

## PROVISIONAL ANSWER KEY

Question 63/2025/OL

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Question1:-Biosafety level needed for handling samples of Ebola virus infection?

A:-BSL 1

B:-BSL 2

C:-BSL 3

D:-BSL 4

Correct Answer:- Option-D

Question2:-Second Generation Gene sequencing through Clonal amplification by Bridge PCR

A:-Sequencing by ligation

B:-Reversible Terminator sequencing

C:-Pyrosequencing

D:-Proton detection sequencing

Correct Answer:- Option-B

Question3:-Ideal culture medium for Antibiotic susceptibility test.

A:-Chocolate agar

B:-Columbia agar

C:-Meuller Hinton agar

D:-Nutrient agar

Correct Answer:- Option-C

Question4:-Biological control for Ethylene oxide sterilization

A:-Bacillus pumilus

B:-Bacillus subtilis var globigii

C:-Bacillus subtilis var niger

D:-Brevundimonas diminuta

Correct Answer:- Option-B

Question5:-Drug which act by inhibition of function of cell membrane

A:-Isoniazid

B:-Netilmicin

C:-Rifampicin

D:-Trovafloracin

Correct Answer:- Option-A

Question6:-Aquaporine channels can be visualized by

A:-Scanning tunnel microscope

B:-Phase contrast microscope

C:-Fluorescent microscope

D:-Atomic force microscope

Correct Answer:- Option-D

Question7:-Chlamydia can be cultivated by egg inoculation into

A:-Allantoic cavity

B:-Amniotic cavity

C:-Chorio-allantoic membrane

D:-Yolk sac

Correct Answer:- Option-D

Question8:-Bacterial toxin not coded by Lysogenic phage

A:-Cholera toxin

B:-Diphtheria toxin

C:-Pertussis toxin

D:-Verocytotoxin of E.Coli

Correct Answer:- Option-C

Question9:-Concentration of glucose : sucrose : lactose in triple sugar Iron agar

A:-1 : 1 : 10

B:-1 : 10 : 10

C:-10 : 1 : 10

D:-10 : 10 : 1

Correct Answer:- Option-B

Question10:-Which is anaerobic culture media?

A:-Alkaline peptone water

B:-Lauryl tryptose broth

C:-Thioglycolate broth

D:-Selenite F broth

Correct Answer:- Option-C

Question11:-Interleukin 6 is secreted by

A:-Fibroblasts

B:-NK cells

C:-TH2 cells and macrophages

D:-TH1 cells and Tc cells

Correct Answer:- Option-C

Question12:-Food allergy is an example of which type hypersensitivity reactions?

A:-Type 2 hypersensitivity reactions

B:-Type 1 hypersensitivity reactions

C:-Type 4 hypersensitivity reactions

D:-Type 3 hypersensitivity reactions

Correct Answer:- Option-B

Question13:-Initiators of alternative pathway are

A:-Lipopolysaccharides of Gram negative bacteria

B:-Cobra venom factor

C:-Certain parasites

D:-All of the above

Correct Answer:- Option-D

Question14:-Hereditary angioneurotic oedema is caused by deficiency of

A:-C1 esterase inhibitor

B:-Properdin Factor D

C:-C3

D:-C5 to C9

Correct Answer:- Option-A

Question15:-Which of the following statement is true regarding SCID mice?

A:-In 1983, a group of researchers described an autosomal recessive mutation in mice, which later termed as SCID mice

B:-Name was given because of the its resemblances to human severe combined immune deficiency

C:-The precursor T and B cells in SCID mice appeared to be unable to differentiate into mature functional B and T lymphocytes

D:-All of the above

Correct Answer:- Option-D

Question16:-All are bacterial mechanisms to avoid host's immune response except,

A:-Neisseria gonorrhoeae enhances complement activation by cleavage of C5a by proteases

B:-Salmonella typhimurium resists T cell activation by interferences with ability of dendritic cells to present Antigen to T cells

