

**SECTION 1 - SECTION 1**

**Question No.1**

The bonds involved in antigen-antibody interactions are

- Weak Hydrogen bonds and Vanderwall forces
- Strong di-sulphide bonds
- Weak covalent bonds
- Strong covalent bonds

**Question No.2**

First recombinant antigen vaccine approved for human use is

- DPT vaccine
- Hib vaccine
- Var vaccine
- Hepatitis B vaccine

**Question No.3**

Which of the following is not a part of disease surveillance

- control and evaluation
- data collection and analysis
- planning and monitoring
- diagnosis and treatment

**Question No.4**

Cytoadherence is a character exhibited by Plasmodium

- falciparumc
- malariae
- vivax
- ovale

**Question No.5**

A living microbe with reduced virulence that is used for vaccination is considered:

- Virulent
- A toxoid

- Attenuated
- Dormant

**Question No.6**

Which of the following is a permanent mounting media for study of insects?

- Hoyer's media
- Ether
- Canada balsam
- Ethyl alcohol

**Question No.7**

The SOS repair mechanism is activated by

- 2-aminopurine
- 5-bromouracil
- Hydroxylamine
- Thymine dimers

**Question No.8**

In malaria control , API refers to

- annual parasite incidence
- annual plasmodium index
- annual parasite index
- annual plasmodium incidence

**Question No.9**

Peroxisome, mitochondria and chloroplasts have the following common feature:

- Membrane-enclosed organelle with its own genome
- They are surrounded by single membrane
- They import protein from cytosol
- They contain DNA

**Question No.10**

Sensitivity and specificity of a test indicate

- false positives and false negatives
- false positives and true negatives
- true positives and false positives

- true positives and true negatives

**Question No.11**

'Trans-stadial transmission' is found in

- KFD  
 Scrub typhus  
 Trench fever  
 Plague

**Question No.12**

Oroya fever is transmitted by

- mosquito  
 sand fly  
 bedbug  
 housefly

**Question No.13**

'Cyclodevelopmental' type of transmission is seen in

- Filariasis  
 Malaria  
 Plague  
 Dengue

**Question No.14**

Yellow fever not reported in India because

- vectors not present  
 ethological agent not found  
 vaccine available  
 reservoir hosts not available

**Question No.15**

In a survey conducted among school children, 49 were positive for malaria out of 100. The malaria situation is best described as

- holoendemic  
 hyperendemic  
 hypoendemic  
 mesoendemic

**Question No.16**

Elimination of malaria means

- no imported case
- no indigenous case for three years
- no cases of malaria
- no indigenous case

**Question No.17**

Double-chained DNA strand is made radioactive in both its chains. It is allowed to replicate twice in non-radioactive medium. The result would be

- Radioactivity is absent in all strands
- Half the chains have radioactivity
- All strands have radioactivity
- Three strands have radioactivity

**Question No.18**

'Indoor residual spray' is used against mosquitoes which are

- exophagic
- exophilic
- endophilic
- endophagical

**Question No.19**

Pistia plant is associated with

- Culex
- Anopheles
- Mansonia
- Aedes

**Question No.20**

Actinomycin D is a commonly used inhibitor of both DNA and RNA synthesis. What is its mechanism of action?

- It binds to histone proteins
- It binds to polymerase
- It intercalates between the duplex DNA

- It binds covalently to DNA

**Question No.21**

Man is a dead end host in

- Plague
- Dengue
- JE
- Yellow fever

**Question No.22**

'Pyrethrum oil' is an extract of

- Artemesia
- Neem
- Chrysanthemum
- Cinchona

**Question No.23**

Knock-down effect is achieved by using

- malathionc
- BHC
- permethrin
- paris green

**Question No.24**

Which of the following statements about insects is false?

- Insects have both dorsal and ventral blood vessels
- Insects have spiracles, openings that allow air to enter.
- The trachea is part of the digestive system
- Insects have a developed digestive system with a mouth, crop and intestine

**Question No.25**

A man arrived in India two months back from Saudi Arabia reported with Malaria about one month back, is considered as

- a case of foreign origin
- case of unknown origind
- an indigenous case

- an imported case

**Question No.26**

'Rat fall' is an indicator of

- Typhus  
 Leptospirosis  
 Plague  
 Relapsing fever

**Question No.27**

The drug which acts on development of gametocytes in mosquitoes is

- amodiaquine  
 proguanil  
 chloroquine  
 pyrimethamine

**Question No.28**

Urban Malaria vector in India is

- Anopheles stephensi  
 Aedes aegypti  
 Anopheles culicifacies  
 Culex fatigans

**Question No.29**

'Sub-periodic' filariasis occurs in

- Orissa  
 Andamans  
 Laccadivesc  
 Kerala

**Question No.30**

Which group does NOT have antennae?

- Myriapoda  
 Crustacea  
 Arachnida  
 Onychophora

**Question No.31**

Which of the following statements not true regarding insecticide resistance

- physiological change
- genetic change
- behavioural change
- biochemical change

**Question No.32**

The vector for chickungunya virus is:

- Culex tarsalis*
- Aedes Aegypti*
- Anopheles stephensi*
- Any mosquito

**Question No.33**

Which is not an element of health risk assessment?

