

# TSPSC Lab Technician Practice Questions Exclusively @ Recruitmentindia.in

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1. Glassware used to measure 24-hour urine volumes is a:
2. volumetric flask
3. beaker
4. Erlenmeyer cylinder
5. graduated cylinder
6. safety bulb

Answer: d) graduated cylinder

2. Glassware used to make 100 ml of a 12% solution is a:
3. volumetric flask
4. beaker
5. Erlenmeyer cylinder
6. graduated cylinder
7. safety bulb

Answer: a) volumetric flask

3. A suction device used to draw up liquids is a:
4. volumetric flask
5. beaker
6. Erlenmeyer cylinder
7. graduated cylinder
8. safety bulb

Answer: e) safety bulb

4. The pipette with a bulged-out portion in the middle is a:
5. Mohr pipette
6. pasture pipette
7. serological pipette
8. volumetric pipette
9. micro-pipette

Answer: d) volumetric pipette

5. Which piece of glassware would not give critical measurement:
6. volumetric flask
7. beaker
8. Erlenmeyer cylinder
9. graduated cylinder
10. safety bulb

Answer: b) beaker

6. The durable material used to make heat resistant glassware is:
7. polyethylene
8. soda lime
9. polystyrene
10. borosilicate
11. polyvinyl chloride

Answer: d) borosilicate

7. Solid crystals of potassium oxalate are added to distilled water in a container. What term would describe the potassium oxalate?
8. solution
9. solvent
10. solute
11. reagent
12. a & c

Answer: c) solute

8. The destruction of all micro-organisms including spores is called:
9. sanitation
10. antisepsis
11. sterilization
12. disinfection
13. asepsis

Answer: c) sterilization

9. A ug is a unit to describe:

10. time
11. volume
12. distance
13. weight
14. length

Answer: d) weight

10. A pH of 2 is \_\_\_\_\_ than a pH of 5:

11. 1000 times more acidic
12. 100 times more acidic
13. 2 times less acidic
14. 20 times less acidic
15. 1000 times more acidic

Answer: e) 1000 times more acidic

11. Cells in a hypertonic solution will:

12. swell and burst
13. dehydrate
14. hemolyze
15. not be affected
16. stop mitosis

Answer: b) dehydrate

12. The solution used to fix a pap smear is:

13. wright stain
14. hematoxylin
15. physiological saline
16. cytospray
17. methylene blue

Answer: d) cytospray

13. Blood for an RBC count must be prepared from:
14. EDTA blood
15. citrated blood
16. heparinized blood
17. oxalated blood
18. clotted blood

Answer: a) EDTA blood

14. Which reagent is not routinely used to preserve tissue in a life-like manner:
15. formic acid
16. Zenker's fluid
17. 40% formaldehyde dissolved in water
18. Bouin's fluid
19. 10% formalin

Answer: a) formic acid

15. Which piece of histology equipment is not temperature dependent:
16. wax
17. tissue processor
18. microtome
19. embedding center
20. water bath

Answer: c) microtome

16. A biopsy is:
17. a removal of biological fluid
18. the removal of an organ
19. a post mortem examination
20. excision of a representative tissue sample
21. a collection of blood

Answer: d) excision of a representative tissue sample

17. During tissue processing, what is the correct sequence of steps:
18. clearing, dehydration, infiltration

19. clearing, infiltration, dehydration
20. dehydration, infiltration, clearing
21. dehydration, clearing, infiltration
22. embedding, sectioning, staining

Answer: d, dehydration, clearing, infiltration

18. Fixation is important in tissue processing because it:
19. prevents cell morphology changes and shrinkage
20. allows tissue to be examined in a life-like condition
21. facilitates the staining process
22. a & c
23. a, b, & c

Answer: e) a, b, & c

19. The liquid portion of blood remaining after a clot has formed is called:
20. the buffy coat
21. serum
22. plasma
23. lymph
24. tissue fluid

