



**AFE
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**DEPARTMENT OF PHARMACOLOGY & TOXICOLOGY
COLLEGE OF PHARMACY**

PCO 401: CHEMOTHERAPY- ESSAY

FIRST SEMESTER EXAMINATION

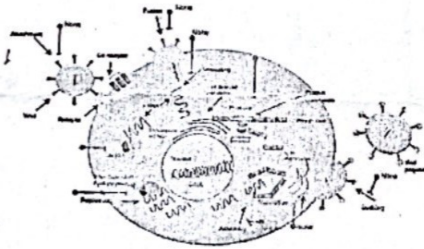
2022/2023 SESSION

**INSTRUCTION: The two questions from SECTION "A" are COMPULSORY.
Answer ONE question each from Sections "B" and "C".**

Time allowed: 2 HR

SECTION A: COMPUSORY

Question 1: Historically, viral infection has resulted in reduced quality of life and worse economic outcomes globally. Little progress has been made on antiviral drug development due to minimal understanding viral life cycle.



A. From the scheme below, briefly highlight targets for developing direct-acting antiviral agents (DAAs) for the virus below (10 mks):

B. Briefly mention the name of two named anti-virals stating the mechanism of action from the figure below (5 mk each).

SECTION B: ANSWE ONLY ONE QUESTION

Question 2. (a) A forty-year-old man was recently diagnosed with HIV and he is receiving antiviral therapy. He is also infected with pneumonia caused by *pneumocystis jiroveci*. The patient is allergic to penicillin.

- i. Recommend an effective antibiotic for treating pneumonia caused by *pneumocystis jiroveci* and state the mechanism of action and adverse effects of the antibiotic.
- ii. Outline three (3) differences between carbapenems and monobactams.

Question 3. Write short notes on cephalosporins under the following heading.

- i. Mechanism of action
- ii. Therapeutic uses
- iii. Adverse effects

SECTION C: ANSWER ONLY ONE QUESTION

Question 4; Aminoglycosides frequently are used in combination with a cell wall-active agent (β -lactam or glycopeptide) for the therapy of serious proven or suspected bacterial infections.

- (i). Explain the rationale for this approach.
- (ii). Briefly describe the two ways by which Aminoglycosides may be classified.

- Question 5**
- (i). Describe briefly how Polymyxin B and Colistin are administered.
 - (ii). Only two Polymyxins are currently in clinical use name them and what is the difference in their chemical structure.
 - (iii). Comment on the terms "Colistin" and "Colistimethate"

SECTION D: ANSWER ONLY ONE QUESTION

Question 6: Write short notes on leprosy stating its definition, causative organism, types and chemotherapy.

Question 7: (a) According to Nigeria National TBL Control Programme Guidelines describe the two phases involved in the treatment of TB and list the drugs being used in each phase.