C:-Pneumococci resists phagocytosis by its capsular polysaccharide

D:-Vibrio cholerae avoids cytokine production by cholera toxin which inhibits IL 12 secretion

Correct Answer:- Option-A

Question17:-Factors required for a successful vaccine

A:-Efficacy

B:-Availability and safety

C:-Stability and affordability

D:-All of the above

Correct Answer:- Option-D

Question18:-All are immune benefits of breast milk, except

A:-Bind to microbes in baby's digestive tract and prevent their attachment to the walls of the gut and subsequent passage into other parts of the body

B:-Bifidus factor present in breast milk promotes growth of Lactobacillus bifidus

C:-Lysozyme facilitates bacterial multiplication

D:-Fibronectin increases anti microbial activity of macrophages

Correct Answer:- Option-C

Question19:-Class II MHC antigens that encode glycoproteins expressed as antigen presenting cells are

A:-Dendritic cells

B:-B cells

C:-Macrophages

D:-All of the above

Correct Answer:- Option-D

Question20:-Name the autoimmune disease which is caused by auto antibodies against ribonucleoprotein Antigen present in salivary gland

A:-Myasthenia gravis

B:-Hashimotos thyroiditis

C:-Sjogrens syndrome

D:-Multiple sclerosis

Correct Answer:- Option-C

Question21:-A Gram-positive coccus is isolated from a bloodstream infection. It is catalase-positive and demonstrates resistance to oxacillin and clindamycin (evidenced by a positive D-test), along with markedly elevated vancomycin MIC values. Which mechanism is most likely responsible for this organism's resistance to vancomycin?

A:-MecA gene-mediated PBP2a production

B:-Acquisition of vanA operon

C:-Efflux pump over expression

D:-Altered teichoic acid composition

Correct Answer:- Option-B

Question22:-Which key characteristics most effectively distinguishes *Actinomyces israelii* from *Nocardia* species?

A:-Gram staining pattern

B:-Presence of sulfur granules

C:-Catalase test

D:-Acid-fast staining profile

Correct Answer:- Option-D

Question23:-Which specific structural feature of *Neisseria meningitidis* enables it to evade the host immune system through phase and antigenic variation?

A:-Type IV pili

B:-Polysaccharide capsule

C:-Lipo oligosaccharide (LOS) modification

D:-Porin A and B gene rearrangement

Correct Answer:- Option-C

Question24:-Which of the following bacterial species utilizes a Type VI Secretion System (T6SS) that plays a critical role in competing with other bacteria in the lungs of cystic fibrosis patients?

A:-*Haemophilus influenzae*

B:-*Pseudomonas aeruginosa*

C:-*Stenotrophomonas maltophilia*

D:-*Acinetobacter baumannii*

Correct Answer:- Option-B

Question25:-Which feature of *Moraxella catarrhalis* differentiate it from *Neisseria* species in a clinical isolate?

A:-Oxidase test

B:-DNase positivity

C:-Glucose non-fermenting and butyrate esterase positivity

D:-Absence of capsule

Correct Answer:- Option-C

Question26:-Granulomatous conjunctivitis and lymphadenopathy were reported in a child and were caused by a facultative intracellular bacterium. Which of the following best describes the pathogen?

A:-*Rickettsia rickettsii*

B:-*Chlamydia trachomatis* (L1-L3)

C:-*Bartonella henselae*

D:-*Coxiella burnetii*

Correct Answer:- Option-C

Question27:-Lysogenic bacteriophage contributes which virulence factor of *Corynebacterium diphtheriae*?

A:-Neuraminidase

B:-Diphtheria exotoxin

C:-Catalase

D:-Mycolic acid

Correct Answer:- Option-B

Question28:-Which statement is TRUE regarding *Streptococcus agalactiae* (Group B Streptococcus)?