Answer: b) serum

20. Which test could not be performed on a serum sample:
21. iron
22. vitamin B12
23. total lipids
24. clotting factors
25. potassium

Answer: d) clotting factors

21. The shape of a normal erythrocyte is described as:
22. biconcave disc
23. spherocyte
24. polymorphonucleocyte

- 25. thin column
- 26. bull's eye

Answer: a) biconcave disk

- 22. Glucose results are correctly reported in:
- 23. g/mmol
- 24. mmol/L
- 25. g/L
- 26. g/ml
- 27. g/dl

Answer: b) mmol/L

- 23. If a patient refuses to have a venipuncture done you should:
- 24. tear up the requisition
- 25. collect a urine sample
- 26. politely ask a patient to come back next week
- 27. restrain the patient and proceed with the venipuncture
- 28. notify the patient's physician

Answer: e) notify the patients physician

- 24. Which statement is false when performing a venipuncture:
- 25. the vein is entered at a 15-20 degree angle
- 26. the tubes are pushed onto the needle with the thumb of the strongest hand
- 27. the bevel of the needle is pointed up when entering the vein
- 28. the tourniquet is removed before withdrawing the needle
- 29. the patients arm is cleansed before palpating the vein

Answer: e) the patient's arm is cleansed before palpating the vein

- 25. A biohazardous container is used to discard:
- 26. lancets
- 27. needled
- 28. band-aid wrappers
- 29. a & b
- 30. a, b & c

Answer: d) a & b

26. Which needle gauge corresponds with the smallest needle size:
27. 18
28. 20
29. 21
30. 22
31. 23

Answer: e) 23

27. The vacutainer tube which is used to collect and separate serum is the:
28. red
29. green
30. lavender
31. light blue
32. SST

Answer: e) SST

28. If a lavender top, plain red top, grey top, and light blue top tubes are collected, what is the order of draw:
29. they can be collected in any order
30. plain red top, lavender, blue, grey
31. blue, plain red top, grey, lavender
32. grey, blue, lavender, plain red top
33. plain red top, light blue, lavender, grey

Answer: e) plain red top, light blue, lavender, grey

29. The tourniquet is:
30. applied very tightly to the arm
31. used to increase venous fill
32. applied about 6-8" above the elbow
33. tied in a knot to keep it on securely
34. released after the needle is withdrawn

Answer: b) used to increase venous fill

30. If a patient faints during a venipuncture, you should:
31. call the physician at once
32. remove the needle and attend to the patient
33. yell loudly at the patient to keep him conscious
34. continue the procedure until all blood is collected
35. start artificial respiration immediately

Answer: b) remove the needle and attend to the patient

31. What vein/veins is not used to obtain a venous blood sample:
32. basilica vein
33. cephalic vein
34. medial cubital vein
35. femoral vein
36. veins on the back of the hand

Answer: d) femoral vein

32. A blood specimen collected in a heparinized tube is centrifuged. It will separate into:
33. serum and clot
34. plasma and clot
35. serum and plasma
36. plasma, buffy coat, RBC

Answer: d) plasma, buffy coat, RBC

33. Hemolysis may result from:
34. using a 25-gauge needle on an adult
35. vigorously shaking the blood specimen
36. refrigerating the vacutainer before use
37. leaving the tourniquet on for 3 minutes
38. all of the above

Answer: e) all of the above

34. The test procedure that uses a Westergren tube is:

- 35. erythrocyte sedimentation rate
- 36. hematocrit
- 37. reticulocyte count
- 38. microhematocrit
- 39. differential

Answer: a) erythrocyte sedimentation rate

- 35. Latex gloves protect the lab employee from:
- 36. accidental needle puncture
- 37. microtome injury
- 38. patient aerosols
- 39. body fluid
- 40. all of the above

Answer: d) body fluids

- 36. Which statement is false when setting up an ESR:
- 37. it must be read in exactly one hour
- 38. it should be set up near a centrifuge
- 39. the blood level must be at exactly zero
- 40. it should be performed on fresh blood
- 41. it must be set up in a vertical position