(b) Explain the acronym DOTS

SECTION B

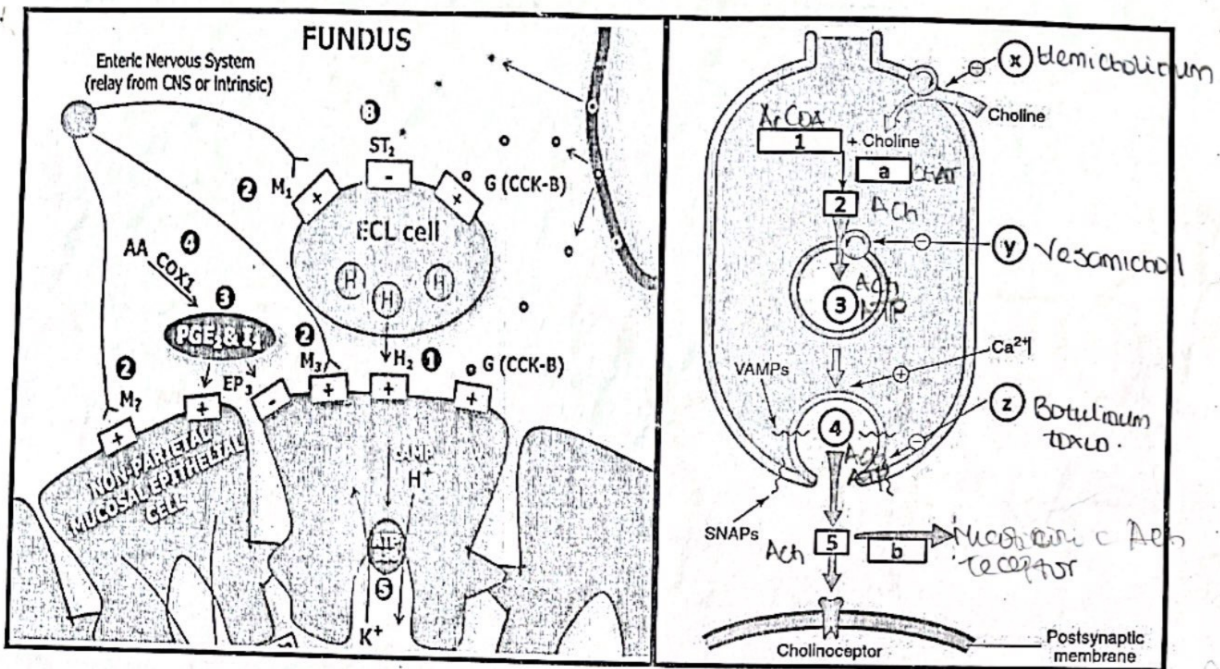


Figure I

Figure II

[Q1] Figure I above shows the neuronal, endocrine, and paracrine determinants of gastric acid secretion.

- Many portions of the physiology of gastric acid secretion are influenced by drugs, especially those used to treat diseases, mention two of such diseases (2 mks)
- Give the name of the cell and the receptor responsible for proton secretion into the stomach (2 mks)
- Mention the name of at least one drug actionable at site 1,2,3,4,5, and 8 above (12 mks). The drug classes and sites of action are denoted by numbers.
- Mention one key proton-blocking receptors that can be found in on the cell mentioned above (1 mk)
- Mention three key proton-releasing receptors that can be found in on the cell mentioned above (3 mks)

[Q2] Assume that Figure II above represents a parasympathetic nerve ending.

- What does numbers 1, 2, 3, 4, and 5 stand for in the diagram? (5 mks)
- Inhibition of important processes in the biosynthesis of Acetylcholine can be attributed to x, y, and z in the diagram above, identify x, y, and z. (3 mks)
- Identify the enzymes denoted by alphabets a and b, explaining the clinical implications of targeting b. (4 mks)
- List the subdivisions of cholinoceptors and their corresponding specific mechanism of action. (5 mks)
- List at least 3 effects of activation of parasympathetic nervous system. (3 mks)

400 LEVEL PHARM D. FIRST SEMESTER EXAMINATION 2022/2023 SESSION

COURSE: PCT 401(Physical Pharmaceutics)

DATE: Monday February 6, 2023 TIME: 9.00 am – 12.00 noon (3 hr)

Matric No.

There are three sections in this question paper, Section A (MCQ), Section B (Short Answer Questions) and Section C (Essay Questions). You are to answer the questions as specified under each section.

SECTION B (Short Answer Questions)

Instructions:

- Answer all questions in Section B in the answer booklet provided
- Answer each question on a fresh page of the answer booklet
- Each question carries 5 marks.

1. Discuss the methods used to ensure that capsules remain intact when subjected to rough handling.
2. Briefly explain the following terms:
 - a) Positive mixtures
 - b) Negative mixtures
 - c) Neutral mixtures
 - d) Perfect mix
 - e) Random mix
3. State the principles/mechanisms involve in comminution machines with examples
4. Briefly describe the physical factors that could affect the flowability of a powder bed.
5. Explain briefly the reasons for granulation in drug formulation and list all the granulation methods studied.
6. Briefly describe five (5) official tests that must be done in evaluation of Pharmaceutical tablets

LEASE TURN OVER TO PAGE 8

SECTION C (Essay Questions)

Instructions:

- Answer ANY THREE (3) QUESTIONS in Section C in the answer booklet provided
- Answer each question on a fresh page of the answer booklet
- Each question carries 12 marks.
-

1. With the aid of a sketch diagram explain the principle and working of a named pharmaceutical drying equipment. Or

Briefly explain the pharmaceutical applications of particle size reduction.

