Health and diseases

QUESTION BANK

1. **The organisms which cause diseases in plants and animals are called:**

   a. Pathogens b. Vectors c. Insects d. Worms

2. **The sporozoites that cause infection when a female Anopheles mosquito bites a human being are formed in:**

   a. Liver of human b. RBCs of mosquito

   c. salivary glands of mosquito d. intestine of human

3. **The disease chikungunya is transmitted by:**

   a. house flies b. Aedes mosquitoes c. cockroach d. female Anopheles

4. **The genes causing cancer are:**

   a. structural genes b. expressor genes c. oncogenes d. regulatory genes

5. **In malignant tumors, the cells proliferate, grow rapidly and move to other parts of the body to form new tumors. This stage of disease is called:**

   a. metagenesis b. metastasis c. teratogenesis d. mitosis

6. **AIDS is caused by HIV. Among the following, which one is not a mode of transmission of HIV?**

   a. transfusion of contaminated blood b. sharing the infected needles

   c. shaking hands with infected person d. sexual contact with infected person

7. **'Smack' is a drug obtained from the:**

   a. latex of Papaver somniferum b. leaves of cannabis sativa

   c. flowers of dhatura d. fruits of Erythroxylum coca

8. Transplantation of tissues/organs to save certain patients often fails due to rejection of such tissues/organs by the patient. Which type of immune response is responsible for such rejections?

a. auto-immune response
b. humoral immune response
c. physiological immune response
d. cell-mediated immune response

9. Tobacco consumption is known to stimulate secretion of adrenaline and nor-adrenaline. The component causing this could be:

a. Nicotine
b. Tannic acid
c. Curaimin
d. Catechin

10. Anti venom against snake poison contains:

a. Antigens
b. Antigen-antibody complexes
c. Antibodies
d. Enzymes

11. Which of the following glands is large sized at birth but reduces in size with aging?

a. Pineal
b. Pituitary
c. Thymus
d. Thyroid

12. Haemozoin is:

a. a precursor of hemoglobin
b. a toxin from Streptococcus
c. a toxin from Plasmodium species
d. a toxin from Haemophilus species

13. One of the following is not the causal organism for ringworm

a. Microsporum
b. Trichophyton
c. Epidermophyton
d. Macrosporum

14. A person with sickle cell anemia is

a. more prone to malaria
b. more prone to typhoid
c. less prone to malaria
d. less prone to typhoid

15. The number of classes of antibodies in human being is

a) 3
b) 4
c) 5
d) 6

16. The site in the variable region of the antibody that binds to an epitope on an antigen is called

a) Antigenic determinant b) Epitope c) Both 1 and 2 d) Paratope

17. Immunity developed due to transfer of antibodies from mother to the foetus through placenta is

a) Natural acquired active immunity b) Natural acquired passive immunity

c) Artificially acquired active immunity d) Artificially acquired passive immunity

18. Incubation period of Hepatitis A is

a) 4 – 26 weeks b) 2 – 22 weeks c) 2 – 6 days d) 2 – 6 weeks

19. Toxoplasmosis of the brain and Kaposi's sarcoma are example for

a) Category – C b) Category – B c) Category – A d) Category – D

20. Each immunoglobulin consists of these polypeptides

a) One alpha chain & one beta chain b) One light chain & one heavy chain

c) Two alpha chains & two beta chains d) Two light chains & two heavy chains

21. The portion of antigen to which an antibody binds is termed as

a) Epitome b) Atopy c) Paratope d) Epitope

22. In the diagnosis of HIV infection, PCR method is useful in the detection of

a) Antibodies b) Viral enzymes c) Viral protein d) Viral RNA

23. In birds mature B cells are produced in

a) Thymus b) Bone marrow c) Liver d) Bursa of fabricius

24. Gamma interferons are produced by

a) B lymphocytes b) Macrophages c) T lymphocytes

d) Dendritic cells

25. Hepatitis virus whose incubation period is 4-26 weeks is also characterized by

a) Presence of single - stranded RNA b) Presence of double- stranded RNA

c) Presence of single- stranded DNA d) Presence of double- stranded DNA

26. Low pH of skin is maintained by

a) Lysozyme b) Interferons c) Gastric juice d) Sebum

27. In higher animals the second line of defence does not include

a) N K cells b) Antimicrobial proteins

c) Antibodies d) Phagocytes

28. Cytokines that primarily affect the growth and differentiation of various cells of immune system are secreted by the

a) Viral infected cells b) NK cells c) mast cells d) leucocytes

29. In cell mediated immune system the structures that fragment target cell DNA are released by

a) B cells b) T_H cells c) B and T_H cells d) CTLS

30. In the stages of cancer which mutation leads to progression

a) Second mutation b) third mutation c) fourth mutation d) first mutation

31. Stimulant present in Tea, Cocoa is

a) cocaine b)tannin c)caffeine d)astringent

32. Cirrhosis of liver is cased by the chronic intake of

a) Tobacco b) cocaine c) opium d) alcohol

33. Acid in the stomach, saliva in the mouth and tears from eyes are an example for

a) Cellular barriers b) Cytokine barriers c) Physiological barriers d) Physical barriers