Answer: b) it should be set up near a centrifuge

- 37. What is the normal temperature of a laboratory refrigerator:
- 38. -4 C
- 39. 0 C
- 40. 3 C
- 20 C
- e.37 C

Answer: c) 3 C

- 38. The purpose of doing a differential is to:
- 39. determine the proportion of RBC in whole blood
- 40. count the number of WBC's in whole blood

- 41. determine the proportions of WBC's in whole blood
- 42. c & e
- 43. diagnose anemia

Answer: c) determine the proportions of WBC's in whole blood

- 39. Blood samples for cell counts must be thoroughly mixed immediately before testing to:
- 40. prevent the clumping of platelets
- 41. prevent the formation of small clots
- 42. oxygenate the sample
- 43. ensure even distribution of all blood components
- 44. mix anticoagulant with the blood

Answer: d) ensure even distribution of all blood components

- 40. An automated hematology cell count uses the principle of:
- 41. diffusion
- 42. color absorption changes
- 43. high frequency sound waves
- 44. changes in cell electrical currents
- 45. light wave scattering

Answer: d) changes in cell electrical currents

- 41. The maximum depth to perform a heel puncture on a newborn is:
- 42. 5mm
- 43. 0mm
- 44. 4mm
- 45. 8mm
- 46. 0mm

Answer: c) 2.4mm

- 42. The first drop of blood is wiped away after performing a skin puncture to:
- 43. remove any pathogens that are present
- 44. increase blood flow to the area
- 45. remove the last traces of alcohol
- 46. remove any excess tissue fluid

47. c & d

Answer: e) c & d

43. What areas on an infant are suitable for skin puncture:

- 44. any calloused areas of the foot
- 45. the second or third finger on either hand
- 46. the posterior curvature of the heel
- 47. the lateral, flat portion of the heel

Answer: d) the lateral, flat portion of the heel

44. What laboratory department studies antigen-antibody reaction:

- 45. hematology
- 46. microbiology
- 47. immunology
- 48. chemistry
- 49. coagulation

Answer: c) immunology

45. what tube would be drawn for ANA:

- 46. red
- 47. grey
- 48. SST
- 49. green
- 50. light blue

Answer: c) SST

46. A disinfectant used on metal surface is:

- 47. 10% formalin
- 48. 2% glutaraldehyde
- 49. 1% hypochlorite
- 50. 70% isopropyl alcohol
- 51. 15% iodine

Answer: b) 2% glutaraldehyde

47. What tube would be collected for a cross-match:
48. lavender
49. light blue
50. green
51. grey
52. plain red top

Answer: e) plain red top

48. Separated serum that is dark yellow to amber in color is termed:
49. crenated
50. lipemic
51. jaundiced
52. icteric
53. hemolyzed

Answer: d) icteric

49. Which factor would interfere with the growth of a pathogen:
50. appropriate nutrients
51. darkness
52. a moist environment
53. an acidic pH
54. a temperature of 37 C

Answer: d) an acidic pH

50. A specimen is:
51. material spread on a slide
52. an amount of blood or urine
53. a small sample taken to represent the whole organism or system
54. a colony of micro-organisms growing on solid medium
55. a technique used to microscopically examine urine

Answer: c) a small sample taken to represent the whole organism or system

51. The purpose of heat fixing a bacterial smear is to:
52. prevent cells from being washed off during staining
53. causes the cells to absorb the stain more easily
54. provide a warm temperature for the bacteria to grow
55. make the cells visible under the microscope
56. destroy the bacterial cell wall

Answer: a) prevent cells from being washed off during staining

52. The site of a specimen must be written on a swab container:
53. to warn staff about a possible pathogen
54. only if time permits-it is always on the requisition
55. to determine suitable agar and atmospheric requirements
56. to determine the o.h.i.p. fee
57. a, b, c, d and e