A:-It is commonly transmitted by foodborne routes

B:-It causes neonatal meningitis due to LLO toxin

C:-CAMP test is positive when plated with *S. aureus*

D:-Resistant to bacitracin and optochin

Correct Answer:- Option-C

Question29:-An emerging zoonotic pathogen *Capnocytophaga canimorsus*, causes fulminant sepsis especially in :

A:-Individuals with chronic kidney disease

B:-Immunocompetent children

C:-Asplenic or splenectomized patients

D:-HIV-positive patients of HAART

Correct Answer:- Option-C

Question30:-Identify the key feature of *Mycobacterium kansasii*?

A:-Scotochromogenic pigment production

B:-Rapid growth on Lowenstein-Jensen medium

C:-Photochromogenic pigment production

D:-Resistance to isoniazid and rifampicin

Correct Answer:- Option-C

Question31:-The biomarkers for invasive candidiasis are all EXCEPT

A:-1-3-beta-D-glucan

B:-*Candida albicans* germ tube antibody

C:-Galactomannan

D:-Mannan and Anti-mannan antibody

Correct Answer:- Option-C

Question32:-A 35-year-old HIV-positive man with a CD4 count 50 cells/ $\text{mm}^3$  presents with headache and fever. CSF analysis confirms cryptococcal meningitis. What is the recommended initial (induction) antifungal therapy?

A:-Amphotericin B plus flucytosine

B:-Amphotericin B plus Voriconazole

C:-Caspofungin monotherapy

D:-Voriconazole monotherapy

Correct Answer:- Option-A

Question33:-A 50-year-old male agricultural worker presents with a slowly enlarging, verrucous lesion with occasional black dots on its surface on his left lower leg, persisting for the past 18 months. He gives history of injury with thorn. Skin scraping with 10% KOH preparation reveals brown, thick-walled, septate cells resembling "copper pennies".

Which of the following fungi is the most likely etiological agent in this patient's condition?

A:-*Candida albicans*

B:-*Fonsecaea pedrosoi*

C:-*Histoplasma capsulatum*

D:-*Sporothrix schencki*

Correct Answer:- Option-B

Question34:-Which of the following statements about *Histoplasma capsulatum* are TRUE?

- i. It is primarily transmitted via inhalation of bat or bird droppings.
- ii. It is an encapsulated dimorphic fungus.
- iii. Direct microscopy of tissue with Giemsa stain shows small intracellular yeasts with broad based budding.
- iv. More than 95% of immunocompetent person remain asymptomatic following low-inoculum infection with *H.capsulatum*.

A:-i and iv

B:-ii and iv

C:-ii, iii and iv

D:-i, ii, iii and iv

Correct Answer:- Option-A

Question35:-All the following are true statements regarding Mucormycoses EXCEPT.

- i. Broad, aseptate hyphae with wide angle branching.
- ii. High-dose systemic steroids and hypervitaminosis A are recognised risk factors.
- iii. *Rhizopus arrhizus* is the most isolated species
- iv. Voriconazole is the drug of choice for the treatment.

A:-ii and iv

B:-i, ii and iii

C:-ii, iii and iv

D:-i, iii and iv

Correct Answer:- Option-A

Question36:-A 35-year-old agricultural worker presents with chronic swelling of the foot, multiple discharging sinuses, and black granules in the discharge. Direct microscopy reveals brown pigmented hyphae in KOH mount. Which of the following

is the least likely causative agent?

A:-*Curvularia geniculata*

B:-*Exophiala jeanselmei*

C:-*Fusarium solani*

D:-*Madurella mycetomatis*

Correct Answer:- Option-C

Question37:-Which of the following are characteristics of *Pneumocystis jirovecii*?

i. A combination trimethoprim (TMP) and sulfamethoxazole (SMZ or SMX) is the drug of choice for treatment of all forms of pneumocystosis.

ii.  $\beta$ -D-glucan in serum is found to be a useful marker for diagnosis.

iii. It is transmitted primarily via the fecal-oral route.

iv. Mutations in the ergosterol synthesis pathway are the main mechanism of resistance.

A:-i and ii

B:-i and iv

C:-i, ii and iv

D:-i, ii, iii and iv

Correct Answer:- Option-A

Question38:-Which of the following mycotoxins is primarily nephrotoxic?

