

PROVISIONAL ANSWER KEY

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Exam:	Assitant Professor in Infectious Diseases
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Question1:-Which of the following statements regarding CCR5 receptor in HIV infection is correct?

A:-High numbers of this receptor is seen in memory CD4 T cells in Gastro intestinal mucosa and are relatively resistant to HIV induced death

B:-Individuals homozygous for CCR5 - Δ 32 mutation are highly prone for rapid progression of the disease

C:-CCR5 antagonists inhibit reverse transcription of HIV RNA

D:-CCR5 CD4 T cells are the easy targets for the current ART regimen

Correct Answer:- Option-A

Question2:-The **nef** gene of HIV is important in progression of infection by the following function

A:-Enhance viral budding from host cell membrane

B:-Down regulate expression of MHC 1 on infected cells and protect from cytotoxic cells

C:-Facilitate nuclear import of viral DNA (reverse transcribed) for chromosomal integration

D:-Integrate viral DNA into the host cell genome

Correct Answer:- Option-B

Question3:-A 24 year old laboratory technician sustains a needle-stick injury from a hollow bore needle while drawing blood from a client attended ICTC, at 11 am. The sample was tested positive for HIV infection by 12.30 pm. Which of the following is correct statement regarding post exposure prophylaxis?

A:-Test the HIV viral load of the patient with NAAT test and give PEP to the exposed if viral load is > 1000 copies/ml

B:-As the golden period of 2 hour has not passed, the exposed can be protected with 2 drug regimen

C:-Dolutegravir is an absolute mandatory component of HIV post exposure prophylaxis

D:-PEP should be initiated immediately with 3 drug regimen

Correct Answer:- Option-D

Question4:-A 28 year old woman living with HIV and on ART for 3 years delivers a healthy baby. Her viral load tested on previous month showed > 150 copies/ml . she asks whether she can breastfeed her baby. Which of the following is the most appropriate recommendation for a resource limited settings as per NACO guidelines?

A:-Breastfeeding is contra indicated in all HIV positive mothers

B:-Mixed feeding - Breast feed + formula feed- is safest during the first 6 months

C:-Pasteurized expressed breast milk is universally recommended over direct breastfeeding

D:-Exclusive breast feeding with continued maternal ART is recommended for the first 6 months

Correct Answer:- Option-D

Question5:-Which of the following is correct regarding the P24 antigen of HIV?

A:-The antigen is undetectable in established HIV infection

B:-P 24 antigen is detectable in blood before HIV RNA appears

C:-It is the component of viral envelope, produced and secreted in blood in high amount

D:-All the statements are correct

Correct Answer:- Option-A

Question6:-A 30-year-old voluntary blood donor male presents to the blood bank for donation. During pre-donation counselling, he admits to having had unprotected sexual exposure with a new partner 10 days earlier but states that he currently feels healthy and wants to "check whether he has HIV through blood donation." Physical examination and hemoglobin are normal. Which of the following is the MOST appropriate action according to standard blood bank and NACO principles?

A:-Accept the donor, perform 4th generation HIV assays , if tested negative draw blood and proceed with strategy 3 testing with the sample

B:-Accept the donor , perform HIV NAAT testing , if tested negative, draw blood and send back the donor after post test counselling

C:-Collect the blood but quarantine the unit until repeat HIV testing after 3 months

D:-Temporarily defer the donor and refer him to ICTC

Correct Answer:- Option-D

Question7:-A 35-year-old man with newly diagnosed HIV infection presents with headache, vomiting, photophobia, and altered sensorium. His CD4 count is 32 cells/ μ L. CSF India ink examination showed presence of Cryptococci and CSF cryptococcal antigen is strongly positive. He is started on amphotericin B-based induction therapy. Which of the following is the MOST appropriate strategy regarding initiation of antiretroviral therapy (ART)?

A:-Start ART immediately along with antifungal therapy to maximize immune recovery

B:-Delay ART until CD4 count rises above 200 cells/ μ L

C:-Defer ART for 2-6 weeks because early ART increases mortality due to CNS IRIS

D:-Start ART only after CSF cryptococcal antigen becomes negative

Correct Answer:- Option-C

Question8:-Pick out the FALSE statement regarding a candidate HIV Vaccine

A:-Produce broadly neutralising antibodies against the HIV envelope proteins

B:-High mutation rate of HIV contributes to immune escape from vaccine- induced antibodies

C:-Integration of HIV into host genome and early latent reservoir formation complicate vaccine success.

D:-Germline targeting approach mainly aims at the cytotoxic ability of CD 8 cells

Correct Answer:- Option-D

Question9:-Which of the following function of HIV is inhibited by the ART drug Lopinavir?

