

PROVISIONAL ANSWER KEY

Question 174/2023/OL

Paper Code:

Category 103/2023

Code:

Exam: Laboratory Technician Grade II (SR for ST)

Date of Test 28-12-2023

Department Health Services

Question1:-Normal reticulocyte count

A:- $50-100 \times 10^9/L$

B:- $4-11 \times 10^{12}/L$

C:- $3-5 \times 10^{12}/L$

D:- $6-15 \times 10^9/L$

Correct Answer:- Option-A

Question2:-The coagulation factor not involved in intrinsic pathway of blood coagulation

A:-Factor IX

B:-Factor VII

C:-Factor VIII

D:-Factor XII

Correct Answer:- Option-B

Question3:-Basophilic stippling occurs in

A:-Thalassemia

B:-Megaloblastic anaemia

C:-Lead poisoning

D:-All of the above

Correct Answer:- Option-D

Question4:-Reducing agent used in sickling test

A:-Potassium sulphate

B:-Sodium metabisulphite

C:-Sodium nitroprusside

D:-Sodium Hypochlorite

Correct Answer:- Option-B

Question5:-Hyper segmented neutrophils are found in

A:-Iron deficiency anaemia

B:-Acute lymphoblastic leukemia

C:-Macrocytic anaemia

D:-Acute myecogenous leukemia

Correct Answer:- Option-C

Question6:-Which of the following are used as prostatic marker

A:-Acid phosphatase

B:-Citric acid

C:-Zinc

D:-All of the above

Correct Answer:- Option-D

Question7:-Reagent used for detection of ketone bodies by dipstick method

A:-Sodium nitroferricyanide

B:-Ferric chloride

C:-Potassium iodide

D:-Ortho-toluidine

Correct Answer:- Option-A

Question8:-Which of the following organisms are destroyed when CSF samples are refrigerated

A:-S. Pneumoniae

B:-N. Meningitidis

C:-E.Coli

D:-Salmonella typhi

Correct Answer:- Option-B

Question9:-Black tarry stool are indicative of

A:-Obstructive jaundice

B:-Cholera

C:-Gastrointestinal haemorrhage

D:-Food poisoning

Correct Answer:- Option-C

Question10:-Foul smelling sputum is observed in

A:-Bronchiectasis

B:-Pulmonary oedema

C:-Asthma

D:-Pneumonia

Correct Answer:- Option-A

Question11:-Cryoprecipitate is administered to patients suffering from

i. Haemophilia

ii. Thrombocytopenia

- iii. Leucopenia
- iv. Von Willebrand disease

- A:-i and ii
- B:-ii and iii
- C:-i and iv
- D:-ii and iv

Correct Answer:- Option-C

Question12:-Membrane stabilizer used in SAG-M blood bags

- A:-Mannitol
- B:-Dextrose
- C:-Adenine
- D:-Citric Acid

Correct Answer:- Option-A

Question13:-Which one of the following immunoglobulin crosses the placenta frequently

- A:-IgM
- B:-IgA
- C:-IgE
- D:-IgG

Correct Answer:- Option-D

Question14:-Which of the following statement is correct for Bombay blood group

- A:-persons with Bombay blood group carries HA_g
- B:-Bombay blood group person cannot receive 'O' blood group
- C:-Bombay blood group is detected using forward grouping
- D:-Bombay blood group persons lack anti H antibodies

Correct Answer:- Option-B

Question15:-Anti A1 lectins are extracted from

- A:-Ulex europeus
- B:-Vicia graminea
- C:-Dolichos biflorus
- D:-Arachis hypogea

Correct Answer:- Option-C

Question16:-Microtome which is ideal for cutting sections of very large blocks of tissue

- A:-Sliding microtome
- B:-Sledge microtome
- C:-Rocking microtome

D:-Rotary microtome

Correct Answer:- Option-B

Question17:-All are mercury containing fixatives except

A:-Heidenhain susa

B:-Zenker's fluid

C:-Helly's fluid

D:-Gander's fluid

Correct Answer:- Option-D

Question18:-Best mounting media for fat stains

A:-Apathy medium

B:-DPX

C:-Glycerine jelly

D:-Canada Balsum

Correct Answer:- Option-C

Question19:-All are true about frozen section except

A:-Structural details may become distorted

B:-Serial sections can be obtained

C:-Polychrome methylene blue can be used for staining

D:-Adhesive not required for unfixed tissue

Correct Answer:- Option-B

Question20:-Following are special stains for hemosiderin except

A:-Tirmann - Schmelzer's turnbull blue technique

B:-Perl's prussian blue

C:-Glenner's method

D:-Stein's method

Correct Answer:- Option-D

Question21:-All are true about sex chromatin except

A:-Buccal mucosal scrapings from inside the cheek is obtained for sex chromatin study