A:-Aflatoxin B1

B:-Fumonisin B1

C:-Ochratoxin A

D:-Trichothecenes

Correct Answer:- Option-C

Question39:-*Candida auris* is an emerging fungus with which of the following characteristics?

i. Can cause outbreaks in healthcare settings.

ii. Difficult to identify using conventional laboratory techniques.

iii. Often exhibits resistance to multiple antifungal classes.

iv. Primarily causes superficial infection.

A:-i and iii

B:-i, iii and iv

C:-i, ii and iii

D:-i, ii, iii and iv

Correct Answer:- Option-C

Question40:-The drug of choice for invasive pulmonary aspergillosis is :

A:-Amphotericin B

B:-Caspofungin

C:-Fluconazole



D:-Voriconazole

Correct Answer:- Option-D

Question41:-Which is the gold standard test for the diagnosis of COVID-19?

A:-Antibody detection

B:-Antigen detection

C:-RT-PCR

D:-None of the above

Correct Answer:- Option-C

Question42:-Which of the following statement is/are correct regarding HBs Ag is positive in

i. Simple carrier

ii. Super carrier

iii. Immunity following vaccination

A:-i and iii

B:-i and ii

C:-ii and iii

D:-i, ii and iii

Correct Answer:- Option-B

Question43:-MMR vaccine is

A:-Live attenuated vaccine

B:-Subunit vaccine

C:-Inactivated vaccine

D:-DNA vaccine

Correct Answer:- Option-A

Question44:-Early diagnosis of Dengue

A:-Demonstration of IgM in serum

B:-Detection of NS1 antigen

C:-Molecular test

D:-All of the above

Correct Answer:- Option-B

Question45:-Which of the following statement is/are correct regarding Rabies?

i. Negri bodies can be demonstrated in brain of animal infected with street virus

ii. Fixed virus is used for vaccine production.

iii. It is a non-enveloped virus.

A:-All are true i, ii, iii

B:-i and ii are correct

C:-i false

D:-i and ii are false

Correct Answer:- Option-B

Question46:-Which HIV testing strategy is used for the diagnosis of HIV infection in asymptomatic individuals?

A:-Strategy I

B:-Strategy II A

C:-Strategy II B

D:-Strategy III

Correct Answer:- Option-D

Question47:-Which of the following drug is effective against HSV infection?

A:-Acyclovir

B:-Ribavirin

C:-Indinavir

D:-Amantadine

Correct Answer:- Option-A

Question48:-Which of the following statement is/are correct regarding Host cell requires cellular co-receptors for the entry of HIV?

i. CCR-5

ii. CxCr-4

iii. CCR2

iv. CCR3

A:-ii and iii only

B:-i and ii

C:-i, ii, iii and iv

D:-ii only

Correct Answer:- Option-C

Question49:-CAM can be used for the isolation of following viruses

i. Variola virus

ii. Herpes simplex virus

iii. Mumps virus

iv. Vaccina virus

A:-iv only

B:-i, ii and iii

C:-ii only

D:-ii and iii

Correct Answer:- Option-C

Question50:-Which of the following virus can cause Erythrema infectiosum?

A:-Corona virus

B:-Parvovirus B19

C:-BK poliyoma virus

D:-JK polyoma virus

Correct Answer:- Option-B

Question51:-The causative agent and vector for chagan disease

A:-Trypanosoma brucei and sandfly

B:-Leishmania tropica an Tsetsefly

C:-Trypanosoma cruzi and reduvid bug

D:-Toxoplasma gondii and Tsetsefly

Correct Answer:- Option-C

Question52:-Which statement is false about intestinal amebiasis?

A:-The incubation period is highly variables

B:-The typical manifestation is amoebic dysentery

C:-Charcot leyden crystals are often present

D:-Intestinal amebiasis always result in dysentery

Correct Answer:- Option-D

Question53:-Amoebic liver abscess can be diagnosed by

A:-Cyst in the pus

B:-Cyst in the intestine

C:-Trophozoites in the faeces

D:-Trophozoites in the pus

Correct Answer:- Option-D

Question54:-Which of the following is true regarding stool examination in giardiasis?

