



# BHARAT SEVAK SAMAJ

NATIONAL DEVELOPMENT AGENCY, PROMOTED BY GOVERNMENT OF INDIA  
CENTRAL BOARD OF EXAMINATIONS  
BSS NATIONAL VOCATIONAL EDUCATION MISSION

## AHE001-BSS DIPLOMA IN MEDICAL LABORATORY TECHNOLOGY

### TWO YEARS (FIRST YEAR) EXAMINATION NOV-2015

#### AHE001-01 COMMUNICATIVE ENGLISH AND COMPUTER FUNDAMENTALS

**TIME: 3 Hours**

**Marks: 100**

#### INSTRUCTIONS

- \* 33 questions are there in total
- \* Write answers to each question in proportion to the mark allotted
- \* During the first 15 minutes read the questions carefully

#### I. FILL IN THE BLANKS

**1 x 10 = 10**

- 1) Verb is an ..... word
- 2) ..... Lotus is lovely flowers
- 3) I am going ..... library
- 4) I ..... seen the Tajmahal.
- 5) Let the door ..... opened.
- 6) ALU stand for .....
- 7) I read ..... Indian express
- 8) The World first Programmer is-----.
- 9) Computers can only understand ..... language
- 10) You can enlarge a document using .....

#### II. DEFINE THE FOLLOWING

**2 x 10 = 20**

- 1) Define Auxiliary verb?
- 2) Define active and passive voice?
- 3) Define adverbs of degrees?
- 4) Define uncountable nouns?
- 5) What are the types of Gender?
- 6) Define software?
- 7) Attrib
- 8) What is hardware & Software
- 9) MS Access
- 10) Clause

**III. WRITE BRIEF ANSWER FOR ANY 5 QUESTIONS****5 x 5 = 25**

- 1) Define kinds of nouns?
- 2) Define kinds of adjectives
- 3) Formal menu
- 4) Explain RAM and ROM
- 5) Briefly explain the table menu in MS Excel
- 6) Explain 'find', 'replace' and 'go to'.
- 7) Find and replace
- 8) Different software and hardware

**IV. WRITE LONG ANSWER FOR ANY 3 QUESTIONS****15 x 3 = 45**

- 1) Explain a computer and draw a block diagram
- 2) Functions of Word Processing?
- 3) Explain 'slide presentation creating' in MS Power Point
- 4) Describe the relevance of computerization in hospital field
- 5) Draw the block diagram of basic computer organisation and explain?



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**AHE001-BSS DIPLOMA IN MEDICAL LABORATORY TECHNOLOGY**

**TWO YEARS (FIRST YEAR) EXAMINATION NOV-2015**

**AHE001-02 CLINICAL BIO CHEMISTRY - I**

**TIME: 3 Hours**

**Marks: 100**

## INSTRUCTIONS

- \* 33 questions are there in total
- \* Write answers to each question in proportion to the mark allotted
- \* During the first 15 minutes read the questions carefully

## I. FILL IN THE BLANKS

**1 x 10 = 10**

- 1) Blank solution is used to set the colorimeter .....
- 2) ..... is used to prevent blood clotting
- 3) Fouchet's test is used to test the .....
- 4) Enzymes are ..... in nature .
- 5) What analyser are used to mix and read manually?
- 6) The micro - Haematocrit centrifuge for finding out\_\_\_\_\_
- 7) Uses of condenser lens\_\_\_\_\_
- 8) Urea, a ..... compound formed in the body in liver
- 9) Mostly buffers are used in \_\_\_\_\_
- 10) \_\_\_\_\_ are cheaper Anticoagulant

## II. DEFINE THE FOLLOWING

**2 x 10 = 20**

- 1) What is meant by a base?
- 2) What is meant by common balance?
- 3) What are the classification of lipids?
- 4) Types of Solutions?
- 5) Importance of the pH?
- 6) Define the Universal Indicators?
- 7) Define - Anti coagulant?
- 8) Aqueous solutions
- 9) Enzymatic method
- 10) Blood urea

