The disease is caused by Rhino viruses and the infections lasts for 48 hours.

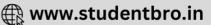
- (1) Both (A) & (R) are true and the (R) is the correct explanation of the (A)
- (2) Both (A) & (R) are true but the (R) is not the correct explanation of the (A)
- (3) (A) is true but (R) is false
- (4) Both (A) and (R) are false
- 15. Assertion (A): In amoebic dysentery house flies act as mechanical carries and serve to transmit the parasite from faces of infected person to food and food products, there by contaminating them.

**Reason (R):** Entamoeba histolytica completes its life cycle in human and house flies.

- (1) Both (A) & (R) are true and the (R) is the correct explanation of the (A)
- (2) Both (A) & (R) are true but the (R) is not the correct explanation of the (A)
- (3) (A) is true but (R) is false
- (4) Both (A) and (R) are false







- **16. Assertion (A):** Internal bleeding, muscular pain, fever, anaemia and blockage of the intestinal passage are the common symptoms of ascariasis.
  - **Reason (R):** The eggs of *Ascaris* are excreted along with the faces of infected persons which contaminate soil, water plants etc and these are the source of infection of a healthy person.
  - (1) Both (A) & (R) are true and the (R) is the correct explanation of the (A)
  - (2) Both (A) & (R) are true but the (R) is not the correct explanation of the (A)
  - (3) (A) is true but (R) is false
  - (4) Both (A) and (R) are false
- 17. Assertion (A): Microsporum, Trichophyton and Epidermophyton are generally acquired from soil or by using towels, clothes or even the comb of infected individuals.
  - **Reason (R):** These fungi causes dry, scaly lesions on various parts of the body called ringworms.
  - (1) Both (A) & (R) are true and the (R) is the correct explanation of the (A)
  - (2) Both (A) & (R) are true but the (R) is not the correct explanation of the (A)
  - (3) (A) is true but (R) is false
  - (4) Both (A) and (R) are false
- **18. Assertion (A):** In biopsy test for cancer, piece of the suspected tissue cut into thin sections is stained and examined under X-ray by a pathologist.
  - **Reason (R):** Use of X-ray is able to generate a 3-D image of the section of affected tissue.
  - (1) Both (A) & (R) are true and the (R) is the correct explanation of the (A)
  - (2) Both (A) & (R) are true but the (R) is not the correct explanation of the (A)
  - (3) (A) is true but (R) is false
  - (4) Both (A) and (R) are false

- **19. Assertion (A):** Barbiturates, amphetamines etc. are normally used as medicines to help patients cope with mental illnesses.
  - **Reason (R):** Amphetamines are used as antisleep pills.
  - (1) Both (A) & (R) are true and the (R) is the correct explanation of the (A)
  - (2) Both (A) & (R) are true but the (R) is not the correct explanation of the (A)
  - (3) (A) is true but (R) is false
  - (4) Both (A) and (R) are false
- **20. Assertion (A):** Balanced diet, personal hygine and regular exercise are very important to maintain good health.
  - **Reason (R):** Yoga has been practiced to achieve physical & mental health.
  - (1) Both (A) & (R) are true and the (R) is the correct explanation of the (A)
  - (2) Both (A) & (R) are true but the (R) is not the correct explanation of the (A)
  - (3) (A) is true but (R) is false
  - (4) Both (A) and (R) are false
- **21. Assertion (A):** Malignant malaria is caused by *Plasmodium vivax*.
  - **Reason (R):** Haemozoin is only produced in malaria caused by *P. vivax*.
  - (1) Both (A) & (R) are true and the (R) is the correct explanation of the (A)
  - (2) Both (A) & (R) are true but the (R) is not the correct explanation of the (A)
  - (3) (A) is true but (R) is false
  - (4) Both (A) and (R) are false
- 22. Assertion (A): A larger number of infectious diseases like polio, diphtheria, Pneumonia, and tetanus have been controlled to a large extent by the use of vaccines.
  - **Reason (R):** Vaccination helps in developing passive immunity from the disease.
  - (1) Both (A) & (R) are true and the (R) is the correct explanation of the (A)
  - (2) Both (A) & (R) are true but the (R) is not the correct explanation of the (A)
  - (3) (A) is true but (R) is false
  - (4) Both (A) and (R) are false







- 23. Assertion (A): The T-lymphocytes produce an army of proteins in response of pathogens our blood to fight with them. Reason (R): The B-Lymphocyte help the T-lymphocyte to produce antibody.
  - (1) Both (A) & (R) are true and the (R) is the correct explanation of the (A)
  - (2) Both (A) & (R) are true but the (R) is not the correct explanation of the (A)
  - (3) (A) is true but (R) is false
  - (4) Both (A) and (R) are false
- **24. Assertion (A):** A HIV/AIDs is not spread by mere touch or physical contact.