A:-Conversion of viral RNA into proviral DNA

B:-Cleavage of gag-pol polyprotein into functional viral proteins

C:-Integration of proviral DNA into host chromosome

D:-Fusion of viral envelope with host cell me

Correct Answer:- Option-B

Question10:-A microbiologist explains that HIV transmission through dried environmental surfaces is extremely inefficient primarily because:

A:-HIV cannot survive outside leukocytes under any circumstance

B:-HIV loses infectivity on disruption of its lipid envelope during environmental exposure

C:-HIV undergoes spontaneous genomic integration outside the host

D:-HIV requires anaerobic conditions for extracellular survival

Correct Answer:- Option-B

Question11:-A 53 year old woman develops fever and focal neurologic signs.MRI shows a left temporal lobe lesion. Which is the most appropriate test to confirm Herpes Simplex encephalitis in this patient?

A:-Brain biopsy

B:-Tzanck smear

C:-CSF DNA PCR

D:-Serum IgM ELISA

Correct Answer:- Option-C

Question12:-Which of the following Pox virus infects only humans?

A:-Monkey pox

B:-Tana Pox

C:-Yaba Pox

D:-Molluscum contagiosum

Correct Answer:- Option-D

Question13:-A 36 year old nurse was found to be both HBsAg and HBeAg positive. The nurse most likely

A:-Has acute hepatitis and is infectious

B:-Has both HBV and HEV infections

C:-Has a chronic HBV infection

D:-Has cleared a past HBV infection

Correct Answer:- Option-A

Question14:-The following clinical syndromes are associated with Picorna viruses EXCEPT

A:-Myocarditis

B:-Hepatitis

C:-Mononucleosis

D:-Meningitis

Correct Answer:- Option-C

Question15:-Noro virus illness can be prevented by any of the following EXCEPT

A:-Hand washing

B:-Purification of drinking water

C:-Education of food handlers

D:-Licenced vaccine

Correct Answer:- Option-D

Question16:-The Hanta virus responsible for 2026 outbreak of Hantavirus Pulmonary Syndrome in a cruise ship in Atlantic ocean is

A:-Andes virus

B:-Puumala virus

C:-Seoul virus

D:-Thottapalayam virus

Correct Answer:- Option-A

Question17:-Arbo viruses are found in the following families EXCEPT

A:-Flavi viridae

B:-Arena viridae

C:-Toga viridae

D:-Bunya viridae

Correct Answer:- Option-B

Question18:-The principal reservoirs for the antigenic shift variants of influenza virus appears to be which of the following?

A:-Chronic human carriers

B:-Sewage

C:-Pigs, horses and fowl

D:-Mosquitoes

Correct Answer:- Option-C

Question19:-The most likely cause of bronchiolitis in infants is

A:-RSV

B:-Influenza virus

C:-HMPV

D:-Measles virus

Correct Answer:- Option-A

Question20:-The oncogenic virus associated with Tropical spastic paraparesis is

A:-JC virus

B:-HTLV

C:-HSV

D:-SV40

Correct Answer:- Option-B

Question21:-Who is the discoverer of Mycobacterium Leprae, the causative agent of leprosy?

A:-Robert Koch

B:-Gerhard. Armauer Hansen

C:-Louis Pasteur

D:-Alexander Flemming

Correct Answer:- Option-B

Question22:-Which Staphylococcus species is a common cause of urinary tract infections (UTIs) in sexually active young women and is novobiocin-resistant?

A:-*Staphylococcus epidermidis*

B:-*Staphylococcus haemolyticus*

C:-*Staphylococcus saprophyticus*

D:-*Staphylococcus lugdunensis*

Correct Answer:- Option-C

Question23:-Wool sorter's disease is caused by

A:-*Staphylococcus aureus*

B:-*Bacillus anthracis*

C:-*Yersinia pestis*

D:-*Pseudomonas aeruginosa*

Correct Answer:- Option-B

Question24:-The agent of Lemierre's syndrome is

A:-*Leptotrichia buccalis*

B:-*Fusobacterium fusiforme*

C:-*Fusobacterium necrophorum*

D:-*Fusobacterium nucleatum*

Correct Answer:- Option-C

Question25:-Which is the highly infective stage in whooping cough?