A:-Giardiasis can be diagnosed by identification of cysts of Giardia lamblia in the formed stools

B:-Giardiasis can be diagnosed by identification of trophozoites and cysts of parasites in diarrheal stools

C:-In asymptomatic carriers, only the cyst are seen

D:-All of the above

Correct Answer:- Option-D

Question55:-What is the primary mode of transmission of Diphylobothrium latum infection to humans?

A:-Eating undercooked or raw fish

B:-Drinking contaminated water

C:-Eating contaminated vegetables

D:-Direct contact with an infected person

Correct Answer:- Option-A

Question56:-Which of the following is false about echinococcus granulosus?

A:-The adult echinococcus granulosus is 2-7 mm long

B:-It resides in the large intestine of the definitive host

C:-Humans are aberrant intermediate host

D:-Hydatid cyst develop in a variety of organs

Correct Answer:- Option-B

Question57:-Coenurus is the larval form of

A:-Taenia solium

B:-Taenia multiceps

C:-Echinococcus granulosus

D:-Echinococcus multilocularis

Correct Answer:- Option-B

Question58:-The first intermediate host of Fasciola hepatica is

A:-Aquatic plants

B:-Fresh water fish

C:-Crab

D:-Snail

Correct Answer:- Option-D

Question59:-Nematods present in large intestine are all except

A:-Enterobius vermicularis

B:-Trichuris trichima

C:-Oesophagostomum spp.

D:-Strongyloides stercoralis

Correct Answer:- Option-D

Question60:-All of the parasites are found in CSF except

A:-Acanthamoeba

B:-Naegleria

C:-Trypanosoma

D:-Angiostrongglus

Correct Answer:- Option-C

Question61:-A group of people presented to the emergency department with complaints of vomiting and diarrhea after consumption of food at a marriage reception. The causative agent of food poisoning with incubation period of 1-6 hours is

A:-Staphylococcus aureus

B:-Clostridium perfringens

C:-Noro virus

D:-Vibrio parahaemolyticus

Correct Answer:- Option-A

Question62:-Which of the following is not a good biosafety practice in a viral diagnostic laboratory?

A:-Use of biosafety hoods

B:-Use of laboratory coats and gloves

C:-Avoidance of mouth pipetting

D:-Flushing untreated labwaste down laboratory sink

Correct Answer:- Option-D

Question63:-All of the following antimicrobial agents act on cell membrane, EXCEPT:

A:-Gramicidin

B:-Daptomycin

C:-Polymyxins

D:-Vancomycin

Correct Answer:- Option-D

Question64:-All of the following vaccines are given at birth, except

A:-BCG

B:-Hepatitis B

C:-DPT

D:-OPV

Correct Answer:- Option-C

Question65:-Which is not an ESKAPE pathogen?

A:-Klebsiella pneumonia

B:-Proteus mirabilis

C:-Enterococcus faecium

D:-Staphylococcus aureus

Correct Answer:- Option-B

Question66:-Extended Spectrum Beta Lactamase producing organisms are resistant to all EXCEPT

A:-All penicillins

B:-3<sup>rd</sup> Generation Cephalosporins

C:-Monobactam

D:-Carbapenems

Correct Answer:- Option-D

Question67:-In molecular diagnostics, a probe is used to

A:-Amplify DNA

B:-Lyse cells

C:-Bind to specific nucleic acid sequences

D:-Extract proteins

Correct Answer:- Option-C

Question68:-Which of the following is NOT a factor contributing to emerging infectious diseases?

