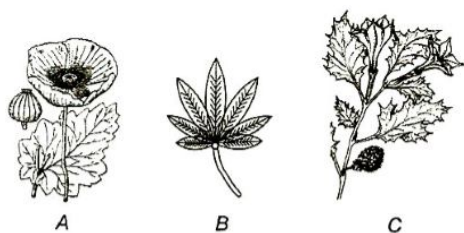


### IMPORTANT PRACTICE QUESTION SERIES

1. Black-foot disease is caused due to groundwater contaminated with excess of  
a) Nitrate                      b) Fluoride                      c) Arsenic                      d) Sulphur
2. Select the correct statement from the set given below
  - I. Growing number of people are taking LSD and other drugs like barbiturates and amphetamines
  - II. Several plants, fruits and seed having hallucinogenic properties have been used in folk-medicine

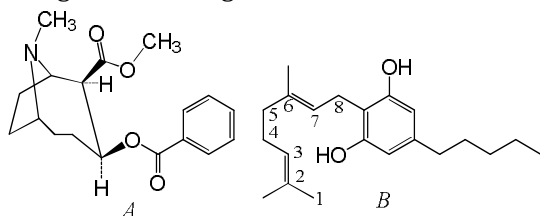
- Which of the statements given above is/are correct?
- a) Only I                      b) Only II                      c) I and II                      d) None of these
3. Tobacco consumption is known to stimulate the secretion of adrenaline and nor-adrenaline. The component causing this could be
    - a) Nicotine                      b) Tannic acid                      c) Curaimin                      d) Heamozoin
  4. Alcoholism may leads to
    - a) Skin cancer                      b) Liver cirrhosis                      c) Viral disease                      d) Eye infections
  5. Triple antigen vaccine is not used for
    - a) Typhoid                      b) Tetanus                      c) Diphtheria                      d) pertussis
  6. SCID is caused by defective gene coding for the enzyme called
    - a) Adenosine transaminase                      b) Guanosine transaminase
    - c) Adenosine deaminase                      d) Guanosine deaminase
  7. Charas and ganja generally taken by
    - a) Inhalation                      b) Oral ingestion                      c) Both (a) and (b)                      d) Injection
  8. Rat, carries rat fleas, which are the causal organism of
    - a) Typhus fever                      b) Tick fever                      c) Bubonic plague                      d) Yellow fever
  9. Amoebiasis is prevented by
    - a) Eating balanced food                      b) Eating washed fruits
    - c) Using mosquito coil                      d) Drinking boiled water
  10. Morphine is
    - a) A very effective sedative and pain-killer
    - b) Very useful in patients who have undergone surgery
    - c) both (a) and (b)
    - d) Stimulant
  11. The effect of hydrogen sulphide on man leads to which of the following diseases?
    - a) Paralysis                      b) Blindness                      c) Sterility                      d) None of these
  12. Vaccination protects a person from disease because it
    - a) Helps in RBC production                      b) Produces antibodies
    - c) Helps in digestion                      d) Correct body function
  13. Addiction to alcohol causes
    - a) Cirrhosis                      b) Epilepsy                      c) Neurosis                      d) psychosis
  14. HIV/AIDS is a contagious disease which is caused by
    - a) Virus                      b) Bacteria                      c) Fungal                      d) Protozoa
  15. Antibody molecule has
    - a) Four polypeptide chains                      b) Five polypeptide chains
    - c) Six polypeptide chains                      d) Seven polypeptide chains

16. Identify the pictures A, B and C



- a) A-Opium poppy, B-*Cannabis sativa*, C-*Datura*    b) A-*Cannabis sativa*, B-Opium poppy, C-*Datura*
  - c) A-*Datura*, B-Opium poppy, C-*Cannabis sativa*    d) A-Opium poppy, B-*Datura*, C-*Cannabis sativa*
17. Morphine, obtained from opium, is

- a) Latex                      b) Pome                      c) Alkaloid                      d) tannin
18. The chemical used in 'National Malaria Eradication Programme' is  
 a) 2, 4-D                      b) BHC                      c) DDT                      d) Pyrethroid
19. Benign tumours  
 I. remain confined to their original location and do not spread to other parts  
 II. cause little damage  
 Which of the statements given above is/are correct?  
 a) Only I                      b) Only II                      c) I and II                      d) None of the above
20. *Entamoeba histolytica* is a parasite of  
 a) Large intestine                      b) Liver                      c) Lungs                      d) Kidney
21. Common examples of allergens are  
 a) Dust                      b) Pollen grains                      c) Animal dander                      d) All of these
22. Smack is chemically a ...A... which is white and odourless and crystalline in nature. This is obtained by ...B... . Here A and B refers to  
 a) A-diacetyl morphine; B-acetylation of morphine                      b) A-morphine; B-acetylation of hashish  
 c) A-stimulant; B-acetylation of morphine                      d) A-hallucinogen; B-acetylation of hashish
23. The pathogen *Mircosporum* responsible for ringworm disease in humans belongs to  
 a) Virus                      b) Bacteria                      c) Fungi                      d) Protozoa
24. The genes concerned with the production of cancer are called  
 a) Cancer genes                      b) Carcinogenes                      c) Carcinomas                      d) Oncogenes
25. The given below figures show



- a) A-Cannabinoid; B-Morphine                      b) A-Morphine; B-Cannabinoid  
 c) A-Morphine; B-Quinine                      d) A-Quinine; B-Cannabinoid
26. Who stated that human population grows gemoretrically?  
 a) Malthus                      b) Darwin                      c) Cannon                      d) Lamarck
27. Cyclosporin and endosporins are the drugs that are used as  
 a) Anti retroviral drugs                      b) Immuno-suppressants  
 c) Immuno-modulators                      d) Immuno-vaccines
28. Emphysema is a  
 a) Cardio vascular disease                      b) Pulmonary disease  
 c) Neural disease                      d) renal disease
29. Alpha-interferons  
 a) Activate the immune system  
 b) Help in destroying the tumour  
 c) Both (a) and (b)  
 d) None of the above
30. Which technique uses the body's water molecules as the bases for its images?  
 a) Sonography                      b) MRI  
 c) Radioactive traces                      d) Thermography
31. Antigen binding site of immunoglobulin is  
 a) Variable region of heavy chain                      b) Variable region of light chain  
 c) Constant region of light chain                      d) Variable region of both heavy and light chain
32. Amoebiasis infection occurs by ingesting cysts with food and drinks

- a) True b) False
- c) Sometimes (a) and sometimes (b) d) Neither (a) nor (b)
33. The synthetic drugs structurally similar to adrenaline are  
a) Amphetamines b) Barbiturates  
c) Hallucinogens d) Nicotinic derivatives
34. Antibody production is controlled by  
a) B-lymphocytes b) T-lymphocytes c) Both (a) and (b) d) Interferon
35. Cannabinoids are obtained from  
a) Inflorescence of the plant *Cannabis sativa*  
b) Fruits of the plant *Papaver somniferum*  
c) Latex of the plant *Cannabis sativa*  
d) Plant *Papaver somniferum* inflorescence
36. A substance that causes an allergic reaction is called  
a) Allergen b) Pollen c) Foreign substance d) Dander
37. The polypeptide chains present in gamma immunoglobulin are  
a) 2 b) 4 c) 6 d) 8
38. Kala-azar is caused by  
a) *Trypanosoma cruzi* b) *Leishmania donovani*  
c) *Trypanosoma brucei* d) *Trypanosoma gambiense*
39. Graft transplantation to save certain patients fails due to the rejection of such organs by the patient. Which type of immune response is responsible for such type of rejection?  
a) Cell-mediated immune response b) Humoral immune response  
c) Both (a) and (b) d) Innate immune response
40. Which of the following is used in diagnosis of epilepsy?  
a) X-ray radiography b) Digital Subtraction Angiography (DSA)  
c) Sonography d) Positron Emission Tomography (PET)
41. The disease 'Oriental sore' is caused by  
a) Bacteria b) Virus c) Protozoa d) Fungus
42. ELISA test is used for detection of  
a) Antibodies b) Viral disease c) AIDS d) All of these
43. Except skin, other physical barriers which also help to prevent the entry of the microorganisms are  
I. mucus coating of the epithelium lining the respiratory  
II. gastrointestinal tracts  
III. urogenital tracts  
Choose the correct option  
a) I and II b) I and III c) II and III d) I, II and III
44. Cocaine is commonly called as  
a) Coke b) Crack c) Both (a) and (b) d) Smack
45. Ability of the body to fight against the disease-causing organisms is called  
a) Vulnerability b) Susceptibility c) Irritability d) Immunity
46. In a standard ECG, which one of the following alphabets is the correct representation of the respective activity of human heart?  
a) R-repolarization of ventricles b) S-start of systole  
c) T-end of diastole d) P-depolarization of the atria
47. Damage to thymus in a child may lead to  
a) Loss of cell-mediated immunity  
b) A reduction in the haemoglobin content in blood  
c) A reduction in the amount of plasma proteins  
d) Loss of antibody-mediated immunity

