

DEPARTMENT OF MEDICAL LABORATORY SCIENCE
COLLEGE OF MEDICINE & HEALTH SCIENCES,
ABIA STATE UNIVERSITY,
UTURU

COURSE TITLE: BASIC HISTOPATHOLOGY

COURSE CODE: PTH 411. TIME: 2HRS.

1st Semester 2022/ 2023

INSTRUCTION: ANSWER FOUR QUESTIONS

Q1. a. Outline the functions of pathology museum, [b] list the basic museum techniques and [c] write briefly on colour maintenance of museum specimen.

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Q2. Discuss decalcification.

Q3. Write a good essay on the histological organization of the wall of oesophagus.

4. Discuss fixation.

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DEPARTMENT OF MEDICAL LABORATORY SCIENCE

PTH 421- FORENSIC SCIENCE EXAMINATION QUESTIONS (2022/2023 SESSION)

Instruction: Answer all questions

1. Discuss the roles of Medical Laboratory Scientist in Forensic Science.

✓ 2. Define the following:

- ✓ i. Forensic Science
- ✓ ii. Forensic Pathology
- ✓ iii. Biological Profiling
- ✓ iv. Toxicology.

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3. Describe the principles and uses of four analytical techniques in Forensic Science.

4. Narrate a criminal case scenario describing how Forensic Science was applied to identify the perpetrator or the accused victim vindicated.

5. Explain the branch/branches of Forensic Science that can be applied in each of the following cases:

- ✓ i. Cyber crime :
- ii. Kidnap case
- ✓ iii. Murder case
- ✓ iv. Paternity dispute

ABIA STATE UNIVERSITY UTURU

DEPARTMENT OF MEDICAL LABORATORY SCIENCES

PTH 421- FORENSIC SCIENCE EXAMINATION QUESTIONS

ANSWER ALL QUESTIONS

1a. Define the following:

- i. Forensic Science
- ii. Forensic Pathology

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1b. List ten branches of Forensic Science and explain two.

2. Explain the principles and uses of four analytical techniques applicable to Forensic Science.

3a. List four roles of Forensic Scientists in Forensic Science.

b. Write notes on the following:

- i. Toxicology
- ii. Biological Profiling

4. List ten 'physical evidence' in forensic Science and discuss on examination of Five of them.

ABIA STATE UNIVERSITY UTURU

FACULTY OF MEDICAL LABORATORY SCIENCES

DEPARTMENT OF MEDICAL MICROBIOLOGY

FIRST SEMESTER EXAMINATION

6th April, 2018

COURSE: MMP 421 MICROBIAL GENETICS

TIME: 2HRS

INSTRUCTIONS: ANSWER ALL QUESTIONS

1. Mention the two types of nucleic acids found in bacteria. How do they differ from each other? State also how they differ from those found in eukaryotes.

2. What is mutation? Describe the different types of mutation that can occur among microorganisms.

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3. Using diagrams outline the replication of one of the nucleic acids

4. State the functions of mRNA, tRNA and rRNA.

5. Write briefly on the following:

- a. Operon *is a gene closely related*
- b. Transformation
- c. Bacteriophage
- d. Conjugation

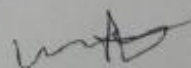
ABIA STATE UNIVERSITY UTURU
FACULTY OF MEDICAL LABORATORY SCIENCES
DEPARTMENT OF MEDICAL MICROBIOLOGY
2019/ 2020 SESSION FIRST SEMESTER EXAMINATION
11th February 2021

COURSE: MMP 421 MICROBIAL GENETICS TIME: 2HRS

INSTRUCTIONS: ANSWER ALL QUESTIONS

1. Mention the two types of nucleic acid found in bacteria. How do they differ from each other?
2. What is mutation? Describe the different types of mutation that can occur among microorganisms.
3. Describe the method of DNA replication
4. State the functions of mRNA, tRNA and rRNA.
5. Write briefly on the following:
 - a. Protein Synthesis
 - b. Law of Independent Assortment
 - c. Base Pairing
 - d. Bacteriophage

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ABIA STATE UNIVERSITY UTURU

DEPARTMENT OF MEDICAL LABORATORY SCIENCE

COURSE CODE : MMP 421

TITLE OF EXAMINATION: MICROBIAL GENETICS

FIRST SEMESTER EXAMINATION 2022/2023

1st NOVEMBER 2023

INSTRUCTION: ANSWER 4 QUESTIONS

1. What is mutation / variation? State and briefly explain all the mutations that can occur among microorganisms.
2. Write short notes on the following:
 - a. Nucleotides
 - b. Edwin Chargaff's rule of equivalence
 - c. State the differences between DNA and RNA
3. Enumerate and briefly explain how a paternity dispute could be resolved and satisfactorily so, using the knowledge gained from the study of genetics
4. What contributions did Griffiths; Avery, McLeod & McCarthy; and Hershey & Chase make to the development of microbial genetics