B:-The most reliable staining is hematoxylin and Eosin

C:-Fixative used is equal parts of ether and alcohol

D:-Sex chromatin is seen as an intensely staining dot lying against the nuclear membrane

Correct Answer:- Option-B

Question22:-All are nuclear fixatives except

A:-New comer's fluid

B:-Clarke's fluid

C:-Carnoy's fluid

D:-Champy's fluid

Correct Answer:- Option-D

Question23:-All are true about Shorr's staining except

A:-Used for hormonal assessment

B:-Not very useful in detecting malignancies

C:-Nuclear definition and cytoplasmic transparency is better than pap stain

D:-Contain biebrich scarlet, orange G and fast green

Correct Answer:- Option-C

Question24:-"NAF" solution in cell block technique contain

A:-Formaldehyde

B:-Glycerin

C:-Ethanol

D:-Eosin

Correct Answer:- Option-B

Question25:-All are advantages of liquid based cytology except

A:-Number of slides per patient are reduced

B:-Improves the background of microscopy

C:-Improves cell preservation

D:-Cause drying of cells during preparation

Correct Answer:- Option-D

Question26:-In Karyotyping, shortest acrocentric chromosomes are seen in which group?

A:-B group

B:-D group

C:-E group

D:-G group

Correct Answer:- Option-D

Question27:-V chromosome is a _____ chromosome

A:-Metacentric

B:-Submetacentric

C:-Centric

D:-Acrocentric

Correct Answer:- Option-D

Question28:-Which banding technique employs fluorescence for chromosomal

studies

A:-G banding

B:-Q banding

C:-C banding

D:-H banding

Correct Answer:- Option-B

Question29:-Turner syndrome is

A:-XXY

B:-48 XXXY

C:-X0

D:-49 XXXYY

Correct Answer:- Option-C

Question30:-Most commonly employed mitogen for chromosome preparation from whole blood culture

A:-Phyto hemagglutinin

B:-Lipo polysaccharide

C:-Concanavalin A

D:-Pokeweed mitogen

Correct Answer:- Option-A

Question31:-Which of the following is a High level disinfectant?

A:-70% Ethyl alcohol

B:-Hydrogen peroxide

C:-Quaternary ammonium compound

D:-Phenol

Correct Answer:- Option-B

Question32:-Who is known as the 'Father of Antiseptic surgery'?

A:-Joseph Lister

B:-Louis Pasteur

C:-Edward Jenner

D:-Robert Koch

Correct Answer:- Option-A

Question33:-Polymerase Chain Reaction (PCR) was developed by

A:-Ernst Ruska

B:-Rosalyn Yallow

C:-Kary B Mullis

D:-Karl Landsteiner

Correct Answer:- Option-C

Question34:-Which of the following is not a feature of Electron Microscope?

A:-Viruses can be detected

B:-The object appears bright against a dark background

C:-Intra cellular structures of bacteria can be seen

D:-Electromagnet lens is used

Correct Answer:- Option-B

Question35:-Infectious plastic wastes should be segregated in which colour bag?

A:-White

B:-Yellow

C:-Blue

D:-Red

Correct Answer:- Option-D

Question36:-Which of the following is an anaerobic medium

A:-Thioglycollate broth

B:-Selenite F broth

C:-Bile broth

D:-Tetrathionate broth

Correct Answer:- Option-A

Question37:-Multiple ring forms are the characteristic feature of

A:-*P.vivax*

B:-*P.falciparum*

C:-*P.Ovale*

D:-*P.malariae*

Correct Answer:- Option-B

Question38:-Which of the following has no cystic stage?