A:-Climate change

B:-Global travel

C:-Vaccine development

D:-Urbanisation

Correct Answer:- Option-C

Question69:-The Mycotoxins is used as Biological Warfare (yellow rain)

A:-Fumonisin

B:-Ochratoxin

C:-Trichothecenes

D:-Aflatoxin

Correct Answer:- Option-C

Question70:-Extensive drug resistant tuberculosis (XDR-TB) is due to M.tuberculosis strains which are resistant to

A:-Any fluoroquinolone

B:-Isoniazid and Rifampicin

C:-Atleast one of the three injectable second line drugs (capreomycin, kanamycin and amikacin)

D:-All of the above

Correct Answer:- Option-D

Question71:-Which is the commonest etiological agent of endocarditis in intravenous drug abusers?

A:-*Streptococcus agalactiae*

B:-*Staphylococcus epidermidis*

C:-*Staphylococcus aureus*

D:-*Diphtheroids*

Correct Answer:- Option-C

Question72:-Regarding antigenic drift in influenza viruses which statement is not true?

A:-Minor changes occurring due to point mutations in HA/NA gene

B:-Seen in only influenza A virus

C:-Results in outbreaks and minor periodic epidemics

D:-Occurs every 2-3 years

Correct Answer:- Option-B

Question73:-Which of the following organism is not associated with gas gangrene?

A:-*Clostridium novyi*

B:-*Clostridium septicum*

C:-*Clostridium perfringes*

D:-*Clostridium butyricum*

Correct Answer:- Option-D

Question74:-What is the incubation period in *Staphylococcus aureus* food poisoning?

A:-1-6 hours

B:-8-16 hours

C:-16-24 hours

D:-More than 24 hours

Correct Answer:- Option-A

Question75:-Which of the following markers when positive indicate high infectivity of hepatitis B virus?

A:-HBsAg

B:-HBeAg

C:-HBcAg

D:-Anti-HBs

Correct Answer:- Option-B

Question76:-Which of the following statements regarding cytological and biochemical parameters in CSF of pyogenic meningitis is incorrect?

A:-CSF pressure is highly elevated

B:-Total leukocyte count is elevated

C:-Glucose is highly elevated

D:-Total proteins markedly increased

Correct Answer:- Option-C

Question77:-Which is the most common cause of angular conjunctivitis?

A:-*Moraxella lacunata*

B:-*Pseudomonas aeruginosa*

C:-*Staphylococcus epidermidis*

D:-*Proteus mirabilis*

Correct Answer:- Option-A

Question78:-The classical triad of Congenital Rubella Syndrome consists of the following except

A:-Sensory neural deafness

B:-Hydrocephalus

C:-Salt and pepper retinopathy

D:-Patent ductus arteriosus

Correct Answer:- Option-B

Question79:-The most common etiological agent of Non-gonococcal urethritis is

A:-*Herpes simplex virus*

B:-*Trichomonas vaginalis*

C:-*Chlamydia trachomatis*

D:-*Candida albicans*

Correct Answer:- Option-C

Question80:-All the following are Category A bioweapons except

A:-*Clostridium botulinum toxin*

B:-*Burkholderia pseudomallei*

C:-*Francisella tularensis*

D:-*Yersinia pestis*

Correct Answer:- Option-B

Question81:-Catheterization of which of the following vessels is not considered as central line for the National Health Care Safety Network central line surveillance purpose?

A:-Umbilical artery in neonates

B:-Aorta

C:-Umbilical veins in neonates

D:-Atrial catheter

Correct Answer:- Option-D

Question82:-Find out the correct statement/statements regarding sterilization control.

- i. Spores of *Bacillus stearothermophilus* is used as biological indicator of plasma sterilization.
- ii. Spores of *Bacillus stearothermophilus* is used as biological indicator of autoclave.
- iii. Spores of *Bacillus atrophaeus* is used as biological indicator of ionizing radiation.
- iv. Spores of *Bacillus atrophaeus* is used as biological indicator of ethylene oxide sterilization.

A:-Only i, ii and iv

B:-Only i, ii and iii

C:-Only ii and iii

D:-Only ii and iv

Correct Answer:- Option-A

Question83:-The recommended minimum number of air changes per hour in a conventional operation theater according to CDC is

A:-5



B:-20

C:-50

D:-100

Correct Answer:- Option-B

Question84:-Find out the correct statement/statements about the current biomedical waste management in India.