48. Purpose of tubectomy is to prevent
  - a) Fertilization
  - b) Coitus
  - c) Egg formation
  - d) Embryonic development
49. Antibodies in our body are complex
  - a) Lipoproteins
  - b) Steroids
  - c) Prostaglandins
  - d) Glycoproteins
50. What is the name of complex formed at the time of action of T-cells?
  - a) HLA
  - b) STD antigen complex
  - c) HLA antigen complex
  - d) MHC antigen complex
51. Proliferation of cancer cells is not limited because of
  - a) Differing surface proteins
  - b) Differing cholesterol level
  - c) Deficiency of steroids
  - d) Aberrant chromosomal complement
52. Smack is generally taken by
  - a) Snorting
  - b) Injection
  - c) Both (a) and (b)
  - d) None of these
53. Which of the following is a matching pair of a drug and its category?
  - a) Amphetamines- Stimulant
  - b) Lysergic acid diethyl amide - Narcotic
  - c) Heroin - Psychotropice
  - d) Benzodiazepine - Pain Killer
54. The drugs, which are commonly abused are
  - a) Opioids
  - b) Cannabinoids
  - c) Coca alkaloids
  - d) All of these
55. Consider the following statements
  - I. Secondary lymphoid organs includes lymph nodes, spleen and small masses of lymph tissue such as Peyer's patches, appendix and tonsils
  - II. The secondary lymphoid organs all the site of lymphocyte maturation and they efficiently trap antigens for exposure to T and B-cellsWhich of the statements given above is/are correct?
  - a) Only I
  - b) Only II
  - c) I and II
  - d) None of these
56. Who among the following is recognized as the Father of Medicine?
  - a) Robert Koch
  - b) Hippocrates
  - c) Louis Pasteur
  - d) Edward Jenner
57. Which of the following organs is not involved in the elicitation of immune response?
  - a) Brain
  - b) Lymph nodes
  - c) Spleen
  - d) Thymus
58. The term 'Vaccine' was introduced by
  - a) Jenner
  - b) Koch
  - c) Pasteur
  - d) Jointly by Koch and Pasteur
59. Tuberculosis is caused by
  - a) *Mycobacterium* sp.
  - b) *Aspergillus* sp.
  - c) *Clostridium* sp.
  - d) *Vibrio* sp.
60. Main source of amoebic dysentery is
  - a) Contaminated food and water
  - b) Water and food contaminated by the faecal matter
  - c) Water and food contaminated by urine
  - d) Water and food contaminated by polluted air
61. *Mycobacterium leprae* causes
  - a) Tuberculosis
  - b) Leprosy
  - c) AIDS
  - d) Tetanus
62. Excessive doses of drugs may lead to coma and death due to
  - a) Respiratory failure
  - b) Heart failure
  - c) Cerebral hemorrhage
  - d) All of these
63. All stages of the *Plasmodium* get digested in stomach of female *Anopheles* except
  - a) Sporozoite
  - b) Gametocyte
  - c) Erythrocyte
  - d) None of these
64. Hodgkins disease is
  - a) Cancer of the lymphoid tissue
  - b) Cancer of the mammary gland
  - c) cancer of the WBC
  - d) Cancer of the liver

65. The interferons are  
 a) Antibacterial drug  
 b) Antiviral drugs  
 c) Antibiotic drugs  
 d) Immunosuppressive drugs
66. Food poisoning is caused by  
 a) *Nitrosomonas*  
 b) *Lactobacillus*  
 c) *Escherichia coli*  
 d) None of these
67. Choose the true statements  
 I. Innate immunity is accomplished by providing different types of barriers  
 II. Acquired immunity is present from the birth and is inherited from parents  
 III. Sweat, tears, acid in the stomach and saliva prevent microbial growth

**Codes**

I	II	III
a) True	False	True
c) False	False	True

b) True	True	False
d) False	True	False

68. Immunoglobulins are made up of  
 a) Two polypeptide chains  
 b) Four polypeptide chains  
 c) Three amino acids only  
 d) Five nucleotides
69. AIDS is not diagnosed by  
 a) Enzyme Linked Immuno Sorbant Assay test  
 b) WIDAL test  
 c) RIA  
 d) Both (b) and (c)
70. The protein  $\alpha - 1$  antitrypsin is used to treat which of the following disease?  
 a) Cancer  
 b) Rheumatoid arthritis  
 c) Alzheimer's disease  
 d) Emphysema
71. The immune system is made of  
 a) Humoral system  
 b) Humoral and cell mediated system  
 c) Humoral and fibrous system  
 d) Antigen induced antibodies
72. An autoimmune disease is  
 a) AIDS  
 b) Haemophilia  
 c) Allergy  
 d) Myasthenia gravis
73. AIDS is the condition where  
 a) The patients immune system is completely destroyed  
 b) The patient succumbs to various infect, has wasting and develops symptoms such as fever, diarrhoea and weight loss  
 c) Both (a) and (b)  
 d) Virus multiply in T-cytotoxic cells
74. Which of the following is correct for immuno-modulators?  
 a) They always suppress immune system  
 b) They never suppress immune system  
 c) They always stimulate immune system  
 d) Specific immuno-modulators stimulate the immuno-response of immune system, whereas some other immuno-modulators inhibit it
75. The disease filarial is transmitted by  
 a) Tse-tse fly  
 b) Sand fly  
 c) *Culex*  
 d) *Anopheles*
76. The immune system plays a major role in  
 a) Allergic reactions  
 b) Auto-immune diseases  
 c) Organ transplantation  
 d) All of these
77. What is HLA?  
 a) Group of proteins  
 b) Group of chromosomes  
 c) Group of genes  
 d) Group of polypeptides

78. *Aloe vera* cures cough and cold by
- Leaf juice with opium
  - Leaf juice mixed with oil
  - Juice of roasted leaves taken with honey
  - Salad of leaves
79. Active immunity may be produced by
- Contacting a disease
  - Readymade antibodies
  - Both (a) and (b)
  - Receiving gamma globulin infection
80. If the person shows the production of interferons in his body, chances are that he is suffering from
- Anthrax
  - Malaria
  - Measles
  - Tetanus
81. Which of these is based on magnetic resonance?
- EEG
  - CT scanning
  - NMR scanning
  - PET scanning
82. With regard to the transmission of the Human Immunodeficiency Virus (HIV), Which one of the following statements is not correct?
- The chances of transmission from female to male are twice as likely as from male to female
  - The chances of transmission are more if a person suffers from other sexually transmitted infections
  - An infected mother can transmit the infection to her baby during pregnancy at child birth and by breast feeding
  - The risk of contracting infection from transfusion of infected blood is much higher than an exposure to contaminate needle
83. Amniocentesis is used for determining
- Heart disease
  - brain disease
  - Hereditary disease of the embryo
  - All of the above
84. In the given flow chart, the replication of retrovirus in a host cell is shown. Observe it carefully and fill up the blank A, B and C
- ```

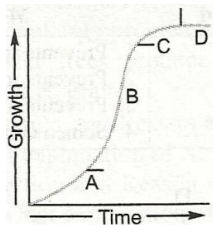
graph TD
    A["(A)  
Virus infects normal cell"] --> B["Viral RNA is introduced  
in host cell"]
    B --> C["B"]
    C --> D["Viral RNA incorporates  
in host genome"]
    D --> E["C"]
    E --> F["New viruses are produced"]
  
