

MP Vyapam Lab Technician Questions and Answers

Glassware used to measure 24 hour urine volumes is a:

- a. volumetric ask
- b. beaker
- c. erlenmeyer cylinder
- d. graduated cylinder
- e. safety bulb

answer: d. graduated cylinder

Glassware used to make 100 mls of a 12% solution is a:

- a. volumetric ask
- b. beaker
- c. erlenmeyer cylinder
- d. graduated cylinder
- e. safety bulb

answer: a. volumetric ash

A suction device used to draw up liquids is a:

- a. volumetric ask
- b. beaker
- c. erlenmeyer cylinde
- d. graduated cylinder
- e. safety bulb

answer: e. safety bulb

The pipette with a bulged out portion in the middle is a:

- a. mohr pipette
- b. pasture pipette
- c. serological pipette
- d. volumetric pipette
- e. micro-pipette

answer: d. volumetric pipette

Which piece of glassware would not give critical measurement:

- a. volumetric ask
- b. beaker
- c. erlenmeyer cylinder

- d. graduated cylinder
 - e. safety bulb
- answer: b. beaker

The durable material used to make heat resistant glassware is:

- a. polyethylene
 - b. soda lime
 - c. polystyrene
 - d. borosilicate
 - e. polyvinyl chloride
- answer: d. borosilicate

Solid crystals of potassium oxalate are added to distilled water in a container.

What term would describe the potassium oxalate?

- a. solution
 - b. solvent
 - c. solute
 - d. reagent
 - e. a & c
- answer: c. solute

The destruction of all micro-organisms including spores is called:

- a. sanitation
 - b. antisepsis
 - c. sterilization
 - d. disinfection
 - e. asepsis
- answer: c. sterilization

A ug is a unit to describe:

- a. time
 - b. volume
 - c. distance
 - d. weight
 - e. length
- answer: d. weight

A pH of 2 is _____ than a pH of 5:

- a. 1000 times more acidic
 - b. 100 times more acidic
 - c. 2 times less acidic
 - d. 20 times less acidic
 - e. 1000 times more acidic
- answer: e. 1000 times more acidic

Cells in a hypertonic solution will:

- a. swell and burst
 - b. dehydrate
 - c. hemolyze
 - d. not be affected
 - e. stop mitosis
- answer: b. dehydrate

The solution used to x a pap smear is:

- a. wright stain
 - b. hematoxylin
 - c. physiological saline
 - d. cytospray
 - e. methylene blue
- answer: d. cytospray

Blood for an RBC count must be prepared from:

- a. EDTA blood
 - b. citrated blood
 - c. heparinized blood
 - d. oxalated blood
 - e. clotted blood
- answer: a. EDTA blood

Which reagent is not routinely used to preserve tissue in a life-like manner:

- a. formic acid
 - b. zenkers uid
 - c. 40% formaldehyde dissolved in water
 - d. bouin's uid
 - e. 10% formalin
- answer: a. formic acid

Which piece of histology equipment is not temperature dependant:

- a. wax
- b. tissue processor
- c. microtome
- d. embedding center
- e. waterbath

answer: c. microtome

A biopsy is:

- a. a removal of biological uid
- b. the removal of an organ
- c. a post mortem examination
- d. excision of a representative tissue sample
- e. a collection of blood

answer: d. excision of a representative tissue sample

During tissue processing, what is the correct sequence of steps:

- a. clearing, dehydration, inltration
- b. clearing, inltration, dehydration
- c. dehydration, inltration, clearing
- d. dehydration, clearing, inltration
- e. embedding, sectioning, staining

answer: d, dehydration, clearing, inltration

Fixation is important in tissue processing because it:

- a. prevents cell morphology changes and shrinkage
- b. allows tissue to be examined in a life-like condition
- c. facilitates the staining process
- d. a & c
- e. a, b, & c

answer: e. a, b, & c

The liquid portion of blood remaining after a clot has formed is called:

- a. the buffy coat
- b. serum
- c. plasma
- d. lymph

e. tissue uid

answer: b. serum

Which test could not be performed on a serum sample:

iron

b.vitamin B12

a.

b. total lipids

c. clotting factors

d. potassium

answer: d. clotting factors

The shape of a normal erythrocyte is described as:

a. bioconcave disc

b. spherocyte

c. polymorphonucleocyte

d. thin column

e. bull's eye

answer: a. bioconcave disk

Glucose results are correctly reported in:

a. g/mmol

b. mmol/L

c. g/L

d. g/ml

e. g/dl

answer: b. mmol/L

If a patient refuses to have a venipuncture done you should:

a. tear up the requisition

b. collect a urine sample

c. politely ask a patient to come back next week

d. restrain the patient and proceed with the venipuncture

e. notify the patient's physician

answer: e. notify the patients physician

Which statement is false when performing a venipuncture:

a. the vein is entered at a 15-20 degree angle

- b. the tubes are pushed onto the needle with the thumb of the strongest hand
 - c. the bevel of the needle is pointed up when entering the vein
 - d. the tourniquet is removed before withdrawing the needle
 - e. the patient's arm is cleansed before palpating the vein
- answer: e. the patient's arm is cleansed before palpating the vein

A biohazardous container is used to discard:

- a. lancets
 - b. needles
 - c. band-aid wrappers
 - d. a & b
 - e. a, b & c
- answer: d. a & b

Which needle gauge corresponds with the smallest needle size:

- a. 18
- b. 20
- c. 21
- d. 22
- e. 23

answer: e. 23

The vacutainer tube which is used to collect and separate serum is the:

- a. red
- b. green
- c. lavender
- d. light blue
- e. SST

answer: e. SST

If a lavender top, plain red top, grey top, and light blue top tubes are collected, what is the order of draw:

- a. they can be collected in any order
- b. plain red top, lavender, blue, grey
- c. blue, plain red top, grey, lavender
- d. grey, blue, lavender, plain red top
- e. plain red top, light blue, lavender, grey

answer: e. plain red top, light blue, lavender, grey

The tourniquet is:

- a. applied very tightly to the arm
- b. used to increase venous II
- c. applied about 6-8" above the elbow
- d. tied in a knot to keep it on securely
- e. released after the needle is withdrawn

answer: b. used to increase venous II

If a patient faints during a venipuncture, you should:

- a. call the physician at once
- b. remove the needle and attend to the patient
- c. yell loudly at the patient to keep him conscious
- d. continue the procedure until all blood is collected
- e. start artificial respiration immediately

answer: b. remove the needle and attend to the patient

What vein/veins is not used to obtain a venous blood sample:

- a. basilica vein
- b. cephalic vein
- c. medial cubital vein
- d. femoral vein
- e. veins on the back of the hand

answer: d. femoral vein

A blood specimen collected in a heparinized tube is centrifuged. It will separate into:

- a. serum and clot
- b. plasma and clot
- c. serum and plasma
- d. plasma, buffy coat, RBC

answer: d. plasma, buffy coat, RBC

Hemolysis may result from:

- a. using a 25 gauge needle on an adult
- b. vigorously shaking the blood specimen
- c. refrigerating the vacutainer before use
- d. leaving the tourniquet on for 3 minutes

e. all of the above

answer: e. all of the above

The test procedure that uses a westergren tube is:

- a. erythrocyte sedimentation rate
- b. hematocrit
- c. reticulocyte count
- d. microhematocrit
- e. differential

answer: a. erythrocyte sedimentation rate

Latex gloves protect the lab employee from:

- a. accidental needle puncture
- b. micrtome injury
- c. patient aerosols
- d. body uid
- e. all of the above

answer: d. body uids

Which statement is false when setting up an ESR:

- a. it must be read in exactly one hour
- b. it should be set up near a centrifuge
- c. the blood level must be at exactly zero
- d. it should be performed on fresh blood
- e. it must be set up in a vertical position

answer: b. it should be set up near a centrifuge

What is the normal temperature of a laboratory refridgerator:

- a. -4 C
- b. 0 C
- c. 3 C
- d.20 C
- e.37 C

c.

answer: c. 3 C

The purpose of doing a differential is to:

- a. determine the proportion of RBC in whole blood

- b. count the number of WBC's in whole blood
- c. determine the proportions of WBC's in whole blood
- d. c & e
- e. diagnose anemia

answer: c. determine the proportions of WBC's in whole blood

Blood samples for cell counts must be thoroughly mixed immediately before testing to:

- a. prevent the clumping of platelets
- b. prevent the formation of small clots
- c. oxygenate the sample
- d. ensure even distribution of all blood components
- e. mix anticoagulant with the blood

answer: d. ensure even distribution of all blood components

An automated hematology cell count uses the principle of:

- a. diffusion
- b. color absorption changes
- c. high frequency sound waves
- d. changes in cell electrical currents
- e. light wave scattering

answer: d. changes in cell electrical currents

The maximum depth to perform a heel puncture on a newborn is:

- a. 1.5mm
- b. 2.0mm
- c. 2.4mm
- d. 2.8mm
- e. 3.0mm

answer: c. 2.4mm

The first drop of blood is wiped away after performing a skin puncture to:

- a. remove any pathogens that are present
- b. increase blood flow to the area
- c. remove the last traces of alcohol
- d. remove any excess tissue fluid
- e. c & d

answer: e. c & d

What areas on an infant are suitable for skin puncture:

- a. any calloused areas of the foot
- b. the second or third finger on either hand
- c. the posterior curvature of the heel
- d. the lateral, at portion of the heel

answer: d. the lateral, at portion of the heel

What laboratory department studies antigen-antibody reaction:

- a. hematology
 - b. microbiology
 - c. immunology
 - d. chemistry
 - e. coagulation
- answer: c. immunology

what tube would be drawn for ANA:

- a. red
- b. grey
- c. SST
- d. green
- e. light blue

answer: c. SST

A disinfectant used on metal surface is:

- a. 10% formalin
- b. 2% glutaraldehyde
- c. 1% hypochlorite
- d. 70% isopropyl alcohol
- e. 15% iodine

answer: b. 2% glutaraldehyde

What tube would be collected for a cross-match:

- a. lavender
- b. light blue
- c. green
- d. grey
- e. plain red top

answer: e. plain red top

Separated serum that is dark yellow to amber in color is termed:

- a. crenated
- b. lipemic
- c. jaundiced
- d. icteric
- e. hemolyzed

answer: d. icteric

Which factor would interfere with the growth of a pathogen:

- a. appropriate nutrients
- b. darkness
- c. a moist environment
- d. an acidic pH
- e. a temperature of 37 C

answer: d. an acidic pH

A specimen is:

- a. material spread on a slide
- b. an amount of blood or urine
- c. a small sample taken to represent the whole organism or system
- d. a colony of micro-organisms growing on solid medium
- e. a technique used to microscopically examine urine

answer: c. a small sample taken to represent the whole organism or system

The purpose of heat fixing a bacterial smear is to:

- a. prevent cells from being washed off during staining
- b. causes the cells to absorb the stain more easily
- c. provide a warm temperature for the bacteria to grow
- d. make the cells visible under the microscope
- e. destroy the bacterial cell wall

answer: a. prevent cells from being washed off during staining

The site of a specimen must be written on a swab container:

- a. to warn staff about a possible pathogen
- b. only if time permits-it is always on the requisition
- c. to determine suitable agar and atmospheric requirements

d. to determine the o.h.i.p. fee

e. a,b,c,d,& e

answer: c. to determine selection of suitable agar and atmospheric

requirements

Identify the correct sequence of steps on the gram stain procedure:

a. primary stain, secondary stain, mordant, decolorizing

b. mordant, primary stain, decolorizing, counterstain

c. counterstain, mordant, primary stain, decolorizing

d. primary stain, mordant, decolorizing, counterstain

e. none of the above

answer: d. primary stain, mordant, decolorizing, counterstain

How should commercially prepared culture plates be stored:

a. in the freezer until several hours before use

b. inverted to prevent condensation dripping on the media

c. at room temperature in a dark area of the lab

d. at a temperature of 2°C – 4°C

e. b & d

answer: e. b & d

Which Gram stain reagent acts as a mordant to bind the stain to the bacteria:

a. Lugol's iodine

b. safranin

c. acetone-alcohol

d. Gram's iodine

e. crystal violet

answer: d. Gram's iodine

Identify the false statement regarding blood culture collection:

a. the site is cleaned with betadine and alcohol

b. an arterial sample is collected

c. an aerobic specimen is required

d. blood culture tubes are always drawn first

e. the specimens are never refrigerated

answer: b. an arterial sample is collected

Susceptibility testing:

- a. measures how fast a micro-organism can be destroyed
 - b. identifies the types of micro-organisms in the specimen
 - c. determines growth requirements of organisms
 - d. produces a pure culture
 - e. identifies the appropriate antibiotic needed to kill the micro-organism
- answer: e. identifies the appropriate antibiotic needed to kill the micro-organism

Identify the false statement when a specimen is cultured:

- a. the equipment required is a loop and a direct a me
 - b. the media is brought to room temperature before use
 - c. the media selected is dependant on the type of specimen
 - d. the loop is sterilized prior to inoculation
 - e. the petri lid is placed upright to the bench to prevent contamination
- answer: e. the petri lid is placed upright to the bench to prevent contamination

Which statement is false when a Gram stain is performed:

- a. distilled water is used for the washing steps
 - b. acetone-alcohol decolorizes gram-negative bacteria
 - c. safranin stains the gram negative bacteria red
 - d. Gram's iodine is used to bind the primary stain
 - e. crystal violet stains the gram-positive bacteria purple
- answer: a. distilled water is used for the washing steps

Which is most commonly used for protection when processing swabs, body fluid or blood:

- a. fume hood
 - b. class I laminar ow hood
 - c. class II laminar ow hood
 - d. class III laminar ow hood
 - e. glove box
- answer: c. class II laminar ow hood

You are collecting a blood glucose level. The patient asks if you think he has diabetes. You would tell him:

- a. this is a possibility, but you are not positive
- b. you are unable to give him any information
- c. to discuss this with the doctor as he can answer the question

you have been instructed not to give out any information, therefore you can't discuss it

d.

e. to read a prepared pamphlet and make his own decision

answer: c. to discuss this with the doctor as he can answer this question

The autoclave is set at _____ for small loads:

a. 121°C for 50min at 6 p.s.i.

b. 130°C for 30min at 30 p.s.i.

c. 121°C for 15min at 15 p.s. i.

d. 121°C for 45min at 15 p.s.i.

e. 154°C for 20min at 20 p.s.i.

answer: c. 121°C for 15min at 15 p.s.i.

The universally accepted disinfectant for the medical workplace is:

a. 2% glutaraldehyde

b. 1% hypochlorite

c. 10% formalin

d. 70% isopropyl alcohol

e. 5% iodine

answer: b. 1% hypochlorite

A patient's health card # consists of ____ digits:

a. 4

b. 6

c. 8

d. 10

e. 12

answer: d. 10

A 1/6 dilution of serum in water was made. The glucose result was 4.0 mmol/L.

What is the reported result:

a. 0.66 mmol/L

b. 4.0 mmol/L

c. 24.0 mmol/L

d. 40.0 mmol/L

e. 60.0 mmol/L

answer: c. 24.0 mmol/L

100ml of 20% hydrochloric acid will make how many mls of 4% hydrochloric acid:

- a. 50ml
- b. 80ml
- c. 100ml
- d. 500ml
- e. 1000ml

answer: d. 500ml

How many grams of NaCl are needed to make 300ml of a 2% solution:

- a. 2 grams
- b. 4 grams
- c. 6 grams
- d. 20 grams
- e. unable to determine with information

answer: c. 6 grams

Approximately how many centimeters are in one foot:

- a. 3
- b. 12
- c. 24
- d. 30
- e. 100

answer: d. 30

Two standard deviations from the mean includes:

- a. 5% of all values
- b. 34% of all values
- c. 50% of all values
- d. 68% of all values
- e. 95% of all values

answer: e. 95% of all values

When performing a venipuncture, bright red blood spurts into the tube. This means:

- a. an arterial puncture
- b. high hemoglobin

- c. high hematocrit
- d. high blood pressure
- e. high blood pH

answer: a. an arterial puncture

A patient has hepatitis, which test(s) will be increased:

- a. ALT
- b. AST
- c. alkaline phosphates
- d. bilirubin
- e. all of the above

answer: e. all of the above

Acid phosphates is an enzyme which increases in:

- a. gout
- b. kidney disease
- c. liver disease
- d. prostatic cancer
- e. heart disease

answer: d. prostatic cancer

Which enzyme(s) would be increased in a patient with acute MI:

- a: ACP
- CK
- AST
- b & c
- all of the above

answer: d. b & c

A 2 hr. p.c. glucose:

- a. is collected 2 hrs after eating a meal high in carbohydrates
- b. is a valuable screening test for diabetes mellitus
- c. measures glucose when it is at its highest level after a meal
- d. is not affected by medication
- e. a & b

answer: e. a & b

A routine GTT:

- a. is three hours long
- b. requires ve blood samples
- c. includes 6 urine samples
- d. uses 100 grams of glucosse in a 300ml solution
- e. uses 50 grams of glucose in a 500ml solution

answer: b. requires ve blood samples

Glycoslated hemoglobin:

- a. causes sickle cell anemia
- b. is affected by the patients food intake on the day of testing
- c. is drawn on a green top tube
- d. indicates blood glucose levels from preceding months
- e. requires an SST tube

answer: d. indicates blood glucose levels from preceding months

Serum is acidied after separation for which test:

- a. uric acid
- b. frederickson typing
- c. acid phosphate
- d. BUN
- e. creatine

answer: c. acid phosphate

WHMIS stands for:

- a. worker harmful material information sheets
- b. worker handbook on mechanical and industrial safety
- c. workplace hazardous materials information system
- d. workplace harmfull methods and industrial security
- e. none of the above

answer: c. workplace hazardous materials information system

MSDS sheets do not contain:

- a. product identier and use
- b. hazardous ingredients
- c. rst aid measures
- d. preventative measures
- e. hazard symbols

answer: e. hazard symbols

When using acid and water:

- a. acid is slowly added to water
- b. water is slowly added to acid
- c. water and acid are added together
- d. it makes no difference how they are added
- e. they are never mixed as heat is produced

answer: a. acid is slowly added to water

Insidious hazards:

- a. include substances which react violently with each other
- b. include aerosols, carcinogens, mutagens, and radiation
- c. are substances which injury by direct chemical action
- d. are graded using TLV and TLV-S.T.E.L. values
- e. are always chemical in nature

answer: b. include aerosols, carcinogens, mutagens, and radiation

Which test would not be performed on plasma or serum:

- a. lipoprotein electrophoresis
- b. iron
- c. BUN
- d. hemoglobin electrophoresis
- e. electrolyte profile

answer: d. hemoglobin electrophoresis

The functional unit of the kidney is the:

- a. renal cell
- b. renal cortex
- c. renal tubule
- d. bladder
- e. nephron

answer: e. nephron

Pus cells or fat in urine would cause this color:

- a. red
- b. yellow-brown
- c. greenish-blue
- d. milky-white

e. black

answer: d. milky-white

The end products of protein digestion are:

a. glycerol

b. fatty acid

c. triglycerides

d. monosaccharides

e. amino acids

answer: e. amino acids

Which statement is true regarding the use of reagent dipsticks:

a. heat and moisture do not affect the reagent reactivity

b. timing of each reagent area is not necessary

c. reagent sticks are held vertically when reading

d. all reagent sticks tests do specific gravity

e. reagent strips should be tested daily with control

answer: e. reagent strips should be tested daily with control

A 1/8 dilution of urine is:

a. 1 part water and 8 parts urine

b. 1 part urine and 8 parts water

c. 1 part urine and 7 parts water

d. 1 part water and 7 parts urine

e. 1 part water and 9 parts urine

answer: c. 1 part urine and 7 parts water

Before performing an R & M on a specimen, the urine would be;

a. filtered

b. brought to room temperature

c. centrifuged

d. well-mixed

e. b & d

answer: e. b & d

A backup test(s) to confirm a positive protein in urine would be:

a. icotest

b. SSA test

- c. clinitest
- d. TCA test
- e. b & d

answer: e. b & d

Which test result would increase in a urine specimen sitting at room temperature for 3 hours:

- a. bilirubin
- b. nitrite
- c. leukocyte
- d. urobilinogen
- e. ketones

answer: b. nitrite

Water free of charged particles is:

- a. distilled
- b. radioactive
- c. chlorinated
- d. de-ionized
- e. heavy.

answer: d. de-ionized

Identify the incorrect step when using a serological pipette:

- a. the pipette tip is below the liquid surface when filling
- b. releasing the safety bulb will draw liquid into the pipette
- c. it delivers total capacity or multiple volumes
- d. it is held vertically and allowed to drain freely
- e. the last portion of the pipette contents is discarded in a separate container

answer: e. the last portion of the pipette contents is discarded in a separate

container

A "TC" pipette is:

- a. allowed to drain freely
- b. marked with a double ring at the mouthpiece
- c. used for toxic corrosive liquids
- d. emptied forcibly with a safety bulb
- e. rinsed out after delivery

answer: e. rinsed out after delivery

The destruction of erythrocytes to release hemoglobin is called:

- a. hemorrhage
- b. hemostasis
- c. erythropoiesis
- d. hemolysis
- e. hypoxia

answer: d. hemolysis

Which factor may cause a blood smear to be too thin:

- a. the angle of the spreader is too high
- b. the edge of the spreader is cracked
- c. the smear is spread too slowly
- d. the angle of the spreader is too low
- e. a dirty spreader is used

answer: d. the angle of the spreader is too low

The test measuring the oxygen-carrying capacity of RBC's is the:

- a. CBC
- b. Hct
- c. ESR
- d. Hgb
- e. MCV

answer: d. Hgb

An immature neutrophil is called:

- a. blast cell
- b. LE cell
- c. band cell
- d. reticulocyte
- e. packed cell

answer: c. band cell

The test that counts the number of immature RBC's is the:

- a. osmotic fragility test
- b. differential
- c. reticulocyte count
- d. RBC count

e. stab cell count

answer: c. reticulocyte

Which test does not monitor a patient's coagulation mechanism:

a. PT

b. ACTH

c. APTT

d. FDP

e. platelet count

answer: b. ACTH

Dept for glucose test is:

answer: chemistry

Dept for FOB is:

answer: Microbiology

Dept for LD isoenzymes is:

answer: chemistry

Dept for testicular cyst:

answer: Histology

Dept for reticulocyte count:

answer: hematology

Dept for 17-KS is:

answer: chemisrty

Dept for PTT is:

answer: coagulation

Dept for a pap smear is:

answer: cytology

Dept for CSF for C & S is:

answer: microbiology

Dept for lipoprotein electrophoresis is:

answer: chemistry

A plasma protein involved in coagulation is:

- a. immunoglobulin
- b. gamma globulin
- c. albumin
- d. erythropoiten
- e. brinogen

answer: e. brinogen

The buffy coat is made up of:

- a. WBCs and platelets
- b. granulocytes
- c. erythrocytes and granulocytes
- d. reticulocytes
- e. platelets

answer: a. WBCs and platelets

Quality control is:

- a. running known and unknown controls
- b. involvement in LPTP program
- c. for accuracy and precision
- d. insuring control values are within 2 SD(standard devients)
- e. all of the above

answer: e. all of the above

A microbiology transport medium will contain activated charcoal:

- a. to prevent bacteria death
- b. to help staining process
- c. to absorb toxic substances
- d. to keep a neutral ph
- e. to maintain oxygen levels

answer: c. to absorb toxic substances

Which is not a liver function test:

- a. albumin
- b. ALP

- c. CK
- d. bilirubin
- e. AST

answer: c. CK

When collecting specimens for C & S one should:

- a. fast for 12-14 hours
- b. be off antibiotics for several days prior to collection
- c. have all x-rays done prior to collection
- d. come to the lab first thing in the morning
- e. follow any necessary dietary restrictions

answer: b. be off antibiotics for several days prior to collection

When an agar plate is streaked correctly the final result is:

- a. a pure culture
- b. individual colonies
- c. no growth pathogens
- d. dense growth which covers the plate
- e. a non-contaminated specimen

answer: b. individual colonies

Which chemical is not explosive:

- a. crystal violet
- b. ether
- c. picric acid
- d. sodium azide
- e. potassium metal

answer: a. crystal violet

Which reagent is not used to concentrate and stain ova and parasite specimen:

- a. zinc sulfate
- b. 10% formalin
- c. ether
- d. crystal violet
- e. all of the above

answer: d. crystal violet

Which solvent is not immiscible:

- a. ether
- b. ethanol
- c. methanol
- d. xylene
- e. saline

answer: e. saline

Which is not a qualitative result:

- a. few bacteria present
- b. 1+ glucose
- c. moderate amount of crystals seen
- d. urobilinogen +2
- e. specific gravity 1.010

answer: e. specific gravity 1.010

The "universal solvent" is:

- a. 0.85% sodium chloride
- b. 8.5% NaCl
- c. water
- d. 10% ethanol
- e. absolute alcohol

answer: c. water

A patient with a heart condition may be sent to ____ for testing and observation:

- a. FBS
- b. OPD
- c. ICU
- d. CCU
- e. C & D

answer: e. C & D

What does FBS stand for?

answer: fasting blood sugar

What does OPD stand for?

answer: outpatient department

What does ICU stand for?

answer: intensive care unit

What does CCU stand for?

answer: coronary care unit

The most commonly used microscope in the clinical laboratory is the:

- a. electron
- b. dark-led
- c. phase contrast
- d. orescent
- e. light

answer: e. light

A condition in which red blood cells and hemoglobin are decreased:

- a. AIDS
- b. leukemia
- c. polycythemia
- d. anemia
- e. brinolysis

answer: d. anemia

Convert 41 degrees C to fahrenheit:

- a. 100.0 F
- b. 74.6 F
- c. 110.0 F
- d. 112.0 F
- e. 105.8 F

answer: e. 105.8 F

Some bacteria can produce a capsule that is resistant to heat and drying. This is called a;

- a. scab
- b. tunic
- c. spore
- d. cyst
- e. sheath

answer: c. spore

The layer above the precipitate in a solution is called the:

- a. supernatant
- b. solute
- c. suspension
- d. sediment
- e. solvent

answer: a. supernatant

The function of the respiratory system is:

- a. to supply oxygen to tissue
- b. to remove carbon dioxide from tissue
- c. to regulate heart beat
- d. to regulate the endocrine system
- e. a & b

answer: e. a & b

EDTA prevent clotting by:

- a. binding brinogen
- b. binding calcium ion
- c. by inhibiting prothrombin
- d. by binding anti-hemophilia facctor

answer: b. binding calcium ion

Which type of plastic ware can be autoclaved:

- a. polyethylene
- b. polystyrene
- c. polypropylene
- d. polyvinyl chloride
- e. pyrex

answer: c. polypropylene

Which type of pipette has calibration marks to the tip:

- a. volumetric
- b. mohr
- c. micropipette
- d. serological
- e. SMI

answer: d. serological

Blood taken from arterial or venous blood gases is:

- a. kept at body temperature until testing
 - b. drawn into SST tube
 - c. put on ice and performed STAT
 - d. drawn fasting
 - e. spun down-the serum is transferred to an acid washed tube
- answer: c. put on ice and performed STAT

Insulin is:

- a. a hormone
 - b. produced by the pancreas
 - c. has the opposite effect to glucagon
 - d. also produced by the parathyroid glands
 - e. all of the above
- answer: e. all of the above

THS is a hormone:

- a. produced by the thyroid gland
 - b. which stimulates T3 and T4 to be secreted
 - c. which stimulates testosterone to be secreted
 - d. also produced by the parathyroid glands
 - e. none of the above
- answer: b. which stimulates T3 and T4 to be secreted

17-hydroxy steroid(17-OH) and 17-ketosteroids (17-KS) requires:

- a. 24 hour urine
 - b. heparinized plasma
 - c. serum, frozen after separation of clot
 - d. 72 hour stool
 - e. random urine
- answer: a. 24 hour urine

Cortisol is:

- a. tested on plasma (green top tube) or serum (SST/yellow top)
- b. not affected by diet or exercise
- c. drawn as a fasting to timed specimen
- d. an adrenal medulla function

e. a & c

answer: e. a & c

Lactose tolerance testing:

a. will diagnose a patient's inability to digest milk sugar

b. cannot be done on urine samples

c. will diagnose enzyme deficiency

d. requires the patient to fast for 12-14 hours

e. a & c

answer: e. a & c

Which is not a type of WBC:

a. reticulocyte

b. basophil

c. eosinophil

d. monocyte

e. lymphocyte

answer: a. reticulocyte

The anticoagulant required for a differential blood film:

a. sodium citrate

b. EDTA

c. sodium heparin

d. sodium oxalate

answer: b. EDTA

Vacutainers containing EDTA are used for each test except:

a. RBC count

b. erythrocyte sediment rate

c. platelet count

d. electrolyte profile

e. electrolyte count

answer: d. electrolyte profile

Which is not a kidney function test:

a. BUN

b. creatinine clearance

c. electrolyte profile

- d. total protein
 - e. all of the above are kidney function tests
- answer: e. all of the above are kidney function tests

BSP:

- a. stands for biological safety procedures
 - b. is limited to blood urine infections only
 - c. is a complete infection control approach
 - d. has the same guidelines for all of north america
 - e. c & d
- answer: e. c & d

What does BSP stand for?

answer: biohazardous safety procedures

Which is false regarding the handling of radioactive reagents:

- a. handling time should be kept to a minimum
 - b. no amount may be discarded into the sewer system
small amounts may be sent to garbage after background counts have been reached
 - c.
 - d. store away from high trac areas
- answer: b. no amount may be discarded into the sewer system

Xylene is used to:

- a. x autopsy specimen
 - b. dehydrate tissue
 - c. attach cover slips to slides
 - d. clear tissue in parafn wax
 - e. embed tissue in parafn wax
- answer: d. clear tissue in parafn wax

The type of re extinguisher most often used in the clinical laboratory is:

- a. a type
- b. b type
- c. c type
- d. abc type
- e. carbon dioxide charged

answer: d. abc type

Which test will not be performed on a grossly hemolyzed specimen:

- a. LD
- b. K
- c. CK
- d. a, b, & c
- e. sedimentation rate

answer: d. a,b & c

Specimen identification is important to all testing. However, extra precautions are necessary when labeling specimens for:

- a. C & S
- b. ABO and Rh, cross-matching
- c. therapeutic drug monitoring
- d. factor assays

HIV

- b.
- e.

answer: b. ABO and Rh, cross matching

Specimens for transport through Canada Post:

- a. cannot be mailed
- b. must be sent priority post
- c. are put into a double packed container with absorbent material
- d. have no special identification procedures to maintain patient's confidentiality

answer: a. cannot be mailed

The tablet used for glucose testing in urine is:

- a. clinitest
- b. icotest
- c. acetest
- d. TCA
- e. SSA

answer: a. clinitest

A refractometer is used to test:

- a. hemoglobin in urine

- b. urine osmolality
 - c. urine specific gravity
 - d. urobilinogen in urine
 - e. the presence of nitrates in urine
- answer: c. urine specific gravity

Which test/tests is used for the turbidometric screening of urine protein:

- a. TCA
- b. HCL
- c. SSA
- d. albutest
- e. a & c

answer: e. a & c

Which reagent is stored under water:

- a. xylene
- b. ethanol
- c. drabkin's reagent
- d. picric acid
- e. ether

answer: d. picric acid

Which cytology specimen cannot be prepared by cytopspin method:

- a. CSF
- b. joint uid
- c. urine
- d. breast uid
- e. all of the above are suitable

answer: b. joint uid

Which is a true statement regarding cytology testing:

- a. all cytology is performed STAT
- b. BSP precautions are not required
- c. formalin is a common xative
- d. cytospray is a common xative
- e. two of the above are true

answer: d. cytospray is a common xative

If 0.2 ml of a sample is aspirated into an automatic dilutor and added to 5 mls of diluents, what is the final dilution:

- a. 1/511
- b. 0.2/5
- c. 1/26
- d. 1/25
- e. none of the above

answer: c. 1/26

Which is a special vital stain:

- a. Ziehl-Neelson stain
- b. Gram's stain
- c. Wright's stain
- d. Romanowsky stain
- e. New methylene blue stain

answer: e. New methylene blue stain

What could cause precipitation on a slide when performing a Wright's stain:

- a. insufficient removal of metallic scum during washing
- b. too much buffer
- c. excessive humidity in the air
- d. staining time too short
- e. water in the methanol

answer: a. insufficient removal of metallic scum during washing

What is the mounting medium used to cover slip hematology slides:

- a. per-mount
- b. eosin
- c. formalin
- d. xylene
- e. plasticene

answer: a. per-mount

How will drawing a small amount of blood in the EDTA tube affect the spun hematocrit value:

- a. no effect
- b. blood will hemolyze and give inaccurate result
- c. falsely increased value

- d. falsely decreased value
 - e. clots will form and a hematocrit can't be done
- answer: d. falsely decreased value

Drabkin's reagent :

- a. is used in hematology
 - b. contains poison cyanide
 - c. is sensitive to light
 - d. a & b
 - e. a, b & c
- answer: e. a, b & c

Which factor would increase tissue processing time for a histology specimen;

- a. gentle heat
 - b. dense tissue
 - c. gentle agitation
 - d. vacuum infiltration
 - e. porous tissue
- answer: b. dense tissue

When a tissue is fixed it means:

- a. putrefaction and autolysis are prevented
 - b. the tissue is dehydrated
 - c. the tissue is retained in a life-like manner
 - d. all calcium ions have been removed
 - e. a & c
- answer: e. a & c

Which reagent is used to embed tissue after processing:

- a. paraffin
 - b. parafn
 - c. xylene
 - d. formic acid
 - e. liquid nitrogen
- answer: b. parafn

A tissue is decalcified;

- a. before xing

- b. after embedding
 - c. after xing
 - d. at the time it is sectioned
 - e. just before staining
- answer: c. after xing

What is used to hold a specimen larger than 5 mm for tissue processing:

- a. basket
 - b. cuvette
 - c. rack
 - d. cassette
 - e. wire netting
- answer: a. basket

Cytology smears of sputum and synovial are xed with:

- a. toluene
 - b. benzene
 - c. pap stain
 - d. 10% ethanol
 - e. 95% ethanol
- answer: e. 95% ethanol

A PKU test detects:

- a. a sex-linked anemia
 - b. a genetic defect in metabolism
 - c. a viral disease
 - d. severe kidney disease
 - e. Alzheimer's in the elderly
- answer: b. a genetic defect in metabolism

The notation 10 to the power of 3 means:

- a. 100
 - b. 30
 - c. 1000
 - d. 300
 - e. 3000
- answer: c.1000

What will increase CO₂ tension when incubating microbiology cultures:

- a. CO₂ incubator
- b. gas pak
- c. candle jar
- d. anaerobic jar
- e. a & c

answer: e. a & c

Which is suitable to culture mycological specimen:

- a. petri plates of blood agar
- b. large test tubes containing Sabourand's dextrose agar
- c. small at-sided bottles containing cycloheximide enriched agar
- d. culture tubes with sterile broth
- e. two of the above

answer: e. b & c

What is the meniscus:

- a. a type of balance
- b. the tip of a pipette
- c. the precipitate in a solution
- d. the curved surface of a liquid
- e. a special type of plastic ware

answer: d. the curved surface of a liquid

Which is true regarding Zeil-Neelson staining:

- a. the mycobacteria stain blue
- b. it is also called acid-fast staining
- c. carbolfusion, acid-alcohol and methylene blue are used
- d. it is done to detect tuberculosis
- e. b,c & d

answer: e. b,c & d

Serum specimens which are milky white are termed:

- a. hemolyzed
- b. icteric
- c. lipemic
- d. opaque
- e. turbid

answer: c. lipemic

The due date of a pregnant women is:

- a. ASAP
- b. HDN
- c. EDC
- d. CV

answer: c. EDC

A person who has a blood clot stuck in one area has:

- a. a thrombus
- b. an embolism
- c. a hematoma
- d. phlebitis
- e. ischemia

answer: a. a thrombus

What is phlebitis:

answer: Swelling of a vein

What is ischemia:

answer: Restriction of blood ow

What is an embolism:

answer: A blood clot that travels

What statement is true:

- a. a base releases H^+ in solution
- b. an acid releases OH^- in solution
- c. a base has a lower pH than an acid
- d. an acid added to base forms a salt
- e. an acid will turn pH paper blue

answer: d. an acid added to a base forms a salt

When solid particles in a solution settle out, it is called:

- a. distillation
- b. precipitation
- c. ltration

- d. deionization
 - e. oatation
- answer: b. precipitation

Vaporizing and condensing a substance to purify it is called:

- a. distillation
- b. precipitation
- c. ltration
- d. deionization
- e. oatation

answer: a. distillation

A solution that would cause a cell to swell is called:

- a. isotonic
- b. salty
- c. physiological
- d. hypotonic

answer: e. hypotonic

The anticoagulant in a green top vacutainer is:

- a. sodium citrate
- b. EDTA
- c. heparin
- d. sodium uoride
- e. potassium oxalate

answer: c. heparin

The largest vein in the body is the:

- a. iliac vein
- b. pulmonary vein
- c. aorta
- d. hepatic portal vein
- e. vena cava

answer: e. vena cava

A serum is dilluted 1/4. The chloride result on the serum is 30 mmol/L. What result is reported to the physician:

- a. 4 mmol/L

- b. 30 mmol/L
 - c. 34 mmol/L
 - d. 90 mmol/L
 - e. 120 mmol/L
- answer: e. 120 mmol/L

A patient with rheumatic arthritis has an ESR result that is:

- a. decreased
 - b. normal
 - c. slightly increased
 - d. increased
 - e. not affected
- answer: d. increased

How much 5% HCL is required to make 500 ml of 2% solution:

- a. 100 ml
 - b. 200 ml
 - c. 300 ml
 - d. 400 ml
 - e. none of the above
- answer: b. 200 ml

2.99 is between:

- a. 2.989 and 2.991
 - b. 2 and 3
 - c. 2.98 and 3.00
 - d. 2.9 and 3.0
 - e. none of the above
- answer: c. 2.98 and 3.00

Which unit is the smallest:

- a. nanometer
 - b. meter
 - c. millimeter
 - d. micrometer
 - e. decimeter
- answer: a. nanometer

A creatinine clearance test is done:

- a. on 24-hour urine only
- b. on serum only
- c. on serum drawn three days before collecting a 24-hour urine
- d. to determine kidney function
- e. none of the above

answer: d. to determine kidney function

A glucose tolerance test (GTT) done on a non-pregnant adult uses:

- a. 50 g glucose in 300 ml solution
- b. 75 g glucose in 300 ml solution
- c. 100 g glucose in 300 ml solution
- d. 50 g glucose in 200 ml solution
- e. 100 g glucose in 200 ml solution

answer: b. 75 g glucose in 300 ml solution

Which is not a test in a cardiac enzyme profile:

- a. CK
- b. AST
- c. LDH
- d. CPR
- e. CK isoenzymes

answer: d. CPR

Which hormone test would not be done on 24-hour urine:

- a. catecholamines
- b. VMA
- c. estradiol
- d. metanephrines
- e. insulin

answer: e. insulin

Which test does not give information about erythrocytes:

- a. malaria smears
- b. RBC count
- c. APTT
- d. ESR
- e. hemoglobin

answer: c. APTT

Which method is acceptable to discard a used needle:

- a. discard whole needle into puncture -proof container
- b. cut needle and discard into puncture proof container
- c. bend needle and discard into puncture proof container
- d. discard into biohazard bag
- e. discard into regular garbage

answer: a. discard whole needle into puncture proof container

Serum left sitting on the clot in a centrifuged red top will have a higher than normal:

- a. glucose
- b. protein
- c. albumin
- d. potassium
- e. phosphorus

answer: d. potassium

Blood smears must be made from vacutainers containing the anti-coagulant:

- a. heparin
- b. potassium oxalate
- c. EDTA
- d. sodium citrate
- e. sodium uoride

answer: C. EDTA

Icteric serum contains high amounts of:

- a. bacteria
- b. protein
- c. hemolyzed RBC
- d. bilirubin
- e. c & d

answer: d. bilirubin

What is normal ora:

- a. one that affects the nose only
- b. a contagious disease passed from physician to patient

- c. a disease which affects the skin
- d. harmless non pathogenic micro-organisms which live on the body
- e. an airborne infection

answer: d. harmless non pathogenic micro-organisms which live on the body

Romanowsky stain contains:

- a. methylene blue
- b. iodine
- c. eosin
- d. safranin
- e. a & c

answer: e. a& c

Which is not a type of Romanowsky stain:

- a. giesma
- b. may-grunwald
- c. wright's
- d. new methylene blue
- e. leishman's

answer: d. new methylene blue

Blood gases:

- a. the specimen is tested within 24 hours
- b. the specimen is frozen immediately after collecting
- c. the specimen is a venous sample
- d. the specimen is collected in a plain red top tube
- e. none of the above

answer: e. none of the above

CCMSU is:

- a. an x-ray
- b. another name for a heart attack
- c. a clean catch mid stream urine
- d. collected in a sterile container
- e. c & d
- f. an e

answer: c. a clean catch mid stream urine

Blood films are not fixed before staining because:

- a. they are fixed with heat after staining
- b. they are fixed with phosphate buffer during staining
- c. blood cells do not require fixing
- d. Wright's stain contains methanol, which does the fixing
- e. the anti-coagulant EDTA acts as a fixing agent

answer: d. Wright's stain contains methanol, which does the fixing

Glacial acetic acid is stored:

- a. under water
- b. with alkalis and other reactive chemicals
- c. in glass stoppered bottles
- d. in a safety cabinet
- e. in plastic bottles away from water

answer: d. in a safety cabinet

A buffer is made from mixing a:

- a. strong acid and strong base
- b. weak acid or base with salt
- c. salt with organic acid
- d. weak acid with a weak base
- e. none of the above

answer: d. weak acid with a weak base

Which is not part of the large intestine:

- a. rectum
- b. duodenum
- c. cecum
- d. sigmoid colon
- e. vermiform appendix

answer: b. duodenum

14.37 mg equals:

- a. 1437 μg
- b. 1.437 dg
- c. 143.7 μg
- d. 0.01437 g
- e. b & c

answer: d.0.01437 g

Universal precautions are guidelines for handling:

- a. all body uid
- b. dangerous chemicals
- c. patients with suppressed immune system
- d. patieents with infectious disease
- e. blood and blood products

answer: a. all body uids

A blood lm that is too thick will result when:

- a. a dirty spreader is used
- b. a jerky motion is used
- c. an angle of 15 degrees is used
- d. too big a drop of blood is used
- e. c & d

answer: d. too big a drop of blood is used

A volumetric pipette:

- a. gives critical measurements
- b. is made of Class A standards
- c. has a bulged out portion in the middle
- d. is calibrated TD
- e. all of the above

answer: e. all of the above

The test most affected by haaving the tourniquet on for more than 1.5 min is the:

- a. calcium
- b. RBC count
- c. PT
- d. glucose
- WBC count
- f. a & b

e.

answer: f. a & b

Physiologiical saline is prepared by mixing:

- a. distilled water and sea water
- b. distilled water and hypochlorite
- c. tap water and hypochlorite
- d. distilled water and sodium chloride
- e. distilled water and HCL

answer: d. distilled water and sodium chloride

Which is not an organ of the endocrine system:

- a. pancreas
- b. thymus
- c. spleen
- d. ovaries
- e. thyroid

answer: c. spleen

The secretion from the lungs which is tested for malignant cells is called:

- a. spittle
- b. semen
- c. saliva
- d. sputum
- e. synovial uid

answer: d. sputum

A patient with a highly contagious lung infection would be hospitalized in:

- a. reverse isolation
- b. wound and skin precautions isolation
- c. respiratory isolation
- d. enteric isolation
- e. standard ward

answer: c. respiratory isolation

Debrinated blood is prepared by:

- a. refrigeration overnight
- b. adding an anti-coagulant
- c. mixing with glass beads
- d. stirring with glass rod
- e. c & d

answer: e. c & d

Blood passing through the left atrium would next enter the:

- a. aorta
- b. right atrium
- c. left ventricle
- d. left lung
- e. right ventricle

answer: c. left ventricle

The instrument used to measure urine hydrogen ion concentration is a:

- a. pH meter
- b. coulter counter
- c. microscope
- d. spectrophotometer
- e. refractometer

answer: a. pH meter

Sterilization by dry heat is done at:

- a. 100 degrees C
- b. 121 degrees C
- c. 150 degrees C
- d. 160 degrees C
- e. 250 degrees C

answer: d. 160 degrees c

Anemia:

- a. decreased hemoglobin or red blood cell production
- b. increased hemoglobin or red blood cell production
- c. morphological changes in red blood cells
- d. involved in clotting factor
- e. a & c

answer: e. a & c

Which specimen does not require special diet restrictions:

- a. stool for c & s
- b. 72- hour fecal fat
- c. stool for occult blood
- d. 24-hour urine for 5H1AA

answer: a. stool for c & s

A stool for O & P is collected into a:

- a. sterile jar
- b. jar container SAF uid
- c. jar container 10% formalin
- d. metal can
- e. clean dry jar

answer: b. jar container SAF uid

How should a capillary tube be sealed when performing a microhematocrit:

- a. both ends are sealed at a 45 degree angle to the clay
- b. the end used to collect the blood is sealed
- c. the clean end is sealed at a 45 degree angle to the clay
- d. the clean end is sealed at a 90 degree angle to the clay
- e. the capillary tube is not sealed

answer: d. the clean end is sealed at a 90 degree angle to the clay

Identify the false statement regarding 24-hour urine collection:

- a. testing is done in chemistry
- b. a preservative may be used for some tests
- c. collections during the night are discarded
- d. the 1st timed specimen is discarded
- e. the last timed specimen is included

answer: c. collections during the night are discarded

Round bacteria which grow in clusters called:

- a. spirochetes
- b. streptococci
- c. bacillococci
- d. diplococci
- e. staphylococci

answer: e. staphylococci

Which is used to preserve 24-hour urines for endocrine testing:

- a. sodium bicarbonate
- b. oxalic acid
- c. hypochlorite acid

- d. sodium hypochlorite
 - e. acetone
- answer: c. hypochloric acid

Which test would not be performed in immunohematology:

- a. crossmatch
- b. group and Rh
- c. reticulocyte count
- d. coomb's direct
- e. ABO testing

answer: c. reticulocyte count

Which type of water is most chemically pure:

- a. tap water
- b. spring water
- c. de-ionized water
- d. distilled water
- e. soda water

answer: C. de-ionized water

Quality control ensures:

- a. more safety for lab personnel
- b. more safety for patients
- c. more reliable test results
- d. normal test results
- e. decreased infection for patients and staff

answer: c. more reliable tests

Billirubin:

- a. increased in patients with jaundice
- b. produced from broken down RBC
- c. increased in babies with HDN(hemolytic disease of the newborn)
- d. sensitive to light
- e. all of the above

answer: e. all of the above

I will pass the OSMT Certification Exam:

- a. true

- b. false
- c. not sure

answer: GOOD LUCK!!!

Which statement best describes what privacy legislation deals with:

- a. a private lab number
- b. the collection, use, and disclosure of personal information
- c. the privacy of the health care worker
- d. the privatization of provincial health care
- e. the control of private health care

answer: b. the collection, use, and disclosure of personal information

Which of the following best describes what is meant when we say a profession is regulated:

- a. entry into the profession is controlled by an organization
- b. there is a provincial legislation denying who can practice
- c. there are standards of practice members of the profession must meet
- d. all of the above
- e. none of the above

answer: d. all of the above

Medicare:

- a. a private insurance system
- b. Canada's national health insurance program
- c. a representative of health professionals
- d. a regulating organization
- e. a canadian private lab

answer: b. Canada's national health insurance program

The term "statute" is interchangeable with the word_____.

