रेलवे भर्ती बोर्ड / RAILWAY RECRUITMENT BOARD
सी ई एन नं. - 04/2024 - CEN No. - 04/2024

Test Date	28/04/2025
Test Time	4:30 PM - 6:00 PM
Subject	LABORATORY SUPERINTENDENT

*** Note**
Correct Answer will carry 1 mark per Question.
Incorrect Answer will carry 1/3 Negative mark per Question.

1. Options shown in green color with a tick icon are correct.
2. Chosen option on the right of the question indicates the option selected by the candidate.

Section : **General Ability**

Q.1 **Select the correct pairing between a Himalayan division and a notable geographical feature associated with it:**

Ans
✗ 1. Valleys located between the Greater Himalayas and the Lesser Himalayas – Duns
✗ 2. Lesser Himalayas – Mount Everest
✓ 3. Valleys located between the Lesser Himalayas and the Outer Himalayas – Duns
✗ 4. Lesser Himalayas – Bara Lacha-La

Q.2 **A man receives ₹8680 per month as salary. He saves 65% of his salary every month. His expenditure per month is:**

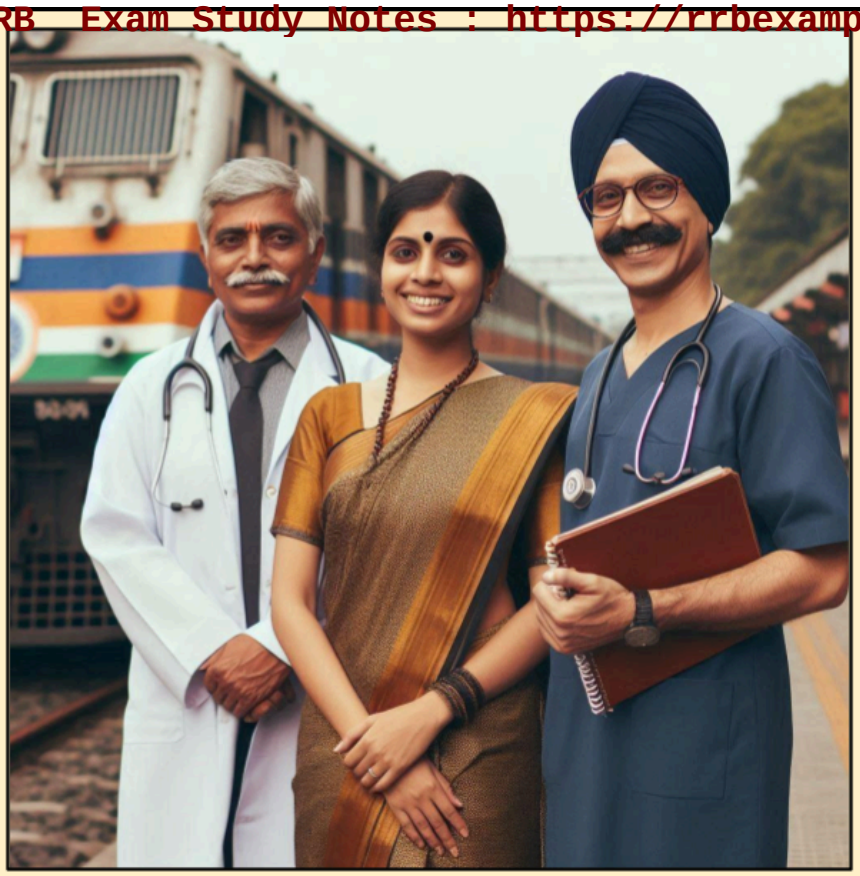
Ans
✗ 1. ₹2959
✓ 2. ₹3038
✗ 3. ₹3043
✗ 4. ₹2995

Q.3 $The\ value\ of\ \left(\frac{5}{8}\right) \times \left(\frac{24}{25}\right) + \left(\frac{9}{5} - 4\right) is$

Ans
✓ 1. $-\frac{8}{5}$
✗ 2. $-\frac{6}{7}$
✗ 3. $-\frac{2}{3}$
✗ 4. $\frac{1}{4}$

Q.4 **The focus of a spherical mirror lies 18 cm from the pole of the mirror. What is the position of the centre of curvature in cm from the pole of the mirror?**

Ans
✗ 1. 27 cm
✓ 2. 36 cm
✗ 3. 40 cm
✗ 4. 9 cm



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Q.5 Under which scheme will the registered gig workers on the e-Shram portal receive healthcare benefits in 2025?