**Reason (R):** Skin surface having acidic medium.

- (1) Both (A) & (R) are true and the (R) is the correct explanation of the (A)
- (2) Both (A) & (R) are true but the (R) is not the correct explanation of the (A)
- (3) (A) is true but (R) is false
- (4) Both (A) and (R) are false
- 25. Assertion (A): Several genes called cellular oncogenes (C-onc) or protooncogene have been identified in normal cells which when activated under certain conditions, could lead to oncogenic transformation of the cells.

**Reason (R):** Ionising radiations like X-rays and gamma rays, non-ionizing radiations like UV cause DNA damage leading to oncogenic transformation of the cells.

- (1) Both (A) & (R) are true and the (R) is the correct explanation of the (A)
- (2) Both (A) & (R) are true but the (R) is not the correct explanation of the (A)
- (3) (A) is true but (R) is false
- (4) Both (A) and (R) are false
- **26. Assertion (A):** Radiography, computed tomography and MRI are very useful to detect cancers of the internal organs.

**Reason (R):** X-ray is used in radiography & CT-scan while strong magnetic fields and non-ionizing radiation is used in MRI-technique.

- (1) Both (A) & (R) are true and the (R) is the correct explanation of the (A)
- (2) Both (A) & (R) are true but the (R) is not the correct explanation of the (A)
- (3) (A) is true but (R) is false
- (4) Both (A) and (R) are false

27. Assertion (A):  $\alpha$ -interferon is given to cancer patient which helps in destroying the tumour.

Reason (R):  $\alpha$ -interferon is biological response modifiers, which activates the immune system and helps in destroying tumour.

- (1) Both (A) & (R) are true and the (R) is the correct explanation of the (A)
- (2) Both (A) & (R) are true but the (R) is not the correct explanation of the (A)
- (3) (A) is true but (R) is false
- (4) Both (A) and (R) are false
- 28. Assertion (A): Drugs like barbiturates, amphetamines, benzodiazepine are normally used as medicines to help patients cope with mental illnesses like depression and insomnia.

**Reason (R):** These chemicals impairs their physical, physiological or Psychological functions.

- (1) Both (A) & (R) are true and the (R) is the correct explanation of the (A)
- (2) Both (A) & (R) are true but the (R) is not the correct explanation of the (A)
- (3) (A) is true but (R) is false
- (4) Both (A) and (R) are false
- **29. Assertion (A):** 'Good humor' hypothesis of health was disproved by William Harvey.

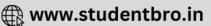
**Reason (R):** He demonstrated normal body temperature in blackbile persons.

- (1) Both (A) & (R) are true and the (R) is the correct explanation of the (A)
- (2) Both (A) & (R) are true but the (R) is not the correct explanation of the (A)
- (3) (A) is true but (R) is false
- (4) Both (A) and (R) are false
- **30. Assertion (A):** HIV/AIDS is not spread by mere touch or physical contact.

**Reason (R):** It spreads only through body fluids.

- (1) Both (A) & (R) are true and the (R) is the correct explanation of the (A)
- (2) Both (A) & (R) are true but the (R) is not the correct explanation of the (A)
- (3) (A) is true but (R) is false
- (4) Both (A) and (R) are false





**31. Assertion (A):** AIDS is not a congenital disease.

**Reason (R):** During lifetime, individual acquires deficiency of immune system.

- (1) Both (A) & (R) are true and the (R) is the correct explanation of the (A)
- (2) Both (A) & (R) are true but the (R) is not the correct explanation of the (A)
- (3) (A) is true but (R) is false
- (4) Both (A) and (R) are false
- **32. Assertion (A):** It is imperative for physical and psychological well being, HIV/AIDS infected persons are not isolated from family and society.

