DIPLOMA IN MEDICAL LABORATORY TECHNOLOGY - I YEAR
PAPER I- CLINICAL BIO - CHEMISTRY

One Word Questions

1. The laboratory forms of an Integral parts_____
2. Diseases causing organism_____
3. The use and maintenance of centrifuge_____
4. Types of pipettes_____
5. Non marked pipettes are called_____
6. _____ to remove infection materials.
7. The infected glass wares should be sterilized before_____
8. Principle of colorimeter_____
9. Photo detectors used to_____
10. The O.D. value is dependent on_____
11. Blank solution is used to_____
12. Results are calculated by_____
13. Refrigerator is used for_____
14. Refrigerant - An organic gas called _____
15. What degree is used to maintain at Incubator _____
16. The thermometer is to measure_____
17. Solution is homogenous moisture of_____
18. Any solution prepared for 100ml is _____-
19. pH of the solution isdefined as the negative logarithm in formula_____
20. Uses of Indicators to determine_____

2 Marks:

1. Explain the pathogen?
2. Any two code of ethics for lab technician
3. Centrifuge - principle.
4. Any two use & maintenance of centrifuge?
5. Define Bottles?
6. Explain the
   (a) Flasks?
   (b) Beakers?
7. Define - Pipettes?
8. Cleaning of Glass wares purpose any two?
9. Preparation of glassware cleaning solution any two?
10. Define - principles of colorimeter?
11. Difference between the galvanometer and photodetectors?
12. Define the two main systems of refrigerators?
13. Use of Incubators?
14. Define unit and Measurements?
15. Types of Solutions?
16. Importance of the pH?
17. Types of Indicators?
18. Define - Buffer solution?
19. Define - Blood Chemistry?
20. Define - Anti coagulant?

Write paragraph : (5 Marks)

1. Code of Ethics for lab Technician
2. Principle & Types of centrifuge
3. Write about Glass wares (any 5)
4. Write about notes of pipette with types
5. Preparation of glassware cleaning solution

6. Why the cleaning of glasswares is very important?
7. Introduction and principles of photo electric colorimeter
8. Basic Technique of colorimeter
9. Care and maintenance of Refrigerator
10. Use and care of an Incubator
11. S.I. derived units and Explain the litre, Gram, Mole and Meter.
12. PH definition and Importance of pH
13. Classification of Buffers and Application.
14. i) Introduction of Blood Chemistry.
    ii) Seperation of plasma & serum
15. Changes in Blood on keeping.
16. Write about Anticoagulant and its types.

Write an Essay : (15 Mark)

1. Write about glasswares used in laboratory.
2. Write about photo electric colorimeter with neat diagram.
3. Write about solution and its Types
4. Write about Microscopical Examination of urine with neat diagram.
5. Write about Fractional test meal analysis with procedure.
6. Examination of gastric juice specimens.
7. Test for free and Total acid in G.J.
8. Estimation of Blood sugar in folin WU (oxidation Reduction) method.
9. Estimation of Blood sugar by Ortho Toludine Method
10. Explain the preservatives of the urine and Blood.

DIPLOMA IN MEDICAL LABORATORY TECHNOLOGY - I YEAR
PAPER II - CLINICAL MICROBIOLOGY AND PARASITALOGY

ONE WORD QUESTIONS
1. _____ is the father of microbiology.
2. Process of Killing of pathogenic microorganism is called as _____.
3. Process of Killing of Micro Organism is called as _____.
4. Sterilization of metallic objects by holding them in flame is called as _____.
5. Bacteria is defined as _____ organisms.
6. Engulfment of cells is called as _____.
7. Parasites grow on _____.
8. Foot of the microscope is _____ shaped.
9. Example for solid culture media is _____.
10. Example for semisolid media is _____.
11. Example for enriched media is _____.
12. Largest organism in bacilli is _____.
13. Example for gram positive cocci _____.
14. The pH of the stool varies from _____.
15. The cholera stool is called as _____.
16. An example for animal parasite is _____.
17. Shape of the cestode is _____.
18. Example for common round worm is _____.
19. Example for pinworm or seat worm is _____.
20.Example for blood parasite is _____.