A:-*Trichomonas vaginalis*

B:-*Giardia lamblia*

C:-*Enteromonas hominis*

D:-*Dientamoeba fragilis*

Correct Answer:- Option-A

Question39:-An AIDS patient came to the out patient department complaining loose stools. On acid fast staining, stool showed 4-6µm size oocyst. The most probable diagnosis is

A:-*Cryptococcus*

B:-*Cyclospora*

C:-Cystoisospora

D:-Cryptosporidium

Correct Answer:- Option-D

Question40:-Which of the following is NOT a nematode with small intestine as habitat

A:-Ascaris lumbricoides

B:-Ancylostoma duodenale

C:-Enterobius vermicularis

D:-Necator americanus

Correct Answer:- Option-C

Question41:-Larva currens is caused by

A:-Toxocara canis

B:-Toxocara cati

C:-Ascaris lumbricoides

D:-Strongyloides stercoralis

Correct Answer:- Option-D

Question42:-Which of the following DO NOT float in saturated salt flotation technique of stool

A:-Fertilised egg of round worm

B:-Unfertilised egg of round worm

C:-Ovum of pinworm

D:-Ovum of hook worm

Correct Answer:- Option-B

Question43:-Diarrheal stool with rice water appearance is a characteristic feature of the disease

A:-typhoid

B:-bacillary dysentery

C:-cholera

D:-travellers diarrhea

Correct Answer:- Option-C

Question44:-Inverted fir tree appearing growth pattern in gelatin stab culture is related to

A:-B. anthracis

B:-Y.pestis

C:-P.aeruginosa

D:-B.cereus

Correct Answer:- Option-A

Question45:-Streptobacillus moniliformis causes

- A:-Haverhill fever
- B:-Pneumonia
- C:-Meningitis
- D:-Brazilian Purpuric fever

Correct Answer:- Option-A

Question46:-Example of motile Gram positive bacillus is

- A:-Anthrax bacillus
- B:-Cl. perfringens
- C:-Cl. tetani
- D:-Cl. Septicum

Correct Answer:- Option-D

Question47:-Friedlanders bacillus is

- A:-K. pneumoniae
- B:-M. tuberculosis
- C:-S.typhi
- D:-P.aeruginosa

Correct Answer:- Option-A

Question48:-Example of transport media is

- A:-Mc Leod's medium
- B:-DCA
- C:-Stuart's medium
- D:-Mac Conkeys medium

Correct Answer:- Option-C

Question49:-"Reynolds - Braude" phenomenon is related to

- A:-C.tropicalis
- B:-C.krusei
- C:-C.pseudotropicalis
- D:-C.albicans

Correct Answer:- Option-D

Question50:-Aflatoxin is produced by

- A:-Rhizopus
- B:-Aspergillus fumigatus
- C:-Aspergillus flavus
- D:-Histoplasma capsulatum

Correct Answer:- Option-C

Question51:-South American Blastomycosis is

A:-Histoplasmosis

B:-Paracoccidioidomycosis

C:-Cryptococcosis

D:-Coccidioidomycosis

Correct Answer:- Option-B

Question52:-Ring worm of the foot is

A:-Tinea corporis

B:-Tinea cruris

C:-Tinea capitis

D:-Tinea pedis

Correct Answer:- Option-D

Question53:-Torulosis is caused by

A:-C.neoformans

B:-B.dermatitidis

C:-P.brasiliensis

D:-C.immitis

Correct Answer:- Option-A

Question54:-Sabouraud's Dextrose agar does not contain

A:-dextrose

B:-peptone

C:-agar

D:- yeast extract

Correct Answer:- Option-D

Question55:-Causative agent of "Shipyards eye" is

A:-Herpes virus

B:-Echo virus

C:-Adeno virus

D:-Arbovirus

Correct Answer:- Option-C

Question56:-Infectious Hepatitis is

A:-Type B Hepatitis

B:-Type A Hepatitis

C:-Type C Hepatitis

D:-Type D Hepatitis

Correct Answer:- Option-B

Question57:-HIV belongs to the family

A:-Herpesvirus

B:-Flavivirus

C:-Parvovirus

D:-Retrovirus

Correct Answer:- Option-D

Question58:-Example of DNA virus is

A:-Adenovirus

B:-Retrovirus

C:-Corona virus

D:-Picornavirus

Correct Answer:- Option-A

Question59:-Inclusion bodies seen in case of "fowl pox" are

A:-Lipschutz bodies

B:-Guarnieri bodies

C:-Molluscum bodies

D:-Bollinger bodies

Correct Answer:- Option-D

Question60:-Tzanck cells seen in microscopic examination of the lesions in case of infection with