A:-Catarrhal stage

B:-Paroxysmal stage

C:-Convalescent stage

D:-All of the above

Correct Answer:- Option-A

Question26:-Bejel is caused by

A:-*Treponema pertenue*

B:-*Treponema endemicum*

C:-*Treponema carateum*

D:-*Treponema pallidum*

Correct Answer:- Option-B

Question27:-The most commonly used method for the isolation of Chlamydia

A:-Culture on artificial media

B:-Culture on vero cell line

C:-Inoculation into guinea pig

D:-Culture on McCoy cell line

Correct Answer:- Option-D

Question28:-Ecthyma gangrenosum is caused by

A:-*Pseudomonas aeruginosa*

B:-*Bordetella pertussis*

C:-*Brucella melitensis*

D:-*Haemophilus influenzae*

Correct Answer:- Option-A

Question29:-Which of the following gram negative bacillus is most commonly associated with a post diarrheal syndrome also known as 'Guillain-Barre syndrome'?

A:-*Corynebacterium jeikeium*

B:-*Campylobacter jejuni*

C:-*Helicobacter pylori*

D:-*Helicobacter fennelliae*

Correct Answer:- Option-B

Question30:-What is the typical incubation period for the emetic form of *B. cereus* intoxication?

A:-1-6 hours

B:-8-16 hours

C:-24-48 hours

D:-3-5 days

Correct Answer:- Option-A

Question31:-The germ tube test is the rapid diagnostic method used to identify:

A:-*Aspergillus fumigatus*

B:-*Cryptococcus neoformans*

C:-*Candida albicans*

D:-*Histoplasma capsulatum*

Correct Answer:- Option-C

Question32:-Coccidioidomycosis is most commonly known as

A:-Yellow fever

B:-San Joaquin valley fever

C:-Rocky mountain fever

D:-Relapsing fever

Correct Answer:- Option-B

Question33:-Sclerotic bodies or copper penny bodies are characteristics of which mycosis?

A:-Mycetoma

B:-Sporotrichosis

C:-Chromoblastomycosis

D:-Rhinosporidiosis

Correct Answer:- Option-C

Question34:-Drug of choice of pulmonary mucormycosis is

A:-Voriconazole

B:-Itraconazole

C:-Amphotericin B

D:-Fluconazole

Correct Answer:- Option-C

Question35:-Favic chandelier is the characteristic feature of

A:-*Trichophyton rubrum*

B:-*Trichophyton schoenleinii*

C:-*Trichophyton mentagrophytes*

D:-*Trichophyton violaceum*

Correct Answer:- Option-C

Question36:-Kerion refers to

A:-Hypersensitivity reaction to histoplasmosis

B:-Marked inflammatory response in dermatophytosis

C:-Hard nodule seen in sporotrichosis

D:-Severe keratitis in oculomycosis

Correct Answer:- Option-B

Question37:-Asteroid bodies observed in

A:-Sporotrichosis

B:-Histoplasmosis

C:-Candidiasis

D:-Chromoblastomycosis

Correct Answer:- Option-A

Question38:-Which dermatophyte shows club shaped macroconidia in clusters?

A:-*Trichophyton schoenleinii*

B:-*Epidermophyton floccosum*

C:-*Microsporum audouinii*

D:-All of the above

Correct Answer:- Option-B

Question39:-Broad based budding seen in which fungus?

A:-*Histoplasma capsulatum*

B:-*Blastomyces dermatidis*

C:-*Cryptococcus neoformans*

D:-*Candida auris*

Correct Answer:- Option-B

Question40:-Which organism causes black piedra?

A:-*Trichosporon beigeli*

B:-*Piedraia hortae*

C:-*Malassezia furfur*

D:-*Hortaea werneckii*

Correct Answer:- Option-B

Question41:-Ampicillin reduces efficacy of Oral contraceptive pills by

A:-Microsomal enzyme inhibition

B:-Microsomal enzyme induction

C:-Affecting its deconjugation and enterohepatic cycling

D:-Inhibiting transpeptidation reaction

Correct Answer:- Option-C

Question42:-The drug with maximum oral bioavailability is:

A:-Telithromycin

B:-Linezolid

C:-Fosfomicin

D:-Bacitracin

Correct Answer:- Option-B

Question43:-Once daily dosing of Gentamicin is possible because

A:-They are highly polar compounds

B:-Well absorbed when given orally

C:-Exerts time dependent killing and has a long half life

D:-Exerts concentration dependent killing and post antibiotic effect

Correct Answer:- Option-D

Question44:-Protein synthesis inhibitor acting at 50 S ribosome, effective in community acquired Pneumonia is