**Reason (R):** AIDS spreads only through body fluids.

- (1) Both (A) & (R) are true and the (R) is the correct explanation of the (A)
- (2) Both (A) & (R) are true but the (R) is not the correct explanation of the (A)
- (3) (A) is true but (R) is false
- (4) Both (A) and (R) are false
- **33. Assertion (A):** "Don't die of ignorance" slogan has been rightly said for AIDS. **Reason (R):** It spreads due to conscious

**Reason (R):** It spreads due to conscious behavior pattern and is not something that happen inadvertently.

- (1) Both (A) & (R) are true and the (R) is the correct explanation of the (A)
- (2) Both (A) & (R) are true but the (R) is not the correct explanation of the (A)
- (3) (A) is true but (R) is false
- (4) Both (A) and (R) are false
- **34. Assertion (A):** In MRI, strong magnetic field is used, so very useful to detect cancer.

**Reason (R):** CT scan uses X-rays to generate a 3D-image.

- (1) Both (A) & (R) are true and the (R) is the correct explanation of the (A)
- (2) Both (A) & (R) are true but the (R) is not the correct explanation of the (A)
- (3) (A) is true but (R) is false
- (4) Both (A) and (R) are false
- **35. Assertion (A):** C-onc are proto oncogenes.

**Reason (R):** These found in normal cells.

- (1) Both (A) & (R) are true and the (R) is the correct explanation of the (A)
- (2) Both (A) & (R) are true but the (R) is not the correct explanation of the (A)
- (3) (A) is true but (R) is false
- (4) Both (A) and (R) are false

**36. Assertion (A):** Cancer cells show a property of contact inhibitions.

**Reason (R):** When these curve in contact with other cells, inhibits their uncontrolled growth.

- (1) Both (A) & (R) are true and the (R) is the correct explanation of the (A)
- (2) Both (A) & (R) are true but the (R) is not the correct explanation of the (A)
- (3) (A) is true but (R) is false
- (4) Both (A) and (R) are false
- **37. Assertion (A):** Principle of vaccination is based on the property of 'memory' of the immune system.

**Reason (R):** In vaccination, a preparation of antigenic protein of pathogens or inactivated/weakened pathogen are introduced into the body.

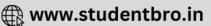
- (1) Both (A) & (R) are true and the (R) is the correct explanation of the (A)
- (2) Both (A) & (R) are true but the (R) is not the correct explanation of the (A)
- (3) (A) is true but (R) is false
- (4) Both (A) and (R) are false
- **38.** Assertion (A): Active immunity is slow. Reason (R): It takes time to develop memory and its full effective response.
  - (1) Both (A) & (R) are true and the (R) is the correct explanation of the (A)
  - (2) Both (A) & (R) are true but the (R) is not the correct explanation of the (A)
  - (3) (A) is true but (R) is false
  - (4) Both (A) and (R) are false
- **39. Assertion (A):** Mother's milk is considered very essential for new born infants.

**Reason (R):** Colostrum has  $I_gA$  antibodies and nutrients.

- (1) Both (A) & (R) are true and the (R) is the correct explanation of the (A)
- (2) Both (A) & (R) are true but the (R) is not the correct explanation of the (A)
- (3) (A) is true but (R) is false
- (4) Both (A) and (R) are false







**40. Assertion (A):** The exaggerated response of the immune system to certain antigens present in the environment is called allergy.

**Reason (R):** Allergy is due to release of chemicals like histamine and serotonin from the mast cells.

- (1) Both (A) & (R) are true and the (R) is the correct explanation of the (A)
- (2) Both (A) & (R) are true but the (R) is not the correct explanation of the (A)
- (3) (A) is true but (R) is false
- (4) Both (A) and (R) are false
- **41. Assertion (A):** Spleen, lymph nodes, tonsils payer's patched of small intestine and appendix are secondary lymphoid organs (S.L.O.)

**Reason (R):** SLO provided the sites for storing and interaction of lymphocytes with antigens.

- (1) Both (A) & (R) are true and the (R) is the correct explanation of the (A)
- (2) Both (A) & (R) are true but the (R) is not the correct explanation of the (A)
- (3) (A) is true but (R) is false
- (4) Both (A) and (R) are false
- **42. Assertion (A):** MALT contributes about 50% of the lymphoid tissue in human body.

**Reason (R):** MALT is located within the lining of the major tracts like respiratory, digestive and urogenital.

- (1) Both (A) & (R) are true and the (R) is the correct explanation of the (A)
- (2) Both (A) & (R) are true but the (R) is not the correct explanation of the (A)
- (3) (A) is true but (R) is false
- (4) Both (A) and (R) are false
- **43. Assertion (A):** Bone marrow is primary lymphoid organs.