34. Inflammation of lymph vessels caused by filarial worm is

a) Lymphoedema b) Lymphangitis

c) Lymphadenitis d) Elephantiasis

35. The number of copulatory papillae and copulatory spicules in male *Wuchereria* are respectively

a) Two, many b) Many, 1 pair c) Two pairs, many d) Many, Two pairs

36. Which of the following forms of plasmodium can invade two different types of cells in the host`s body

a) Sporozoites b) Macrometacryptozoites

c) Micrometacryptozoites d) Cryptozoites

37. The following stages of *P.vivax* are not formed in primary host

a) Sporozoites b) Gametes c) Gametocytes d) Sporoblasts

38. The proteolytic enzyme produced by *Entamoeba histolytica* is

a) haemolysin b) haemozoin c) histolysin d) heparin

39. An effect of *Plasmodium vivax* on human host is

a).Hyperplasia of RBC b).Hypertrophy of erythrocytes

c).Gigantism d).Development of neoplasia

40. Which of the following is necessary for the release of 'metacystic form'of *Entamoeba Histolytica?*

a).Acidic medium b).Trypsin c).Pepsin d).Amylase

41. Ganja and LSD are classified in

a) Stimulants b) narcotic c) depressant d) hallucinogens

42. Sleeping pills are made from

a) Barbiturates b) Amphetamines c) Cocaine d) LSD

43. Barbiturates are extensively used as

a) Antiseptics b) Disinfectants c) Sedatives d) Stimulants

44. Which part of the brain is involved in loss of control when a person drinks alcohol?

a) Cerebellum b) Cerebrum c) Thalamus d) Pons varolli

45. Antisleep pills are made of

a) Barbiturates b) benzodiazepines c) Amphetamines d) Both a and b

46. Common cold is not cured by antibiotics because it is

a) Caused by a virus b) caused by a Gram-positive bacterium

c) Caused by a Gram-negative bacterium d) not an infectious disease

47. The term 'Health' is defined in many ways. The most accurate definition of the health would be:

a. health is the state of body and mind in a balanced condition

b. health is the reflection of a smiling face

c. health is a state of complete physical, mental and social well-being

d. health is the symbol of economic prosperity.

48. Which of the following are the reason(s) 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 is lost

(a) i and ii (b) ii and iv (c) iii and iv (d) i and iii

49. Consider the following statements about secondary lymphoid organs:

I) They trap antigen and provide sites for mature lymphocytes to interact with that antigen.

II) Immunocompetent lymphocytes transformed into functional cells in secondary lymphoid organs

III) Spleen and lymph nodes are highly organized secondary lymphoid organs

IV) Mucosa associated lymphoid tissue (MALT) is the less-organized lymphoid tissue

Which of the above are true?

a) Only I, II & III b) Only II, III & IV c) Only I, II & IV d) All are true

50. The following are some forms of viral hepatitis

1) Hepatitis A 2) Hepatitis B 3) Hepatitis C 4) Hepatitis D

5) Hepatitis E

Which of the above infect by faecal – oral route?

a) 1, 4 and 5 b) 1, 3 & 4 c) 1 & 5 d) 2, 3 & 4

51. Identify the wrong statement from the following with respect to the structure of an antibody

a) F_{ab} fragment has variable region and a part of constant region

b) Constant region has F_c fragment and a part of F_{ab} fragment

c) F_c fragment has both heavy chains and light chains

d) Each F_{ab} fragment has one light chain and a part of heavy chain

52. Based on the percentage incidence of different types of cancers arrange them in an ascending order

A) Lymphoma B) Sarcoma C) Carcinoma

a) A B C b) C A B c) B A C d) C B A

53. Find the wrong statement among the following

a) Malignant tumors exhibit metastasis

b) Benign tumors are with a fibrous outer capsule

c) Sarcomas are the malignant tumors of secondary lymphoid organs

d) Carcinomas are malignant tumors of the epithelial cells

54. What does "T" stands for in DPT vaccine (AIIMS 2010)

a). Tuberculosis b). Typhoid c). Tetanus d). Trachoma

55. Reservoir host of plasmodium is

a) Man b) Antelope c) Mosquito d) Monkey

56. Which one of the following is not a property of cancerous cells where as the remaining three are?

a) They divide in an uncontrolled manner

b) They show contact inhibition

c) They complete with normal cells for vital nutrients

d) They do not remaining confined in the area of formation

57. Where will you look for the sporozoites of the malarial parasite?

a) RBCs of Humans suffering from malaria

b) Saliva of infected female anopheles mosquito

c) Saliva of Infected female culex mosquito

d) Spleen of infected humans.