Ans
- ✗ 1. Pradhan Mantri Kisan Samman Nidhi (PM-KISAN)
- ✗ 2. Atal Pension Yojana (APY)
- ✗ 3. Pradhan Mantri Awas Yojana (PMAY)
- ✓ 4. Ayushman Bharat PM Jan Arogya Yojana (AB-PM-JAY)

Q.6 Which of the following glands secretes growth hormone?

Ans
- ✗ 1. Ovaries
- ✗ 2. Thyroid gland
- ✗ 3. Testes
- ✓ 4. Pituitary gland

Q.7 What is the increased credit limit under the Modified Interest Subvention Scheme for Kisan Credit Cards (KCC) as announced in the Union Budget 2025?

Ans
- ✗ 1. ₹2 lakh
- ✗ 2. ₹1 lakh
- ✓ 3. ₹5 lakh
- ✗ 4. ₹3 lakh

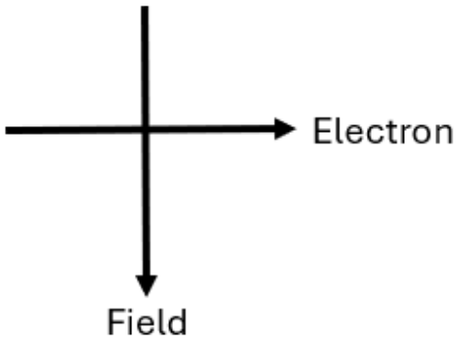
Q.8 Which committee's recommendations have long been influential in defining the poverty line in India using a consumption expenditure approach?

Ans
- ✗ 1. Balakrishnan Committee
- ✗ 2. Sachar Committee
- ✓ 3. Tendulkar Committee
- ✗ 4. Rangarajan Committee

Q.9 Which of the following factor is NOT responsible for the survival of species over time?

Ans
- ✗ 1. Habitat availability
- ✓ 2. Astrological Signs
- ✗ 3. Reproduction
- ✗ 4. Variation

Q.10 What will be the direction of the force based on the direction of current and magnetic field as shown in the figure?



Ans
- ✓ 1. Out of the page
- ✗ 2. To the left
- ✗ 3. To the right
- ✗ 4. Into the page

Q.11 If the lateral surface area of a cylinder is 336.4 cm^2 and its height is 23 cm, then find its volume.
(Use π = 3.14 and round off to two decimal place)

Ans
- ✗ 1. 370.76 cm^3
- ✗ 2. 384.33 cm^3
- ✗ 3. 372.99 cm^3
- ✓ 4. 391.74 cm^3

Q.12 Under which Article of the Indian Constitution does the Supreme Court of India have original jurisdiction to adjudicate disputes between the Government of India and one or more States, or between different States?

Ans
- ✓ 1. Article 131
- ✗ 2. Article 226
- ✗ 3. Article 132
- ✗ 4. Article 136

Q.13 What should come in place of the question mark (?) in the given series based on the English alphabetical order?

WIB UFX SCT QZP ?

Ans
- ✗ 1. MUM
- ✓ 2. OWL
- ✗ 3. NYK
- ✗ 4. NVJ

Q.14 Tarun and Varun move towards town B starting from town A, at a speed of 57 km/h and 60 km/h respectively. If Varun reaches town B 33 minutes earlier than Tarun, what is the distance between towns A and B?