2. The true density, poured density and tapped density of a powder sample are 1.250gcm^{-3} , 0.760gcm^{-3} and 0.874gcm^{-3} , respectively.

(a). Name and calculate the flow indices that can be derived from the densities as means of indirect measurement of the powder flowability.

(b). Define the type of flow of the powder based on the calculated flow indices

(c). Itemize how the flowability of a powder can be improved.

3. As a production Pharmacist charged with formulation of acetylsalicylic acid tablets,

(a) Suggest a suitable method of granulation.

(b) State the reason (s) for your choice above.

(c) Suggest a likely production formula.

(d) Describe the chosen granulation method showing all the steps involved clearly.

4. Discuss exhaustively the determination of particle size in a powder using the sieving method under the following headings:

a) Type of particle diameter

b) Method of determination

c) Practical consideration for this method

d) Merits and demerits of this method



COLLEGE OF PHARMACY

DEPARTMENT OF PHARMACOGNOSY AND NATURAL PRODUCTS

FIRST EXAMINATION 2022/2023 SESSION

GENERAL PHYTOCHEMICAL METHODS IN DRUG ANALYSIS

UNIT: 2

COURSE: PCG 401

Level: 400

Date: 04/02/2023

Time Allowed: 3 hours

INSTRUCTIONS:

1. Answer **TEN QUESTIONS**, with at least **ONE QUESTION** from section.
2. Answer all the questions in your answer booklet
3. Write your Matriculation number in the space provided in your answer booklet

SECTION ONE

- ✓ 1. Outline WHO guidelines for the harvesting of crude drugs. (10mks)
2. (i) Outline different methods of drying medicinal plants
(ii) List the advantages of vacuum drying. (10mks)

SECTION TWO

3. (a) List five (5) major principles of extraction (5mks)
(b) Explain Microwave-assisted extraction (5mks)
- ✓ 4. (a) Give a detailed description of how Soxhlet extraction functions (5mks)
(b) State the merits and demerits of Soxhlet extraction (5mks)

SECTION THREE

5. (a) List the factors affecting the R_f value in planar chromatography (5mks)
(b) List the various types of development techniques applicable in paper chromatography (5mks)
- ✓ 6. Comment on the applications of chromatography (10mks)

SECTION FOUR

- ✓ 7. (a) State any five (5) stationary phases commonly employed in the phytochemical investigation of plant metabolites.
(b) Suggest any five (5) general spectroscopic techniques for the identification of phytochemicals from medicinal plants, stating the particular characteristic feature(s) revealed by each technique stated (10mks)

- ✓8. (a) Carbohydrate gels are particularly important in size exclusion chromatography, mention any four (4) of their advantages over other phases and one (1) major disadvantage.
- (b) State four (4) pre-isolation and enrichment methods in phytochemical analysis of plant extracts (10mks).

SECTION FIVE

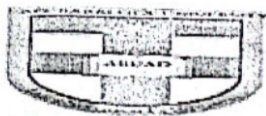
9. (a) In the analysis of natural products, what do you understand by Iodine value?
↳ (b) How do you determine Iodine value (10mks).
10. (a) As a natural product, what really is Agar
(b) What is the chemical test for Agar?
(c) Mention four (4) uses of Agar (10mks).

SECTION SIX

11. Write a short note on Quality control management (10mks).
- ✓12. List the merits of medicinal plants cultivation instead of sourcing them from wild (10mks).

SECTION SEVEN

13. In what way is HPLC a separation technique superior to column chromatography? (10mks).
- ✓14. Write short notes on the following aspects of HPLC:
- a. stationary phase b. mobile phase c. relevance in natural product drug discovery (10mks).



COLLEGE OF PHARMACY
PHARMACEUTICAL MICROBIOLOGY/BIOTECHNOLOGY DEPARTMENT
COURSE TITLE: PHARMACEUTICAL BIOTECHNOLOGY PRACTICAL
COURSE CODE: PMB 401
FIRST SEMESTER EXAMINATION FOR 2022/2023 SESSION

DATE: 10th February, 2023

TIME ALLOWED: 2 HOURS 10 MINS

SECTION C: THEORY SECTION

INSTRUCTIONS:

- I. Answer FOUR questions in this section (Question 1 and any other THREE)**
- II. Answer EACH question on a FRESH PAGE.**