```
- A-Retrovirus, B-Viral DNA is produced, C-New viral RNA is produced
  - A-Transcriptase, B-Bacterial RNA is produced, C-New viral DNA is produced by the infected cell
  - A-Reverse transcriptase, B-Viral DNA is produced, C-New viral RNA is produced by the infected cell
  - A-Reverse transcriptase, B-Viral DNA is produced, C-New viral DNA is produced by the infected cell
85. Most important component of oral contraceptive is
- LH
  - GH
  - Thyroxine
  - progesterone
86. Which of the following normally confined to their original location and do not spread to other parts of the body?
- Malignant tumour
  - Metastasis
  - Benign tumour
  - cancer
87. Protein deficiency leads to

- a) Kwashiorkor                      b) Marasmus                      c) Cretinism                      d) Both (a) and (b)
88. In AIDS, the system which show failure is  
a) Digestive system                      b) Respiratory system                      c) Defence system                      d) Sensory system
89. Cannabinoid are the group of chemicals, which interact with cannabinoid receptors present principally in  
a) Brain                      b) Neuron                      c) Nephron                      d) Dendron
90. Histamines or other, inflammation producing substances are formed by  
a) Macrophages                      b) Interferons                      c) Mast cells                      d) Collagen tissue
91. Which group of three of the following five statements (I-V) contains is correct regarding beri beri?  
I. A crippling disease prevalent among the native population of sub-Sahara Africa.  
II. A deficiency disease caused by lack of thiamine (vitamin-B<sub>1</sub>).  
III. A nutritional disorder in infants and young children when the diet is persistantly deficient in essential protein.  
IV. Occurs in those countries where the staple diet is polished rice.  
V. The symptoms are pain from neuritis, paralysis, muscle wasting, progressive oedema, mental deterioration and finally heart failure.  
a) I, II and IV                      b) II, III and V                      c) I,III and V                      d) II, IV and V
92. Which of the following diseases is caused due to allergic reaction?  
a) Leprosy                      b) Typhoid                      c) Asthma                      d) Tetanus
93. Which of the following is a pair of viral diseases?  
a) Ringworm, AIDS                      b) Common cold, AIDS  
c) Dysentery, common cold                      d) Typhoid, tuberculosis
94. 'Lock jaw' is another name of  
a) Malaria                      b) Kala-azar                      c) Tetanus                      d) Diphtheria
95. Choose the wrong statement regarding AIDS.  
a) AIDS is an immunodeficiency disease  
b) It is caused by the retrovirus HIV  
c) HIV selectively infects and kills B-lymphocytes  
d) Retroviruses have RNA genomes that replicate *via* DNA intermediate
96. Osteomalacia is a deficiency disease of  
a) Infants due to protein energy malnutrition                      b) adults due to protein energy malnutrition  
c) Adults due to vitamin-D deficiency                      d) Infants due to vitamin-K deficiency
97. Study the following sentences.  
I. The cells of malignant tumours divide erratically.  
II. They are malignant tumours of epithelial cells.  
III. They are malignant tumours of organs that originate from mesoderm.  
IV. These tumours are found in organs such as spleen and lymph nodes.  
Which of the above are true for angiosarcoma?  
a) I and II                      b) II and IV                      c) I and III                      d) II and III
98. Spleen is a storage site for  
a) Erythrocytes                      b) Basophils                      c) Platelets                      d) Neutrophils
99. Tobacco contains  
a) Nicotine                      b) Amphetamines                      c) Carbon monoxide                      d) Both (a) and (c)
100. The best HLA(Human Leucocyte Antigen) match for transplants in order of preference is  
a) Parent>sibling>twin>unrelated donor                      b) Sibling> twin> Parent> unrelated donor  
c) twin> unrelated donor> parent> sibling                      d) Twin> sibling> Parent> unrelated donor



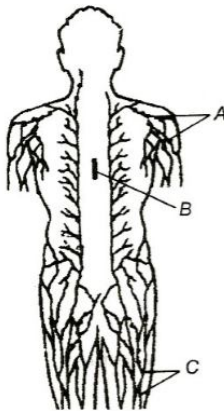
## IMPORTANT PRACTICE QUESTION SERIES FOR NEET EXAM - 2

1. Regarding lymphocytes consider the following statement  
 I. The T-lymphocytes form Cell Mediated Immune System (CMIS)  
 II. The T-lymphocytes cells do not secrete antibodies but help the B-lymphocyte cell to produce them  
 Which of the statement given above is/are correct?  
 a) Only I                      b) Only II                      c) I and II                      d) None of these
2. HIV was reported in 1981 and isolated by  
 a) Pasteur                      b) Mantagier                      c) Robert Hook                      d) Hansen
3. In the sigmoid curve of growth, the alphabets indicate the sequence of events. Choose the correct option where the alphabet specifies the event.



- a) A-Phase of slow growth  
 B- Phase of exponential growth  
 C- Phase of diminishing growth  
 D-Stationary phase
- b) A- Phase of rapid growth  
 B- Phase of diminishing growth  
 C- Stationary phase  
 D- Phase of slow growth
- c) A- Diminishing growth

- B- exponential growth
- C- Slow growth
- D- Stationary phase
- d) A- Stationary phase
  - B- Phase of slow growth
  - C- Phase of rapid growth
  - D- Phase of diminishing growth
- 4. *Ascaris* is also known as
  - a) Roundworm
  - b) Flatworm
  - c) Tapeworm
  - d) Liverworm
- 5. Which of the following helps in differentiation of cells of the immune system
  - a) Thymosin
  - b) Thyroxine
  - c) Cortisol
  - d) Steroid
- 6. Common symptoms of typhoid are
  - a) High fever and weakness
  - b) Stomach pain and constipation
  - c) Headache and loss of appetite
  - d) All of the above
- 7. The immune system may at times reject certain tissues of a person's own body as 'non-self'. This breakdown of the body's self-recognition system is called ...A... The auto-immune reactions cause a variety of diseases known as ....B... ..C... is an autoimmune disease. The most appropriate option providing A, B and C correctly is
  - a) A-autoimmunity, B-autoimmune disease, C-rheumatoid arthritis
  - b) A-immunodeficiency, B-immunodeficiency disease, C-AIDS
  - c) A-severe combined immunodeficiency, B-congenital disease, C-Addison's disease
  - d) A-autoimmunity, B-secondary immunodeficiency disease, C-diabetes
- 8. The word NACO stands for
  - a) National AIDS Control Organisation
  - b) Non-Governmental AIDS Control Organisation
  - c) National Agrochemical Organisation
  - d) Both (b) and (c)
- 9. Ringworm is caused by
  - a) Bacteria
  - b) Virus
  - c) Protozoa
  - d) Fungi
- 10. Given below the diagrammatic representation of lymph nodes



Label A, B and C

- a) A-Lymph nodes, B-Thymus, C-Lymphatic vessels
  - b) A-Lymphatic vessels, B-Thyroid, C-Lymph nodes
  - c) A-Tonsils, B-Peyer's patches, C-Lymphatic vessels
  - d) A-Tonsils, B-Thymus, C-Peyer's patches
11. The function of IgE is
- a) Mediate in allergic response
  - b) Activation of B-cells