Ans
- ✗ 1. 625 km
- ✓ 2. 627 km
- ✗ 3. 633 km
- ✗ 4. 619 km

Q.15 Which of the following options describes the enforceability of the Directive Principles of State Policy in India?

Ans
- ✓ 1. They are non-justiciable guidelines and cannot be enforced by courts.
- ✗ 2. They are binding on the legislature and the executive, with penalties for non-compliance.
- ✗ 3. They are enforceable like Fundamental Rights and can be directly challenged in the courts.
- ✗ 4. They are enforceable only by the Supreme Court when Fundamental Rights are violated.

Q.16 Each of L, M, N, O, W, X and Y has an exam on a different day of a week starting from Monday and ending on Sunday of the same week. Only Y has exam before X. Only three people have exam between M and X. Only three people have exam between L and O. W has exam on some day before O and on some day after N.
How many people have exam after L?

Ans
- ✗ 1. One
- ✗ 2. Two
- ✓ 3. Four
- ✗ 4. Three

Q.17 Which key feature of Thomson's Atomic Model helped explain the electrical neutrality of an atom?

Ans
- ✓ 1. The positive and negative charges are equal in magnitude.
- ✗ 2. Electrons revolved around the nucleus in fixed orbits.
- ✗ 3. The positive charge was concentrated in the centre.
- ✗ 4. The nucleus contained both, protons and neutrons.

Q.18 The image formed by a convex mirror is always _____.

Ans
- ✗ 1. erect and of same size as the object
- ✗ 2. inverted and diminished
- ✗ 3. inverted and of same size as the object
- ✓ 4. erect and diminished

Q.19 Who among the following was the intended target of the bomb thrown at a carriage by Khudiram Bose and Prafulla Chaki in 1908?

Ans
- ✗ 1. Viceroy Lord Hardinge
- ✓ 2. Magistrate Douglas Kingsford
- ✗ 3. Governor-General Lord Curzon
- ✗ 4. Lord Ripon

Q.20 4 men and 6 women can complete a piece of work in 8 days, while 3 men and 7 women can complete it in 10 days. In how many days will 16 women complete it?

Ans
- ✗ 1. 16
- ✗ 2. 36
- ✗ 3. 40
- ✓ 4. 25

Q.21 Why is a coordinated effort from all the levels of government essential for sustainable development?

Ans
- ✗ 1. It delays the implementation of sustainable practices.
- ✓ 2. It helps integrate socio-economic development with environmental sustainability.
- ✗ 3. It ensures that only economic issues are addressed.
- ✗ 4. It allows for the privatisation of environmental resources.

Q.22 In the following number-pairs, the second number is obtained by applying certain mathematical operations to the first number. Select the pair in which the numbers are related in the same way as are the numbers of the following pairs.

(Note: Operations should be performed on the whole numbers, without breaking down the numbers into its constituent digits. E.g., 13 – Operations on 13 such as adding/subtracting/multiplying etc. to 13 can be performed. Breaking down 13 into 1 and 3 and then performing mathematical operations on 1 and 3 is not allowed.)

59, 71.6
86, 98.6

Ans
- ✗ 1. 41, 63.6
- ✓ 2. 65, 77.6
- ✗ 3. 77, 91.6
- ✗ 4. 92, 106.6

Q.23 Why do the hydrophobic tails of soap molecules stay inside the micelles?

Ans
- ✗ 1. They are strongly attracted to water.
- ✓ 2. They are repelled by water.
- ✗ 3. They form chemical bonds with water.
- ✗ 4. They dissolve completely in water.

Q.24 Which of the following letter-number clusters will replace the question mark (?) in the given series to make it logically complete?

ACT123, IKB110, QSJ97, YAR84, ?

Ans
- ✗ 1. LIZ71
- ✗ 2. GOZ71
- ✗ 3. GIM71
- ✓ 4. GIZ71

Q.25 Which ruler is associated with the construction of the famous Alahi Darwaja also called Alai Darwaja?