1. (A) As a trainee in Biotechnology discipline, how would you explain Cutting and joining of DNA molecules. Support your answer with an appropriate diagram. **10 marks**
 - (B) a. Give a detailed structural diagram of a DNA molecule **5 marks**
 - b. State two functions each of
 - i. mRNA **3 marks**
 - ii. tRNA **25**
 - iii. rRNA **3 marks**
 - (C) a. What do you understand by the word Mutation? **4 marks**
 - b. Use diagram only to describe
 - i. Normal hemoglobin DNA **2 marks**
 - ii. Mutant hemoglobin DNA **2 marks**
 - iii. Nucleotide substitution **2 marks**
 - iv. Nucleotide deletion **2 marks**
2. (a) Explain the following terms:
 - i. Transgenic animal
 - ii. Sperm sexing **4 marks**
 - b) i. Define gene **2 marks**
 - ii. What do you understand by gene therapy **4 marks**
 - (c) List 4 types of gene therapy **2 marks**
 - (d) List any 2 methods each of physical and chemical methods of gene therapy **4 marks**
 - (e) Describe any one of the methods listed above **4 marks**

3. (a) Explain briefly how a vaccine works **3 marks**
- (b) List 5 main ingredients of a named vaccine **2.5 marks**
- c. Write short note on the following
- i. ~~Sperm Sexing~~ ^{Semen and its storage} **1.5 marks**
 - ii. Embryo Transfer **1.5 marks**
 - iii. Ovulation Control **1.5 marks**
- (d) Explain the mechanism of action of DNA vaccine **5 marks**
- (e) List 5 advantages of transgenic plants. **5 marks**
4. (a) List 5 clinically important recombinant proteins with ONE example each. **5 marks**
- (b) The production of Recombinant insulin involves a series of processes. Using a detailed pictorial representation, Explain these processes. **15 marks** 20
5. (a) State two (2) differences between monoclonal and polyclonal antibodies **2 marks**
- (b) Why is HAT medium used in the purification of monoclonal antibodies? **6 marks** 20
- (c) Explain the steps involved in the production of monoclonal antibodies **12 marks**

SECTION B: SHORT ANSWER QUESTIONS

TIME ALLOWED: 30 MINS

INSTRUCTIONS:

- a) Fill in the blanks with the **CORRECT** answers.
 - b) All questions should be answered in the answer booklet provided.
1. Biotechnology involves the use of living organisms in industrial processes particularly in (a) _____ (b) _____ and (c) _____. Its application involves genetic engineering and DNA technology to improve food supply and to produce (d) _____ and (e) _____ products and processes.
 2. In History of Biotechnology, examples the products using olden days method include (a) _____ (b) _____ (c) _____ (d) _____ and (e) _____.
 3. Restriction enzymes also called (a) _____ are bacterial proteins that act as (b) _____ against harmful foreign DNA. Restriction enzymes cannot cut their own DNA because, bacteria use a (c) _____ enzyme to add a (d) _____ to their own (e) _____ to protect it.
 4. Each restriction enzyme recognizes and cuts a unique DNA sequence. For example: EcoRI enzyme recognizes the (a) _____ base pair sequence, (b) _____ enzyme recognizes the (c) _____ base pair sequence and (d) _____ enzyme recognizes the (e) _____ base pair sequence.
 5. Restriction enzymes work best in specific conditions. At very high temperatures, enzymes (a) _____ and lose their (b) _____. The primary function of restriction enzymes is (c) _____. Each restriction enzyme recognizes a different sequence of nucleotide bases, called (d) _____. Restriction sites are short 6-8 base pair sequences that are often (e) _____.
 6. Sealing the gaps in the phosphate sugar backbone is catalyzed by (a) _____, which forms a covalent (b) _____. (c) _____ connects the free (d) _____ from one nucleotide with the phosphate group on the neighboring nucleotide, creating a new (e) _____.
 7. (a) _____ and other (b) _____ are introduced into bacteria, in a process called (c) _____. During (d) _____, specially prepared bacterial cells are given a (e) _____ that encourages them to take up foreign DNA.