- a. act
- b. legislation
- c. bill
- d. chapter
- e. title

answer: a. act

A supplier label is not required on a controlled product if_____

- a. the product originates from a laboratory supply house
- b. is packaged in a container less than 50kg
- c. is intended by employer solely for use in a laboratory
- d. a, b, c are correct
- e. a & c are correct

answer: e. a & c are correct

According to regulation 682, a medical lab technician is defined as:
a person who under general supervision, performs tests which require independent judgement

- a.
a person responsible for administration of technical and scientific lab operations
 - b.
a person who under direct supervision performs tests which require limited skills and responsibility
 - c.
a person who may perform specialized scientific tests
 - e. a person who may perform routine and microscopic urine
- answer: c. a person who under direct supervision performs tests which require

limited skill and responsibility

Which of the following tasks falls within the scope of practice of a lab tech:

- a. preparation of samples prior to testing
- b. quality control maintenance of lab instruments
- c. maintenance of laboratory records
- d. interpretation of lab results
- e. arterial blood gas collection

answer: a. preparation of samples prior to testing

Dangerous goods are assigned a UN number. Which of the following describes what a UN number is:

- a. it is a provincial number
- b. it is a 4 digit United Nations number
- c. it is the same as the class number
- d. it is only used for dangerous chemicals
- e. it is assigned by the transport company

answer: b. it is a 4 digit United Nations number

Which of the following statements is true regarding personal information about patients:

- a. patients personal information may be discussed during coffee break
- b. must never be discussed outside the hospital
- c. may be discussed with other patients
- d. may be used for your personal advantage
- e. may be discussed with all family members

answer: b. must never be discussed outside the hospital

Lines of authority are important. The MLA's immediate line of authority is:

- a. registered nurse
- b. the hospital physician
- c. the medical lab technologist
- d. a peer
- e. laboratory manager

answer: e. the medical lab technologist

A patient requests tests results from the MLA. Which of the following statements represents the appropriate course of action to be taken by the MLA:

- a. the MLA should give the patient the results, it is the patient's right
- b. the MLA can call the patient at home
- c. the MLA tells the patient it is not his/her job
- d. the MLA refers the request to the supervisor
- e. the MLA tells the patient the results were lost, call back

answer: d. the MLA refers the request to the supervisor

The responsibility of compliance with the Act and Regulations of the OHSA is placed upon:

- a. officers and directors of a corporation
- b. the public
- c. the employee
- d. health and safety committee
- e. lab supervisor

answer: c. the employee

The disclosure of the source of toxicological data from a controlled product produced in a workplace may be requested by:

- a. an inspector
- b. a worker at the workplace
- c. member of health and safety committee
- d. health and safety rep.
- e. all of the above

answer: e. all of the above

Positive lab findings indicate the presence of a communicable disease within the meaning of the Health Protection and Promotion Act, are to be reported to the medical officer of health within:

- a. one week
- b. 24 hours
- c. one month of testing
- d. time is not a factor
- e. at the supervisors discretion

answer: b. 24 hours

When citing the Insurance Act, an insurer may request that the laboratory test a human specimen for:

- a. glucose levels
- b. heart disease markers
- c. any test requested
- d. HIV antibody
- e. all communicable diseases

answer: d. HIV antibody

Which of the following best describes a bill:

- a. a proposed act that is before the legislative assembly
- a law made by a person or body whose authority to make the law is set out in the act
- b.
- c. requirements of an employer
- d. passed after one reading
- e. created in response to Canadian workers

answer: a. a proposed act that is before the legislative assembly

Which of the following statements best completes the following? The endeavour of the MLA to maintain and improve their skills is:

- a. part of quality management
 - b. the knowledge of standards
 - c. mandated by the code of ethics
 - d. testing procedures
 - e. professional regulation
- answer: f. mandated by the code of ethics

The definition of basic knowledge for the MLA/T is:

- a. perform tests requiring judgement
 - b. knowledge of all lab instrumentation
 - c. knowledge of interpretive procedures
 - d. phlebotomy only
 - e. entry-level comprehension of theoretical basis
- answer: b. knowledge of all lab instrumentation

The type of agent used in the medical office to destroy microorganisms depends upon:

- a. the type and number of microorganisms present
 - b. the size of the article
 - c. what the article consists of
 - d. the weight of the article
 - e. all of the above
 - f. a & c
 - g. a, c & d
- answer: f. a & c

Which of the following is true regarding a bacterial spore:

- a. all bacteria forms spores
 - b. a spore consists of a hard, thick walled capsule
 - c. spores represent a resting and protective stage
 - d. spores can be destroyed by disinfectants
 - e. all of the above
 - f. b & c
 - g. a, b, & c
 - h. a, c and d
- answer: f. b and c

Something that is sterile is:

- a. free of all pathogens
- b. free from all living microorganisms
- c. free from all living microorganisms and spores
- d. free of all nonpathogens

answer: c. free from all living microorganisms

Which of the following agents will result in sterilization:

- a. autoclave
- b. sanitation
- c. chemical disinfectants
- d. dry heat oven
- e. all of the above
- f. a and d
- g. a, b, and d
- e.

answer: f. a and d

What is the name given to a substance that kills disease-producing microorganisms/not spores and is generally applied to inanimate objects:

- a. a disinfectant
- b. an antiseptic
- c. an antibiotic
- d. a fungicide

answer: a. a disinfectant

Which of the following is a common use of an antiseptic:

- a. to cleanse surgical instruments
- b. for application to cuts and abrasions
- c. to cleanse laboratory work tables in the medical office
- d. for application to the skin before a surgical incision is made
- e. all of the above
- f. b and d
- e.

g. a, b, and c

answer: f. b and d

Which of the following is a function of sanitation:

- a. to remove gross contaminants such as blood
- b. to remove all pathogens and non pathogens
- c. to disinfect articles
- d. to lower the number of microorganisms

all of the above

- f. a and d
- g. a, b and d
- e.

answer: f. a and d

If an article cannot be sterilized immediately, it should be:

- a. placed in boiling water for 10 mins
- b. placed in an antiseptic solution
rinsed off and placed in a
soaking solution
- c.
- d. placed in the autoclave for 5 mins

answer: c. rinsed off and placed in a soaking solution

An object should be boiled for at least:

- a. 5 mins
- b. 15 mins
- c. 30 mins
- d. 1 hour

answer: c. 30 mins

A mild rolling boil is recommended because a vigorous boil will:

- a. reduce the killing power of water
- b. cause a calcium deposit to build up on the article
- c. cause rusting of the metal instruments
- d. reduce the water content through evaporation

answer: d. reduce the water content through evaporation

Boiling can be used to disinfect which of the following:

- a. ear spatula
- b. thermometers
- c. auraln specula

d. stethoscopes

all of the above

f. a and c

g. a, c and d

e.

answer: f. a and c

What is the most widely used sterilization method in the medical office:

a. the dry heat oven

b. chemical sterilization

c. the autoclave

d. boiling

answer: c. the autoclave

An autoclave operates on the basis of:

a. free flowing steam

b. chemicals

c. steam under pressure

d. sound waves

answer: c. steam under pressure

Why is it important for all air to be removed from the autoclave during the sterilization process:

a. air causes moisture to condense on the packs

b. air reduces the temperature in the autoclave

c. air prevents adequate steam penetration of the packs

d. air causes cracking of the glassware

answer: b. air reduces the temperature in the autoclave

The medical assistant should not start timing the autoclave until:

a. the sterilization indicator changes color

b. the desired temperature for the autoclave is reached

c. the pressure reaches 15 lbs per square inch

d. steam enters the inner sterilizing chamber

e. b and c

answer: e. b and c

The proper time for sterilizing an article in the autoclave:

- a. depends upon the type of autoclave being used
- b. depends upon what is being autoclaved
- c. depends upon the type of indicator being used
- d. is approximately 15 to 20 minutes

answer: b. depends upon what is being autoclaved

What type of water should be used in an autoclave:

- a. salt water
- b. distilled water
- c. tap water
- d. mineral water

answer: b. distilled water

The most common temperature and pressure used for autoclaving is:

- a. 320 degrees F at 20 pounds of pressure per square inch
- b. 145 degrees F at 20 pounds of pressure per square inch
- c. 212 degrees F at 15 pounds of pressure per square inch
- d. 250 degrees F at 15 pounds of pressure per square inch

answer: d. 250 degrees F at 15 pounds of pressure per square inch

Wrapped articles that have been sterilized must be allowed to dry before removing them from the autoclave because wet packs will cause:

- a. rusting of metal instruments
- b. tearing of the wrapper
- c. microorganisms to be drawn into the pack
- d. inaccurate results on the sterilization indicator
- e. all of the above

answer: c. microorganisms to be drawn into the pack

The inside of the autoclave should be washed everyday with what:

- a. a mild detergent
- b. a disinfectant,
- c. an antiseptic distilled water
- d. a scouring pad

answer: a. a mild detergent

What is the purpose of wrapping articles before they are sterilized in the autoclave:

- a. to allow better steam penetration during autoclaving
- b. to protect the articles from recontamination during handling and storage
- c. to ensure complete destruction of all pathogens

to allow the sterilization package to be opened without contaminating the contents

- d.
- all of the above
- f. b and d
- g. b, c and d

e.

answer: f. b and d

The wrapper used to autoclave articles should:

- a. prevent contaminants from getting in during handling and storage
- b. to be made of a substance that will not tear
- c. made by a substance not affected by the sterilization process
- d. allows steam to penetrate it
- e. all of the above

answer: e. all of the above

What should the medical assistant do if she is getting ready to wrap an instrument and discovers the wrapper has a hole:

- a. repair the hole with adhesive tape
- b. wrap the instrument, ignoring the hole as sterilizing will still take place
- c. obtain a new wrapper
- d. none of the above

answer: c. obtain a new wrapper

How should articles be packed in the autoclave:

- a. close together so more articles can be sterilized at one time
- b. criss-crossed with one on top of another
- c. loosely with 1 to 3 inches between all articles and surrounding walls
- d. on their sides

answer: c. loosely with 1 to 3 inches between all articles and surrounding walls

How should jars and glassware be positioned in the autoclave:

- a. in an upright position with lids removed
- b. on their sides with lids removed

- c. on their sides with lids on
 - d. in an upright position with lids on
- answer: b. on their sides with lids removed

What is the purpose of sterilization indicators:

- a. to check against improper wrapping of articles
- b. to check for improper loading of the autoclave
- c. to check for the presence of air in the autoclave
- d. to check to make sure the autoclave is working properly
- e. all of the above

answer: d. to check to make sure the autoclave is working properly

Where should Sterilometer strips be positioned:

- a. on the bottom shelf of the autoclave
- b. in close proximity to the air exhaust valve
- c. in the center of each article
- d. on the outside of each pack

answer: c. in the center of each article

The most reliable sterilization indicators check for:

- a. the attainment of the proper temperature and the duration of the temperature
- b. whether the article has been autoclaved or not
- c. the attainment of the proper temperature and pressure
- d. the presence of trapped air in the autoclave

answer: c. the attainment of the proper temperature and pressure

Autoclave tape:

- a. assures whether or not sterilization has taken place
- b. indicates whether or not the article has been in the autoclave
- c. can only be used to close the pack
- d. indicates if the autoclave is broken

answer: b. indicates whether or not the article has been in the autoclave

Commercially prepared sterilization indicators containing a thermolabile dye will:

- a. cause a wax pellet to melt when sterilization has taken place
- b. turn cloudy when sterilization has taken place

change color when a sterilization article has been in a storage cabinet for

more than 4 weeks

c.

change color when the correct combination of time, temperature, and steam have been met

d.

answer: d. change color when the correct combination of time, temperature, and

steam have been met

Which of the following is the best means of determining the effectiveness of the sterilization process:

a. steam clox indicators

b. culture tests

c. sterilometers-thermolabile strips

d. sealed glass tubes containing a wax pellet

e. autoclave tape

answer: b. culture tests

Sterilized articles wrapped in disposable paper or muslin are considered sterile for a maximum period of:

a. 2 weeks

b. 4 weeks

c. 8 weeks

d. 3 months

answer: b. 4 weeks

Which of the following must be rewrapped and resterilized:

a. a pack wrapped in muslin

b. a torn pack

c. an open pack

d. a wet pack

all of the above

f. b, c, and d

e.

answer: f. b, c, and d

Which of the following factors should be observed during incineration:

a. make sure complete burning takes place

b. wrap grossly contaminated items in a plastic bag before burning

- c. make sure the temperature reaches 250 degrees F
- d. make sure all articles are sanitized before burning
- all of the above

f. a and b

e.

answer: f. a and b

A longer exposure time is needed for a dry heat oven because:

a. dry heat has limited killing action

dry heat ovens can only reach

a maximum temperature of 200 degrees F

b.

c. dry heat penetrates slowly and unevenly

d. microorganisms and spores are more resistant to dry heat

all of the above

f. c and d

e.