**Reason (R):** All blood cells including lymphocytes are produce in bone marrow.

- (1) Both (A) & (R) are true and the (R) is the correct explanation of the (A)
- (2) Both (A) & (R) are true but the (R) is not the correct explanation of the (A)
- (3) (A) is true but (R) is false
- (4) Both (A) and (R) are false

**44. Assertion (A):** Curiosity, need for adventure and excitement, and experimentation constitute common caused, which motivates youngsters towards drug and alcohol use.

**Reason (R):** A child's natural curiosity motivates him/her to experiment.

- (1) Both (A) & (R) are true and the (R) is the correct explanation of the (A)
- (2) Both (A) & (R) are true but the (R) is not the correct explanation of the (A)
- (3) (A) is true but (R) is false
- (4) Both (A) and (R) are false
- **45. Assertion (A):** Of late, stress from pressures to excel in academics or examination, has played a significant role in persuading the youngsters to try alcohol and drugs.

**Reason (R):** First use of drugs or alcohol may be out of curiosity or experimentation, but later the child starts using these to escape facing problems.

- (1) Both (A) & (R) are true and the (R) is the correct explanation of the (A)
- (2) Both (A) & (R) are true but the (R) is not the correct explanation of the (A)
- (3) (A) is true but (R) is false
- (4) Both (A) and (R) are false
- 46. Assertion (A): Tobacco contains nicotine alkaloid, which stimulates adrenal gland.

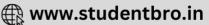
  Reason (R): Adrenaline and noradrenaline both raise blood pressure and increase heart rate.
  - (1) Both (A) & (R) are true and the (R) is the correct explanation of the (A)
  - (2) Both (A) & (R) are true but the (R) is not the correct explanation of the (A)
  - (3) (A) is true but (R) is false
  - (4) Both (A) and (R) are false
- **47. Assertion (A):** Smoking increases CO content in blood.

**Reason (R):** Smoking reduces concentration of heambound oxygen.

- (1) Both (A) & (R) are true and the (R) is the correct explanation of the (A)
- (2) Both (A) & (R) are true but the (R) is not the correct explanation of the (A)
- (3) (A) is true but (R) is false
- (4) Both (A) and (R) are false







**48. Assertion (A):** Cocaine or coca alkaloid interferes the transport of dopamine.

**Reason (R):** Coca plant *Erythroxylum* coca is native to south America.

- (1) Both (A) & (R) are true and the (R) is the correct explanation of the (A)
- (2) Both (A) & (R) are true but the (R) is not the correct explanation of the (A)
- (3) (A) is true but (R) is false
- (4) Both (A) and (R) are false
- **49. Assertion (A):** Morphine is useful in patients who have undergone surgery.

**Reason (R):** It is very effective sedative and painkiller.

- (1) Both (A) & (R) are true and the (R) is the correct explanation of the (A)
- (2) Both (A) & (R) are true but the (R) is not the correct explanation of the (A)
- (3) (A) is true but (R) is false
- (4) Both (A) and (R) are false
- **50. Assertion (A):** Personal hygiene includes keeping the body clean.

**Reason (R):** Public hygiene includes proper disposal of waste and excreta.

- (1) Both (A) & (R) are true and the (R) is the correct explanation of the (A)
- (2) Both (A) & (R) are true but the (R) is not the correct explanation of the (A)
- (3) (A) is true but (R) is false
- (4) Both (A) and (R) are false
- **51. Assertion (A):** Cell mediated immunity induces humoral immunity

**Reason (R):** T cells themselves do not secrete antibodies but help B cells to produce them

- (1) Both (A) & (R) are true and the (R) is the correct explanation of the (A)
- (2) Both (A) & (R) are true but the (R) is not the correct explanation of the (A)
- (3) (A) is true but (R) is false
- (4) Both (A) and (R) are false

**52. Assertion (A):** Cocaine produces a sense of euphoria.

**Reason (R):** It interferes with the transport of the neurotransmitter dopamine

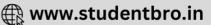
- (1) Both (A) & (R) are true and the (R) is the correct explanation of the (A)
- (2) Both (A) & (R) are true but the (R) is not the correct explanation of the (A)
- (3) (A) is true but (R) is false
- (4) Both (A) and (R) are false
- **Assertion (A):** Bone marrow and thymus gland are primary lymphoid organs **Reason (R):** Bone marrow and thymus provide the sites for interaction of lymphocytes with the antigen, which proliferate to become effector cells
  - (1) Both (A) & (R) are true and the (R) is the correct explanation of the (A)
  - (2) Both (A) & (R) are true but the (R) is not the correct explanation of the (A)
  - (3) (A) is true but (R) is false
  - (4) Both (A) and (R) are false
- **54. Assertion (A):** AIDS patients suffer from infections due to Mycobacterium, viruses, fungi and even parasites like Toxoplasma.