- Hazard analysis
- Systematic analysis
- Capacity analysis
- Vulnerability analysis

**Question No.34**

Which of the following is an effective biological control of mosquitoes?

- Gambusia dominicensis* Regan
- Gambusia affinis*
- Gambusia alvarezi*
- Gambusia aurata*

**Question No.35**

Which orders are NOT closely related phylogenetically?

- Odonata and Ephemeroptera
- Thysanura and Thysanoptera
- Diptera and Siphonaptera
- Thysanoptera and Hemiptera

**Question No.36**

'Bird fall' is an indicator of presence of

- JE
- West Nile
- Yellow fever
- Nipah

**Question No.37**

Modified Plan of Operation(MPO) was launched in the year

- 1997
- 1953
- 1957
- 1977

**Question No.38**

After its second molt an insect is a \_\_\_\_\_ instar.

- Third
- First
- Final
- Second

**Question No.39**

Insecticide resistance developed against DDT is

- dominant
- intermediate
- recessive
- polygenic

**Question No.40**

Basic reproduction rate is number of

- secondary cases reported
- primary cases reported
- primary and secondary cases
- cases originating from a primary case

**Question No.41**



Primary lesion in American Trypanosomiasis is

- chagoma
- granuloma
- chancre
- eschar

**Question No.42**

In which arthropod sub-phylum do insects fall into?

- Chelicerata
- Myriapoda
- Crustacea
- Hexapoda

**Question No.43**

'Hydrocoele' is common in case of

- Kala azar
- Malayan filariasis
- Bancroftian filariasis
- Schistosomiasis

**Question No.44**

Dengue virus genome is a-

- +dsRNA
- ssDNA
- +dsDNA
- +ssRNA

**Question No.45**

In a survey for Aedes, out of 100 houses, 120 positive breeding sites were recorded. the Breteau index for the area is

- >50
- <100
- >200
- >100

**Question No.46**

The term 'pre-munition' related to immunity against

- Filariasis
- Dengue
- Malaria
- Zika

**Question No.47**

What is the chemical makeup of the insect's egg shell?

- Polysaccharide
- Calcium
- Lipid
- Protein

**Question No.48**

A case of Dengue reported at a hospital, which of the following is not true

- Patient should be advised on aedes control
- Patient should be monitored for blood loss
- Patient should be kept under a mosquito net
- Patient should be isolated

**Question No.49**

Mass Drug Administration is a method used for the elimination of

- JE
- Dengue
- Filariasis
- Malaria

**Question No.50**

As per the current strategy 'Malaria elimination' in India is to be achieved by

- 2030
- 2020
- 2025
- 2035

**Question No.51**

'17-D' vaccine is used for

- JE
- Leptospirosis
- Yellow fever
- Dengue

**Question No.52**

Which of the following is not transmitted by *Aedes* mosquitoes?

- Chikungunya
- Dengue
- Japanese encephalitis
- Zika

**Question No.53**

'Palmate hairs' is a feature of

- Mansonia
- Anopheles
- Culex
- Aedes

**Question No.54**

Thermal fogging is used in the following conditions except

- high wind speed
- urban areas
- dawn and dusk
- epidemics

**Question No.55**

Which is a biological hazard to public health?

- Radiological agents
- Infestation of pests
- Landslides
- conflict

**Question No.56**

Which order of insects causes Chagas disease?

- Dermaptera
- Coleoptera
- Hemiptera
- Diptera

**Question No.57**

Which of the following is not a genetic marker for identification of insects:

- Mitochondrial DNA
- Plasmid DNA
- Ribosomal DNA
- Microsatellites

**Question No.58**

In 'Malaria control', triple –insecticide resistance indicate resistance to

- Malathion, Fenthion, Abate
- BHC, Malathion, Fenthion
- DDT, BHC, Malathion
- DDT, BHC, Fenthion

**Question No.59**

Which of the following flies is found in cracks and crevices of walls during daytime

- Sand fly
- Tsetse fly
- Black fly
- House fly

**Question No.60**

Protein binding regions of DNA are identified by one of the following techniques

- Western blotting
- Fingerprinting
- Southern blotting
- Footprinting

**Question No.61**

Which of the following is the reservoir of louse borne typhus?

Cattles

- 
- Humans
- Cats
- Dogs

**Question No.62**

The drug chloramphenicol blocks

- Polypeptide chain elongation
- Polypeptide chain initiation
- Cell wall synthesis
- Translation termination release factors

**Question No.63**

In a 'descriptive study'

- study proceeds from cause to effect
- involves cross sectional / longitudinal study
- study proceeds from effect to cause
- case and control groups present

**Question No.64**

Which protein shows the co-operativity when bound to ssDNA

- DNA gyrase
- Helix destabilizing protein
- Helicase
- Primase

**Question No.65**

Mineral oils are used in mosquito control measure as a:

- Larvicide
- Adulticide
- Personnel protection measures
- Space spray

**Question No.66**

'Wolbachia' is

- virus

- bacteria
- drug
- insecticide

**Question No.67**

'Duffy -ve' trait protects against Plasmodium

- malariae
- ovale
- vivax
- falciparum

**Question No.68**

Humans are amplifier host in

- Plagued
- Dengue
- JE
- KFD

**Question No.69**

Following statements are true about Dengue except

- cross-reaction among serotypes
- occur in epidemic cycles
- four serotypes occur in India
- monkeys are reservoirs of infection

**Question No.70**

How many abdominal segments are found in a typical insect?