- c) Protection from inhaled and ingested pathogens
  - d) Stimulation of complement system, passive immunity of foetus
12. The primary and secondary immune responses are carried out with the help of
    - a) Immunoglobulins      b) T-lymphocytes      c) both (a) and (b)      d) Lysozymes
  13. Opium is extracted from
    - a) *Atropa belladonna*      b) *Papaver somniferum*      c) *Vinca rosea*      d) *Azadirachta indica*
  14. Which of the following causes prostate cancer?
    - a) Chromium      b) Cadmium oxide      c) Vinyl chloride      d) Aflatoxins
  15. *Salmonella* is related with
    - a) Typhoid      b) Polio      c) TB      d) Tetanus
  16. Diphtheria is caused by
    - a) Poisons released by living bacterial cells into the host tissues
    - b) Poisons released from dead bacterial cells into the host tissues
    - c) Poisons released by virus into host tissues
    - d) Excessive immune response by the host's body
  17. HIV can not be transmitted through the following options except by
    - a) Hugging      b) Sharing foods
    - c) Using public toilet      d) Sharing razor blades
  18. Small proteins produced by vertebrate cells naturally in response to viral infections and which inhibit multiplication of viruses are called
    - a) Immunoglobulins      b) Interferons      c) Antitoxins      d) Lipoproteins
  19. In the metropolitan cities of India, many children are suffering from allergy or asthma. What are the main causes of this problem?
    - I. Due to sensitivity to the environment
    - II. Because of the protected environment provided early in life
    - III. Modern-day life style
    - a) I and II      b) I and III      c) II and III      d) I, II and III
  20. Which one of the following is the correct statement regarding the particular psychotropic drug specified?
    - a) Hashish causes alter through perception and hallucinations
    - b) Opium stimulates nervous system and causes hallucinations
    - c) Morphine leads to delusions and disturbed emotions
    - d) Barbiturates cause relaxation and temporary euphoria
  21. When the infection occurs in the alveoli (microscopic air sacs in the lungs) they fill the fluid. When the alveoli don't work efficiency, the lungs are less able to extract oxygen from the air. This causes the feeling of being short of breath, which is one of the most common symptoms of pneumonia  
The above paragraph is
    - a) True
    - b) False
    - c) Sometimes (a) and sometimes (b)
    - d) Neither (a) nor (b)
  22. To confirm ELISA for AIDS, we used
    - a) Western blotting      b) Northern blotting      c) Southern blotting      d) Eastern blotting
  23. Which is not cancer?
    - a) Leukaemia      b) Trachoma      c) Carcinoma      d) Sarcoma
  24. DTP vaccine is given for
    - a) Tetanus, polio, plague      b) Diphtheria, whooping cough and leprosy

- c) Diphtheria, pneumonia, tetanus                      d) Diphtheria, whooping cough, tetanus
25. Sickle cell anaemia has not been eliminated from the African population because  
 a) It is controlled by recessive genes                      b) It is not a fatal disease  
 c) It provides immunity against malaria                      d) It is controlled by dominant genes
26. Thymus is the site for the development and maturation of  
 a) T-lymphocyte                      b) B-lymphocyte                      c) Both (a) and (b)                      d) Antibodies
27. A person is injected with globulin against hepatitis. This is  
 a) Artificially acquired passive immunity                      b) Artificially acquired active immunity  
 c) Naturally acquired active immunity                      d) Naturally acquired passive immunity
28. An alkaloid called 'Reserpine' is extracted from  
 a) Leaves of ashwagandha                      b) Roots of sarpagandha  
 c) Leaves of sarpagandha                      d) Roots of ashwagandha
29. Human immunodeficiency virus causes  
 a) Acquired immuno deficiency syndrome                      b) Anthrax  
 c) Tuberculosis                      d) Polio
30. In heavy smokers, the alveoli of the lungs are enlarged and damaged, which reduces the surface area for the exchange of respiratory gases. The condition is called  
 a) Asthma                      b) Silicosis                      c) Emphysema                      d) Insomnia
31. *Entamoeba histolytica* feeds on  
 a) Liver                      b) Small intestine                      c) Large intestine                      d) WBCs
32. Identify the wrongly matched pair.  
 a) Typhoid - Widal test  
 b) Plague - Viral disease  
 c) Malignant malaria - *Plasmodium falciparum*  
 d) Common cold - Rhinovirus
33. At which stage of HIV infection does one usually show symptoms of AIDS?  
 a) When viral DNA is produced by reverse transcriptase  
 b) When HIV replicates rapidly in helper T-lymphocytes and damages large number of these  
 c) With 15 days of sexual contact with an infected person  
 d) When the infecting retrovirus enters host cells
34. Consider the following statements  
 I. Dead cells of the skin prevent pathogen entry  
 II. Skin secretes oil that makes skin surface acidic  
 III. Skin secretes sweat that makes surface acidic  
 Which of the statements given above are correct?  
 a) I and II                      b) I and III                      c) II and III                      d) I, II and III
35. Symptoms of allergic reaction include  
 a) Watery eyes                      b) Running nose  
 c) Respiratory complaints                      d) All of these
36. A person has developed interferon in his body. He seems to carry an infection of  
 a) Typhoid                      b) Filariasis                      c) Malaria                      d) Measles
37. Spread of AIDS is due to  
 a) Infected needles and syringes                      b) Sexual contact with infected person  
 c) Both (a) and (b)                      d) Sharing public toilet
38. Human population growth is  
 a) Lag                      b) Stationary                      c) Exponential                      d) None of these
39. Malarial parasite is introduced into the blood of man as a  
 a) Metacystozoite                      b) Schizont                      c) Oocyte                      d) Sporozoite
40. Expanded form of ELISA is

- a) Enzyme Linked Immuno Sorbent Assay      b) Enzyme Linked Ion Sorbent Assay  
 c) Enzyme Linked Inductive Assay      d) None of the above
41. Elephantiasis causing organism belong to  
 a) Aschelminthes      b) Platyhelminthes      c) Cnidaria      d) Porifera
42. Vaccination provides  
 a) Natural immunity      b) Passive immunity      c) Both (a) and (b)      d) Active immunity
43. Which of the following is not hallucinogen?  
 a) Heroin      b) LSD      c) Marijuana      d) Charas
44. Which one of the following acts as a physiological barrier to the entry of microorganisms in human body?  
 a) Tears      b) Monocytes  
 c) Skin      d) Epithelium of urogenital tract
45. The truck drivers usually take  
 a) Amphetamines      b) LSD      c) Caffeine      d) morphine
46. Short lived immunity acquired from mother to foetus across placenta or through mother's milk to the infant is categorized as  
 a) Active immunity      b) Passive immunity  
 c) Cellular immunity      d) Innate or non-specific immunity
47. Cancer cells are more easily damaged by radiation than normal cells because they are  
 a) Starved of mutation      b) Undergoing rapid division  
 c) Different in structure      d) Non-dividing
48. Cattle fed with spoilt hay to sweet clover, which contains dicumarol  
 a) are healthier due to good diet  
 b) Catch infections easily  
 c) May suffer with vitamin-K deficiency and prolonged bleeding  
 d) May suffer from beri-beri due to deficiency of vitamin-B
49. Which of the following are the reasons for rheumatoid arthritis? Choose the correct option  
 I. Lymphocytes become more active  
 II. Body attacks self cells  
 III. More antibodies are produced in the body  
 IV. The ability to differentiate pathogens or foreign molecules from self cells to lost  
 a) I and II      b) II and IV      c) III and IV      d) I and III
50. In which of the following disorders, person will become hypersensitive about ones look?  
 a) Hypochondria      b) Anxiety      c) Mood      d) Phobia

### IMPORTANT PRACTICE QUESTION SERIES FOR NEET EXAM - 1 (ANSWERS)

|     |   |     |   |     |   |      |   |
|-----|---|-----|---|-----|---|------|---|
| 1)  | c | 2)  | c | 3)  | a | 4)   | b |
| 5)  | a | 6)  | c | 7)  | c | 8)   | c |
| 9)  | d | 10) | c | 11) | a | 12)  | b |
| 13) | a | 14) | a | 15) | a | 16)  | a |
| 17) | c | 18) | c | 19) | c | 20)  | a |
| 21) | d | 22) | a | 23) | c | 24)  | d |
| 25) | b | 26) | a | 27) | b | 28)  | b |
| 29) | c | 30) | b | 31) | d | 32)  | a |
| 33) | a | 34) | c | 35) | a | 36)  | a |
| 37) | a | 38) | b | 39) | a | 40)  | d |
| 41) | b | 42) | d | 43) | d | 44)  | c |
| 45) | d | 46) | d | 47) | a | 48)  | a |
| 49) | d | 50) | d | 51) | a | 52)  | c |
| 53) | a | 54) | d | 55) | c | 56)  | b |
| 57) | a | 58) | a | 59) | a | 60)  | b |
| 61) | b | 62) | d | 63) | b | 64)  | a |
| 65) | b | 66) | b | 67) | a | 68)  | b |
| 69) | d | 70) | d | 71) | b | 72)  | d |
| 73) | c | 74) | d | 75) | c | 76)  | d |
| 77) | a | 78) | c | 79) | a | 80)  | c |
| 81) | c | 82) | a | 83) | c | 84)  | c |
| 85) | d | 86) | c | 87) | d | 88)  | c |
| 89) | a | 90) | c | 91) | d | 92)  | c |
| 93) | b | 94) | c | 95) | c | 96)  | c |
| 97) | c | 98) | a | 99) | a | 100) | d |

1 (c)

Ground water contaminated with arsenic cause black-foot disease. Black foot disease is a severe form of peripheral vascular diseases in which the blood vessels in the lower limbs are severely damaged, resulting eventually in progressive gangrene

2 (c)

Drugs like barbiturates, amphetamines, benzodiazepines, Lysergic Acid Diethylamides (LSD), and other similar drugs, that are normally used as medicines to help patient cope with mental illnesses like depression and insomnia, are often abused. Several plants, fruits and seeds having hallucinogenic properties have been used for hundreds of years in folk-medicine, religious ceremonies and rituals all over the globe

3 (a)

Nicotine.