- i. The new biomedical management rule was published in the gazette of India by ministry of health and family welfare on 28<sup>th</sup> March 2014.
- ii. Red colored chlorinated plastic bags with thickness 20  $\mu\text{m}$  is used for infectious plastic waste.
- iii. Yellow colored non chlorinated plastic bags is used for infectious non plastic waste.
- iv. Broken glass container contaminated with cytotoxic drugs should be discarded in blue puncture and leak proof container

A:-Only iii

B:-Only i, iii and iv

C:-Only i and ii

D:-Only iii and iv

Correct Answer:- Option-A

Question85:-The hand washing procedure in the obstetrics and gynecology department drastically reduced the cases of puerperal fever when it was first introduced in 1846. Name the physician and Scientist who first noticed the importance of hand washing?

A:-Joseph Lister

B:-Paul Ehrlich

C:-Ignaz Semmelweis

D:-Karl Landsteiner

Correct Answer:- Option-C

Question86:-Find out the recommended method/methods for the sterilization of materials contaminated with prion proteins?

- i. Autoclaving at 126°C for 30 minutes.
- ii. Treatment with 1 N NaOH for 60 minutes.
- iii. Treatment with 0.5% sodium hypochloride for 2 hours.
- iv. Autoclaving at 134°C for 1-1.5 hours.

A:-Only iii and iv

B:-Only iv

C:-Only ii, iii and iv

D:-All the above (i, ii, iii, iv)

Correct Answer:- Option-C

Question87:-80 year old female patient was admitted in the medicine ICU with complaints of fever with chills, hypotension, myalgia and confusion. She was catheterized on the day 1 of hospitalization. Urine and blood was sent for culture on

day 1 and report came on day 3 of hospitalization, urine culture grew E.Coli  $> 10^5$  cfu/ml. Blood culture was sterile after 48 hours in incubation. What is your surveillance diagnosis?

A:-Non Catheter associated symptomatic urinary tract infection

B:-Catheter associated symptomatic urinary tract infection

C:-Asymptomatic bacteriuria

D:-Non catheter associated asymptomatic bacteremic urinary tract infection

Correct Answer:- Option-A

Question88:-A 60 year old patient was admitted in the orthopedics department for knee replacement surgery. Patient was discharged on post op day 7. He was readmitted after 1 week with complaints of pain, swelling and discharge at the incisional site of 3 days duration. Pus collected by Incision and drainage was sent for culture which showed growth of Staphylococcus aureus. What is the surveillance diagnosis?

A:-No surgical site infection

B:-Superficial surgical site infection

C:-Deep surgical site infection

D:-Organ/Space surgical site infection

Correct Answer:- Option-D

Question89:-Find out the true statement/statements regarding Catheter Associated Urinary Tract Infection (CAUTI).

i. CAUTI rate = Number of CAUTIs identified  $\div$  Number of Indwelling urinary catheter days  $\times 1,000$

ii. CAUTI rate = Number of CAUTIs identified  $\div$  Number of Indwelling urinary catheter days  $\times 100$

iii. Supra pubic catheter can be considered for the surveillance of CAUTI.

iv. CAUTI rate = Number of CAUTIs identified  $\div$  Number of catheterization in a month  $\times 1,000$

A:-i. Only i and iii

B:-Only i

C:-Only iii and iv

D:-Only ii and iii

Correct Answer:- Option-B

Question90:-Find out the true statement/statements regarding post exposure prophylaxis of Hepatitis B after a needle stick injury to a Health Care Worker (HCW)?

i. If the source is Hep B Positive, health care worker (HCW) is a non responder - Give two doses of Hepatitis B Immunoglobulin (HBIG) 24 hours apart.

ii. If the source is Hep B Positive, HCW had taken only one dose of hep B vaccine i.e. 3 years back (partially vaccinated) - Give two doses of Hepatitis B Immunoglobulin and initiate revaccination from the beginning.

iii. If the source is Hep B Positive, HCW is fully vaccinated, with anti HBs titer 100 mIU/ml - No immunization is required.

iv. If the source is Hep B Positive, HCW is unvaccinated - Give two doses of

Hepatitis B Immunoglobulin (HBIG) 30 days apart.