A:-Lefamulin

B:-Tigecycline

C:-Dalbavancin

D:-Trimethoprim

Correct Answer:- Option-A

Question45:-Dose adjustment is not needed in renal failure for

A:-Ciprofloxacin

B:-Levofloxacin

C:-Ofloxacin

D:-Moxifloxacin

Correct Answer:- Option-D

Question46:-Antibiotic antagonized by Pulmonary surfactant is

A:-Netilmicin

B:-Azithromycin

C:-Daptomycin

D:-Sulfonamide

Correct Answer:- Option-C

Question47:-Iron tablets given with tetracycline causes

A:-Increased absorption of tetracycline

B:-Decreased absorption of tetracycline

C:-Increased plasma protein binding of tetracycline

D:-Decreased plasma protein binding of tetracycline

Correct Answer:- Option-B

Question48:-Disulfiram like interaction with alcohol is least with

A:-Metronidazole

B:-Cefoperazone

C:-Satranidazole

D:-Tinidazole

Correct Answer:- Option-C

Question49:-Black box warning by FDA has been issued for this adverse effect of Bedaquiline

A:-QTc prolongation

B:-Ototoxicity

C:-Optic neuritis

D:-Crystalluria

Correct Answer:- Option-A

Question50:-False statement about Caspofungin is

A:-Active against Aspergillus

B:-Highly protein bound

C:-Water soluble

D:-Given orally

Correct Answer:- Option-D

Question51:-In Blood transfusion associated Malaria, Choose the most appropriate option

- (i) The parasite will remain in blood bank for 1-2 weeks
- (ii) Pre erythrocytic schizogony is absent
- (iii) Hypnozoites may be seen
- (iv) Relapse does not occur

A:-Only (i) and (ii)

B:-Only (iii) and (iv)

C:-Only (i), (ii) and (iv)

D:-Only (i) and (iv)

Correct Answer:- Option-C

Question52:-Definitive host of Babesia parasite is

A:-Haemaphysalis spinigera

B:-Ixodid scapularis

C:-Amblyomma hebraeum

D:-Dermacentor andersoni

Correct Answer:- Option-B

Question53:-World Malaria day Theme of 2026

A:-Time to deliver zero malaria: invest, innovate, implement.

B:-Accelerating the fight against malaria for a more equitable world

C:-Malaria Ends with Us: Reinvest, Reimagine, Reignite."

D:-"Driven to End Malaria: Now We Can. Now We Must

Correct Answer:- Option-D

Question54:-Which of the following protozoa belongs to order Schizopyrenida?

A:-Plasmodium species

B:-Naegleria species

C:-Acanthamoeba species

D:-Entamoeba species

Correct Answer:- Option-B

Question55:-Anchovy sauce pus from liver abscess caused by Entamoeba histolytica consists of

A:-The fluid is Alkaline and pH 8.2

B:-Necrotic hepatocytes without any pus cells

C:-It is thick greenish in colour

D:-Necrotic hepatocyte with pus cells & RBC

Correct Answer:- Option-B

Question56:-The Chiclero ulcer (or bay sore) characterized by persistent ulcerations in pinna seen in Central America among workers living in forests harvesting chicle caused by

A:-*Leishmania mexicana*

B:-*Leishmania donovani*

C:-*Leishmania braziliensis*

D:-*Leishmania infantum*

Correct Answer:- Option-A

Question57:-Trypanosoma rangeli is

A:-Pathogenic Haemoflagellate

B:-Kinetoplast is Small and sub-terminal

C:-Location in hindgut (feces) reduviid bug

D:-Transmitted by rubbing of reduviid bug's feces on abraded skin

Correct Answer:- Option-B

Question58:-Sporulated oocyst of *Cystoisospora belli* contains:

A:-One sporocyst and two sporozoites

B:-One sporocyst and four sporozoites

C:-Two sporocysts and eight sporozoites

D:-Two sporocysts and four sporozoites

Correct Answer:- Option-C

Question59:-Most common manifestation of *Toxoplasma gondii* in patients with HIV:

A:-Lymphadenopathy

B:-Chorioretinitis

C:-Myocarditis

D:-Encephalitis

Correct Answer:- Option-D

Question60:-Gold standard method of diagnosis of Trichomonas vaginalis infection

A:-Culture

B:-Wet saline mount examination

C:-Antigen detection by ICT

D:-Direct fluorescent antibody test (DFA):

Correct Answer:- Option-A

Question61:-Which of the following statement is not true regarding Carbapenem-resistant enterobacterales (CRE)?

A:-CRE are defined as members of the Enterobacterales order resistant to at least one carbapenem antibiotic.

B:-CRE comprise a heterogenous group of pathogens encompassing multiple mechanisms of resistance, broadly divided into those that are not carbapenemase-producing and those that are carbapenemase-producing

C:-CRE that are carbapenemase-producing may be the result of amplification of non-carbapenemase β -lactamase genes with concurrent outer membrane porin disruption.