Answer: c) to determine selection of suitable agar and atmospheric requirements

53. Identify the correct sequence of steps on the gram stain procedure:
54. primary stain, secondary stain, mordant, decolorizing
55. mordant, primary stain, decolorizing, counterstain
56. counterstain, mordant, primary stain, decolorizing
57. primary stain, mordant, decolorizing, counterstain
58. none of the above

Answer: d) primary stain, mordant, decolorizing, counterstain

54. How should commercially prepared culture plates be stored:
55. in the freezer until several hours before use
56. inverted to prevent condensation dripping on the media
57. at room temperature in a dark area of the lab
58. at a temperature of 2°C – 4°C
59. b & d

Answer: e) b & d

55. Which Gram stain reagent acts as a mordant to bind the stain to the bacteria:
56. Lugol's iodine

- 57. safranin
- 58. acetone-alcohol
- 59. Gram's iodine
- 60. crystal violet

Answer: d) Gram's iodine

- 56. Identify the false statement regarding blood culture collection:
- 57. the site is cleaned with betadine and alcohol
- 58. an arterial sample is collected
- 59. an aerobic specimen is required
- 60. blood culture tubes are always drawn first
- 61. the specimens are never refrigerated

Answer: b) an arterial sample is collected

- 57. Susceptibility testing:
- 58. measures how fast a micro-organism can be destroyed
- 59. identifies the types of micro-organisms in the specimen
- 60. determines growth requirements of organisms
- 61. produces a pure culture
- 62. identifies the appropriate antibiotic needed to kill the micro-organism

Answer: e) identifies the appropriate antibiotic needed to kill the micro-organism

- 58. Identify the false statement when a specimen is cultured:
- 59. the equipment required is a loop and a direct flame
- 60. the media is brought to room temperature before use
- 61. the media selected is dependent on the type of specimen
- 62. the loop is sterilized prior to inoculation
- 63. 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

- 59. Which statement is false when a Gram stain is performed:
- 60. distilled water is used for the washing steps
- 61. acetone-alcohol decolorizes gram-negative bacteria
- 62. safranin stains the gram-negative bacteria red

- 63. Gram's iodine is used to bind the primary stain
- 64. crystal violet stains the gram-positive bacteria purple

Answer: a) distilled water is used for the washing steps

- 60. Which is most commonly used for protection when processing swabs, body fluid or blood:
  - 61. fume hood
  - 62. class I laminar flow hood
  - 63. class II laminar flow hood
  - 64. class III laminar flow hood
  - 65. glove box

Answer: c) class II laminar flow hood

- 61. You are collecting a blood glucose level. The patient asks if you think he has diabetes. You would tell him:
  - 62. this is a possibility, but you are not positive
  - 63. you are unable to give him any information
  - 64. to discuss this with the doctor as he can answer the question
  - 65. you have been instructed not to give out any information, therefore you can't discuss it
  - 66. to read a prepared pamphlet and make his own decision

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

- 62. The autoclave is set at \_\_\_\_\_ for small loads:
  - 63. 121°C for 50min at 6 p.s.i.
  - 64. 130°C for 30min at 30 p.s.i.
  - 65. 121°C for 15min at 15 p.s.i.
  - 66. 121°C for 45min at 15 p.s.i.
  - 67. 154°C for 20min at 20 p.s.i.

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

- 63. The universally accepted disinfectant for the medical workplace is:
  - 64. 2% glutaraldehyde
  - 65. 1% hypochlorite
  - 66. 10% formalin

- 67. 70% isopropyl alcohol
- 68. 5% iodine

Answer: b) 1% hypochlorite

- 64. A patient's health card # consists of \_\_\_ digits:
- 65. 4
- 66. 6
- 67. 8
- 68. 10
- 69. 12

Answer: d)10

- 65. A 1/6 dilution of serum in water was made. The glucose result was 4.0 mmol/L. What is the reported result:
- 66. 66 mmol/L
- 67. 0 mmol/L
- 68. 0 mmol/L
- 69. 0 mmol/L
- 70. 0 mmol/L