Ans
- ✗ 1. Mohammad Bin Tughlaq
- ✗ 2. Jalal-ud-din Khalji
- ✓ 3. Ala-ud-din Khalji
- ✗ 4. Firoz Shah Tughlaq

Q.26 Which of the following is NOT correct regarding connective tissue?

Ans
- ✗ 1. Areolar connective tissue is found between the skin and muscle
- ✓ 2. Fat storing adipose tissue is found above the skin
- ✗ 3. Tendons connect muscle to bone
- ✗ 4. Ligaments connect bone to bone

Q.27 Which Indian film won the Best Film Award at the Asian Film Awards 2025?

Ans
- ✗ 1. The Disciple
- ✗ 2. The White Tiger
- ✗ 3. Gully Boy
- ✓ 4. All We Imagine As Light

Q.28 Rohan starts from Point A and drives 4 km towards East. He then takes a right turn, drives 3 km, turns left and drives 6 km. He then takes a left turn and drives 3 km. He takes a final right turn, drives 3 km and stops at Point P. How far (shortest distance) and towards which direction should he drive in order to reach Point A again? (All turns are 90 degrees turns only unless specified)

Ans
- ✓ 1. 13 km towards West
- ✗ 2. 13 km towards East
- ✗ 3. 3 km towards North
- ✗ 4. 7 km towards South

Q.29 Which of the following statements is correct about the nucleus?

Ans
- ✗ 1. Nucleus has a single layer covering
- ✓ 2. Nuclear membrane has pores
- ✗ 3. The nucleus contains mitochondria
- ✗ 4. The nucleus contains chloroplast

Q.30 Consider the following statements regarding the reactivity series of metals. Which of these statements is/are correct?
Statement I: A piece of iron placed in a solution of copper sulfate gradually develops a reddish layer.
Statement II: Copper is more reactive than iron and replaces it in the solution.

Ans
- ✗ 1. Both statements are false
- ✓ 2. Only Statement 1 is true
- ✗ 3. Both statements are true
- ✗ 4. Only Statement 2 is true

Section : **Professional Ability**

Q.1 The branch of sociology that focuses on health and illness is called _____.

Ans
- ✗ 1. Rural sociology
- ✗ 2. Clinical sociology
- ✓ 3. Medical sociology
- ✗ 4. Cultural sociology

Q.2 Which microscope is used to observe immunofluorescence?

Ans
- ✗ 1. Bright-field microscope
- ✗ 2. Phase contrast microscope
- ✓ 3. Fluorescence microscope
- ✗ 4. Electron microscope

Q.3 The presence of malignant cells in body fluids indicates _____.

Ans
- ✗ 1. Infection
- ✓ 2. Cancer or tumors
- ✗ 3. Healthy cells
- ✗ 4. Inflammation

Q.4 Which of the following is considered a chemical method of sterilization?

Ans
- ✓ 1. Ethylene oxide gas
- ✗ 2. Filtration
- ✗ 3. Boiling
- ✗ 4. Radiation

Q.5 In cholesterol estimation, what is the role of the reagent sulfuric acid in the Liebermann-Burchard method?

Ans
- ✗ 1. To dissolve cholesterol
- ✓ 2. To produce a coloured complex with cholesterol
- ✗ 3. To precipitate other lipids
- ✗ 4. To oxidize cholesterol

Q.6 What is the main principle behind the Wassermann reaction for detecting syphilis?

Ans
- ✗ 1. Hemagglutination inhibition
- ✓ 2. Complement fixation
- ✗ 3. Antigen-antibody precipitation
- ✗ 4. Direct agglutination of bacterial cells

Q.7 Which enzyme is commonly used in ELISA tests?

Ans
- ✗ 1. Lipase
- ✓ 2. Horseradish peroxidase (HRP)
- ✗ 3. Catalase
- ✗ 4. Helicase

Q.8 Robert Koch is best known for _____.