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ABIA STATE UNIVERSITY UTURU
COLLEGE OF MEDICINE AND HEALTH SCIENCES
FACULTY OF MEDICAL LABORATORY SCIENCE

COURSE TITLE: MICROBIAL GENETICS

COURSE CODE: MMP 421: 1ST SEMESTER 2022/23

TIME: 2 HOURS

1 ST DECEMBER 2022

INSTRUCTION: ANSWER ONLY FOUR(4) QUESTIONS

1. State and briefly explain the Mendelian laws of inheritance.
2. What is mutation? Describe the different types of mutation that can occur among microorganisms.
3. Using annotated diagrams, describe the experiment that confirmed the DNA as the genetic material.
4. Discuss the application of recombinant DNA technology (Biotechnology) to Agriculture.
5. Applying the Mendelian law(s) of inheritance, can a paternity case be presumptively settled? Show all workings/ diagrams
6. Enumerate the differences between prokaryotic and eukaryotic genomes

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ABIA STATE UNIVERSITY, UTURU
FACULTY OF MEDICAL LABORATORY SCIENCE
COLLEGE OF MEDICINE AND HEALTH SCIENCES
SECOND SEMESTER 2021/2022 SESSION EXAMINATION
Wednesday 14th December, 2022

COURSE: BASIC HISTOPATHOLOGY (PTH 411)
TIME ALLOWED: 2 HOURS
INSTRUCTION: ANSWER ALL QUESTIONS

1. How will you prepare a slide for histological examination?
2. Discuss the substitute for Paraffin Wax.
3. Write a good essay on the histological organization of the wall of oesophagus.
4. (a) Outline the functions of Pathology Museum
(b) List the Basic museum techniques
(c) Write briefly on colour maintenance of museum specimen

ABIA STATE UNIVERSITY UTURU

DEPARTMENT OF MEDICAL LABORATORY SCIENCE

COURSE CODE : MMP 411

FIRST SEMESTER EXAMINATION 2022/2023

18TH OCTOBER 2023

10:55

TIME 2HRS

INSTRUCTION: ANSWER 4 QUESTIONS, 2 FROM EACH SECTION

1. A manufacturer's instruction for SSA(Salmonella Shigella Agar) reads thus: Suspend 63g of powder in 1 Liter of distilledwater. Bring to the boil with frequent agitation and allow to simmer gently to dissolve the agar. Do not autoclave. Cool to about 50°C, mix and pour into Petridishes.
 - a. To what class of media does SSA belong?
 - b. If provided with 90mm petridishes which contains 20ml of molten agar each, how will you prepare 11 plates of SSA?
 - c. What temperature and pressure combination is best required to properly sterilize the SSA medium.
2. Give an example(s) of an infectious microbes which cannot be stained by dilute solution of dyes/stains and name the disease(s) it causes.
 - b. Define the term Acid fastness
 - c. How would you prepare 4 liters of 3% Acid alcohol?
 - d. Which alternative stain/dye could serve as a secondary stain/ counterstain in 2(i) above.
3. Define the term Working distance of an objective lens and state its relevance in microscopy.
 - b. What other preparation is needed to examine to examine a smear stained by the grams technique.
 - c. Using a brightfield binocular compound microscope, state the total magnification required to examine the gram stained smear.
 - d. Mention at least three (3) vital information revealed of the organism after gram staining.

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SECTION B

4. Describe fungi, stating their economic importance.
5. Write briefly on the morphological and systematic classification of fungi.
6. What is vulvovaginitis
 - b. Balanitis
 - c. Give 2 examples of aetiologic fungi
 - d. Outline the steps in their laboratory diagnosis