Tobacco contains large number of chemical substances including nicotine, an alkaloid. Nicotine stimulates adrenal gland to release adrenaline and nor-adrenaline into blood circulation, both of which raise blood pressure and increases the heart rate

4 (b)

Alcoholism is a chronic often progressive disease in which a person craves alcohol and drinks despite repeated alcohol related problems. It involved a physical dependence on alcohol. It may lead to liver cirrhosis. Cirrhosis is build up of scar tissue that changes the structure of the liver and blocks blood flow. Cirrhosis can varicose veins, which can reapture and potentially triggering internal bleeding.

5 (a)

Disease like whooping cough (pertussis), diphtheria and tetanus (lock jaw) can be prevented by immunizing all infants with triple vaccine-DTP (*i.e., diphtheria, pertussis, tetanus vaccine*). Typhoid, caused by bacterium *Salmonella typhi*, cannot be cure with triple vaccine but typhoid did vaccine is available.

6 (c)

SCID (**Severe Combined Immunodeficiency Disease**) is a congenital disease in which bone marrow stem cells are absent. Immunodeficiency affects both B and T-lymphocytes. It is caused by defective gene coding for the enzyme **adenosine deaminase**.

7 (c)

The flower tops, leaves and the resin of cannabis plant are used in various combination to produce marijuana, hashish, charas and ganja. Generally taken by inhalation and oral ingestion these are known for their effects on cardiovascular system of the body

8 (c)

Rat carries rat fleas, which causes bubonic plague and bite of rat causes rat fever.

9 (d)

This parasite can infect food and water so safety is of paramount importance. There are a few measures you can put in place to reduce the risk of amoebiasis, *which includes*

(i) Boiling untreated water especially when travelling or comping

(ii) Washing fruit and vegetables before eating them

(iii) Washing your hands, utensils and kitchen worktops before and after food preparation

(iv) Ensuring that all food is cooked at the correct temperature

(v) Washing your hands everytime you visit the toilet or after you have been in contact with an infected animal

(vi) Ensuring that any cooked food is covered when left out to cool down

10 (c)

Morphine is a very effective sedative and painkiller and is very useful in patients who have undergone surgery

11 (a)

Hydrogen sulphide is released into the atmosphere from industries and causes irritation of respiratory passage, paralysis and asphyxia in man.

12 (b)

Vaccines are made from microbes that are dead or inactive so that they are unable to cause the disease. The antigen in the vaccine is the same as the antigen on the surface of the

disease-causing microbe. The vaccine stimulates the body to produce antibodies against the vaccine

13 (a)

In alcoholic person, some part of alcohol is changed into acetaldehyde, which stimulates the formation of fat. This fat is deposited over the wall of arteries and also accumulates in liver cells. Due to which liver gets failed and there is very little regulation of carbohydrate, protein and fat metabolism. This disorder is known as fatty liver syndrome. Latter on, the liver gets turned into solid, hard, fibrous organ causing liver cirrhosis.

14 (a)

AIDS is a viral infection. HIV (Human Immunodeficiency Virus), the virus that causes AIDS, was first discovered in 1981 in a remote area of central Africa

15 (a)

Each antibody molecule has four peptide chains, two small called light chains and two long called heavy chains. Hence, an antibody is represented as  $H_2L_2$

16 (a)

A-*Opium poppy*, B-*Cannabis sativa*, C-*Datura*

17 (c)

Opium is the dried latex obtained from unripe capsules of *Papaver somniferum* (poppy). Morphine and codeine are the alkaloids formed from this dried latex and have the pain relieving property.

18 (c)

DDT (Dichloro Diphenyl Trichloroethane) is an organochlorine compound. These compounds are lipophilic and show much affinity for the fatty tissue of animals.

19 (c)

Benign tumour is a non-cancerous Tumour. It does not show metastasis and is non-invasive. It is less fatal to the body

20 (a)

*Entamoeba Histolytica* is a parasite of the human large intestine, commonly contracted by ingesting contaminated water or food

21 (d)

The substance, which produces immune response in an individual are called allergens, *e. g.*, pollen grains, animal dander, dust, feathers, drugs like penicillin, etc.

22 (a)

A-Diacetyl morphine; B-Acetylation of morphine

23 (c)

*Microsporum* is a genus of fungi that causes tinea capitis, tinea corpus, ringworm, and other dermatophytoses (fungal infections of the skin)

24 (d)

Genes that induce cellular proliferation are called proto-oncogenes. The proto- oncogenes encode for growth factors, growth factor receptors, transcription factors, etc. They change into **oncogene** or cancer genes.

26 (a)

**Malthus** calculate that though the number of organisms can increase geometrically (1, 2, 4, 8, 16,.....), their food supply increases arithmetically (1, 2, 3, 4,.....).

27 (b)

Immunosuppressants are the drugs capable of inhibiting the body's immune system, *e. g.*, cyclosporine and endosporins, which cause suppression of body's T-lymphocytes.

28 (b)



*Emphysema* is a chronic disease in which alveolar walls are damaged due to which respiratory surface is decreased. One of the major causes of this is cigarette smoking. Emphysema is included in a group of diseases called **chronic obstructive pulmonary disease (COPD)** pulmonary to lungs.

29 (c)

Tumour cells have been shown to avoid detection and destruction by immune system. Therefore the patients are given substances called biological response modifiers such as  $\alpha$ -**interferon**, which activates their immune system and helps in destroying the tumours

30 (b)

In MRI, the body's water molecules are used for the base of images.

31 (d)

At the tip of each arm of the Y-shaped molecule is an area called the antigen binding site, which is formed by a portion of the heavy and light chains. Every immunoglobulin molecule has at least two of these sites, which are identical to one another

32 (a)

True. Amoebiasis infection is typically caused by the organism *Entamoeba histolytica*, by ingesting food or water contaminated by infected faeces

33 (a)

The synthetic drugs structurally similar to adrenaline are amphetamines. These are synthetic drugs and act as strong stimulants. These are generally taken by truck drivers and night workers.

34 (c)

The B-lymphocytes produce an army of proteins in response to pathogens into our blood to fight them. These proteins are called antibodies. The T-cells themselves do not secrete antibodies but help B-cells to produce them

35 (a)

Cannabinoids can be extracted from the dried, seedless inflorescence of female *Cannabis* plants

36 (a)

An allergen is any substance (antigen), most often eaten or inhaled, that is recognized by the immune system and causes an allergic reaction

37 (a)

Immunoglobulin G (IgG) is the most abundant class of antibodies found in blood serum and lymph and active against bacteria, fungi, viruses and foreign particles. The basic structure of all Ig is same, i.e., made up of light and heavy polypeptide chains, still they behave differently in similar physiological system. IgG possesses four polypeptide chains linked by disulphide bonds.

38 (b)

*Leishmania donovani* is an intracellular parasite in leucocytes or cells of liver, spleen, bone marrow, lymphatic glands, etc. It causes a serious oriental disease known as 'Kala-azar' accompanied by swellings, fever, enlargement of liver and spleen, the skin colour turning black.