Ans
- ✓ 1. Identifying the causative agents of tuberculosis and cholera
- ✗ 2. Discovering penicillin
- ✗ 3. Inventing the microscope
- ✗ 4. Developing antiseptic surgery

Q.9 Which of the following immunoassay types is most suitable for detecting small molecules like hormones and drugs?

Ans
- ✔ 1. Competitive ELISA
- ✘ 2. Sandwich ELISA
- ✘ 3. Agglutination assay
- ✘ 4. Indirect ELISA

Q.10 Which of the following is a good quality in a disinfectant?

Ans
- ✔ 1. It kills germs quickly
- ✘ 2. It is hard to store
- ✘ 3. It smells very bad
- ✘ 4. It is not effective on microbes

Q.11 Which of the following stains is most commonly used for routine tissue examination in histopathology?

Ans
- ✘ 1. Wright's stain
- ✔ 2. Haematoxylin and Eosin (H and E) stain
- ✘ 3. Giemsa stain
- ✘ 4. Gram stain

Q.12 Which of the following is the correct first step in tissue processing?

Ans
- ✘ 1. Embedding
- ✔ 2. Fixation
- ✘ 3. Clearing
- ✘ 4. Sectioning

Q.13 In the disk diffusion method for antifungal susceptibility, the results are measured by:

Ans
- ✘ 1. The number of colonies
- ✔ 2. The zone of inhibition around the disk
- ✘ 3. The turbidity in the broth
- ✘ 4. The color change in the media

Q.14 Which of the following is a common type of cytological specimen?

Ans
- ✘ 1. Bone biopsy
- ✘ 2. Surgical resection
- ✘ 3. Tissue block
- ✔ 4. Pap smear

Q.15 In sputum processing, the acid-fast bacilli (AFB) test is used to diagnose which condition?

Ans
- ✘ 1. Asthma
- ✔ 2. Tuberculosis
- ✘ 3. Pneumonia
- ✘ 4. Chronic bronchitis

Q.16 Which container should be used to collect a stool sample for parasite examination?

Ans
- ✘ 1. Metal box
- ✘ 2. Glass jar with alcohol
- ✔ 3. Clean, dry, wide-mouthed container
- ✘ 4. Syringe

Q.17 Which condition is associated with increased blood glucose levels?

Ans
- ✔ 1. Diabetus mellitus
- ✘ 2. Insulinoma
- ✘ 3. Addison's disease
- ✘ 4. Hypothyroidism

Q.18 Which of the following best defines "development" in psychology?

Ans
- ✘ 1. The growth of the body
- ✘ 2. Sudden changes in personality
- ✔ 3. A progressive series of changes that occur in an orderly predictable pattern
- ✘ 4. A decline in mental functions

Q.19 Which blood component helps in the transport of carbon dioxide back to the lungs?

Ans
- ✔ 1. Haemoglobin in RBCs
- ✘ 2. Antibodies
- ✘ 3. Albumin
- ✘ 4. Platelets

Q.20 Which of the following media is used to grow most non-fastidious organisms?

Ans
- ✘ 1. Chocolate agar
- ✘ 2. Blood agar
- ✘ 3. MacConkey agar
- ✔ 4. Nutrient agar

Q.21 In serology, what is the role of an antigen?

Ans
- ✘ 1. To produce enzymes
- ✘ 2. To transport oxygen
- ✘ 3. To fight infection
- ✔ 4. To bind with specific antibodies

Q.22 The presence of protein in urine is referred to as _____.

Ans
- ✔ 1. Proteinuria
- ✘ 2. Glucosuria
- ✘ 3. Ketonuria
- ✘ 4. Haematuria

Q.23 Pleural fluid is collected from which part of the body?

Ans
- ✘ 1. Knee joint
- ✘ 2. Abdominal cavity
- ✔ 3. Lungs
- ✘ 4. Spinal cord

Q.24 Which of the following is NOT a type of immunoassay?

Ans
- ✘ 1. RIA
- ✔ 2. PCR
- ✘ 3. ELISA
- ✘ 4. Western blot

Q.25 Which stain is commonly used for identifying malarial parasites in blood smears?