63g - 100

Sporangium

chomophyllate - 2
Eukaryotes

3% loffler

Loeffler

Eukaryota

mycelium

blue

15 mmHg

ABIA STATE UNIVERSITY, UTURU

COLLEGE OF MEDICINE AND HEALTH SCIENCES

DEPARTMENT OF MEDICAL LABORATORY SCIENCE

TITLE: BASIC HAEMATOLOGY: COURSE CODE: HEM 411: UNIT: 3

FIRST SEMESTER 2022/2023

INSTRUCTION: ANSWER ALL QUESTIONS

DATE: 2nd November 2023

TIME ALLOWED: 2 HOURS

- 1a) Describe the structure and the synthesis of the Haemoglobin molecules ✓
And
- b) Explain the process that result in the breakdown of haemoglobin ✓
molecule (20 Marks)
- 2a) Enumerate the stages of production of red blood cells from the pleural
potent stem cells.
- b) Itemize the functions of the five major classes of the leukocytes
(10 marks)
- 3a) Define an Anticoagulant
- b) Mention the three (3) types of an Anticoagulant commonly used in the
haematology Laboratory
- c) State the mode of action of each of the Anticoagulants. (20 marks)
- 4 a) Explain the 3 Red blood cell indices.
- b) The following values: Hb 12.5g/dl, PCV 40%, and Rbc 3.5million/mm³
are the results of a Patient. Calculate the three Red cell indices. Express
your answers in Absolute values. 20 marks

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$$H.C = \frac{PCV \times 100}{Hb}$$

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COLLEGE OF MEDICINE & HEALTH SCIENCES,

ABIA STATE UNIVERSITY,

UTURU

COURSE TITLE: BASIC HISTOPATHOLOGY

COURSE CODE: PTH 411. TIME: 2HRS. 1st Semester 2020/21

INSTRUCTION: ANSWER FOUR QUESTIONS

✓ Q1. a. Outline the functions of pathology museum, [b] list the basic museum techniques and [c] write briefly on colour maintenance of museum specimen.

✓ Q2. Define and classify fixative. Which one is ideal fixative for biopsy specimen and why?

✓ Discuss fixation

Q3. Write a good essay on the histological organization of the Pituitary gland. testis, GIT,

✓ Discuss decalcification

Q4. How will you prepare a slide for histological examination.

→ Read Tissue processing

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UTURU

COURSE TITLE: BASIC HISTOPATHOLOGY
COURSE CODE: PTH 411. TIME: 2HRS. 1st Semester 2018/19
INSTRUCTION: ANSWER ALL QUESTIONS

Q1. How will you prepare a slide for histological examination.

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Q4. Discuss decalcification.

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~~Mon - Point - Care - Testing - 16/10/2019~~
ABIA STATE UNIVERSITY, UTURU
FACULTY OF MEDICAL LABORATORY SCIENCE

1ST SEMESTER EXAM. 2018/2019 SESSION

COURSE TITLE : POINT OF CARE TESTING (POCT)

COURSE CODE : MLS 431

INSTRUCTION : ANSWER ALL QUESTIONS.

TIME : 2 HOURS

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1. ✓ Diagnostic tests carried out in Point-of-Care Testing are categorized into four (4) groups.

Future general
commonly used laboratory
available but not common

(a) What are these 4 categories of Tests?

(b) Enumerate the Tests involved or listed in each category.

2. ✓ Discuss the general issues raised against POCT as new Testing approach.

3. When considering quality assurance in Medical Laboratory Practice,

(a) State at least 5 of their performance goals.

(b) State the three (3) performances of the quality assurance programmes that are generally addressed in medical laboratory practice.

4. ✓ (a) What are the main purposes of HIV Testing?

(b) What are the benefits of Laboratory diagnosis of HIV?

✓ (c) State the various types of HIV Diagnostic Tests.

① What are SOP?

② Features of SOP and benefits in each one

③ Stages involved in creating SOP

④ Components of the SOPs for a specific assay

⑤ " " " " " " general assay

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⑥ Good lab results begin with proper collection and handling of specimens submitted for analysis. Discuss

⑦ Biosafety is measured as 1, 2, 3 and 4 in rising order of danger, explain.

ABIA STATE UNIVERSITY, UTURU
Department of Medical Laboratory Science
First Semester Examination
2019/2020 Session

Course Title: Point of care Testing
Course code: MLS-431
Instruction: Answer Question one (1) and any other (3) Questions

1. (a) List at least 10 common Parameters used in POCT.
(b) List at least 5 available but not commonly used parameters in POCT
(c) List at least 5 emergency parameters used in POCT
(d) List at least 5 future Parameters used in POCT
2. (a) State the main purposes (at least 3) of HIV Testing.
(b) State the four (4) types of HIV Diagnostic methods
(c) State any four (4) measures employed to decrease progression of HIV infection.
(d) State any four (4) laboratory assays for monitoring HIV patients.
3. Using Hepatitis B-surface Antigen test kit for example, State the components of the S O P
4. (a) What do you understand by the term "Good Medical Laboratory Practices"
(b) State the key components of Good Medical Laboratory practices.
5. (a) What is Bio-safety? a. i, how many categories of bio-safety principles do you know?
(b) What is Bio-security?
(c) What are the 4 major approaches involved in Biorisk Management?