**III. WRITE BRIEF ANSWER FOR ANY 5 QUESTIONS****5 x 5 = 25**

- 1) Changes in blood on keeping?
- 2) Explain Indicators and its types?
- 3) What are the classification of carbohydrates.
- 4) Explain the types of solution (any 4)
- 5) Write Briefly on cells and cast in urine?
- 6) What is Preservation of specimen briefly?
- 7) Blood collection for various bio-chemical test
- 8) CSF Protein

**IV. WRITE LONG ANSWER FOR ANY 3 QUESTIONS****15 x 3 = 45**

- 1) Introduction and separation of serum and plasma.
- 2) Explain about microscopical examination of urine with aid of diagram
- 3) Write about photo electric colorimeter with neat diagram.
- 4) Write about Refrigerator
- 5) Examination of gastric juice specimens.



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## AHE001-BSS DIPLOMA IN MEDICAL LABORATORY TECHNOLOGY

### TWO YEARS (FIRST YEAR) EXAMINATION NOV-2015

#### AHE001-03 CLINICAL MICRO BIOLOGY - I & PARASITOLOGY

TIME: 3 Hours

Marks: 100

#### INSTRUCTIONS

- \* 33 questions are there in total
- \* Write answers to each question in proportion to the mark allotted
- \* During the first 15 minutes read the questions carefully

#### I. FILL IN THE BLANKS

1 x 10 = 10

- 1) PH means-----.
- 2) Study of bacteria is called-----.
- 3) Spirilla-----shaped.
- 4) Example for Protein Source-----.
- 5) Who prepared the first Vaccine from cowpox?
- 6) Abnormal stool may be\_\_\_\_\_&\_\_\_\_\_
- 7) X - rays, gamma rays & cosmic rays are called as examples of \_\_\_\_\_
- 8) Complement fixation is applied to diagnosis of syphilis is-----
- 9) Trepanemapallidum is the causative organism of .....
- 10) Bacterias are ....., .....structures

#### II. DEFINE THE FOLLOWING

2 x 10 = 20

- 1) Define Vaccine bath.
- 2) What is plasmid?
- 3) Define Live Vaccines.
- 4) What is phototrophic organisms?
- 5) What is staining?
- 6) Write about carbol fuschin.
- 7) Give example for Intestinal parasites.
- 8) Write about collection of stool sample.
- 9) Give examples for adult worms in intestine.
- 10) Define parasite

**III. WRITE BRIEF ANSWER FOR ANY 5 QUESTIONS****5 x 5 = 25**

- 1) Write about methyl-red test.
- 2) Write about serial dilution technique?
- 3) Write about bacterial classification based on nutrition
- 4) Write about motility test (Hanging drop method)
- 5) Write on morphology culture characteristics of Vibrio?
- 6) Physical method of sterilization
- 7) PH Value
- 8) Bacterial contamination of specimen

**IV. WRITE LONG ANSWER FOR ANY 3 QUESTIONS****15 x 3 = 45**

- 1) Explain about sterilization methods
- 2) Write about the classification of bacteria based on their shape.
- 3) Write about direct stool smear examination with procedure.
- 4) Explain licycle of Malarial parasite
- 5) Describe Ancylostoma duodenale



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## AHE001-BSS DIPLOMA IN MEDICAL LABORATORY TECHNOLOGY

### TWO YEARS (FIRST YEAR) EXAMINATION NOV-2015

#### AHE001-04 HAEMATOLOGY, BLOOD BANKING & HISTO PATHOLOGY - I

TIME: 3 Hours

Marks: 100

#### INSTRUCTIONS

- \* 33 questions are there in total
- \* Write answers to each question in proportion to the mark allotted
- \* During the first 15 minutes read the questions carefully

#### I. FILL IN THE BLANKS

1 x 10 = 10

- 1) RBC pipette contains marks with Red Bit-----.
- 2) Function of Lymphocyte is-----.
- 3) -----Chamber is used for-----.
- 4) Blood circulation discovered by-----.
- 5) Normal colour index is-----.
- 6) Zenker fluid is a .....
- 7) Decreased level of Hb is -----
- 8) ..... help to keep the blood at correct PH
- 9) ..... test is done in AIDs patients
- 10) Ancylostoma duodenale is caused by \_\_\_\_\_Anaemia.