- More than 15
- 6 to 11
- 12 or 13
- Less than 5

**Question No.71**

In 'carbamate' poisoning following is contra indicated

- atropine sulphate
- phenobarbitone

- diazepam
- pralidoxime

**Question No.72**

Insects from this order do not act as pollinators:

- Diptera
- Phasmatodea
- Hymenoptera
- Coleoptera

**Question No.73**

To which family do hard ticks belong?

- Argasidae
- Heptageniidae
- Simuliidae
- Ixodidae

**Question No.74**

'Romanas' sign is characteristic in

- Riverine blindness
- Sleeping sickness
- Nagana
- Chagas disease

**Question No.75**

All are anthroponoses except

- Falciparum malaria
- Epidemic typhus
- Bancroftian filariasis
- Rabies

**Question No.76**

'Measure of dispersion' of a set of data is given by

- median
- mean
- range

- mode

**Question No.77**

In genetically modified(GM) mosquitoes, the following statements are true except

- sterile males released
- F1 generation affected
- males are used
- lethal genes introduced

**Question No.78**

The infective form of malaria parasite through a blood transfusion is:

- Schizont
- Sporozoite
- Trophozoite
- Merozoite

**Question No.79**

The term 'incidence' is defined as number of

- cases at a point in time
- new cases arising in a period
- cases per day
- cases per year

**Question No.80**

In scrub typhus the transmission occurs as

- man-lice-man
- rodent-mite-man
- man-tick-man
- rodent-tick-man

**Question No.81**

Mosquito whose larvae lie horizontal on water and thus rest parallel to surface of water:

- Anopheles*
- Aedes*
- Culex*



*Mansonoides*

**Question No.82**

A deletion of three consecutive bases in the coding region of a gene cannot result in

- Deletion of a single amino acid without any other change in the protein
- Replacement of a single amino acid by another without any other change in sequence of protein
- Replacement of two adjacent amino acids by a single amino acid
- Production of a truncated protein

**Question No.83**

Identify the method of disease transmission where the transmission is from mother to offspring?

- Transveneral transmission
- Vertical transmission
- Horizontal transmission
- Transtadial transmission

**Question No.84**

For the year 2018, 182 malaria cases were reported from a district with a population of 850000. The API is

- >1
- <1
- >2
- <2

**Question No.85**

Which of the following is not re-emerging disease in India

- Chikungunya
- Dengue
- Zika
- KFD

**Question No.86**

Which of the following substances will not stimulate an immune response unless they are bound to a larger molecule?

- Antigen

- Virus
- Miligen
- Hapten

**Question No.87**

Which of the following is a plant derivative

- artemesin
- amodiaquine
- primaquine
- pyrimethamine

**Question No.88**

Which of the following is a viral disease?

- Tuberculosis
- Influenza
- Typhoid
- Diphtheria

**Question No.89**

'Andaman haemorrhagic' fever was referred to

- Malaria
- JE
- Dengue
- Leptospirosis

**Question No.90**

What is the infective stage of Kala azar pathogen?

- Sporozites
- Trophozoite
- Amastigotes
- Promastigotes

**Question No.91**

Plague transmission occurs when the vector is

- partially blocked
- fully blocked

- not blocked
- block not a factor

**Question No.92**

Which disease is caused by body lice?

- Scrub typhus
- Yellow fever
- Rickettsia typhi*
- Rickettsia prowazekii*

**Question No.93**

Breteau index is associated with

- Aedes
- Mansonia
- Culex
- Anopheles

**Question No.94**

Kala azar is transmitted by:

- Armigeres subalbatus*
- Amblyomma variegatum*
- Phelobotomus arentipes*
- Rhipicehalus sanguineus*

**Question No.95**

'Berlese organ' is found in

- tick
- mite
- bed bug
- housefly

**Question No.96**

Zika virus outbreak was recently reported from

- Orissad
- Kerala
- Rajasthan

Tamil Nadu

**Question No.97**

Following statements are true about anopheles except

- respiratory siphon absent
- wings are spotted
- eggs with lateral floats
- scutellum trilobed

**Question No.98**

Mode of action of synthetic pyrethroids is

- tissue poison
- ganglionic poison
- axonic poison
- AchE inhibition

**Question No.99**

Following can be used for bio-warfare except

- Plague
- Yellow fever
- Filariasis
- Dengue

**Question No.100**

Which of the following is considered as an index of hygiene

- house fly
- sand fly
- latrine fly
- fruit fly