TWO MARKS:

1. Define Microbiology
2. Define sterilization
3. Define vaccine bath.
4. What is pasteurization?

5. What is phagocytosis?
6. Define Parasites.
7. Define Actinomycetes
8. What is culture media?
9. What is Blood agar?
10. Write about Macconkey agar medium.
11. What is Gram staining?
12. What is cytoplasm?
13. What is plasmid?
14. Write about Entamoeba histolytica
15. Classify the helminths.
16. Write about Entamoeba coli
17. Define blood parasites.
18. Define Parasitology
19. Define Pathogen
20. Define symbiosis.

5 MARKS

1. Write about chemical sterilization.
2. Write about classification of bacteria based on energy source.
3. Write in short about Mycoplasma & Actinomycetes.
4. What are the types of culture media?
5. Write about motility test (Hanging drop method)
6. Write about simple staining.
7. Write about pili and fimbriae
8. Write about the collection of urine for examination.
9. Write about methyl - red test.
10. Write about Entamoeba histolytica
11. Write about non - pathogenic amoebae
12. Write about the classification of Helminths.
13. Write in short about blood parasites.
14. Write about life cycle of E Histolytica
15. Write in short about plasmodium vivax.
16.Write about plasmodium falciparum

15 MARKS:

1. Explain about Kingdom concept with diagram.
2. Write about sterilization methods.
3. Write about microscope and draw diagram.
4. Explain about morphological study of bacteria.
5. Explain about the structure of bacteria
6. Write about bacterial growth products.
7. Write about microscopic examination of stool sample.
8. Explain the pathogenecity and lab diagnosis of E Histolytica
9. Write about pathogenicity of Entamoeba histolytica
10. Write about various sample collection methods & inoculation

DIPLOMA IN MEDICAL LABORATORY TECHNOLOGY - I YEAR

PAPER III - HAEMATOLOGY BLOOD BANKING & HISTOPATHOLOGY

I. FILL IN THE BLANKS : 50
1. _____ is study about blood.
2. Tissue taken from living boy is_____
3. Red blood contains _____
4. _____is called Bio-anticoagulant

5. Dr. Land stainer discovered_____
6. Cell count chamber another name is_____
7. Blood Bank anticoagulant called as _____
8. Large RBC is called _____
9. EDTA full definition_____
10. ESR pipette is called as_____
11. Main function of platelet is_____
12. Normal total leucocyte count is_____
13. _____is the largest cell found in blood.
14. _____produces heparin.
15. Function of Lymphocyte is_____
16. Best size of finger prick_____
17. Decreased level of Hb is _____
18. Anti D season is taken from _____
19. _____ human body.
20. Hemoglobin present is _____
21. Neutrophil another name is_____

II. TWO MARKS : 40

1. Write about antibody.
2. Write about universal donar.
3. The action of EDTA.
4. What are granulocytes.
5. What is Acid Haematin.
6. In which cell Basophill stippling present.
7. What is cylology ? Explain.
8. Write the action of vitamin k.
9. What are Agranulocyte.
10. Explain rhesus factor.
11. What is hemoglobin.
12. Write the use of sodium citrate.
13. What are the combinations of RBC Hayem's fluid
14. What is Leukaemia ? Explain.
15. Write any five types of Anaemias?
16. Write about Haemometer.
17. Write about Eosinophil ? Explain.
18. Why 'o' blood group called universal donar.
19. Write the use of medical laboratory.
20. The principle of blood clothing.

III. FIVE MARKS : 25

1. Write about the methods of Histopathology processing.
2. How can you do capillary blood taking method.
3. What are the urinary parasite.
4. Write the development of leucocytes.
5. Diagrammatically describe the difference of Neutroophil and Eosinophil picture.
6. Write about Histopathology dehydration method.
7. What are the functions of blood.
8. Describe about erythrocyte and the function.
9. How can you prepare this smear.
10. Reason for error in pcv test in Haematocrit.
11. What is Haemolytic Anaemia explain.
12. Write the calculation of Leucocyte count.
13. What is the meaning for biopsy impregrination.
14. How many types of blood group in human blood.
15. Explain the steps for blood clothing factor.
16. How can you do Leishman's staining method.

IV. 15 MARKS

1. Describe Diagrammatically about WBC, DLC count.
2. Explain the parts of microscope with diagram.
3. Explain the types of Anemias (any 5 types).
4. Write the chat of blood grouping with diagram.
5. How can you do blood Haematocrit test of wintrobe's method.
6. Describe the diagram of ESR westergreen method.
7. Explain tissue fixatives types.
8. Explain the process of biopsy examination.
9. Write about the types of anti coagulant and the actions.
10. Write about the types of anticoagulant and the actions.