answer: f. c and d

The dry heat oven is a good way to sterilize because:

a. it does a better job than other methods of killing the pathogens on needles

b. it wont dull needles

c. it wont cause the needle to break

d. it does not cause rusting of the needle

answer: b. it wont dull the needles

Why shouldn't a dry heat oven be opened during the sterilization procedure:

a. glassware may break

b. the oven will cool and sterilization may not be complete

c. microorganisms may ednter the oven resulting in contamination

d. the oven may be damaged

e. all of the above

answer: b. the oven will cool and sterilization may not be complete

Chemical disinfectants are used to disinfect:

a. instruments and supplies which penetrate the body tissues

b. instruments and supplies that come in contact with the skin

instruments that are inserted into a sterile body cavity such as the urinary

bladder

c.

d. instruments and supplies that are shallowly inserted into a body orifice

all of the above

f. b and d

e.

answer: f. b and d

Which of the following is the most effective disinfectant:

a. 50% ethyl alcohol (ethanol)

b. 60% ethyl alcohol

c. 70% ethyl alcohol

d. 100% ethyl alcohol

answer: c. 70% ethyl alcohol

Alcohol is commonly used to disinfect:

a. clinical thermometers

b. stethoscopes

c. percussion hammers

d. surgical instruments

all of the above

f. a, b and c

e.

answer: f. a, b and c

The method of sterilization that utilizes steam under pressure is:

answer: Moist heat autoclaving

Sterilization method that requires 350 degrees F for 2 hours is:

answer: Dry heat autoclaving

What type of gas is used in chemical autoclaving:

answer: Ethylene oxide

Dene sanitation:

answer: Washing to remove physical contamination

Dene medical asepsis:

answer: Free of pathogens and of infections

If an article penetrates the skin it must be:

answer: Sterilized

If an article is for the exterior of the body or a natural opening without mucus it must be:

answer: Disinfected

Why is dry ice considered a hazardous material:

answer: It burns, suffocates, and can explode

When working with carcinogens, you should:

- a. perform procedure in a laminar flow hood
- b. mouth pipette
- c. wear stainless steel gloves
- d. wash hand with soap and hot water when finished
- e. wear safety goggles

answer: a. perform procedure in a laminar flow hood

Which statement is true regarding radiation hazard

- a. radiation guidelines are set by food and drug act
- b. radiation is not transferred into the body
- c. radiation does not affect a fetus
- d. radiation accidents may be difficult to recognize
- e. large amounts of radiation are used in the RIA department

answer: d. radiation accidents may be difficult to recognize

In order to burn something requires everything except:

- a. oxygen
- b. fuel
- c. CO₂
- d. heat
- e. a and d

answer: c. CO₂

Class C fires involve:

- a. paper, wood

- b.ammable liquids
- c. combustible metals
- d. electrical equipment
- e. fabrics and oils

answer: d. electrical equipment

How often should a re extinguisher be recharged:

- a. weekly
- b. monthly
- c. quarterly
- d. bi-annually
- e. yearly

answer: e. yearly

The guidelines which cover prevention of infection from all body uids is:

- a. SP
- b. UP
- c. CSMLS
- d. CDC
- e. WHMIS

answer: a. SP

What does BSP stand for:

answer: Body standard Procautions

The common antiseptic that destroys HIV and HBV is:

- a. 70% isopropyl alcohol
- b. 1 % hypochlorite
- c. 2 % glutaraldehyde
- d. iodine/chlorohexidine

lysol

F. b and d

e.

answer: f. b and d

2% glutaraldehyde:

- a. will decontaminate metal surfaces
- b. is made fresh daily

- c. is a good antiseptic
- d. is not effective against bacteria
- e. b and c

answer: a. will decontaminate metal surfaces

A centrifuge is decontaminated:

- a. after every use
- b. at the end of each work shift
- c. daily
- d. weekly
- only when tube breakage occurs
- f. b, c and d
- e.

answer: f. b, c and d

Which biological waste is not terminally sterilized prior to disposal:

- a. blood clots
- b. urine
- c. feces
- d. sputum
- e. tissue

answer: b. urine

Incineration is the preferred method to use prior to disposal of the following:

- a. urine
- b. blood
- c. feces
- d. serum
- e. c and d

answer: c. feces

What solution is used to clean up biohazardous spills on the floor:

- a. dettol
- b. lysol
- c. 70% alcohol
- d. iodine
- e. 1 % hypochlorite (bleach)

answer: e. 1 % hypochlorite (bleach)

Which safety equipment is not needed when measuring out a volume of strong base:

- a. safety goggles
- b. laminar ow hood
- c. propipette
- d. rubber bottle carrier
- e. fume hood

answer: b. laminar ow hood

What factor is not considered when storing chemicals:

- a. ammability
- b. light sensitivity
- c. heat sensitivity
- d. explosive properties
- e. solubility

answer: e. solubility

Acids are stored:

- a. with bases
- b. in plastic air-tight bottles
- c. in metal safety cans
- d. in glass stoppered bottles in a drip tray
- e. with other reactive chemicals

answer: d. in glass stoppered bottles in a drip tray

Which statement is false regarding reactive chemicals:

- a. they include picric acid and sodium azide
- b. oxidizers are stored separate from reducers
- c. some may rwact with water
- d. always add water to acid
- e. protect reactive chemicals from sunlight and heat

answer: d. always add water to acid

Which chemicals are most highly ammable:

- a. strong oxidizers
- b. strong reducers
- c. organic solvents

d. acids

answer: c. organic solvents

Which statement is true regarding picric acid:

a. it is stored under ether

b. it is stored in a plastic bottle

c. it is stored under water

d. it contains mercury

e. it has no special storage requirements

answer: c. it is stored under water

Which reagent contains mercury:

a. crystal violet

b. picric acid

c. Zenker's uid

d. Bouin's uid

e. Drabkin's reagent

answer: e. Drabkin's reagent

Ether is stored:

a. in a full air tight bottle

b. in a safety can in the dark

c. under water

d. in the refridgerator

e. a and b

answer: e. a and b

When handling strong acids:

a. always add water to acid

b. always add acid to water

c. keep the acid bottle above eye level when pouring

d. wear latex gloves

e. two of the above

answer: b. always add acid to water

MSDS stands for:

a. material safety data system

b. managing safe detail sheet

- c. material safety data sheet
 - d. maintaining safe delivery standards
- more stupidity decreases safety

- b.
- e.

answer: c. material safety data sheet

Which area of an MSDS would refer to storage of a chemical:

- a. preventative measures
- b. physical data
- c. reactivity data
- d. toxicological properties
- e. b and d

answer: a. preventative measures

TLV is:

concentration of substance a worker can be exposed to for a short time without effect

- a.
- b. dose of substance given to test animals that kills half of them
- c. concentration in air that kills half of test animals exposed to it
- d. concentration of substance a worker can be exposed to for 8 hours a day 40 hours a week without adverse effect
- e. Toxic Legal Volume

answer: d. concentration of a substance a worker can be exposed to for 8 hours

a day 40 hours a week without adverse effect

TLV stands for:

answer: Threshold limit value

TLV-S.T.E.V. is:

concentration of substance a worker can be exposed to for a short time without effect

- a.
- b. dose of substance given to test animals that kills half of them
- c. concentration of substance a worker can be exposed to for 8 hours a day 40 hours a week without adverse effect

c.

d. toxic legal volume

answer: a. concentration of substance a worker can be exposed to for a short

time without effect

LD. 50 is:

concentration of substance a worker can be exposed to for a short time without effect

a.

b. dose of substance given to test animals that kills half of them

c. concentration in air that kills half the test animals exposed to it
concentration of substance a worker can be exposed to for 8 hours a day 40 hours a week without adverse effect

d.

e. toxic legal volume

answer: b. dose of substance given to test animals that kills half of them

LC. 50 is:

concentration of substance a worker can be exposed to for short time without effect

a.

b. dose of substance given to test animals that kills half of them

c. concentration in air that kills half of test animals exposed to it
concentration of substance a worker can be exposed to for 8 hours a day 40 hours a week without adverse effect

d.

e. toxic legal volume

answer: c. concentration in air that kills half of test animals exposed to it

An MSDS is valid:

a. for one year

b. for two years

c. for three years

d. until new information becomes available

e. c or d, whichever comes first

answer: e. c or d, whichever comes first

OSMT means:

answer: Ontario Society of Medical Technologists

CMLTO means:

answer: College of Medical Lab Technologists of Ontario

CDC means:

answer: Center of Disease Control

CSMLS means:

answer: Canadian Society of Med Lab Scientists

1% hypochlorite:

- a. is a sterilizing agent
- b. will destroy all viruses
- c. is affective against spore forming bacteria
- d. can disinfect metal surfaces if a water rinse is done
- e. c and d

answer: e. c and d

What solution is used to clean up biohazardous spills:

- a. dettol
- b. lysol
- c. 70% ethyl alcohol
- d. iodine
- e. 1% hypochlorite

answer: e. 1% hypochlorite

What type of re extinguisher is used in chemical res:

- a. type a
- b. type b
- c. type c
- d. type d
- e. type e

answer: b. type b

The cabinet giving the highest personal, environment and specimen protection is a:

- a. class IV biological safety cabinet

- b. class III biological safety cabinet
 - c. class II biological safety cabinet
 - d. class I biological safety cabinet
 - e. fume hood
- answer: b. class III biological safety cabinet

A patient with lung cancer is receiving chemotherapy. He would be hospitalized in:

- a. enteric isolation
 - b. respiratory isolation
 - c. reverse isolation
 - d. strict isolation
 - e. a standard ward setting
- answer: c. reverse isolation

Which is not required when visiting a patient in enteric isolation:

- a. mask
 - b. gown
 - c. sterile equipment
 - d. gloves
 - e. a and c
- answer: e. a and c

What reagent is mutagenic/clastogenic:

- a. crystal violet
 - b. picric acid
 - c. Zenker's uid
 - d. brazil xative
 - e. two of the above
- answer: b. crystal violet

What piece of equipment will protect you from a chemical hazard:

answer: Fume hood

What piece of equipment will protect you from biological hazards:

answer: Biological safety cabinet

Name three common corrosive substances:

answer: sulfuric acid, hydrochloric acid, and nitric acid

Reactive substances:

- a. may explode
- b. may ignite or burn
- c. may give off poisons
- d. may cause serious burns
- e. all of the above

answer: e. all of the above

Flammable substances:

- a. ignite at temperatures below 37.8 degrees C
- b. ignite at temperatures above 37.8 degrees C
- c. must be stored in a safety can or cabinet
- d. must be identified as flammable

a, c, and d

f. b and c

e.

answer: e. a, c, and d

Combustible substances: a. have a flash point below 37.8 degrees C

have a flash point above 37.8 degrees C

must be stored in a safety can or cabinet

are not dangerous

a, c and d

f. b and c

answer: f. b and c

Which of the following is not an example of a microorganism:

- a. autotroph
- b. bacteria
- c. virus
- d. fungi
- e. protozoa

answer: a. autotroph

What is a term used to describe microorganism that does not produce disease:

- a. normal flora

- b. aseptic
 - c. nonpathogen
 - d. apathogen
 - e. pathogen
- answer: c. nonpathogen

What is the name given to a microorganism that can exist only in the presence of oxygen:

- a. anaerobe
 - b. oxygenophile
 - c. aerobe
 - d. autotroph
 - e. heterotrophy
- answer: c. aerobe

What is the name given to a person who cannot get off a pathogen that has entered his body:

- a. reservoir host
 - b. resistant host
 - c. contagious host
 - d. susceptible host
 - e. immune host
- answer: d. susceptible host

Cilia prevent the entrance of pathogens into the body by:

- a. providing an acidic environment
 - b. engulfing pathogens
 - c. trapping microorganisms
 - d. constantly beating towards the outside
 - e. discouraging growth of pathogens
- answer: d. constantly beating towards the outside

What is the term used to describe practices which help keep an object or area clean and free from infection:

- a. medical asepsis
- b. surgical asepsis
- c. pathogenic
- d. non-pathogenic

e. sterilization

answer: a. medical asepsis

Which of the following are picked up in the course of daily activities:

a. blood borne pathogens

b. transient ora

c. normal ora

d. opportunistic infections

e. resident ora

answer: b. transient ora

Which of the following is an example of regulated waste:

a. disposable ear speculum

b. patient gown

c. sterile dressings

d. empty medicine bottles

e. blood tube

answer: e. blood tube

Autotroph:

answer: Inorganic

Heterotroph:

answer: Organic

Name the different categories of microorganisms:

answer: bacteria, virus, fungi, protozoa, and animal parasites

Three protective mechanisms of the body are:

answer: Skin, mucus membrane, sweat, vaginal secretions

Which of the following statements best describes what privacy legislation deals with:

A) a private lab number

B) the collection use and disclosure of personal information

C) the privatization of provincial health care

the privacy of the health care worker

answer: B) the collection use and disclosure of personal information

A regulated profession is:

- a) entry is controlled by a organization
- there is a provincial legislation denying who can practice
- c) there are standards of practice members of the profession must meet
- d) all of the above

answer: d) all of the above

Medicare is:

- a) a private insurance system
- b) Canada's national health insurance program
- c) a representative of health professionals
- d) a regulating organization

answer: b) Canada's national health insurance program

The term statute is interchangeable with the word:

- a) act
- b) legislation
- c) bill
- d) chapter

answer: a) act

Supplier label is not required on controlled product if:

- a) package originates from the lab supply house
- b) the package contains less than 50kg
- c) is intended by employer solely for use in the laboratory
- d) a&c

answer: d) a&c

If a patient request lab results from an MLT they should:

- a) give patient results
- b) call patient at home
- c) tell patient it's not his job
- d) refer request to the supervisor
- e) tell patient results were lost

answer: d) refer request to the supervisor

What is a bill:

a proposed act that is before legislative assembly

- b) a law
- c) requirements of an employer
- d) passed after one reading

a.

answer: a) a proposed act that is before the legislative assembly

The endeavour of the MLA to maintain and improve their skills is....