39 (a)

Cell-mediated immune response is mediated by T-lymphocytes. It is responsible for graft rejection in organs transplant because of its ability to differentiate between 'self' and 'non-self'

40 (d)

**Epilepsy** is second common neurological disorder. A number of tests to confirm the diagnosis of epilepsy are electroencephalography, brain imaging like CT-scan, MRI, PET and blood tests.

- 41 (b)  
Oriental sores or skin boils or Delhi boils is a skin disease caused by a protozoan *Leishmania orientalis* (or *L. tropica*). It is spread by sand fly.
- 42 (d)  
A graphic record of spread of the cardiac impulse through the heart is called electrocardiogram. The machine by which the electrocardiogram is recorded is known as **cardiograph Willen Einthoven** (1903) is considered 'Father of Electrocardiography'.
- 43 (d)  
Physical barriers: skin on our body is the main barrier, which prevents entry of the microorganisms. Mucous coating of the epithelium lining in the respiratory, gastrointestinal and urogenital tracts also helps in trapping the microbes entering our body.
- 44 (c)  
Powder cocaine (also called coke) and crack are all powerful stimulants, with short-lived effects. They temporarily speed up the way your mind and body work, but the effects are short-lived
- 45 (d)  
Immunity is the state of living beings having sufficient biological defences to avoid infections, diseases or other unwanted biological invasion
- 46 (d)  
In ECG, **P-wave** indicates impulse of contraction generated by SA-node and it spreads in atria causing atrial depolarisation. **T-wave** is the most constant and conspicuous wave having the tallest amplitude. It is the first positive deflection during ventricular depolarization.  
**S-wave** is the next downward deflection constant but often inconspicuous.  
**T-wave** is repolarization wave of ventricular relaxation.
- 47 (a)  
Thymus is the "seedbed" of thymic lymphocytes (T-lymphocytes). Some stem cells in the bone marrow give rise to immature lymphocytes. These lymphocytes migrate *via* the blood to the thymus, where they mature as T-lymphocytes, and produce cell-mediated immunity. Thus, damage to thymus in a child may lead to loss of cell-mediated immunity.
- 48 (a)  
**Tubectomy** is the method of female sterilization, which involves cutting and tying (tubal ligation) of fallopian tubes. It prevents fertilization.
- 49 (d)  
**Antibodies** are the proteins (**glycoproteins**) called immunoglobulins. These are produced by the lymphocytes in response to entry of a foreign substance or antigen into the body.
- 50 (d)  
T-lymphocytes are involved in cell mediated immunity. T-cells largely recognize proteins that have been processed within antigen presenting cells and presented on the cell surface in a form that is bound to a molecule known as **Major Histocompatibility Complex (MHC)**.
- 51 (a)  
Cancer cells do not respond to control mechanisms and do not show contact inhibition (differing surface proteins.). These cells proliferate in an unregulated manner and from clones of cells which can expand irregularly.
- 52 (c)  
Heroin is a white or brown powder, odourless, bitter, crystalline compound. It can be mixed with water and injected with a needle. Heroin can also be smoked or snorted up the nose
- 53 (a)

**Stimulants** are also known as mood elevators. They increase nerve activity in the brain by initiating the release of noradrenaline, *e.g.*, amphetamines, caffeine, cocaine, etc.

54

(d)

The drugs, which are commonly abused are opioids, cannabinoids and coca alkaloids LSD. Majority of these are obtained from flowering plants. Some are obtained from fungi

55

(c)

The primary lymphoid organs are bone marrow and thymus where immature lymphocytes differentiate into antigen-sensitive lymphocytes. After maturation the lymphocytes migrate to secondary lymphoid organs like spleen, lymph nodes, tonsils, Peyer's patches of small intestine and appendix. The secondary lymphoid organs provide the sites for interaction of lymphocytes with the antigen, which then proliferate to become effector cells

56

(b)

Hippocrates is known as the father of medicine because many of the things he discovered are still practiced today

57

(a)

Brain is not involved in the elicitation of immune response, it is a part of central nervous system.

58

(a)

Vaccine is a preparation containing dead or inactivated viruses or other microorganisms that on introduction in human body stimulate the formation of antibodies to fight against disease. First vaccine was prepared by Edward Jenner against cowpox.

59

(a)

Tuberculosis, commonly called TB is caused by a rod-shaped bacterium named *Mycobacterium tuberculosis*.

60

(b)

Amoebic dysentery is caused by an intestinal endoparasite, *Entamoeba histolytica*, found in large intestine of humans. Infection takes place through contaminated food and water

61

(b)

Leprosy is a bacterial disease, which is caused by *Mycobacterium leprae*.

62

(d)

Excessive doses of drugs may lead to coma and death due to respiratory failure, heart failure, cerebral hemorrhage, etc.

64

(a)

Hodgkins disease is a cancer of lymphoid tissue.

65

(b)

Interferons are the glycoproteins with low molecular weight that are effective against most of the viruses. These are naturally produced by virus infected cells. These proteins interact with adjacent cells and make them resistant to virus attack. Now-a-days, interferons are also being manufactured through genetic engineering and are used in many antiviral drugs.

66

(b)

Species of *Lactobacillus streptococcus*, *Micrococcus* and *Proteus* are responsible for spoilage of milk products. The exotoxins produced by these bacteria causes food poisoning.

67

(a)

Acquired immunity is not present from the birth and develops during the individual's lifetime. It is pathogen specific

68

(b)

Immunoglobulins are present in serum and provide immunity to body against diseases.

Each immunoglobulin is made up of four polypeptide chains-two heavy weight chains and two light weight chains. These chains are joined to each other by disulphide bonds.

69

(d)

- AIDS is diagnosed by ELISA test – Enzyme – Linked Immuno Sorbant Assay test
- 70 (d)  
Transgenic animals that produce useful biological products can be created by the introduction of the portion of DNA (or genes) which codes for a particular product such as human protein,  $\alpha - 1$  – antitrypsin. The protein is used to treat emphysema.
- 71 (b)  
Acquired immunity is specialized immunity that forms antibodies and activated lymphocytes that attacks and destroys the specific organism. These are of two type, *i.e.*, humoral immunity and cell mediated immunity. Humoral system involves antibodies and cell mediated system involves T-cells.
- 72 (d)  
Myasthenia gravis is an autoimmune disease characterized by the chronic fatigability and weakness of muscles, espeically in the face and throat, as result of defect in the conduction of nerve impulses at the myoneural junction.
- 73 (c)  
In AIDS, HIV (Human Immunodeficiency Virus) attacks the cells of the immune system. The immune system weakens no that the body cannot defined against various bacteria, viruses and other germs
- 74 (d)  
Immuno-modulators are natural or synthetic substances that help to regulate or normalize the immune system. There are two types of immuno-modulators *viz*, immuno-suppressants, which cause immuno-suppression of the immune system and immuno-stimulants (immuno-stimulators) which stimulate immune system by including or increasing activity of any of its components.
- 75 (c)  
The disease filaria (elephantiasis) is transmitted by *Culex* mosquito (female). *Wuchereria bancrofti* causes filariasis.
- 76 (d)  
Immune system is unique in the sense that it recognizes foreign antigens, responds to these and remembers them. The immune system also plays an important role in allergic reactions, auto-immune diseases and organ transplantation
- 77 (a)  
The most important antigens for causing graft rejection are a complex called HLA Humman Leucocyte Antigen(protein). The HLI occur on the white blood cells as well as on the tissue cells.
- 78 (c)  
The juice of roasted leaves of *Aloe vera* taken with honey is good to cure cough and cold.
- 79 (a)  
When a host is exposed to antigens which may be in form of living or proteins, antibodies are produced in the host body. This type of immunity is called active immunity
- 80 (c)  
Measles is a viral disease caused by rubeola virus. Intereferons are proteins that increase the resistance of a cell to attack by viruses by unmasking genes that synthesize antiviral proteins. Thus, person suffering from measles shows the production of interferons in his body.
- 81 (c)  
NMR scanning is based on magnetic resonance.
- 82 (a)  
Human Immunodeficiency Virus (HIV) has three transmission.  
(i) Through sexual intercourse (65%).

(ii) Transmission through blood transfusion, blood products and contaminated equipments (10%).