DIPLOMA IN MEDICAL LABORATORY TECHNOLOGY - II YEAR
PAPER - I -CLINICAL BIOCHEMISTRY

ONE WORDS
1. Purpose of the collection of urine_____
2. The waste products that are excreted by kidney_____
3. Abnormal constituentes of urine are blood_____
4. Example for urine preservatives_____
5. The types of casts found in urine_____
6. Proteinuia means_____
6. Ketonaemia means_____
7. The normal special gravity of urine _____
8. Principle of colorimeter_____
9. Osmotic pressure_____
10. PH of a solution?
11. The normal pH of blood_____
12. Glycogenesis means_____
13. Normal fasting blood glucose level_____
14. Coenzyme means_____
15. Disorders of carbohydrate metabolism_____
16. Enzyme is a_____
17. Fat soluble vitamins_____
18. Essential for blood coagulation_____
19. Prothrombin activity is measured by the determination of_____
20. Thyroide secreted by the hormones_____

2 MARKS:
1. Define - enzymes?
2. Any two factors affecting enzyme actions?
3. Explain the "polyuria"?
4. Define Anticoagulants? Any two?
5. Types of Jaundice?
6. Serum transaminases?
   a. SGOT
   b. SGPT
7. Procedure of the 24 hour's urine collection?
8. Function of the kidney?
9. Define - types of chromatography?
10. Principles - of the chromatography?
11. Define -Alkaptonuria
12. Disorders of carbohydrate metabolism?
13. Disorders of protein metabolism?
14. Normal values of the blood and urine?
15. Define - ketonuria?
16. Define - cuvette and fitters in photo electric colorimeter

17. Define noctunia
18. Define Albinism
19. Classification of proteins
20. Function of thyroid hormones

5 MARKS:
1. Types of enzyme?
2. The preparation and standardisation of N / 100 NaOH?
3. Define the properties of fat?
4. Classifications of proteins?
5. Classification of amino acids?
6. Classification of carbohydrates?
7. Define the diabetes mellitus?
8. Define the types of anticoagulants?
9. Glucose tolerance Test (GTT).
10. Biochemical analysis of body fluids?
11. Define the pregnancy test?
    i) BCG Method
    ii) Gravondex method?
12. Define the collection and preservative for urine?
13. Define the normal cells that are seen in urine?
14. Define the chief functions of the kidney?
15. Define the thyroid gland with neat diagram?
16. Define the blood gases?

15 MARKS:

1. Explain the Renal function Tests.
2. Explain the liver function tests.
3. Explain the kidney function tests.
4. Explain the thyroid function tests.
5. Explain the lipid profile test.
6. Estimation of blood area - method for Diacetyl monoxime method.
7. Explain the serum electrolytes?
8. Explain the enzymes?
   1. Serum amylase
   2. SGOT
   3. SGPT
   4. LDH
   5. Creatine kinase
9. Explain the micros copical examination of the urine?
10. Analysis of CSF? Any two?
    a) Estimation of sugar in CSF
    b) Estimation of proteins in CSF
    c) Estimation of chloride in CSF
    d) Detection of globulin in CSF

DIPLOMA IN MEDICAL LABORATORY TECHNOLOGY - II YEAR
CLINICAL MICROBIOLOGY

ONE WORD QUESTIONS

1. Main method used for isolation of Bacteria is _____
2. Root like spreading growth is called as _____.
3. Reaction occurring in indole production test is identified by adding _____
4. Citrate test is used to identify organisms based on their ability to utilize _____ as carbon source.

5. Voges - Proskaur test is used to differentiate _____.
6. The choice of drug for streptococcal infection is _____.
7. _____ viridans produce _____ in blood agar.
8. _____ are found in association with _____.
9. S PneumOniae grow on_____.
10. Meningococcus is _____.
11. The vibrious form yellow colonies in TCBS medium due to _____.
12. Mycology is a study of disease caused by _____.
13. Candida consist of yeast cells and _____.
14. Virology is the study of _____.
15. AIDS is caused by _____ virus.
16. Diarrhea is caused by _____
17. _____ is the major circulating antibody in the blood.
18. VDRL is _____.
19. ASO test means _____
20. Infection of tuberculosis is diagnosed by _____.