A:-Pox virus

B:-Herpes virus

C:-Mumps virus

D:-Togavirus

Correct Answer:- Option-B

Question61:-The main component of glass is

A:-Silicon trioxide

B:-Silicon dioxide

C:-Sodium dioxide

D:-Calcium silicate

Correct Answer:- Option-B

Question62:-Which acid is used in the preparation of chromic acid

A:-HCl

B:- H_2SO_4

C:- HNO_3

D:- CH_3COOH

Correct Answer:- Option-B

Question63:-Needle prick injury belongs to

A:-Physical hazard

B:-Chemical hazard

C:-Biological hazard

D:-Electric hazard

Correct Answer:- Option-C

Question64:-Pririe acid is stored

A:-in closed cabinet

B:-Under water

C:-crack proof containers

D:-at ground level

Correct Answer:- Option-B

Question65:-Still is used for the preparation of

A:-Reagents

B:-Distilled water

C:-Acids

D:-All of the above

Correct Answer:- Option-B

Question66:-Unit of Luminous intensity is

A:-Ampere

B:-Candela

C:-Kelvin

D:-Mole

Correct Answer:- Option-B

Question67:-Gram equivalent weight of a solute in a litre of solution is termed as

A:-Molar solution

B:-Normal solution

C:-Percent solution

D:-Molal solution

Correct Answer:- Option-A

Question68:-Suitable antioagulant for blood gas analysis is

A:-EDTA

B:-Sodium citrate

C:-Heparin

D:-Double oxalate

Correct Answer:- Option-C

Question69:-Gray coloured vacutainer tube stopper indicate the anticoagulant

A:-EDTA

B:-Heparin

C:-Sodium fluoride-potassium oxalate

D:-Citrate

Correct Answer:- Option-C

Question70:-Chemical wastes are collected in which colour coded bag before disposal

A:-Black

B:-Blue

C:-Red

D:-Yellow

Correct Answer:- Option-A

Question71:-For determination of electrolyte concentration, the instrument used is

A:-fluorimeter

B:-flame photometer

C:-spectrophotometer

D:-Luminometer

Correct Answer:- Option-B

Question72:-Which of the following radioactive isotope is used to measure the activity of thyroid gland?

A:-Cobalt-60

B:-Carbon-14

C:-Iodine-131

D:-Sodium-24

Correct Answer:- Option-C

Question73:-Henderson-Hasselbach equation is

A:- $pH = pK_a + \log \frac{[base]}{[acid]}$

B:- $pH = pK_a - \log \frac{[base]}{[acid]}$

C:- $pH = pK_a (\log \frac{[acid]}{[base]})$

D:-None of these

Correct Answer:- Option-A

Question74:- pH of plasma is

A:-6.8 - 8.4

B:-7.3 - 7.4

C:-5.8 - 6.2

D:-7.1 - 7.9

Correct Answer:- Option-B

Question75:-In thin layer chromatography, the stationary phase is

A:-Paper

B:-Cellulose

C:-Resins

D:-Gas

Correct Answer:- Option-B

Question76:-The electrostatic interaction between charged proteins and matrix is involved in

A:-Thin layer chromatography

B:-Ion exchange chromatography

C:-Molecular sieve chromatography

D:-None of these

Correct Answer:- Option-B

Question77:-In dry chemistry analysers, the reaction is measured by

A:-Flame photometry

B:-Colosemetry

C:-Reflectance spectrophotometry

D:-All of the above

Correct Answer:- Option-C

Question78:-Closeness to the true value is

A:-Accuracy

B:-Precision

C:-Sensitivity

D:-None of these

Correct Answer:- Option-A

Question79:-In accurate pepetting, belongs to which of the following?

A:-Pre analytical error

B:-Analytical error

C:-Post analytical error

D:-All the above

Correct Answer:- Option-B

Question80:-Red coloured vacutainer tube contain,

A:-EDTA

B:-No any anticoagulant

C:-Heparin

D:-Double oxalate

Correct Answer:- Option-B

Question81:-Estimation of serum level of which of the following parameters helps in differentiation between salivary gland lesions and pancreatic disease?