- a) part of quality management
- b) knowledge of standards
- c) mandated by the code of ethics
- d) testing procedures

answer: c) mandated by the code of ethics

Buffered commercial formalin is a solution of formaldehyde gas in water, approx:

- a) 10% gas by weight/volume
- b) 4% gas by weight volume
- c) 100% gas by weight volume
- d) 60% gas by weight volume
- e) none of the above

Buffered commercial formalin is a solution of formaldehyde, gas and water, approx:

answer: a) 10% gas by weight volume

Susceptibility testing:

- a. measures how fast a pathogen can be destroyed
- b. identifies type of organism in specimen
- c. will determine effectiveness of drug therapy
- d. produces a pure culture
- e. determines the effectiveness of antibiotic therapy

answer: e) determines the effectiveness of antibiotic therapy

In bacteriology, the following methods are used to obtain anaerobic conditions:

- a. gas pak
- b. candle jar
- c. glove box techniques
- d. a & b
- e. a & c

answer: d) a& b

Platelets are:

- a. thrombocytes
- b. necessary for the clotting of blood
- c. non nucleated
- d. derived from megakaryocytes
- e. all of the above

answer: e) all of the above

Leukopoiesis is:

- a. an increase in the production of white blood cells
- b. the synthesis of white blood cells
- c. non nucleated
- d. the destruction of white blood cells
- e. none of the above

answer: b) the synthesis of white cells

During mitosis:

- a. one cell gives rise to 2 cells of the same type
- b. the nucleus undergoes changes and divides into two
- c. cellular reproduction is achieved
- d. all of the above
- e. a and b only

answer: d) all of the above

T cells are:

- a. monocytes
- b. neutrophils
- c. lymphocytes
- d. eosinophils
- e. basophils

answer: c) lymphocytes

SI units:

- a. is a modern version of the metric system
- b. is the International System of Units
- c. is based on seven types of base units

- d. provides information concerning the number of molecules in a compound
 - e. all of the above
- answer: e) all of the above

A term which means “without infection” is:

- a. aseptic
- b. septic
- c. disinfectant
- d. antibiotic
- e. stasis

answer: a) aseptic

Which reagent is used to embed tissue after processing:

- a. permount
- b. parafn
- c. xylene
- d. formic acid
- e. liquid nitrogen

answer: b) parafn

MSU means:

- a. median standard urine
- b. maximum strength urine
- c. mid stream urine
- d. maximum standard unit
- e. minimum standard unit

answer: c) mid stream urine

The anticoagulant contained in a green stoppered vacutainer is:

- a. citrate
- b. heparin
- c. EDTA
- d. uoride
- e. oxalate

answer: b) heparin

Specimens which are not expected to be sterile in healthy individuals include:

- a. blood ans cerebrospinal uid

- b. aspirated and catheterized urine
 - c. respiratory and gastrointestinal tract specimens
 - d. all of the above
- answer: c) respiratory and gastrointestinal tract specimens

Glycosylated hemoglobin is performed on the following sample:

- a. serum
 - b. plasma
 - c. whole blood
 - d. urine
 - e. requires serum and urine
- answer: c) whole blood

A volumetric pipette is:

- a. designed to deliver approximate volumes of uid
 - b. found only in sizes of less than one ml
 - c. not very accurate
 - d. to deliver (td) type
 - e. used for whole blood only
- answer: d) to deliver (td) type

Creatine clearance:

- a. is a liver function test
 - b. requires timed blood samples to be drawn
requires both serum and a 24
hour urine sample
 - c.
 - d. requires the patient to be fasting at the onset of testing
 - e. d & b
- answer: c) requires both serum and a 24 hour urine sample

The nal colour of a gram negative organism is:

- a. violet
 - b. pink
 - c. dark blue
 - d. tan
 - e. colourless
- answer: b) pink

You are staining blood films using Wright's stain and the methylene blue stain is too bright. What is the cause?

- a. buffer is too basic
- b. buffer is too acidic
- c. the specimen is less than 4 hours old
- d. the methylene blue stain is too old
- e. the specimen was not fixed properly

answer: b) buffer is too acidic

If a CBC specimen has hemolyzed plasma you know:

- a. the test will not be accurate
- b. the patient has hemolytic anemia
- c. the buffy coat will be missing
- d. only the differential will be accurate
- e. the hematocrit result will be incorrect

answer: e) the hematocrit result will be incorrect

The sedimentation rate in a hematocrit test is influenced by

- a. rouleaux
- b. cell count
- c. bench level vibration
- d. atmospheric pressure
- e. all of the above

answer: e) all of the above

Solid crystals of potassium oxalate are added to distilled water in a container.

What term best describes the potassium oxalate?

- a. solution
- b. solvent
- c. solute
- d. reagent
- e. two of the above

answer: c) solute

which is/are kidney function tests?

- a. BUN
- b. creatinine clearance

- c. electrolyte profile
- d. total protein
- e. all of the above

answer: e) all of the above

A pipette marked TC would be:

- a. allowed to drain freely
- b. marked with a double ring at the mouthpiece
- c. used for toxic, corrosive liquids
- d. rinsed out after delivery

answer: d) rinsed out after delivery

For quality processing of surgical biopsy material, the best procedure is to immediately place the tissue in the following as soon as it is removed from the patient is:

- a. 10% formalin
- b. 0.9% saline
- c. refrigerator
- d. PVA
- e. 40% formalin

answer: a) 10% formalin

The monitoring and assessment of all procedures from the time the patient's blood sample is obtained until the time the report is completed is called:

- a. quality control
- b. infection control
- c. good management
- d. quality assurance
- e. quality monitoring

answer: d) quality assurance

The lancet size used when performing a heel puncture on a newborn is:

- a. 1.5 mm
- b. 2.0 mm
- c. 2.4 mm
- d. 2.6 mm
- e. 3.0 mm

answer: c) 2.4 mm

The first drop of blood is wiped away after performing a capillary puncture to:

- a. remove any pathogens that are present
- b. increase blood flow to the area
- c. remove the last traces of alcohol
- d. remove any excess tissue fluid
- e. two of the above

answer: c) remove the last traces of alcohol

remove any excess tissue fluid

two of the above Urine dipstick tests for bacteria detect the presence of:

- a. nitrates
- b. phosphates
- c. nitrites
- d. all of the above
- e. none of the above

answer: c) nitrites

Blood cells in a hypertonic solution will:

- a. swell and burst
- b. crenate
- c. hemolyze
- d. not be affected
- e. stop mitosis

answer: b) crenate

Immunology tests are based on the reaction of:

- a. acid-base
- b. antigen-antibody
- c. protein-SSA
- d. lysing agent-RBC
- e. proton-electron

answer: b) antigen-antibody

The following urinalysis test results will be positive in a patient with uncontrolled diabetes mellitus:

- a. nitrate and protein
- b. glucose and ketone

- c. glucose and nitrate
 - d. glucose and protein
 - e. protein and ketone
- answer: b) glucose and ketone

Acid phosphatase is an enzyme which increases in:

- a. gout
- b. kidney disease
- c. liver disease
- d. prostatic cancer
- e. heart disease

answer: d) prostatic cancer

Which of the following has the most influence on the transparency of the cytoplasm on the Papanicolaou staining procedure:

- a. hydration
- b. blueing
- c. differentiation
- d. alcoholic counter stains
- e. nuclear stains

answer: d) alcoholic counter stains

An autoclave operates on the basis of:

- a. free-flowing steam
- b. chemicals
- c. steam under pressure
- d. sound waves
- e. microwaves

answer: c) steam under pressure

The recommended GTT glucose dose for a normal adult is:

- a. 75 gm
- b. 100gm
- c. 50 gm
- d. 1.75 g/kg
- e. 150 gm

answer: a) 75 gm

How should commercially prepared culture plates be stored?

- a. in the freezer until several hours before use
- b. inverted to prevent condensation dripping onto the media
- c. at room temperature in a dark area of the lab
- d. at a temperature of 2-4 degrees C
- e. two of the above

answer: b) inverted to prevent condensation dripping onto the media

The following may result in an excessively pink film when doing a Wright's stain of a peripheral blood smear:

- a. thick blood film
- b. over staining
- c. high acidity of the stain
- d. inadequate washing
- e. excessive alkalinity of the staining solution

answer: c) high acidity of the stain

Which of the following is usually used in evaluating a diabetic?

- a. 2 hour PC glucose
- b. acid phosphatase
- c. GTT
- d. cholesterol
- e. a & c

answer: e) a and c

Culture media which promotes the growth of one type of organism and retards the growth of others is called:

- a. differential media
- b. enriched media
- c. natural media
- d. selective media
- e. discriminating media

answer: d) selective media

A refrigerator temperature of 4 degrees C is recommended

- a. to store blood samples for up to 2 months
- b. to stop bacteria growth
- c. to reduce bacterial growth and decrease cell metabolism

d. to store blood samples or up to one week

e. all of the above

answer: c) to reduce bacterial growth and decrease cell metabolism

Mercury:

may be discarded down the sink with an abundance of running tap water following it

a.

b. is found only in thermometers

c. forms a toxic vapor at room temperature

d. forms an explosive precipitate on standing

e. all of the above

answer: c) forms a toxic vapor at room temperature

Amorphous urates:

a. form a white sediment in alkaline urine

b. disappear if the urine is heated

c. form a pink sediment in acidic urine

d. a and b are correct

e. b and c are correct

answer: e) b and c are correct

Functions of red blood cells include:

a. taking up hemoglobin in the lungs

b. taking up oxygen in the lungs

c. transporting carbon dioxide to the lungs from the tissues

d. a and b

e. b and c

answer: e) b and c

a scum or sheen of oxidized dye on the surface of a hematoxylin solution indicates:

a. stain should be filtered before use

b. bacterial contamination

c. stain too ripe to use

d. stain too old to use

e. stain should be discarded

answer: a) stain should be filtered before use

What disinfectant should be in a discard jar:

- a. 5-10% sodium hydroxide
- b. 1-2.5% sodium hypochlorite
- c. 2-3.1% hydrochloric acid
- d. 1-2.1% ferric chloride
- e. 1-2% sodium acetate

answer: b) 1-2.5% sodium hypochlorite

Which specimen would not be tested in the cytology department:

- a. bowel biopsy
- b. buccal smear
- c. pleural fluid
- d. breast fluid
- e. sputum

answer: a) bowel biopsy

Gross examination of tissue is:

- a. macroscopic examination of tissue
- b. microscopic examination of tissue
- c. the performance of a necropsy
- d. the cutting of tissue into very thin sections
- e. b and d

answer: a) macroscopic examination of tissue

Macroscopic means:

answer: Large enough to be seen or examined with the naked eye.