58. Carcinoma refers to

a) Malignant tumors of the skin or mucous membrane

b) Benign tumors of the connective tissue

c) Malignant tumors of the colon

d) Malignant tumors of the connective tissue

59. Choose the incorrect statement from the following

a)The secondary lymphoid organs are immature lymphocytes differentiate into antigen- sensitive lymphocytes

b) After maturation the lymphocytes migrate to secondary lymphoid organs like spleen and lymph nodes

c) The bone marrow is the main lymphoid organ where all blood cells including lymphocytes are produced

d) Spleen has a large reservoir of erythrocytes

60. In the life cycle of malarial parasite, which of the following will occur in the lumen of the crop of its invertebrate host?

a) Gametogony (formation of gametocytes), sporogony and schizogony

b) Exflagellation, sporogony, schizogony

c) Gametogony (gamete formation from gametocytes), exflagellation and anisogamy

d) Flagellated body, fertilization, sporogony

61. Identify the correct sequence of the following regarding the life cycle of Plasmodium

a) Meiosis –Gametes-Zygote – Ookinete-Oocyst-Sporozoite

b) Gametes –Zygote-Ookinete – Oocyst – Meiosis-Sporozoite

c) Gametes –Zygote- Meiosis-Ookinete – Oocyst – Sporozoite

d) Meiosis – Gametes –Zygote –Oocyst – Mitosis –Sporozoite

62. Which of the following stage (s) of malarial parasite always invade erythrocytes of man

a) Gametocytes

b) Cryptozoites and macrometa cryptozoites

c) Micrometa cryptozoites

d) Sporozoites

63. The following are the different stages of *Entamoeba histolytica*. Arrange them in a sequence

I. Tetranucleate cyst II. Precystic stage III. Metacyst IV. Trophozoite

V. Metacystic amoebae

a) I-II-III-IV-V b) IV-II-III-I-V

c) IV-II-I-III-V d) I-III-IV-V-II

64. The stage in the life cycle of *Wuchereria* that is observed in both the hosts for a brief period

a) First stage Larva and second stage larva b) Microfilaria and Second Stage larva

c) Microfilaria and Third Stage larva d) Second Stage Larva and Third Stage larva.

65. Match the following

List – I	**List – II**
A. Cell mediated immunity	1. Skin
B. Humoral immunity	2. RBC
C. First line of defence	3. T Cells
D. Second line of defence	4. Fever
	5. B – cells

a) A – 5; B – 3; C – 1; D – 2 b) A – 3; B – 5; C – 1; D – 4

c) A – 3; B – 5; C – 4; D – 1 d) A – 2; B – 5; C – 1; D – 4

66. Match the following

List – I	List – II
A. Malaise	1. General feeling of discomfort
B. Cirrhosis	2. Loss of appetite
C. Hepatitis	3. Fibrosis of liver
D. Anorexia	4. Fibrosis of lungs
	5. Inflammation of liver

a) A – 1; B – 3; C – 2; D – 5

b) A – 2; B – 3; C – 5; D – 1

c) A – 4; B – 5; C – 3; D – 2

d) A – 1; B – 3; C – 5; D – 2

67. Match the following

List – I	List - II
A) Class I MHC molecules	I) Antigen presenting cells
B) Class II MHC molecules	II) Effector CTLs
C) Interleukin – 2	III) Mast cells
D) Granzymes	IV) Nucleated cells
	V) Effector $T_{H\ cells}$

a) A– I, B – IV, C- II, D- III

b) A- V, B – IV, C – III, D – I

c) A – IV, B – V, C – I, D – II

d) A – IV, B – I, C – V, D – II

68. Match the following.

Type of cancer	Affected organ
A) Burkett lymphoma	i) Mammary glands
B) Angiosarcoma	ii) WBC of bone marrow
C) Carcinoma	iii) Secondary lymphoid organ
D) Leukemia	iv) Blood vessels

v) Primary lymphoid organ

	A	B	C	D		A	B	C	D
a)	III	IV	V	II	b)	V	III	I	II
c)	III	IV	I	II	d)	V	III	I	IV

69. Match the following

List-I	**List-II**
A) Grassi	I) Observed *Plasmodium* in the RBC of malarial patient
B) Laveran	II) Monograph of *Plasmodium*
C) Garnham	III) Observed *Plasmodium* in the blood of malarial patient
D) Golgi	IV) Discovered the oocyst stages of *Plasmodium*
	V) *P.vivax* life cycle in mosquito