A:-Alkaline phosphatase

B:-Amylase

C:-C-Reactive protein

D:-Lipase

Correct Answer:- Option-D

Question82:-Using Friedewald equation the LDL cholesterol value can be calculated if we know the values of

A:-Total cholesterol and HDL cholesterol

B:-Total cholesterol and VLDL cholesterol

C:-Total cholesterol, HDL cholesterol and Triglycerides

D:- Total cholesterol, HDL cholesterol and VLDL cholesterol

Correct Answer:- Option-C

Question83:-Estimation of serum concentration of 25-hydroxy vitamin D is useful in cases of

A:-Megaloblastic anemia

B:-Night blindness

C:-Osteomalacia

D:-Pernicious anemia

Correct Answer:- Option-C

Question84:-Urinary ALA (delta amino levulinic acid) excretion is normal in which of the following disorders

A:-Acute intermittent porphyria

B:-ALA dehydratase deficiency

C:-Lead poisoning

D:-Variegate porphyria

Correct Answer:- Option-D

Question85:-The Michaelis constant is numerically equal to the substrate concentration when the velocity of the reaction catalysed is equal to

A:- V_{max}

B:- $V_{max}/2$

C:- $2 \times V_{max}$

D:-Zero

Correct Answer:- Option-B

Question86:-Which of the following is true regarding kinetic assays in comparison to end point assays

A:-Good accuracy and precision

B:-Can be done on ordinary photometers

C:-Cheaper

D:-More time required

Correct Answer:- Option-A

Question87:-Creatine phospho kinase MB isoenzyme is assayed for diagnosis of disorder of the

A:-Brain

B:-Heart

C:-Liver

D:-Kidney

Correct Answer:- Option-B

Question88:-Thyroid stimulating hormone level estimation is commonly performed by

A:-End point assay

B:-Immuno assay

C:-Kinetic assay

D:-Potentiometry

Correct Answer:- Option-B

Question89:-In eukaryotes the initiator codon codes for which of the following amino acids?

A:-Methionine

B:-Threonine

C:-Tryptophan

D:-Valine

Correct Answer:- Option-A

Question90:-The substance identified by using RTPCR is

A:-Antibody

B:-Antigen

C:-DNA

D:-RNA

Correct Answer:- Option-D

Question91:-The enzyme used for creation of a gene library is

A:-Restriction endonuclease

B:-Reverse transcriptase

C:-Telomerase

D:-Topoisomerase

Correct Answer:- Option-A

Question92:-Adequacy of collection of a 24 hour urine specimen is analysed by noting the value of

A:-Albumin

B:-Creatinine

C:-Urea

D:-Uric acid

Correct Answer:- Option-B

Question93:-Interference of red blood cells in CSF protein analysis is avoided by

A:-Centrifugation

B:-Dilution 1:10

C:-Filtration

D:-Precipitation

Correct Answer:- Option-A

Question94:-The indicator used for determination of free acidity in gastric juice is

A:-Methyl orange

B:-Methyl red

C:-Phenolphthalein

D:-Topfer's reagent

Correct Answer:- Option-D

Question95:-The most common types of kidney stones are

A:-Calcium oxalate

B:-Cystine

C:-Struvite

D:-Uric acid

Correct Answer:- Option-A

Question96:-In serum protein electrophoresis, the globulin fraction with the slowest rate of migration is

A:-Alpha 1

B:-Alpha 2

C:-Beta

D:-Gamma

Correct Answer:- Option-D

Question97:-The immunoglobulin class important in secondary immune response is

A:-IgA

B:-IgD

C:-IgG

D:-IgM

Correct Answer:- Option-C

Question98:-The enzyme present in enzyme-labelled antibodies used in ELISA technique is

A:-5-nucleotidase

B:-Alanine aminotransferase

C:-Alkaline phosphatase

D:-Aspartate aminotransferase

Correct Answer:- Option-C

Question99:-The best index of long-term (6-8 weeks) control of blood glucose level is

A:-Fasting Plasma Glucose

B:-Fructosamine

C:-Glycated Hemoglobin

D:-Urine Microalbumin

Correct Answer:- Option-C

Question100:-The common specimens used for drug abuse testing in employees are all of the following except

A:-Hair

B:-Nail

C:-Saliva

D:-Urine

Correct Answer:- Option-B