What is a necropsy?

answer: A postmortem examination

The volume of fixative in the specimen jar prepared for the operating room should ideally be approximately:

- a. twice the volume of the tissue
- b. three times the volume of the tissue
- c. four times the volume of the tissue
- d. ten times the volume of the tissue

e. volume is not important

answer: d) ten times the volume of the tissue

The uid most preferred for specimen jars forthe operating room is:

a. formalin and PVA

b. Bouin's xative

c. 10% neutral buffered formalin

d. polyvinyl alcohol

e. PVA with mercuric chloride

answer: c) 10% neutral buffered formalin

An anaerobic culture is required for which of the following specimens:

a. urine

b. brain abscess

c. stool

d. sputum

e. fungus

answer: b) brain abscess

In Zeihl Neelsen stain the decolorizing agent is:

a. absolute alcohol

b. acetone

c. acid alcohol

d. xylol

e. 70% alcohol

answer: c) acid alcohol

Heterophile antibodies can be detected by:

a. ABO typing

b. Rh and antibody screen

c. antiglobulin test

d. monoinucleosis test

e. indirect coomb's test

answer: d) mononucleosis test

Physiological saline is:

a. 0.75% NaCl in water

b. 0.80% NaCl in water

- c. 0.85% NaCl in water
 - d. 0.90% NaCl in water
 - e. either c or d
- answer: e) either c or d

A reticulocyte is:

- a. an immature erythrocyte
 - b. an immature leukocyte
 - c. an erythrocyte with RNA
 - d. an indicator of erythropoiesis
 - e. a, c and d
- answer: e) a, c and d

When preparing a reticulocyte smear, the:

- a. stain is dissolved in saline,
 - b. technique is called supravital staining
 - c. dyes used can be new methylene blue or brilliant cresyl blue
 - d. the stain and cells react for 15 minutes before making the smear
 - e. all of the above
- answer: e) all of the above

The functional unit of a kidney is:

- a. Bowman's capsule
 - b. loop of Henle
 - c. glomerulus
 - d. nephron
 - e. glomerular tuft
- answer: d) nephron

A urine was positive for protein by the dipstick test but negative by the sulphosalicylic acid method. The urine probably:

- a. was very alkaline
 - b. contained a radio opaque dye
 - c. was very turbid
 - d. was strongly positive for ketones
 - e. was strongly positive for glucose
- answer: a) was very alkaline

How the body systems function is called:

- a. anatomy
- b. physiology
- c. pathology
- d. psychology
- e. morphology

answer: b) physiology

Before xing tissue it must be:

- a. dehydrated
- b. cleared
- c. embedded
- d. all of the above
- e. none of the above

answer: e) none of the above

If the pH reading of a urine specimen is 8, the urine specimen is:

- a. acidic
- b. alkaline
- c. negative
- d. neutral
- e. positive

answer: b) alkaline

The tablet used for glucose testing in urine is:

- a. clinitest
- b. ictotest
- c. acetest
- d. SSA
- e. TCA

answer: a) clinitest

The tablet used for billiruben testing in urine is:

- a. clinitest
- b. ictotest
- c. acetest
- d. SSA
- e. TCA

answer: b) ictotest

The tablet used for keytone testing in urine is:

- a. clinitest
- b. ictotest
- c. acetest
- d. SSA
- e. TCA

answer: c) acetest

The tablet used for protein albumin in urine is:

- a. clinitest
- b. ictotest
- c. acetest
- d. SSA
- e. TCA

answer: d) SSA

The tablet used for drugs of abuse screen in urine is:

- a. clinitest
- b. ictotest
- c. acetest
- d. SSA
- e. TCA

answer: e) TCA

The following term indicates highest purity in a chemical:

- a. puried grade
- b. commercial grade
- c. U.S.P. grade
- d. chemically pure
- e. analytical reagent grade

answer: e) analytical reagent grade

The specic gravity of urine:

- a. measures the pH
- b. measures nitrates
- c. measures the concentrating ability of the kidneys

- d. measures bacterial contaminante
- e. is usually less than water

answer: c) measures the concentrating ability of the kidneys

To correct a thin blood smear the laboratory assistant will:

- a. push the spreader faster
- b. increase the size of the drop of blood
- c. increase the angle between the speader and slide
- d. b and c
- e. a, b, and c

answer: d) b and c

Tissue slide preparations submitted for microscopic examination:

- a. are routinely stained with Wright's Giemsa stain
- b. are cut at 4 to 6 microns
- c. are intrated with parafn wax
- d. are cut on a cryostat
- e. are cut at 4 to 6 mm

answer: b) are cut at 4 to 6 microns

If a blood specimen is allowed to clot, the result is:

- a. plasma plus cells
- b. serum plus cells
- c. anticoagulated blood
- d. serum plus plasma
- e. plasma plus brin

answer: b) serum plus cells

The cells which contribute most to blood clotting are:

- a. lymphocytes
- b. platelets
- c. red bood cells
- d. white blood cells
- e. neutrophils

answer: b) platelets

Skin decontamination is best achieved using:

- a. alcohol

- b. iodine
- c. soap and water
- d. normal saline
- e. hypochlorite solution

answer: b) iodine

Susceptibility testing:

- a. measures how fast a pathogen can be destroyed
- b. identifies the type of organism in the specimen
- c. determines the effectiveness of drug therapy
- d. produce a pur culture
- e. identifies the appropriate antibiotic needed to kill the pathogen

answer: e) identifies the appropriate antibiotic needed to kill the pathogen

Serum left sitting on a clot in a centrifuged red top tube will have a higher than normal:

- a. glucose
- b. protein
- c. albumin
- d. potassium
- e. phosphorus

answer: d) potassium

A solution that would cause a cell to swell is called:

- a. isotonic
- b. salty
- c. hypertonic
- d. physiological
- e. hypotonic

answer: e) hypotonic

A stool for O & P is collected into a:

- a. sterile jar
- b. jar containing SAF uid
- c. jar containing 10% formalin
- d. metal can
- e. clean dry jar

answer: b) jar containing SAF uid

The instrument used to measure urine hydrogen concentration is a :

- a. pH meter
- b. coulter counter
- c. microscope
- d. spectrophotometer
- e. refractometer

answer: a) ph meter

Which test would not be performed in the blood bank:

- a. cross match
- b. group and Rh
- c. ASOT
- d. Coomb's test
- e. ABO typing

answer: c) ASOT

Bilirubin is:

- a. increased in patients with jaundice
- b. produced by broken down rbc's
- c. increased in babies with HDN
- d. sensitive to light
- e. all of the above

answer: e) all of the above

A buffer is:

- a. weak acid or base with it's salt
- b. weak acid with a weak base
- c. the salt of a weak acid
- d. weak acid with a strong base
- e. none of the above

answer: a) weak acid or base with it's salt

Urine microscopic examination is performed on:

- a. diluted urine
- b. sediment suspension of centrifuged urine
- c. heated urine
- d. refrigerated urine

e. supernatant of a centrifuged urine
answer: b) sediment suspension of centrifuged urine

The most important step in regressive hematoxylin staining is:

- a. use of hematoxylin with excess aluminum salts
- b. use of hematoxylin with excess acid
- c. differentiation in acid alcohol
- d. wash in absolute alcohol after hematoxylin

answer: c) differentiation in acid alcohol

The enzyme which is not usually assayed in a heart attack is:

- a. CPK
- b. SGOT
- c. LDH
- d. GTT
- e. HBD

answer: d) GTT

The most efficient organ for the removal of old red cells is the:

- a. liver
- b. bone marrow
- c. thymus
- d. spleen
- e. kidney

answer: d) spleen

On standing at room temperature, urine will:

- a. turn alkaline
- b. precipitate
- c. increase in bacterial count
- d. all of the above
- e. none of the above

answer: d) all of the above

Quality control in a laboratory is:

- a. a formal surveillance process directed at personnel
- b. a formal surveillance process directed at equipment
- c. a formal surveillance process directed at materials

- d. all of the above
 - e. none of the above
- answer: d) all of the above

The autoclave uses:

- a. 12 psi at 115 degrees C
 - b. 15 psi at 112 degrees C
 - c. 112 psi at 120 degrees C
 - d. 15 psi at 121 degrees C
 - e. 100 psi at 121 degrees C
- answer: d) 15 psi at 112 degrees C

Ovens, water baths, incubators must have:

- a. a device for controlling temperature
 - b. a built in thermometer
 - c. water circulation
 - d. an alarm system
 - e. test tube racks
- answer: b) a built in thermometer

The gram stain utilizes all of these, except:

- a. methylene blue
 - b. safranin
 - c. gram's iodine
 - d. crystal violet
 - e. acetone
- answer: e) acetone

Anuria means a/an:

- a. absence of urine formation
 - b. increase of urine excretion
 - c. marked increase of urine formation
 - d. increase of urinary crystals
 - e. decrease of urinary crystals
- answer: a) absence of urine formation

If all the air has not been expelled from an autoclave set to attain a temperature of 121 degrees C:

- a. condensation will occur on solid surfaces
- b. boiling over of liquid media will occur
- c. a temperature of less than 121 degrees C will result
- d. a temperature of greater than 121 degrees C will result
- e. a decrease in chamber pressure will occur

answer: c) a temperature of less than 121 degrees C will result

Sweat collected by iontophoresis is primarily for the diagnosis of:

- a. muscular dystrophy
- b. cystic brosis
- c. sarcoma
- d. pneumonia
- e. infection

answer: b) cystic brosis

Precision means a:

- a. value falls within a narrow range around the target
- b. true value
- c. value which cannot be used in a quality control series
- d. value which must be disregarded completely
- e. c & d are correct

answer: a) value falls within a narrow range around the target

Quality control may include all of the following except:

- a. using standards and controls
- b. performing tests in duplicate
- c. rechacking with reference example
- d. terminal disposal of test reagent solutions
- e. calculating the SD

answer: d) terminal disposal of test reagent solutions

Clinitest tablets measure:

- a. glucose only
- b. lactose only
- c. all reducing sugars
- d. specic gravity
- e. both glucose and glycogen

answer: c) all reducing sugars

To retrieve a specimen block in an histology laboratory the laboratory assistant/technician would go to the block ling cabinet and look for:

- a. the hospital admission number
- b. the patient's name
- c. the surgical/biopsy log number
- d. the wrist band information
- e. none of the above

answer: c) the surgical/biopsy log number

Which of the following is a decalciton reagent:

- a. formic acid
- b. EDTA
- c. nitri acid
- d. all of the above
- e. none of the above

answer: d) all of the above

The term thermolabile means:

- a. produced by heat
- b. sensitive to heat
- c. insensitive to heat
- d. produces heat
- e. activated by heat

answer: b) sensitive to heat

Agar plates are used to grow:

- a. bacteria
- b. viruses
- c. protozoa
- d. a and b
- e. a and c

answer: e) a and c

Activated charcoal present in transport media will:

- a. indicate a contaminated specimen
- b. prevent overgrowth of extraneous organisms
- c. maintain anaerobic conditions

- d. absorb toxic substances
 - e. kill non-pathogens
- answer: d) absorb toxic substances

Romanowsky stains are mixtures of:

- a. eosin and methylene blue
 - b. phloxine and methylene blue
 - c. hematoxylin and eosin
 - d. safranin and methylene blue
 - e. janus green and neutral red
- answer: a) eosin and methylene blue

Xylene is used in:

- a. fixation of autopsy material
 - b. dehydration of tissues
 - c. paraffin wax embedding process
 - d. attaching cover slips to slides
 - e. histology as a clearing agent
- answer: e) histology as a clearing agent

When should safety goggles be worn:

- a. during blood collections
 - b. while transporting sealed waste containers
 - c. while inspecting reagent supplies
 - d. during reagent and specimen preparation
 - e. none of the above
- answer: d) during reagent and specimen preparation

Enzymes:

- a. are used up in chemical reaction
 - b. are usually lipids
 - c. catalyze chemical reactions
 - d. are usually non-specific
 - e. all of the above
- answer: c) catalyze chemical reactions

The medical term for fever is:

- a. hypothermia

- b. pyrexia
 - c. hypertension
 - d. pyogenic
 - e. pyrogenia
- answer: b) pyrexia

A backup test to confirm a positive protein in urine is:

- a. icotest
 - b. SSA test
 - c. clinitest
 - d. TCA test
 - e. two of the above
- answer: d)TCA test

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