#### II. DEFINE THE FOLLOWING

2 x 10 = 20

- 1) What are the components of Leishman's stain
- 2) Write any five types of Anaemias?
- 3) Write the expansion GTT test
- 4) ESR
- 5) What is PCV?
- 6) Write about universal donar.
- 7) Explain monocyte.
- 8) Write the use of medical laboratory.
- 9) Hayem's fluid
- 10) Prothrombin Time

**III. WRITE BRIEF ANSWER FOR ANY 5 QUESTIONS****5 x 5 = 25**

- 1) Write about Histopathology dehydration method
- 2) Explain embedding of tissue specimens
- 3) Write the calculation of Leucocyte count.
- 4) Explain about cynomethamoglobin test.
- 5) Explain the steps for blood clotting factor.
- 6) Presentation of specimen in Histopath lab
- 7) Coagulation time and bleeding time
- 8) Give a note on WBC Diluting fluids ?

**IV. WRITE LONG ANSWER FOR ANY 3 QUESTIONS****15 x 3 = 45**

- 1) Explain laboratory method of ESR(Wintrobe's method) with the help of diagram
- 2) Describe the method of cross matching
- 3) Precautions in laboratory care explain.
- 4) Explain the Histology techniques
- 5) Explain the Winrobes method of ESR with diagram





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## AHE001-BSS DIPLOMA IN MEDICAL LABORATORY TECHNOLOGY

### TWO YEARS (FINAL YEAR) EXAMINATION NOV-2015

#### AHE001-09 CLINICAL BIO CHEMISTRY - II

**TIME: 3 Hours**

**Marks: 100**

#### INSTRUCTIONS

- \* 33 questions are there in total
- \* Write answers to each question in proportion to the mark allotted
- \* During the first 15 minutes read the questions carefully

#### I. FILL IN THE BLANKS

**1 x 10 = 10**

- 1) Albumin is a .....in plasma
- 2) The normal level of potassium in blood is.....
- 3) Jaundice is visible when serum billurubin exceeds\_\_\_\_\_
- 4) Function of proteins are the \_\_\_\_\_
- 5) CSF is a \_\_\_\_\_
- 6) Thyroid hormone is secreted by \_\_\_\_\_
- 7) Pandy's Test used in the estimation of \_\_\_\_\_.
- 8) An yellow colour in the CSF is called \_\_\_\_\_.
- 9) Condition of hypothyrodism in adults.....
- 10) Name a tumour marker.....

#### II. DEFINE THE FOLLOWING

**2 x 10 = 20**

- 1) Clinical biochemistry
- 2) PH
- 3) Standard solution
- 4) Principle of Ortho Toluidine method
- 5) Classification of tabular function?
- 6) Define Anticoagulants? Any two?
- 7) Define - ketonaemia?
- 8) Glycolysis
- 9) PUFA
- 10) Thyroid Hormones

**III. WRITE BRIEF ANSWER FOR ANY 5 QUESTIONS****5 x 5 = 25**

- 1) CSF collection
- 2) Specific gravity of urine
- 3) Reagents used for serum bilirubin
- 4) Classification of amino acids?
- 5) Biochemical analysis of body fluids?
- 6) Collection and preservative for urine?
- 7) Disorders of thyroid functions?
- 8) Hippuric acid synthesis test ?

**IV. WRITE LONG ANSWER FOR ANY 3 QUESTIONS****15 x 3 = 45**

- 1) Explain the liver function tests.
- 2) Explain the lipid profile test.
- 3) 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
- 4) Estimation of cholesterol in serum modified zak method?
- 5) Explain - the - photoelectric, colorimeter?



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## AHE001-BSS DIPLOMA IN MEDICAL LABORATORY TECHNOLOGY

### TWO YEARS (FINAL YEAR) EXAMINATION NOV-2015

#### AHE001-10 CLINICAL MICRO BIOLOGY - II

TIME: 3 Hours

Marks: 100

#### INSTRUCTIONS

- \* 33 questions are there in total
- \* Write answers to each question in proportion to the mark allotted
- \* During the first 15 minutes read the questions carefully