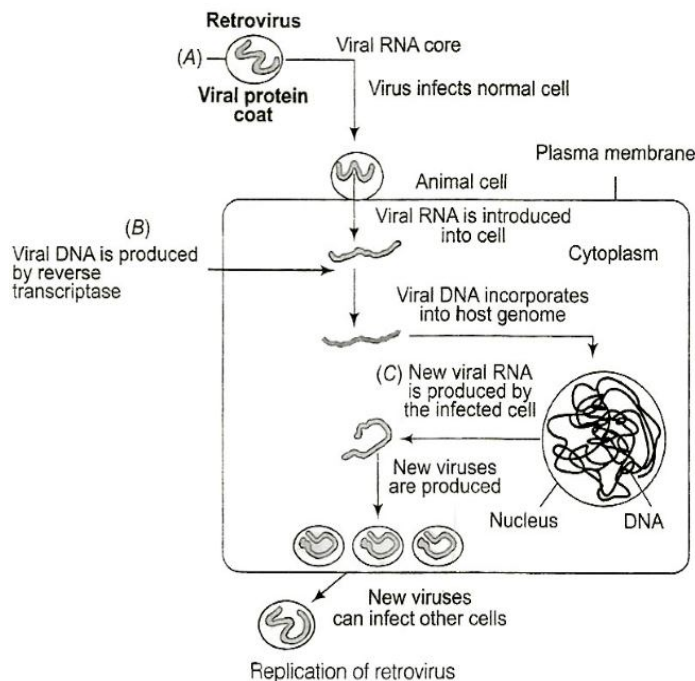
(iii) Transmission from mother to baby (25%).

83 (c)

Amniocentesis is one way to obtain foetal cells for testing of chromosomal abnormalities and genetic disorders. It is the process to determine any hereditary diseases in the embryo.

84 (c)

A-Reverse transcriptase, B-Viral DNA is produced, C-New viral RNA is produced by the infected cell



85 (d)

Oral contraceptives or contraceptive pills are taken to control fertility. Each pill contains a mixture of oestrogen and progesterone or only the pure synthetic progesterone which prevent ovulation.

86 (c)

Benign tumour is a tumour that lacks all three of the malignant properties of cancer. A benign tumour does not grow in an unlimited, aggressive manner, does not invade surrounding tissues and does not metastasize.

87 (d)

Protein deficiency causes both Kwashiorkor and marasmus. **Kwashiorkor** is characterized by wasted muscles, thin limbs, retarded growth of body and brain, oedema, pot belly and diarrhea.

**Marasmus** is characterized by impaired growth and replacement of tissue proteins, thin limbs and prominent ribs, dry, wrinkled and thin skin and diarrhea.

88 (c)

An HIV infection damages the immune system, *i.e.*, your body's defense system that fight against diseases and infections

89 (a)

Cannabinoid are a group of chemicals, which interact with cannabinoid receptors present principally in the brain

90 (c)

Mast cells play a critical role in allergy and inflammation. Allergy is due to the release of

- chemicals like histamine and serotonin from the mast cells
- 91 **(d)**  
Statements II, IV and V are correct regarding beri-beri disease.
- 92 **(c)**  
Most common allergen for asthma is house dust, pollen grains, smoke, etc. Asthma is characterized by narrowing and inflammation of bronchi, bronchospasm and difficulty in breathing.
- 93 **(b)**  
Common cold and AIDS are viral diseases, occur due to Myxo virus and Human Immunodeficiency virus (HIV) respectively.
- The causative agents of ringworm disease are fungi *Trichophyton* and *Microsporum*. Typhoid and tuberculosis are bacterial diseases caused by *Salmonella typhi* and *Mycobacterium tuberculosis* respectively.
- 94 **(c)**  
Tetanus is also known as 'lock jaw' disease. It is caused by the bacteria *Clostridium tetani*.
- 95 **(c)**  
AIDS (Acquired Immuno Deficiency Syndrome) is caused by HIV (Human Immunodeficiency Virus). This virus selectively infects and kills the helper T-lymphocytes. Hence, the disease is characterized by reduction in the number of helper T-lymphocytes and breakdown of the immune system of the body.
- 96 **(c)**  
Deficiency of vitamin-D causes weak bones, bone deformities, rickets in children and osteomalacia in adults. Marasmus is caused due to protein energy malnutrition.
- 97 **(c)**  
Tumour that spreads and eventually caused ill health and death are described as malignant results from a breakdown of the regulatory mechanisms that govern normal cell behaviour. Sarcoma is a cancer of primitive mesoderm tissue and involves malignant tumours the cells of which divide erratically.
- 98 **(a)**  
Spleen is a large reservoir of erythrocytes. The spleen is a large bean-shaped organ. It mainly contains lymphocytes and phagocytes
- 99 **(a)**  
*Tobacco contains a large number of chemical substances including nicotine, an alkaloid*  
Tobacco contains large number of chemical substances including nicotine, an alkaloid. Nicotine stimulates adrenal gland to release adrenaline and nor-adrenaline into blood circulation, both of which raise blood pressure and increases the heart rate
- 100 **(d)**  
The best HLA match for transplants in order of preference is as follows:  
Identical twins>sibling(brother and sister)>parent>unrelated donor

## IMPORTANT PRACTICE QUESTION SERIES FOR NEET EXAM - 2 (ANSWERS)

|     |   |     |   |     |   |     |   |
|-----|---|-----|---|-----|---|-----|---|
| 1)  | c | 2)  | b | 3)  | b | 4)  | a |
| 5)  | a | 6)  | d | 7)  | a | 8)  | a |
| 9)  | d | 10) | a | 11) | a | 12) | c |
| 13) | b | 14) | b | 15) | a | 16) | a |
| 17) | d | 18) | b | 19) | d | 20) | a |
| 21) | a | 22) | a | 23) | b | 24) | d |
| 25) | c | 26) | a | 27) | a | 28) | b |
| 29) | a | 30) | c | 31) | c | 32) | b |
| 33) | b | 34) | d | 35) | d | 36) | a |
| 37) | a | 38) | c | 39) | d | 40) | a |
| 41) | a | 42) | d | 43) | a | 44) | a |
| 45) | a | 46) | b | 47) | b | 48) | c |
| 49) | b | 50) | a |     |   |     |   |

1 (c)

The T-lymphocytes mediate Cell Mediated Immune System (CMI). The B-lymphocytes produce an army of proteins in response to pathogens into our blood to fight with them. These proteins are called antibodies. The T-cells themselves do not secrete antibodies but help B-cells produce them

2 (b)

HIV was first isolated by Montagnier *et. al* in the Pasteur Institute of Paris

3 (b)

Many investigators have plotted size or weight of an organism against time producing a growth curve (a simple S-shaped curve). It shows the first lag phase or phase of slow growth, second phase of exponential growth, third phase of diminishing growth and last stationary phase.

4 (a)

*Ascaris* is a genus of parasitic nematode worms known as the 'small intestine roundworms'

5 (a)

The thymus gland secretes thymosin hormone, which stimulates the development of certain kinds of white blood cells involved in producing immunity.