Ans
- ✗ 1. Ziehl-Neelsen stain
- ✗ 2. Gram stain
- ✓ 3. Giemsa stain
- ✗ 4. India ink

Q.26 Which of the following parasites causes amoebic dysentery?

Ans
- ✗ 1. Giardia lamblia
- ✗ 2. Cryptosporidium parvum
- ✓ 3. Entamoeba histolytica
- ✗ 4. Balantidium coli

Q.27 Which of the following is the primary unit of social structure?

Ans
- ✗ 1. Government
- ✗ 2. Hospital
- ✓ 3. Family
- ✗ 4. School

Q.28 Which of the following is a vector-borne parasitic infection?

Ans
- ✗ 1. Ascariasis
- ✗ 2. Amoebiasis
- ✓ 3. Malaria
- ✗ 4. Giardiasis

Q.29 In the Cytospin technique, how are cells deposited onto the slide?

Ans
- ✗ 1. By filtration
- ✗ 2. By direct application from a pipette
- ✗ 3. By evaporation
- ✓ 4. By centrifugation

Q.30 Fine Needle Aspiration Cytology (FNAC) is used to collect samples from _____.

Ans
- ✗ 1. Tissue blocks
- ✗ 2. Hair
- ✗ 3. Stool
- ✓ 4. Internal organs or masses

Q.31 Which of the following enzymes is NOT typically measured in a liver function test?

Ans
- ✓ 1. Amylase
- ✗ 2. Alkaline phosphatase
- ✗ 3. Alanine aminotransferase
- ✗ 4. Aspartate aminotransferase

Q.32 In the broth dilution method, the lowest concentration of the antifungal agent at which no visible growth occurs is called _____.

Ans
- ✗ 1. Minimum bactericidal concentration (MBC)
- ✗ 2. Effective concentration (EC)
- ✓ 3. Minimum inhibitory concentration (MIC)
- ✗ 4. Minimum lethal concentration (MLC)

Q.33 Which of the following is the most commonly used medium for cultivating fungi in the laboratory?

Ans
- ✗ 1. Chocolate agar
- ✓ 2. Sabouraud dextrose agar
- ✗ 3. Blood agar
- ✗ 4. MacConkey agar

Q.34 Which coagulant is preferred for arterial blood gas (ABG) analysis?

Ans
- ✗ 1. Sodium citrate
- ✗ 2. EDTA
- ✗ 3. Sodium fluoride
- ✓ 4. Lithium heparin

Q.35 Why is fixation necessary before decalcification?

Ans
- ✗ 1. To harden tissue for sectioning
- ✗ 2. To reduce the time needed for decalcification
- ✗ 3. To increase calcium removal
- ✓ 4. To preserve cellular and tissue structures

Q.36 Which of the following is NOT a rapid diagnostic method for viral infections?

Ans
- ✗ 1. Nucleic acid amplification tests (NAAT)
- ✗ 2. Lateral flow immunoassay (LFIA)
- ✗ 3. Enzyme-linked immunosorbent assay (ELISA)
- ✓ 4. Gel electrophoresis

Q.37 Cytopathology is best defined as _____.

Ans
- ✗ 1. Study of whole organ systems
- ✓ 2. Examination of individual cells to detect disease
- ✗ 3. Analysis of chemical changes in blood
- ✗ 4. Study of genes and chromosomes

Q.38 Which of the following should be calibrated regularly to ensure accurate microbial quantification using optical density?

Ans
- ✗ 1. Incubator
- ✗ 2. Microscope
- ✓ 3. Spectrophotometer
- ✗ 4. Hot air oven

Q.39 Absolute eosinophil count (AEC) is calculated by:

Ans
- ✗ 1. Counting the eosinophils in a fixed volume of blood
- ✗ 2. Dividing the eosinophil percentage by the total WBC count
- ✗ 3. Subtracting the eosinophil percentage from the total WBC count
- ✓ 4. The percentage of eosinophil is multiplied by white blood cells

Q.40 Which neutralising agent is most suitable when evaluating quaternary ammonium compound disinfectants during an in-use test?