Answer: c) 24.0 mmol/L

- 66. 100ml of 20% hydrochloric acid will make how many mls of 4% hydrochloric acid:
- 67. 50ml
- 68. 80ml
- 69. 100ml
- 70. 500ml
- 71. 1000ml

Answer: d) 500ml

- 67. How many grams of NaCl are needed to make 300ml of a 2% solution:
- 68. 2 grams
- 69. 4 grams
- 70. 6 grams
- 71. 20 grams

72. unable to determine with information

Answer: c) 6 grams

68. Approximately how many centimeters are in one foot:

69. 3

70. 12

71. 24

72. 30

73. 100

Answer: d) 30

69. Two standard deviations from the mean includes:

70. 5% of all values

71. 34% of all values

72. 50% of all values

73. 68% of all values

74. 95% of all values

Answer: e) 95% of all values

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

71. an arterial puncture

72. high hemoglobin

73. high hematocrit

74. high blood pressure

75. high blood pH

Answer: a) an arterial puncture

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

72. ALT

73. AST

74. alkaline phosphates

75. bilirubin

76. all of the above

Answer: e) all of the above

72. Acid phosphatase is an enzyme which increases in:

- 73. gout
- 74. kidney disease
- 75. liver disease
- 76. prostatic cancer
- 77. heart disease

Answer: d) prostatic cancer

73. Which enzyme(s) would be increased in a patient with acute myocardial infarction:

- 74. Acid phosphatase
- 75. Creatine kinase
- 76. Aspartate aminotransferase
- 77. b & c
- 78. all of the above

Answer: d) b & c

74. Xylene is used in:

- 75. fixation of autopsy material
- 76. dehydration of tissues
- 77. paraffin wax embedding process
- 78. attaching cover slips to slides
- 79. histology as a clearing agent

Answer: e) histology as a clearing agent

75. A 2 hr. p.c. glucose:

- 76. is collected 2 hours after eating a meal high in carbohydrates
- 77. is a valuable screening test for diabetes mellitus
- 78. measures glucose when it is at its highest level after a meal
- 79. is not affected by medication
- 80. a & b

Answer: e) a & b

- 76. A routine GTT:
- 77. is three hours long
- 78. requires five blood samples
- 79. includes 6 urine samples
- 80. uses 100 grams of glucose in a 300ml solution
- 81. uses 50 grams of glucose in a 500ml solution

Answer: b) requires five blood samples

- 77. Glycosylated hemoglobin:
- 78. causes sickle cell anemia
- 79. is affected by the patient's food intake on the day of testing
- 80. is drawn on a green top tube
- 81. indicates blood glucose levels from preceding months
- 82. requires an SST tube

Answer: d) indicates blood glucose levels from preceding months

- 78. Serum is acidified after separation for which test:
- 79. uric acid
- 80. Frederickson typing
- 81. acid phosphate
- 82. BUN
- 83. creatine

Answer: c) acid phosphate

- 79. WHMIS stands for:
- 80. worker harmful material information sheets
- 81. worker handbook on mechanical and industrial safety
- 82. workplace hazardous materials information system
- 83. workplace harmful methods and industrial security
- 84. none of the above

Answer: c) workplace hazardous materials information system

- 80. MSDS sheets do not contain:
- 81. product identifier and use
- 82. hazardous ingredients
- 83. first aid measures
- 84. preventative measures
- 85. hazard symbols

Answer: e) hazard symbols

- 81. When using acid and water:
- 82. acid is slowly added to water
- 83. water is slowly added to acid
- 84. water and acid are added together
- 85. it makes no difference how they are added
- 86. they are never mixed as heat is produced

Answer: a) acid is slowly added to water

- 82. Insidious hazards:
- 83. include substances which react violently with each other
- 84. include aerosols, carcinogens, mutagens, and radiation
- 85. are substances which injury by direct chemical action
- 86. are graded using TLV and TLV-S.T.E.L. values
- 87. are always chemical in nature