6 (d)

Sustained high fever, weakness, stomach pain, constipation, headache and loss of appetite are some of the common symptoms of typhoid. It is confirmed by Widal test

7 (a)

A-Auto-immunity, B-Auto-immune disease, C-Rheumatoid arthritis

8 (a)

NACO stands for National AIDS Control Organization. It was established in 1991

9 (d)

Ringworm is a skin infection caused by a fungus species of *Microsporum*, *Epidermophyton* or *Trichophyton*

- 11 (a)  
IgE plays a major role in allergic reactions by sensitizing cells to certain antigens.
- 12 (c)  
The primary and secondary immune responses are carried out with the help of two special types of lymphocytes present in our blood, i.e., B-lymphocytes and T-lymphocytes. The B-lymphocytes produce an army of protein in response to pathogens into our blood to fight them. These proteins are called antibodies. Antibodies are protein molecules also called immunoglobins (Ig)
- 13 (b)  
Opium is obtained from poppy plant or *Papaver somniferum* (family-Papaveraceae).
- 14 (b)  
Any agent or factor that induces cancer is called carcinogen carcinogenic factor, e.g., cadmium oxide, which induces prostate cancer. Chromium and nickel compounds induce lung cancer, while vinyl chloride and aflatoxins induce liver cancer.
- 15 (a)  
Typhoid is caused by a rod-like motile bacterium named *Salmonella typhi*.
- 16 (a)  
Toxins released from *Corynebacterium diphtheriae* causes diphtheria. Actually, bacterial cells do not contain gene for toxin production—a phage carries the gene for it. Only those lysogenised cells of *C. diphtheriae* which carry  $\beta$  –phage, can produce the toxin and cause diphtheria.
- 17 (d)  
HIV can be transmitted from an infected person to another through. Blood (including menstrual blood), infected needles and syringes, semen, sexual intercourse with infected person vaginal secretions, breast milk
- 18 (b)  
Interferons (INFs) are group of three vertebrate glycoproteins ( $\alpha$ ,  $\beta$ ,  $\gamma$ ). Out of these, two ( $\alpha$  and  $\beta$ ) are produced within virally infected cells. Interferon induces, among adjacent cells, an antiviral state by including synthesis of the enzymes, which inhibit the viral reproduction cycle.
- 19 (d)  
All of the above.  
Modern-day life style has resulted in lowering of immunity and more sensitivity to allergens. More and more children in metro cities of India suffer from allergies and asthma due to sensitivity to the environment. This could be because of the protected environment provided early in life
- 20 (a)  
Charas is the dried resinous extract from the flowering tops and leaves of *Cannabis sativa*. In some countries, it is called **hashish**. It is a hallucinogen, which alters a person's thoughts, feelings and perceptions.
- 21 (a)  
True, *Streptococcus pneumoniae* and *Haemophilus influenza* are responsible for the disease pneumonia in humans, which infects the alveoli of the lungs. As a result of the infection, the alveoli get filled with fluid leading to severe problems in respiration
- 22 (a)  
HIV is a causative agent of disease AIDS. ELISA (Enzyme Linked Immune Sorbent Assay) is used to test HIV infections. **Western blot test** is widely used confirmatory test for HIV infection.
- 23 (b)



- Trachoma** is not a cancer. It is an eye disease, due to infection of bacteria, *Chlamydia trachomatis*. There is increased redness with watery fluid secretion from eye.
- 24 (d)  
DPT vaccine is given for three bacterial diseases, i.e., diphtheria caused by *Corynebacterium diphtheriae*; pertussis or whooping cough caused by *Bordetella pertussis* and tetanus by *Clostridium tetani*.
- 25 (c)  
Sickle cell anemia (in which RBCs become sickle-shaped and stiff) is a genetic disorder that is autosomal and linked to a recessive allele. It has not been eliminated from the African population because it provides immunity against malaria. People who are heterozygous for sickle cell allele are much less susceptible for *falciparum* malaria, which is one of main cause of illness and death in them. Thus, the sickle cell allele is maintained at high levels in populations where *falciparum* malaria is common.
- 26 (a)  
Thymus provides the microenvironment for the development and maturation of T-lymphocytes
- 27 (a)  
Injection of some kind of globulins or antibodies provides artificially acquired passive immunity.
- 28 (b)  
The tuberous roots of sarpagandha (*Rauwolfia serpentina*) are medicinally useful. They contain many alkaloids of which reserpine is most important. It lowers blood pressure. Besides, it cures diarrhoea and dysentery. The roots of ashwagandha (*Withania somnifera*) are used in treatment of rheumatism, cough, ulcers, and hiccups.
- 29 (a)  
Acquired Immuno-Deficiency Syndrome (AIDS) is a disorder of Human Immuno-Deficiency Virus (HIV). This disorder damages the immune system of human body.
- 30 (c)  
Smoking causes inflammation of lung alveoli, which decreases surface area for gaseous exchange and causes emphysema.
- 31 (c)  
Large intestine.  
*Entamoeba histolytica* is a parasite of the human large intestine, commonly contracted by ingesting contaminated water or food
- 32 (b)  
Plague is a bacterial disease. It is caused by a rod-shaped, non-motile, bacillus, *Pasteurella pestis*. It is spread through the bite of infected rat flea (*Xenopsylla cheopsis*) on lower extremities.
- 33 (b)  
HIV enters into T-lymphocytes, replicates and produces progeny viruses. The progeny viruses released in the blood and damage other helper T-lymphocytes. This is repeated leading to a progressive decrease in the number of T-lymphocytes in the body of the infected person. During this period, the person suffers from bouts of fever, diarrhoea and weight loss. The person starts suffering from infections.
- 34 (d)  
The skin provides the first defense against invasion by pathogens, skin acts as a wall that keeps pathogens out of the body. Secretions of the oil and sweat glands within the dermis make the skin's surface acidic, inhibiting the growth of many pathogens. Sweat also contains the enzyme lysozyme, which attacks and digests the cell walls of many bacteria
- 35 (d)

Symptoms of allergic reactions are sneezing, water eyes, running nose, difficulty in breathing, etc.

- 36     **(a)**  
Interferons block viral reproduction in healthy cells. Measles is caused by the measles virus. Typhoid is a bacterial disease.  
Filariasis is a parasite disease (usually an infectious tropical disease) that is caused by thread-like nematodes. Malaria is caused by a protozoan (*Plasmodium* sp.) but carried by the female *Anopheles* mosquito
- 37     **(a)**  
Both (a) and (b).  
HIV can be transmitted from an infected person to another through. Blood (including menstrual blood), infected needles and syringes, semen, sexual intercourse with infected person vaginal secretions, breast milk
- 38     **(c)**  
Population growth curve is the graphic representation of population growths by plotting number of individuals at different time intervals.  
The human population growth curve is S-shaped or sigmoid. It has three phases, *i.e.*, lag phase or slow phase or zero growth phase.
- 39     **(d)**  
The infective stage of *Plasmodium*, inoculated into human blood by female *Anopheles* is a minute form called **sporozoite**. These are present in the saliva of female *Anopheles* mosquito.
- 40     **(a)**  
ELISA stands for Enzyme Linked Immuno Sorbent Assay. It is a test for detection of AIDS virus.
- 41     **(a)**  
The disease elephantiasis is caused by *Wuchereria bancrofti*, a member of phylum-Aschelminthes. It is an endoparasite of humans that lives in the lymphatic system. The disease is marked by an excessive growth of connective tissue and enormous swelling of affected parts, such as the scrotum, legs, arms and more rarely the vulva and breasts.
- 42     **(d)**  
Vaccines provide active immunity to disease
- 43     **(a)**  
Hallucinogens include LSD, marijuana, mescaline, psilocybin, bhang, ganja, hashish, charas, etc, while narcotic drugs include opium and its derivatives such as morphine, codeine, heroin, etc.
- 44     **(a)**  
Physiological barriers to the entry of microorganisms in human body are tears in eyes, saliva in the mouth and HCl in stomach. The enzyme lysozyme is found in tears and saliva and inhibits the synthesis of peptidoglycan present in the cell wall of microorganisms especially eubacteria.
- 45     **(a)**  
Amphetamines and cocaine are strong stimulants. Stimulants increase nerve activity in the brain by initiating the release of noradrenaline.
- 46     **(b)**  
Passive immunity involves either the transfer of antibodies or of WBCs from an immune to a non-immune person. It may be natural, *e.g.*, transferred from mother to child across the placenta or through mother's milk to the infant or artificial, *e.g.*, cultured antibodies, antivenoms etc.

- 47      **(b)**  
Cancer is caused by loss of control over cell's reproduction capacity. Therefore, they are more easily damaged by radiations than normal cells.
- 48      **(c)**  
When cattle are fed with spoilt hay to sweet clover, which contains dicumarol, these may suffer with vitamin-K deficiency which resulted into prolonged bleeding or even fatal haemorrhage.
- 49      **(b)**  
In rheumatoid arthritis, the immune system mistakenly attacks its own cells. The ability to differentiate pathogens or foreign molecules from self cells is lost
- 50      **(a)**  
Hypochondria is a somatoform disorder in which one has the unfounded belief that he or she is suffering from a serious illness. Anxiety is complex combination of the fleeing of fear, apprehension and worry. Mood is a characteristic feeling. Phobia is an uncontrol, irrational and fear of a specific object, situation or activity.