D:-Carbapenemases like New Delhi metallo- β -lactamases, Verona integron-encoded metallo- β -lactamases and imipenem-hydrolysing metallo- β -lactamases are collectively referred to as metallo- β -lactamases.

Correct Answer:- Option-C

Question62:-Following statements are on Carbapenem-resistant Acinetobacter baumannii (CRAB) infections.

- i. It is always very clear if a CRAB isolate recovered from a respiratory or wound culture represents a colonizing organism especially in medically complex patients who are ill due to underlying host factors.
- ii. The production of OXA Carbapenemases (eg OXA-23, OXA-24/40) mediates resistance to β -lactams including carbapenems and sulbactam.
- iii. CRAB isolates often produce additional serine β -lactamases.
- iv. Sulbactam resistance is driven primarily by the presence of β -lactamases and not via mutations targeting Penicillin Binding Proteins.

True statements among these are

A:-i and ii

B:-ii and iii

C:-ii and iv

D:-iii and iv

Correct Answer:- Option-B

Question63:-True statements regarding *Stenotrophomonas maltophilia*, an aerobic, glucose non-fermenting, gram-negative bacillus, are

- i. *S. maltophilia* exhibits intrinsic resistance to aminoglycosides via chromosomal aminoglycoside acetyl transferase enzymes.
- ii. An L1 metallo- β -lactamase hydrolyses extended-spectrum cephalosporins and aztreonam, rendering these ineffective against *S. maltophilia*.
- iii. L2 serine β -lactamase inactivates penicillins, cephalosporins, and carbapenems, but not aztreonam in infection with *S. maltophilia*.
- iv. The combination of ceftazidime-avibactam and aztreonam is a preferred option for the treatment of *S. maltophilia* infection.

A:-i and ii

B:-i and iii

C:-ii and iii

D:-i and iv

Correct Answer:- Option-D

Question64:-Select the appropriate choice from the options based on the Assertion and Reason given below.

Assertion(a): Aminopenicillins, narrow-spectrum cephalosporins and cephamycins are potent ampC inducers.

Reason(r): Several β -lactam antibiotics are at moderate risk of inducing ampC genes.

A:-Assertion (a) is true but Reason (r) is false

B:-Assertion (a) is false but Reason (r) is true.

C:-Both {a) and r) are true and (r) is the correct explanation for (a)

D:-Both (a) and (r) are true but (r) is not the correct explanation for (a)

Correct Answer:- Option-D

Question65:-Which of the following is not true regarding *Pseudomonas aeruginosa* resistance?

A:-Multi Drug Resistant (MDR) *P. aeruginosa* is defined as *P. aeruginosa* not susceptible to at least one antibiotic in at least three antibiotic classes for which *P. aeruginosa* susceptibility is generally expected - penicillins, cephalosporins, fluoroquinolones, aminoglycosides and carbapenems.

B:-The concept of Difficult-to-Treat Resistance (DTR) is defined as *P. aeruginosa* exhibiting non-susceptibility to piperacillin-tazobactam, ceftazidime, cefepime, ciprofloxacin, and levofloxacin and susceptibility to meropenem, imipenem-cilastatin and aztreonam.

C:-MDR *P. aeruginosa* or DTR *P. Aeruginosa* generally evolve as a result of an interplay of multiple resistance mechanisms, including decreased expression of outer membrane porins, increased production of or amino acid substitutions within *Pseudomonas*-derived cephalosporinase enzymes..etc.

D:-In general, when a *P. aeruginosa* isolate tests susceptible to traditional β -lactam agents (i.e., piperacillin-tazobactam, ceftazidime, cefepime, aztreonam), fluoroquinolones (i.e., ciprofloxacin, levofloxacin), or carbapenems, an agent from the former 2 groups be preferred over carbapenem therapy.

Correct Answer:- Option-B

Question66:-The goals of Anti-Microbial Stewardship programs include all of the following except

A:-To prevent antimicrobial overuse, misuse, and abuse in inpatient, outpatient, and community settings, including the agriculture industry.

B:-To establish formal statements to improve and monitor the antimicrobial use

C:-To reduce health care-associated cost

D:-To reduce antibiotic-related adverse effects

Correct Answer:- Option-B

Question67:-The organisms posing urgent threats to human health according to the Centre for Disease Control (CDC) include all of the following except

A:-Carbapenem-Resistant Enterobacteriaceae

B:-Drug-Resistant *Neisseria gonorrhoeae*

C:-Extended Spectrum Beta-Lactamases producing Enterobacteriaceae

D:-Carbapenem-Resistant *Acinetobacter baumannii*

Correct Answer:- Option-C

Question68:-The mechanism of drug resistance in certain pathogenic bacteria are given below. Which among this combination is not correct?