Answer: b) include aerosols, carcinogens, mutagens, and radiation

- 83. Which test would not be performed on plasma or serum:
- 84. lipoprotein electrophoresis
- 85. iron
- 86. BUN
- 87. hemoglobin electrophoresis
- 88. electrolyte profile

Answer: d) hemoglobin electrophoresis

- 84. The function unit of the kidney is the:
- 85. renal cell

- 86. renal cortex
- 87. renal tubule
- 88. bladder
- 89. nephron

Answer: e) nephron

- 85. Pus cells or fat in urine would cause this color:
- 86. red
- 87. yellow-brown
- 88. greenish-blue
- 89. milky-white
- 90. black

Answer: d) milky-white

- 86. The end products of protein digestion are:
- 87. glycerol
- 88. fatty acid
- 89. triglycerides
- 90. monosaccharides
- 91. amino acids

Answer: e) amino acids

- 87. Which statement is true regarding the use of reagent dipsticks:
- 88. heat and moisture do not affect the reagent reactivity
- 89. timing of each reagent area is not necessary
- 90. reagent sticks are held vertically when reading
- 91. all reagent sticks tests do specific gravity
- 92. reagent strips should be tested daily with control

Answer: e) reagent strips should be tested daily with control

- 88. A 1/8 dilution of urine is:
- 89. 1-part water and 8 parts urine
- 90. 1-part urine and 8 parts water
- 91. 1-part urine and 7 parts water

- 92. 1-part water and 7 parts urine
- 93. 1-part water and 9 parts urine

Answer: c) 1-part urine and 7 parts water

- 89. Before performing an R & M on a specimen, the urine would be;
- 90. filtered
- 91. brought to room temperature
- 92. centrifuged
- 93. well-mixed
- 94. b & d

Answer: e) b & d

- 90. A backup test(s) to confirm a positive protein in urine would be:
- 91. icotest
- 92. SSA test
- 93. Clinitest
- 94. TCA test
- 95. b & d

Answer: e) b & d

- 91. Which test result would increase in a urine specimen sitting at room temperature for 3 hours:
- 92. bilirubin
- 93. nitrite
- 94. leukocyte
- 95. urobilinogen
- 96. ketones

Answer: b) nitrite

- 92. Water free of charged particles is:
- 93. distilled
- 94. radioactive
- 95. chlorinated
- 96. de-ionized

97. heavy

Answer: d) de-ionized

93. Identify the incorrect step when using a serological pipette:

- 94. the pipette tip is below the liquid surface when filling
- 95. releasing the safety bulb will draw liquid into the pipette
- 96. it delivers total capacity or multiple volumes
- 97. it is held vertically and allowed to drain freely
- 98. 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

94. A "TC" pipette is:

- 95. allowed to drain freely
- 96. marked with a double ring at the mouthpiece
- 97. used for toxic corrosive liquids
- 98. emptied forcibly with a safety bulb
- 99. rinsed out after delivery

Answer: e) rinsed out after delivery

95. The destruction of erythrocytes to release hemoglobin is called:

- 96. hemorrhage
- 97. hemostasis
- 98. erythropoiesis
- 99. hemolysis
- 100. hypoxia

Answer: d) hemolysis

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

- 97. the angle of the spreader is too high
- 98. the edge of the spreader is cracked
- 99. the smear is spread too slowly
- 100. the angle of the spreader is too low
- 101. a dirty spreader is used

Answer: d) the angle of the spreader is too low

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

98. CBC

99. Hct

100. ESR

101. Hgb

102. MCV

Answer: d) Hgb

98. An immature neutrophil is called:

99. blast cell

100. LE cell

101. band cell

102. reticulocyte

103. packed cell

Answer: c) band cell

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

100. osmotic fragility test

101. differential

102. reticulocyte count

103. RBC count

104. stab cell count

Answer: c) reticulocyte count

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

101. PT

102. ACTH

103. APTT

104. FDP

105. platelet count

Answer: b) ACTH

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