TWO MARKS:

1. Define Nutrient Agar.
2. What is the purpose of Hanging Drop Method.
3. Define Antibiotics.
4. Give example for Gram positive cocci.
5. Write about the antigenic characters of Neisseria meningitis
6. Write about the morphology of Vibrio cholerae
7. Write about important Diseases caused by virus.
8. Define pathogen
9. Define Immunity
10. Define Antigen
11. Define Antibody
12. Define Immunoglobulins
13. What is VDRL?
14. What is specimen?
15. Write about the equipments used in RA Test.
16. What in Widal Test?
17. What is RA factor?
18. Write about ELISA.
19. What is Montoux Test?
20. Give examples for serological tests.

5 MARKS:

1. Write about Isolation of bacteria.
2. Write about streak plate method.
3. Write about identification of bacteria on Nutrient agar slants.
4. Write about indole production test.
5. Write about cultural characters of bacteria.
6. Write about Meningococcus.
7. Write about Gonococcus.
8. Write about staining of spores
9. Write about Vibrio Cholera
10. Write about Viruses.
11. Write about active & passive immunity.
12. Draw the structure of immunoglobulin
13. Write about IgG
14. Write about qualitative serum test in VDRL.
15. Write about ELISA & its procedure.
16. Explain any two serological tests.

15 MARKS:

1. Write about the identification of bacteria.
2. Write about the biological properties of bacteria.
3. Explain the Antibiotic Sensitivity test.
4. Write about gram positive cocci and give two examples.
5. Write about gram negative cocci and give two examples.
6. Write about structure of virus.
7. Write about immunity & types of immunity.
8. Write about Immunoglobulins and its structure.
9. Explain about VDRL Test.
10. Write about WIDAL Test.

DIPLOMA IN MEDICAL LABORATORY TECHNOLOGY - II YEAR
PAPER - III - HAEMATOLOGY.BLOOD BANKING & HISTOPATHOLOGY

I. FILL IN THE BLANKS :
1. Sperm another name is _____
2. Antibody present in _____
3. Blood circulation discovered by_____
4. _____is the father of modern pathology.
5. _____stain used in Histopathology.
6. _____is to detect the presence of RH factor.
7. Average size and diameter of RBC is_____
8. Fluid portion of blood is _____
9. Bombay blood groups are _____
10. Heparin is a Bio-_____
11. Normal colour index is ___
12. MLHL definition is_____
13. 'o' group person is a_____
14. Absence of sperm is known as _____
15. Low counting of WBC leads to _____
16. Block holder used in _____
17. Haemolysis happened in_____
18. Basophil is in the colour of_____
19. Eosinophil increased in_____
20. Liver producing cells are_____

II. TWO MARKS:

1. Explain Haemolysis?
2. Write the formula of Harrie's Haematorylin stain.
3. Write the main function of plasma.
4. What is decalcification.
5. Write about spermatozoa.
6. Write the expansion GTT test.
7. Write about Bombay group blood.
8. What is Haemopoeisis.
9. Write about Erythropoeisis.
10. How many types of Leukaemia.
11. Reason for 'AB' blood group is universal receipiant.
12. Write the principle of ESR test.
13. What is semen? Explain.
14. Buffy coat? Explain.
15. Write about the types of microtome knifes.
16. What is the differences between wintrobes and westergren tube.

17. Write about eosinophil
18. What are granulocyte
19. What is acid haematin
20. Write the action of vitamin – k.

III. FIVE MARKS:

1. Write about section cutting of the tissue.
2. Which are the blood parasites..
3. Write RH-Anti D Serum test method.
4. Write physical fitness for blood alonar.
5. Write about cross matching test.
6. Write about donars screening. Explain.
7. Explain Granulocytes and Morphology.
8. Write the types of spermatozoa.
9. Draw the picture of normal sperm.
10. Write short note about klima's needle.
11. Write sperm counting fluid formula.
12. Write short notes of our body fluids
13. How can you prepare egg. Albumin fixatine.
14. Write the function of cerebero spinal fluid.
15. How can you maintain muslims specimen.
16. Explain embedding of tissue specimens.

IV. 15 MARKS:

1. Explain the method of compatibility test of cross matching.
2. Write the formula about Erytheropoeisis with picture.
3. Describe the various steps of histopathology methods of biopsy tissue.
4. How many types of sperms you know with full diagram.
5. Describe blood coagulatin factors.
6. How can you do RH typing by tube method.
7. Describe about direct coomb's test.
8. Describe the method of cross matching.
9. Precautions in ABO blood grouping test.
10. How can you do Harrie's Haematoxylin staining method for the tissue section.