#### I. FILL IN THE BLANKS

1 x 10 = 10

- 1) It is rigid spiral form \_\_\_\_\_
- 2) In Nutrient agar plate colony having unbroken peripheral edge is called as \_\_\_\_\_.
- 3) Voges - Proskaur test is used to differentiate \_\_\_\_\_.
- 4) The cerebrospinal fluid is collected by \_\_\_\_\_.
- 5) The pathogenic fungi are \_\_\_\_\_.
- 6) \_\_\_\_\_ are incapable of inducing antibody formation.
- 7) Concentration of IgD is \_\_\_\_\_.
- 8) \_\_\_\_\_ is the test to diagnose viral Hepatitis.
- 9) Microscope was invented by \_\_\_\_\_.
- 10) Body fluids and Vaccines is sterilized by \_\_\_\_\_ method.

#### II. DEFINE THE FOLLOWING

2 x 10 = 20

- 1) Binary fission
- 2) Basic dye
- 3) Give example for Gram positive cocci.
- 4) Write about Neisseria
- 5) What is medical mycology
- 6) Define Immunity
- 7) Write about IgD
- 8) What is RA factor?
- 9) Bacterial growth curve.
- 10) VDRLtest

**III. WRITE BRIEF ANSWER FOR ANY 5 QUESTIONS****5 x 5 = 25**

- 1) Types of specimen in the bacteriology lab
- 2) MR test
- 3) Indole test
- 4) Explain the identification of bacteria on Nutrient agar plate culture.
- 5) Explain about some of the fungal organism with example.
- 6) Write about some of the medically important viruses.
- 7) Explain about purified tuberculin Method.
- 8) VDRL test

**IV. WRITE LONG ANSWER FOR ANY 3 QUESTIONS****15 x 3 = 45**

- 1) Preparation culture in bacteria?
- 2) Write about gram negative bacillus with example.
- 3) Write about T - Cells.
- 4) Write about various types of Immunoglobulins.
- 5) Write about various test involved in serological examination.



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### TWO YEARS (FINAL YEAR) EXAMINATION NOV-2015

#### AHE001-11 HAEMATOLOGY, BLOOD BANKING & HISTOPATHOLOGY - II

TIME: 3 Hours

Marks: 100

#### INSTRUCTIONS

- \* 33 questions are there in total
- \* Write answers to each question in proportion to the mark allotted
- \* During the first 15 minutes read the questions carefully

#### I. FILL IN THE BLANKS

1 x 10 = 10

- 1) Prothrombin and fibrinogen are blood .....factors
- 2) The anemia occurs both in acute \_\_\_\_\_ conditions
- 3) ----- is a cell counting chamber.
- 4) Thrombocyte called as -----
- 5) 'o' group person is a -----.
- 6) Each human calls have XY -----.
- 7) Block holder used in -----.
- 8) ..... is the normal eosinophil count in D.C
- 9) Formed Elements contains \_\_\_\_\_, \_\_\_\_\_ & \_\_\_\_\_.
- 10) \_\_\_\_\_ is an autoantibody present in patient having SLE.

#### II. DEFINE THE FOLLOWING

2 x 10 = 20

- 1) Electrolytes
- 2) Define poises-synthesis?
- 3) The reason for Haemophilia in blood.
- 4) Write about Bombay group blood.
- 5) Give full definition for CSF
- 6) Write the principle of ESR test.
- 7) Write about the types of microtome knives.
- 8) Microtome
- 9) Polychromatic stains.
- 10) Pernicious anaemia.

**III. WRITE BRIEF ANSWER FOR ANY 5 QUESTIONS****5 x 5 = 25**

- 1) Designing of blood bank
- 2) Sahil's acid haematin method
- 3) Preparation of film in differential leuco cyte
- 4) Selection of blood donors
- 5) Explain Granulocytes and Morphology.
- 6) Write short note about klima's needle.
- 7) Preparation of Leishman's stain
- 8) Vaginal Smear preparation

**IV. WRITE LONG ANSWER FOR ANY 3 QUESTIONS****15 x 3 = 45**

- 1) Explain total leucocyte count with the help of picture
- 2) C.S.F physical and chemical examination.
- 3) What is Anaemia and how will you diagnose in a lab?
- 4) Write briefly on the determination of E.S.R. by westergren's method.
- 5) Describe the different methods of blood collection.