- 1) What is POCT?
- 2) Reasons why POCT evolved?
- 3) List 5 synonyms for POCT
- 4) Objective of poct

- Explain the mode of HIV transmission
- state the baseline investigations
- discuss how 2 of the above affect the host immune responses and overall health
- how can disease progression be delayed

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FACULTY OF MEDICAL LABORATORY SCIENCE
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ABIA STATE UNIVERSITY
UTURU

COURSE TITLE: P O C T

COURSE CODE: M L S 431

TIME: 2 HOURS

INSTRUCTION: ANSWER QUESTION ONE (1) AND ANY OTHER THREE (3) QUESTIONS

- 1) Explain the mode of HIV transmission.
- 2) State the four (4) types of HIV diagnostic methods.
- 3) State the purposes of HIV Testing (any 5).
- 4) State the four (4) most important Laboratory Assays in HIV monitoring.
- 5) To initiate ART for an HIV client, there is the need to perform baseline tests to determine the clients immunological and haematological status as well as the state of health of the major organs of the body.
 - (i) State as much as five (5) most important baseline investigations.
 - (ii) Discuss as much as possible how two of the above named investigations affect the host immune responses and overall state of health.
 - (iii) How can disease progression be delayed?

- 6) Explain the meaning of S O P.
- 7) List the elements/features of SOP and its benefits in each case.
- 8) What are the components of specific SOPs?
- 9) What are the components of general SOPs?

Quality Laboratory results begin with proper collection and handling of the specimens submitted for analysis. Discuss.

- 10) Define Good Clinical Laboratory Practices.
- 11) Identify and explain any 5 key components of Good Clinical Laboratory Practices.
- 12) Explain the principles of Biosafety.
- 13) Biosafety is measured as 1, 2, 3, and 4, in rising order of danger. Outline these Biosafety levels.

ABIA STATE UNIVERSITY, UTURU
Department of Medical Laboratory Science
First Semester Examination
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20/11/20
ABIA STATE UNIVERSITY, UTURU
Department of Medical Laboratory Science
First Semester Examination
2019/2020 Session

Course Title: Point of care Testing
Course code: MLS-431
Instruction: Answer Question one (1) and any other (3) Questions

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~~Mon Puth Cinema 15/10/2014~~

ABIA STATE UNIVERSITY, UTURU
FACULTY OF MEDICAL LABORATORY SCIENCE

1ST SEMESTER EXAM. 2018/2019 SESSION

COURSE TITLE : POINT OF CARE TESTING (POCT)

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INSTRUCTION : ANSWER ALL QUESTIONS.

TIME : 2 HOURS

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ONE DOG
ONE BOND

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*future point of care
commonly used laboratory
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 - (a) What are these 4 categories of Tests?
 - (b) Enumerate the Tests involved or listed in each category.
2. ✓ Discuss the general issues raised against POCT as new Testing approach.
3. When considering quality assurance in Medical Laboratory Practice,
 - (a) State at least 5 of their performance goals.
 - (b) State the three (3) performances of the quality assurance programmes that are generally addressed in medical laboratory practice.
4. ✓
 - (a) What are the main purposes of HIV Testing?
 - (b) What are the benefits of Laboratory diagnosis of HIV?
 - ✓(c) State the various types of HIV Diagnostic Tests.

— Pre-analytical performance
— analytical performance
— post-analytical performance

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FACULTY OF MEDICAL LABORATORY SCIENCE
COLLEGE OF MEDICINE & HEALTH SCIENCES,
ABIA STATE UNIVERSITY,
UTURU

COURSE TITLE: BASIC IMMUNOHAEMATOLOGY
COURSE CODE: HEM 421. TIME: 2HRS. 1st Semester 2018/19
INSTRUCTION: ANSWER ALL QUESTIONS

1. List the condition that affect antigen and antibody reaction and discuss each.
2. Mention the blood groups that make up ABO blood group system and describe the formation of each.
3. State four anticoagulants commonly used in blood transfusion and their constituents and activities of each of them
4. Mention two types of antihumanglobin testing you know and describe how you will run each.

FACULTY OF MEDICAL LABORATORY SCIENCE

ABIA STATE UNIVERSITY, UTURU

FIRST SEMESTER EXAMINATION 2019/2020

COURSE CODE: PTH 411

COURSE TITLE: Basic Histopathology

INSTRUCTION: Answer all Questions

TIME: 2Hours

1. Write a good essay on histological organization of Gastrointestinal tract (GIT).
 2. Discuss Fixation
 3. Write a brilliant essay on decalcification
 4. A) List the functions of pathological Museum and basic museum techniques.

B) Write on colour maintenance of museum specimen
- Sec - 1
Museum