A:-Only iii and iv

B:-Only iii

C:-Only i and iii

D:-Only i, ii and iii

Correct Answer:- Option-B

Question91:-Nipah virus comes under which category in the classification of biologic and chemical agents with potential for terrorism

A:-Category A

B:-Category B

C:-Category C

D:-Category D

Correct Answer:- Option-C

Question92:-All are true about experimental animals in Microbiology except

A:-Gnotobiotic animals are costly to obtain and maintain

B:-Gnotobiotic animals are kept in extremely clean but not sterile conditions

C:-Conventional animals carry an undefined microbial flora

D:-Rats and mice are the common gnotobiotic animals used in research

Correct Answer:- Option-B

Question93:-\_\_\_\_\_ is the best indicator of recent faecal contamination of water.

A:-Faecal *Streptococci*

B:-*Clostridium perfringens*

C:-*Pseudomonas aeruginosa*

D:-Thermotolerant *Escherichia Coli*

Correct Answer:- Option-D

Question94:-All are true about Settle plate method used for evaluation of quality of air in operation theatres except

A:-The ideal recommendation is 1,1,1 method

B:-Easy to use

C:-It measure the total number of large and small bacteria carrying particles suspended in air

D:-It cannot accurately quantify the volume of air to be sampled

Correct Answer:- Option-C

Question95:-'NIKSHAY' is introduced by the Government of India for the surveillance of which of the following disease?

A:-HIV

B:-Viral Hepatitis

C:-Tuberculosis

D:-COVID 19

Correct Answer:- Option-C

Question96:-National Vector Borne Disease Control programme aims to control the following diseases

A:-Malaria, Scrub Typhus, Kala-azar, Dengue, Chikungunya, Japanese encephalitis

B:-West Nile fever, Zika, Japanese encephalitis, Dengue, Malaria, Scrub typhus

C:-Dengue, Malaria, Lymphatic filariasis, Japanese encephalitis, West Nile fever, Chikungunya

D:-Kala azar, Malaria, Dengue, Lymphatic filariasis, Chikungunya, Japanese encephalitis

Correct Answer:- Option-D

Question97:-Advantages of WHONET software include all except

A:-Freely available software

B:-Automated and scheduled analysis is possible

C:-Laboratory configuration is flexible

D:-Provides critical alert

Correct Answer:- Option-B

Question98:-All are true about External Quality Assessment (EQA) programme of a diagnostic test except

A:-Have the effect of checking pre-examination, examination and post examination process

B:-Provide samples that mimic patient samples for clinically relevant challenges

C:-EQA shall be processed by the personnel who are not routinely performing pre-examination, examination and post examination procedures

D:-When selecting EQA programmes, the laboratory should consider the type of target value assured

Correct Answer:- Option-C

Question99:-Ethical principles adopted by CPCSEA (Committee for the Purpose of Control and Supervision of Experiments on Animals) for the use of animals in scientific experiments include all except

A:-Experiments on animals may be carried out for the purpose of advancement by new discovery of physiological knowledge

B:-Animals highest on the phylogenetic scale should be used for any experimental procedure

C:-The living conditions of animals should be appropriate for their species and contribute to their health and comfort

D:-Persons engaged in animal experimentation have a moral responsibility for the welfare of the animals after their use in experiments

Correct Answer:- Option-B

Question100:-Limitation of freedom of movement of a healthy person or domestic animals exposed to communicable disease for a period not longer than the longest usual incubation period of the disease to prevent contact with those not exposed is termed as :

A:-Isolation

B:-Social distancing

C:-Quarantine

D:-None of the above

Correct Answer:- Option-C