First Semester Examination 2022/2023 Academic Session

Course: PCL 401: Introduction to Clinical Pharmacy Exam date: Wed, 1/2/23 Time: 9 am - 12 noon

Instructions:

- a) Write your **Matriculation Number** on all pages of your answer sheet and **Question papers**
- b) Question papers and answer sheets must be safely kept with you and should not be allowed to be copied by any person sitting near you
- c) Answer any **FOUR (4)** questions in this section
- d) All questions should be answered in the Answer Booklet provided
- e) All questions carry equal marks
- f) Endeavour to sign out before leaving the examination hall

SECTION B (ESSAY QUESTIONS, 80 MARKS)

1.
 - a) Define Clinical Pharmacy (2 marks)
 - b) Enumerate 10 areas of Clinical Pharmacy (5 marks)
 - b) State briefly the relationship between Clinical Pharmacy, Pharmaceutical care and Medicines optimization (5 marks)
 - c) Describe why it is important to optimise medicines (3 marks)
 - c) Mention 10 skills that a Clinical Pharmacist should have (5 marks) {ENO}
2.
 - a) Highlight three common mnemonics that can be used during a pharmaceutical consultation and their meanings (6 marks)
 - b) Consultation using mnemonics is not always sufficient to accommodate all patient drug needs. Thus, a pharmaceutical consultation can be considered as a series of four interlinked phases. Briefly list and explain these phases (5 marks)
 - c) Enumerate 5 behaviours a clinical pharmacist should display during pharmaceutical consultation {ENO}
3. SP is a 64-year-old patient who is admitted to hospital with tiredness, shortness of breath and ankle oedema. His blood pressure was 169/90 mmHg. She has a medical history of congestive heart failure. Her medications on admission are:
 - Spironolactone 12.5 mg daily x 1/7
 - Blood Tonic 15mls daily x 1/12
 - Losartan 2500 mg daily x 1/12
 - Metformin 500mg daily x 1/12

- a) Mention the patient outcomes that should be achieved in this patient [8 marks]
- b) Identify the medication-related problems that could be found in the patient's prescription [5 marks]
- c) As a clinical pharmacist, how would you go about solving the patient's medication-related problems [7 marks] {ENO}

4. a) List and explain 5 activities that can be carried out by a Clinical Pharmacist [10 marks]
- b) State 5 challenges of Clinical Pharmacy in the Tropics and suggest approaches on how to resolve these challenges [10 marks] {EOA}

- ✓ 5. a) What is medical terminology? [3 marks]
- b) How is medical terminology created? [3 marks]
- c) Mention 7 examples of medical terminology you know [7 marks]
- d) State 7 importance of Medical Terminology [7 marks] {EOA}

6. Mr JB, a 67-year-old retired plumber, has recently moved to your area and has come to the pharmacy to collect his first prescription. He has a medical history of hypertension. He was prescribed two medications for his hypertension:

- Amlodipine 5mg daily * 1/12
- Hydrochlorothiazide 12.5mg daily *1/12

- a) As a pharmacist, list and explain the steps you would take in attending to the patients' drug needs [8 marks]
- b) The patient has issues with remembering to take medications. He strongly believes that his ailment is as a result of a demonic attack and that medications might not help him. Also each medication costs #5000 per sachet and he needs 3 sachets per month while his salary is #20,000 per month. During his refill, he stated that the pharmacy is too far from where he is living and the medication needed was out of stock.
 - i. Do you think the patient will be adherent to his medication? [2 marks]
 - ii. Identify and classify the factors that could lead to your answer in this patient [5 marks]
 - iii. What other factors not listed in the case can contribute to the patient's state of adherence? [5 marks] {ENO}

DEPARTMENT OF PHARMACEUTICAL AND MEDICINAL CHEMISTRY
COLLEGE OF PHARMACY
AFE BABALOLA UNIVERSITY
2022/2023 Session, First Semester

PCH 401: Pharmaceutical Analysis II (PRACTICAL EXAMINATION)

TIME ALLOWED: 3 Hours

25th JANUARY, 2023

GROUP B

Matric. Number:

1. [Total: 45 marks]