Ans
- ✗ 1. Sodium thiosulphate
- ✓ 2. Tween 80 with lecithin
- ✗ 3. Formalin
- ✗ 4. Ethanol

Q.41 Which of the following is the most common site for venous blood collection?

Ans
- ✗ 1. Femoral vein
- ✗ 2. Radial artery
- ✗ 3. Dorsal hand vein
- ✓ 4. Median cubital vein

Q.42 The cholesterol levels in the blood are most commonly measured in which units?

Ans
- ✗ 1. Grams per liter
- ✗ 2. Moles per liter
- ✓ 3. Milligrams per deciliter
- ✗ 4. Micromoles per liter

Q.43 What is the clinical significance of Mean Cell Volume (MCV) reported by an automated haematology analyser?

Ans
- ✗ 1. It indicates clotting ability
- ✓ 2. It helps classify types of anaemia
- ✗ 3. It measures white cell activity
- ✗ 4. It reflects haemoglobin concentration

Q.44 The SI unit for creatinine in blood is _____.

Ans
- ✓ 1. µmol/L
- ✗ 2. g/L
- ✗ 3. mmol/L
- ✗ 4. mg/dL

Q.45 What color do acid-fast organisms appear in modified Ziehl-Neelsen stain?

Ans
- ✗ 1. Blue
- ✗ 2. Green
- ✗ 3. Yellow
- ✓ 4. Red or pink

Q.46 CSF is commonly collected to detect infections in which organ?

Ans
- ✗ 1. Lungs
- ✓ 2. Brain
- ✗ 3. Liver
- ✗ 4. Heart

Q.47 A prolonged bleeding time test usually indicates a problem with _____.

Ans
- ✗ 1. haemoglobin levels
- ✗ 2. white blood cell count
- ✓ 3. platelet function
- ✗ 4. red blood cell count

Q.48 The principle of moist heat sterilization is based on _____.

Ans
- ✗ 1. Freezing and thawing cycles
- ✓ 2. Denaturation of proteins
- ✗ 3. Dehydration of microbial cells
- ✗ 4. Low temperature and high pressure

Q.49 Which tube is generally used for collecting blood for viral serology?

Ans
- ✗ 1. Fluoride tube
- ✗ 2. EDTA tube
- ✓ 3. Plain (red-top) tube
- ✗ 4. Heparin tube

Q.50 Which reagent is typically used in the clearing step of tissue processing?

Ans
- ✗ 1. Formalin
- ✗ 2. Paraffin
- ✓ 3. Xylene
- ✗ 4. Ethanol

Q.51 Which aldehyde is commonly used in the aldehyde test for detecting visceral leishmaniasis?

Ans
- ✗ 1. Paraformaldehyde
- ✗ 2. Glutaraldehyde
- ✗ 3. Acetaldehyde
- ✓ 4. Formaldehyde

Q.52 Which of the following molecule is primarily responsible for initiating the process of protein digestion in the stomach?

Ans
- ✗ 1. Trypsin
- ✗ 2. Amylase
- ✓ 3. Pepsin
- ✗ 4. Cholecystokinin

Q.53 Which organism causes the disease detected by VDRL?

Ans
- ✗ 1. Chlamydia trachomatis
- ✗ 2. Neisseria gonorrhoeae
- ✓ 3. Treponema pallidum
- ✗ 4. Haemophilus ducreyi

Q.54 What does VTM stand for?

Ans
- ✗ 1. Viral Tracing Medium
- ✗ 2. Virus Tube Method
- ✗ 3. Very Tight Medium
- ✓ 4. Viral Transport Medium

Q.55 Which endocrine gland is located in the neck and shaped like a butterfly?