A:-Salmonella - Mutations in the quinolone resistance determining areas of the chromosomal gyr and par genes have been shown to cause quinolone resistance which result in increased binding affinity of quinolone for topoisomerase enzymes.

B:-Helicobacter pylori - Overexpression of efflux and the translation initiation factor IF-2 with ribosomal protein L22

C:-Pseudomonas - Transferable aminoglycoside-modifying enzymes like aminoglycoside acetyltransferases, aminoglycoside phosphoryl transferases and aminoglycoside adenyl transferases

D:-Pseudomonas aeruginosa, β -lactamases break the amide link in the beta-lactam ring.

Correct Answer:- Option-A

Question69:-Kind of antibiotic resistance and the mechanism involved in resistance in few pathogens are given below. Which statement among this is not correct?

A:-Antibiotics spread out in the cell through the occurrence of mutations in the gene which specifically encodes the outer membrane porin protein, and this results in the change in OMPK36 variant porin which shows less permeability for the antibiotics in Staphylococcus aureus.

B:-Detection of gene enzymes is deactivated by antibiotics with the addition of an active functional group as seen in cases of resistance to aminoglycosides in Campylobacter coli

C:-Because of the down regulation of the main porin protein or refilling the cell membrane with some another selected protein channel, the permeability of membrane for antibiotics in some bacteria such as E. coli and Acinetobacter is decreased

D:-By changing the arrangement of the targets, the binding affinity of antibiotics can be reduced as found in cases of resistance to linezolid in Staphylococcus aureus

Correct Answer:- Option-A

Question70:-Find out the wrong pair (MDR organism and their drug of choice).

A:-Carbapenem-resistant Enterobacteriaceae (CRE) - Polymyxin, Tigecycline, and Aminoglycosides.

B:-Multidrug-resistant Pseudomonas aeruginosa - Ceftazidime-avibactam and Ceftolozane-tazobactam

C:-Methicillin-resistant Staphylococcus aureus (MRSA) - Vancomycin

D:-Vancomycin-resistant Enterococcus (VRE) - Mecillinam

Correct Answer:- Option-D

Question71:-A 10-year-old boy presents with recurrent Sinopulmonary infections, chronic diarrhea and failure to thrive. Clinical examination showed absent tonsils . Laboratory evaluation showed markedly decreased IgG, IgA, and IgE levels. Stool examination demonstrates *Giardia lamblia* infection. What is the most probable immunologic defect?

A:-Defective NADPH oxidase activity

B:-Mutation in Bruton's Tyrosine Kinase

C:-Deficiency of compliment C5-C9

D:-STAT3 mutation causing Hyper IgE syndrome

Correct Answer:- Option-B

Question72:-A neutropenic patient develops persistent fever despite five days of broad-spectrum antibacterial therapy. CT scan of the chest reveals multiple pulmonary nodules surrounded by ground-glass opacities ("halo sign"). Which of the following is the most likely causative organism?

A:-*Staphylococcus aureus*

B:-*Candida albicans*

C:-*Aspergillus fumigatus*

D:-*Atypical mycobacteria*

Correct Answer:- Option-C

Question73:-A renal transplant recipient presents 2 months after transplantation with fever, leukopenia, and interstitial pneumonitis. Which of the following is the most likely causative infection?

A:-Cytomegalovirus infection

B:-Pneumococcal pneumonia

C:-*Mycobacterium tuberculosis*

D:-*Mycoplasma pneumonia*

Correct Answer:- Option-A

Question74:-A hematopoietic stem cell transplant recipient develops progressive dyspnea, hypoxemia, and diffuse bilateral interstitial infiltrates on chest imaging 3 weeks after transplantation. This is classically seen with infection with

A:-SARS-CoV2 virus

B:-*Pneumocystis jirovecii*

C:-*Nocardia asteroides*

D:-*Aspergillus fumigatus*

Correct Answer:- Option-B

Question75:-A bed ridden paraplegic patient presents with fever and a foul-smelling sacral pressure ulcer with exposed underlying bone. Which of the following complications is most likely?

A:-Necrotizing fasciitis

B:-Osteomyelitis

C:-Septic arthritis

D:-Cellulitis

Correct Answer:- Option-B

Question76:-An 78-year-old nursing home resident presents with acute confusion, recurrent falls and poor oral intake without documented fever. Which of the following infections should be strongly suspected?

A:-Viral hepatitis

B:-Urinary tract infection

C:-Enteric fever

D:-Meningitis

Correct Answer:- Option-B

Question77:-Which of the following pathogens is a major cause of outbreaks in long-term care facilities and nursing homes?