**Reason (R):** AIDS causes progressive decrease in the number of helper T-lymphocytes.

- (1) Both (A) & (R) are true and the (R) is the correct explanation of the (A)
- (2) Both (A) & (R) are true but the (R) is not the correct explanation of the (A)
- (3) (A) is true but (R) is false
- (4) Both (A) and (R) are false
- **55. Assertion (A):** IgA provides immunity against inhaled and ingested pathogens **Reason (R):** IgA is secretory antibody and it is present in the lining of respiratory and intestinal tract.
  - (1) Both (A) & (R) are true and the (R) is the correct explanation of the (A)
  - (2) Both (A) & (R) are true but the (R) is not the correct explanation of the (A)
  - (3) (A) is true but (R) is false
  - (4) Both (A) and (R) are false







**Directions:** In the following questions, a statement of assertion is followed by a statement of reason. Mark the correct choice as:

- (a) If both Assertion and Reason are true and Reason is the correct explanation of Assertion.
- (b) If both Assertion and Reason are true but Reason is not the correct explanation of Assertion.
- (c) If Assertion is true but Reason is false.
- (d) If both Assertion and Reason are false.
- **56. Assertion:** According to big-bang hypothesis about 20 billion years ago universe was a big ball of only neutrons.

**Reason:** Movement of these particles is known to generate tremendous heat which caused explosion due to temperature and pressure changes.

57. **Assertion :** The primitive atmosphere was reducing once i.e., without oxygen.

**Reason:** In the primitive atmosphere, oxygen was involved in forming ozone.

**58. Assertion:** Organic compounds first evolved in earth required for origin of life were protein and nucleic acid.

**Reason:** All life forms were in water environment only.

- 59. Assertion: Earth is billions of years old.Reason: This inference has been established by radioisotope dating methods.
- 60. Assertion: Analogous structures are different in appearance with same function.Reason: Divergent evolution leads to analogy.
- **61. Assertion:** Thorns and tendrils of Bougainvillea and cucurbita represent homology.

**Reason:** Homologous organs have similar functions but are different in their structural details and origin.

62. **Assertion:** Natural selection is the outcome of difference in survival and reproduction among individuals that show variation in one or more traits.

**Reason:** Adaptive forms of a given trait tend to become more common; less adaptive ones become less common or disappear.

- 63. **Assertion:** Ginkgo biloba is a living fossil. **Reason:** Organism which have persisted and remain unchanged for the past several million years while their relatives disappeared.
- 64. **Assertion:** Whales and mammals share similarities in the pattern of bones of forelimbes.

**Reason:** These organisms developed along different directions due to adaptions to different needs.

65. **Assertion:** Human ancestors never used their tails and so the tail expressing gene has disappeared in them.

**Reason:** Lamarck's theory of evolution is popularly called theory of continuity of germ plasm.

66. **Assertion :** Java Ape-man, Peking man and Heidelberg man are the fossils of Homo erectus.

**Reason :** Homo erectus evolved from Homo habilis.

67. **Assertion:** Founder effect may lead to formation of new species.

**Reason:** Founders carry all the parental gene pool to a new location.

68. **Assertion:** The immediate ancestor of present day humans was Australopithecus. **Reason:** The fossils of Australopithecus were discovered from Australia, and its cranial capacity was 1150-1300 cm<sup>3</sup> which is very close to that of humans 1400-1450 cm<sup>3</sup>.







	ANSWER KEY																			
Que.	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
Ans.	2	2	1	3	2	4	3	2	3	1	1	2	1	2	3	2	2	4	2	2
Que.	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40
Ans.	4	3	4	2	2	2	1	2	1	1	1	2	1	2	2	4	2	1	1	2
Que.	41	42	43	44	45	46	47	48	49	50	51	52	53	54	55					
Ans.	1	2	1	1	2	2	2	2	1	2	1	1	3	1	1					

56.	57.	58.	59.	60.	61.	62.	63.	64.	65.	66.	67.	68.		
Α	С	В	Α	C	C	Α	Α	Α	C	В	С	D		