Ans
- ✗ 1. Pituitary gland
- ✓ 2. Thyroid gland
- ✗ 3. Thymus
- ✗ 4. Adrenal gland

Q.56 The adrenal medulla secretes which hormone?

Ans
- ✓ 1. Epinephrine
- ✗ 2. Cortisol
- ✗ 3. Insulin
- ✗ 4. Aldosterone

Q.57 What does the presence of increased white blood cells (WBC) in synovial fluid most likely indicate?

Ans
- ✗ 1. Low blood sugar
- ✗ 2. Dehydration
- ✓ 3. Inflammation or infection
- ✗ 4. Normal condition

Q.58 Neisser's stain is used to identify which of the following bacteria?

Ans
- ✗ 1. Tubercle bacilli
- ✗ 2. Salmonella
- ✗ 3. Clostridium
- ✓ 4. Diphtheria

Q.59 Which of the following components of bile is responsible for the emulsification of fats during digestion?

Ans
- ✓ 1. Bile salts
- ✗ 2. Bilirubin
- ✗ 3. Cholesterol
- ✗ 4. Cellulose

Q.60 Which of the following is a rapid diagnostic test used to detect viral infections?

Ans
- ✗ 1. Western blot
- ✗ 2. Blood agar test
- ✓ 3. ELISA
- ✗ 4. Gram stain

Q.61 What is the primary reason for collecting a throat swab sample?

Ans
- ✗ 1. To detect lung diseases
- ✓ 2. To diagnose respiratory infections
- ✗ 3. To test for digestive issues
- ✗ 4. To access kidney function

Q.62 The Widal test is a type of _____.

Ans
- ✓ 1. Agglutination test
- ✗ 2. Neutralization test
- ✗ 3. Precipitation test
- ✗ 4. ELISA

Q.63 IQ stands for:

Ans
- ✓ 1. Intelligence Quotient
- ✗ 2. Intelligence Question
- ✗ 3. Intelligence Quality
- ✗ 4. Intelligent Quotient

Q.64 Which cryoprotectant is commonly added to biological specimens for long-term storage at −80°C or below to prevent ice crystal formation?

Ans
- ✗ 1. Sodium citrate
- ✓ 2. Dimethyl sulphoxide (DMSO)
- ✗ 3. Sodium fluoride
- ✗ 4. Ethanol

Q.65 A decrease in serum urea levels is commonly seen in which of the following conditions?

Ans
- ✗ 1. High-protein diet
- ✗ 2. Chronic kidney disease
- ✓ 3. Liver cirrhosis
- ✗ 4. Dehydration

Q.66 Which of the following biological samples is most commonly used for diagnosing fungal infections in the lungs?

Ans
- ✗ 1. Stool
- ✗ 2. Blood
- ✓ 3. Sputum
- ✗ 4. Urine

Q.67 Which cytokine plays a key role in eosinophil differentiation and proliferation?

Ans
- ✓ 1. Interleukin-5 (IL-5)
- ✗ 2. Interleukin-2 (IL-2)
- ✗ 3. Interleukin-4 (IL-4)
- ✗ 4. TNF-alpha

Q.68 Which of the following tests is commonly used to confirm a positive Wassermann reaction?

Ans
- ✗ 1. PCR for Treponema pallidum DNA
- ✗ 2. Dark field microscopy of lesion exudates
- ✓ 3. FTA-ABS (Fluorescent Treponemal Antibody Absorption) test
- ✗ 4. RPR (Rapid Plasma Reagin) test

Q.69 What is the definition of Minimum Inhibitory Concentration (MIC)?

Ans
- ✗ 1. Lowest concentration that kills all bacteria
- ✗ 2. Concentration at which bacteria are most active
- ✓ 3. Lowest concentration that inhibits visible growth
- ✗ 4. Highest concentration tested

Q.70 Eosinophils are a type of _____.

Ans
- ✗ 1. Red blood cells
- ✓ 2. White blood cells
- ✗ 3. Muscle cells
- ✗ 4. Platelets