A:-*Norovirus*

B:-*Sapovirus*

C:-*Rotavirus*

D:-*Enteric adenovirus*

Correct Answer:- Option-A

Question78:-Commonest organism causing overwhelming sepsis in post splenectomy patients

A:-*Mycoplasma pneumoniae*

B:-*Streptococcus pneumoniae*

C:-*Pseudomonas aeruginosa*

D:-*Staphylococcus aureus*

Correct Answer:- Option-B

Question79:-A splenectomized patient develops rapidly progressive septic shock following a dog bite. Which of the following organisms is the most likely cause?

A:-*Streptococcus pneumoniae*

B:-*Bartonella henselae*

C:-*Capnocytophaga canimorsus*

D:-*Haemophilus influenzae*

Correct Answer:- Option-C

Question80:-A severely burned patient develops fever and greenish wound exudate accompanied by ecthyma gangrenosum-like skin lesions. Which of the following pathogens is the most likely cause?

A:-*Enterococcus faecalis*

B:-*Acinetobacter baumannii*

C:-*Klebsiella pneumoniae*

D:-*Pseudomonas aeruginosa*

Correct Answer:- Option-D

Question81:-Which of the following is true about PVE (Prosthetic Valve Endocarditis)?

- i. *Staphylococcus aureus* cause both early and late onset PVE
- ii. Modified Duke criteria is used for clinical evaluation and diagnosis of PVE
- iii. Streptococci are the most common organisms causing PVE
- iv. Antibiotic prophylaxis for dental and invasive procedures is recommended for prevention

A:-Only (ii and iii)

B:-All the above

C:-Only (i, ii and iv)

D:-Only (ii and iv)

Correct Answer:- Option-C

Question82:-The best tool for diagnostic evaluation of graft infection in prosthetic Vascular grafts is

A:-CT scan

B:-MRI Scan

C:-Blood culture

D:-Surgical exploration and culture

Correct Answer:- Option-A

Question83:-Which of the following affect efficacy of sterilisation of endoscopic instruments?

- i. Adequate cleaning of instruments before sterilisation
- ii. Design of the instrument
- iii. Lumen length
- iv. Lumen diameter

A:-Only (ii and iii)

B:-Only (ii and iv)

C:-All the above

D:-Only (ii, iii and iv)

Correct Answer:- Option-C

Question84:-As per the Biomedical Waste Management Rules 2016 who is the prescribed authority for implementation of the provisions of the rules in a state in India?

A:-Ministry of Health and Family Welfare

B:-Ministry of Environment and Climate Change

C:-State Bio medical Waste Management authority

D:-State Pollution Control Board

Correct Answer:- Option-D

Question85:-The number of days of Quarantine required for travellers who have travelled to or passing through endemic areas of Yellow fever and not possessing a vaccination certificate

A:-6

B:-5

C:-4

D:-12

Correct Answer:- Option-A

Question86:-Microbial forensics developed in the wake of bioterrorist attack with which of the following organisms in 2001?

A:-Yersinia Pestis

B:-Bacillus Anthracis

C:-Clostridium Botulinum

D:-Salmonella Typhimurium

Correct Answer:- Option-B

Question87:-Which of the following is/are correct about BCG scar?

- i. Scar is present in all individuals.
- ii. Scar formation usually takes around 6 to 12 weeks
- iii. Mantoux positivity occurs between 8 to 14 weeks
- iv. Incorrect technique leads to development of pustule

A:-Only (i and ii)

B:-All the above

C:-Only (ii and iv)

D:-Only (ii and iii)

Correct Answer:- Option-D

Question88:-Which of the following is/are not correct about Catheter-Associated Urinary Tract Infection (CAUTI)?

- i. The majority of patients with catheter-associated bacteriuria are asymptomatic
- ii. The most important risk factor for catheter associated bacteriuria is unsterile technique of insertion
- iii. Bacteremia is a rare complication of catheter associated bacteriuria
- iv. Over treatment of Asymptomatic Bacteriuria (ASB) is a major contributor to Antimicrobial misuse

A:-Only (i and iii)

B:-Only (i and iv)

C:-Only (ii)

D:-Only (iii)

Correct Answer:- Option-C

Question89:-The infection which is found more in Heart lung and Lung transplant patients as compared to other types of organ transplants is

A:-Invasive Aspergillosis

B:-Cytomegalovirus

C:-Burkholderia cepacian

D:-Lomentospora prolificans

Correct Answer:- Option-A

Question90:-Which is/are true regarding vaccinations of transplant patients?