	A	B	C	D		A	B	C	D
a)	V	III	IV	I	c)	V	III	II	I
b)	IV	III	II	I	d)	III	IV	II	V

70. Which of the following options gives the correct matching of a disease with its causative organism and mode of infection

Disease	**Causative organisms**	**mode of infection**
1) Elephantiasis	Wuchereria bancrofti	with infected water and food
2) Malaria	Plasmodium vivax	bite of male anopheles mosquito
3) Typhoid	Salmonella typhi	with inspired air
4) Pneumonia	Strepto coccus pneumonia	droplet infection

a) Option – 1 b) option – 2 c) options 3 d) option – 4

71. In which one of the following options the two examples are correctly matched with their particular type of immunity

Example	**Type of immunity**
1) Saliva in mouth and tears in eyes	Physical barriers
2) Mucous coating of epithelium lining the urinogenital tract and the HCL in the stomach	Physiological barriers
3) Polymorphonuclear leucocytes and monocytes	Cellular barriers
4) Anti – tetanus and anti snake bite injections	Active immunity

a) Example – 1 b) example – 2 c) example – 3 4) example - 4

72. Read the following and select the correct combination

Disease	**Pathogen**	**Symptoms of disease**
A) Gumboro	1BD virus	Enlargement of bursa of Fabricius
B) Chronic respiratory disease	*Haemophilus gallinarum*	Nasal discharge with foul smell
C) Aspergillosis	*Aspergillus flavus*	Reduced immunity
D) Fowl cholera	*Pasteurella avicida*	green diarrhoea

a) A and B b) B and C c) C and D d) A and D

Note: a) A and R are true, R is the correct explanation of A

b) A and R are true, R is not the correct explanation of A

c) A is true but R is false

d) Both A and R are false

73. **Assertion (A): Most** of the antigens inducing humoral immunity are thymus – dependent antigens

Reason (R): They require direct contact with T_H cells to activate B – cells

74. **Assertion (A):** Unlike T cells, B- cells cannot recognize free antigens

Reason(R): B–cell receptors recognize and bind only to the class I MHC molecules located on antigen presenting cells

75. **Assertion (A):** Malignant cancer cells show metastasis

Reason(R): In cancer cells cadherin molecules are either partly or entirely missing, allowing the cancer cells to lose contact with other cells in the tissue and spread to other areas

76. **Assertion (A**): Benign tumors are harmless

Reason (R): Benign tumour cells are localized with fibrous capsule and exhibit metastasis.

77. **Assertion (A):** Female *Wuchereria* is ovo-viviparous

Reason (R): The young ones of *Wuchereria* develop in the mother with in the egg and the female releases the microfilariae

78. **Assertion (A):** Blood samples should be taken during night time between 10.00 pm to 4.00 am to detect filariasis in man

Reason (R): Microfilariae exhibit nocturnal periodicity

79. **Assertion (A):** Sporozoite of *Plasmodium vivax* exhibit lashing movements

Reason(R): Many convoluted tubules occur only anterior part of sporozoite

80. **Assertion (A):** Wuchereria requires a blood sucking Vector for its transmission.

Reason (R) : Its Larvae, microfilaria are present in the blood of culex mosquito

81. **Assertion (A):** In mammals P^{53} gene acts as a tumour suppressor gene

Reason (R): P^{53} gene product is P^{53} protein which promotes the activity of oncogenes.

82. **Assertion** (A): Plasmodium is cytozoic parasite

Reason (R): It is present in plasma of blood of man

83. **Assertion** (A): Ring worms generally develop in skin folds such as in groins and between toes

Reason(R): Heat and moisture help the fungi to thrive well.

84. **Assertion** (A): Skin acts as a physical barrier

Reason (R): Stratified keratinized epithelium of the skin with tough stratum corneum prevents entry of the microbes

85. **Assertion** (A): LSD and marijuana are clinically used as analgesics

Reason(R): Both these drugs active brain function

KEY

1-a 2-c 3-b 4-c 5-b 6-c 7-a 8-d 9-a 10-c

11-c 12-c 13-d 14-c 15-c 16-d 17-b 18-d 19-a 20-d

21-d 22-d 23-d 24-c 25-d 26-d 27-c 28-d 29-d 30-b

31-c 32-d 33-c 34-b 35-b 36-d 37-c 38-c 39-b 40-b

41-d 42-a 43-c 44-a 45-c 46-a 47-c 48-b 49-d 50-c

51-c 52-c 53-c 54-c 55-d 56-b 57-b 58-a 59-a 60-c

61-b 62-c 63-c 64-c 65-b 66-d 67-d 68-c 69-c 70-d

71-c 72-d 73-a 74-d 75-a 76-c 77-a 78-a 79-d 80-c

81-c 82-c 83-a 84-a 85-d