- i. Live vaccines can be given two weeks prior to transplant
- ii. Close contacts should not be given live vaccines
- iii. Yellow fever vaccine is contraindicated in post-transplant patients
- iv. If the transplant occurs in Influenza season Influenza vaccine can be given after two weeks of transplant

A:-Only (i and ii)

B:-Only (iii)

C:-Only (ii and iii)

D:-Only (iii and iv)

Correct Answer:- Option-B

Question91:-Which of the following is false regarding Hanta virus?

A:-Hantaviruses are a family of viruses which can cause serious illnesses and death

B:-These viruses cause diseases like hantavirus pulmonary syndrome (HPS) and hemorrhagic fever with renal syndrome (HFRS)

C:-They are spread mainly by rodents

D:-Most hantaviruses are known to spread person-to-person

Correct Answer:- Option-D

Question92:-Which of the following statement is/are correct about Integrated Disease Surveillance Program in India?

- i. The types of surveillance are syndromic, presumptive and lab confirmed
- ii. The forms used are S Form, P Form and L Form

iii. S form is filled by Medical Officer

A:-Only (i)

B:-Only (i and ii)

C:-Only (i and iii)

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

Correct Answer:- Option-B

Question93:-A patient develops poikilothermia following a hypothalamic stroke. Damage to which of the regions is most likely for impaired heat Conservation mechanisms?

A:-Anterior Hypothalamic nucleus

B:-Pre- optic area

C:-Posterior Hypothalamus

D:-Hippocampus

Correct Answer:- Option-C

Question94:-According to the Kerala state management guidelines for short febrile illness the investigation-based approach should be done if fever is more than _____ days.

A:-Three

B:-Five

C:-Seven

D:-Not specified

Correct Answer:- Option-A

Question95:-Which of the following is unlikely to be a causative agent for sepsis with skin findings?

A:-N. Meningitidis

B:-Rickettsia rickettsii

C:-S. pneumoniae

D:-None of the above

Correct Answer:- Option-D

Question96:-Which of the following statements regarding the treatment of Urinary tract infection is FALSE?

A:-The goal of therapy is to use the shortest effective antimicrobial course while minimising collateral ecological damage

B:-Asymptomatic bacteriuria should routinely be Screened for and treated in all elderly individuals

C:-Pregnant women should be screened for asymptomatic bacteriuria during the initial prenatal visit

D:-Quinolones and tetracyclines are generally avoided during pregnancy as treatment options for urinary tract infection

Correct Answer:- Option-B

Question97:-A 63-year-old man with diabetes mellitus presents with fever, productive cough, pleuritic chest pain, dyspnoea and fatigue for 4 days. Chest radiograph shows right lower lobe consolidation with moderate pleural effusion. The patient is haemodynamically stable. Which of the following is the MOST appropriate next step in diagnostic evaluation?

A:-Measure Serum procalcitonin to determine need for antibiotic therapy

B:-Defer further evaluation of pleural fluid because pleural effusions commonly accompany pneumonia

C:-Perform diagnostic pleural fluid analysis if imaging characteristics are atypical for fluid overload

D:-Avoid sputum gram stain and culture because of low diagnostic utility in community - acquired pneumonia

Correct Answer:- Option-C

Question98:-Which of the following group of pathogens has been identified as contributing the highest attributable burden of diarrhoea during the first year of life in developing countries?

A:-Noroviruses GII, rotavirus, Campylobacter spp, astrovirus, and Cryptosporidium spp

B:-Rotavirus, enterotoxigenic Escherichia coli, Shigella spp, adenovirus and Giardia lamblia

C:-Norovirus GII, Vibrio cholerae, Salmonella spp, astrovirus and Entamoeba histolytica

D:-Rotavirus, Clostridioides, difficile, adenovirus, Yersinia enterocolitica and Cyclospora spp.

Correct Answer:- Option-A

Question99:-Which of the following statements regarding septic arthritis is FALSE?

A:-Infection is most commonly acquired through hamatogenous dissemination

B:-Most cases of septic arthritis are polyarticular

C:-Staphylococcus aureus infection is among the Commonest causative organisms

D:-Gonococcal arthritis may present with disseminated infection associated with febrile tenosynovitis and skin lesions

Correct Answer:- Option-B

Question100:-A 28-year-old man presents with acute fever and a generalised rash. While evaluating him using a syndromic approach to infectious diseases, which of the following histories is LEAST relevant in identifying the possible etiology?

A:-Recent travel and exposure to insects or wild animals

B:-Recent drug ingestion and immunisation history

C:-Dietary spice intake and food preferences

D:-Exposure to febrile individuals and risk factors of sexually transmitted infections

Correct Answer:- Option-C