- a. Weigh 4.8 – 5.0 g of sample **K** into a beaker, and show your weight in a tabular form.
- b. Add 100 mL of dichloromethane (DCM) and stir until dissolved.
- c. Pipette 25 mL of this solution into a separating funnel, add 50 mL of water (case A) and shake vigorously. Allow the solution to stand for 5 minutes. Take 10 mL of the organic layer and titrate with 0.2M NaOH using 3 drops of phenolphthalein as indicator. Show your titre values in a tabular form.
- d. Repeat step (c) above using successive extraction with:
 - i. 2 * 25 mL of water (case B) [i.e. use 25 mL of water to extract the organic layer and keep the aqueous layer, then repeat with another 25 mL of water. Combine both aqueous layers and titrate using a 10 mL portion of the pooled aqueous layer]; and
 - ii. 1 * 20 mL and 2 * 15 mL of water (case C) [i.e. use 20 mL of water to extract the organic layer and keep the aqueous layer, then repeat twice using 15 mL of water. Combine all the aqueous layers and titrate using a 10 mL portion of the pooled aqueous layer].
- e. Calculate the amount in grams of sample **K** obtained in each of the three cases.
- f. State four precautions taken.
- g. From your results, what is your deduction about the efficiency of the extraction procedure?
- h. State three relevance of the procedure in pharmaceutical analysis.

2. [Total: 15 marks]

In determining the optical rotation of a drug sample (mol. wt = 342.3 g/mol) in the laboratory using a polarimeter, a student obtained the following data.

Concentration (%w/v)	5	10	15	20	25	30	Unknown
Optical Rotation (°)	6.78	12.91	19.84	25.83	33.41	36.12	22.89

- Plot the graph of optical rotation against concentration (%w/v). 5 marks
- From your graph, determine the concentration of the unknown solution. 3 marks
- Calculate the concentration of the unknown solution in mol/dm³ 3 marks
- State Snell's law 2 marks
- State Beer-Lambert's law 1 mark
- Name one other instrument that may be used to measure a solution's absorbance 1 mark

DEPARTMENT OF PHARMACEUTICAL AND MEDICINAL CHEMISTRY
COLLEGE OF PHARMACY,
AFE BABALOLA UNIVERSITY

2022/2023 Session, First Semester Examination
PCH 401: Pharmaceutical Analysis II (Instrumental Methods)

23rd JANUARY, 20

Matric. Number:.....

.....

Time allowed: Three hours

ATTEMPT QUESTION AND ANY OTHER FOUR (4) QUESTIONS.

NOTE: Question 1 is compulsory.

Question 1.

- What are the differences between NMR-active and NMR-active nuclei? (9 marks)
- Explain how a fluorimeter works by describing the functions of its different parts. (9 marks)
- Write short note on thin layer chromatography. (9 marks)
- What do you understand by the term spectroscopic isosbestic point? (9 marks)

Question 2.

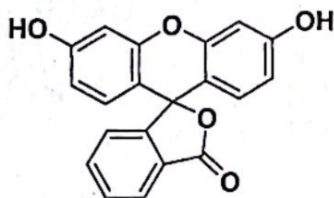
There are several analytical separation techniques that are employed in pharmaceutical setting. Discuss any one of Ion pair chromatography, HPLC, Gel filtration, Electrophoresis and Supercritical fluid chromatography discuss your selected method using the following headings:

- Operational separation principle (4 marks)
- Stationary phase (4 marks)
- Factors affecting performance (4 marks)
- Advantages and disadvantages (4 marks)

Emission
& absorbance

Question 3.

- Draw the Jablonski diagram and use it to explain the event of fluorescence. (8 marks)
- (i) What are the three properties that a molecule must possess to be capable of fluorescence?
(ii) Describe two structural features that enable fluorescein to be fluorescent.
(8 marks)



**Fluorescein
(fluorescent)**

Question 4.

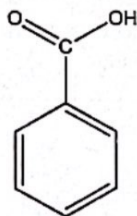
- (a) Discuss the applications, merits and limitations of chromatography. (8 marks)
 (b) Write short notes on each of the following: chromatogram, eluent, eluate and elution. (8 marks)

Question 5.

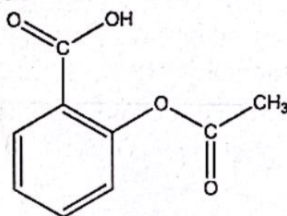
- (a) Explain the principle of polarography. (8 marks)
 (b) Briefly explain the application of polarography in qualitative analysis of pharmaceuticals. (8 marks)

Question 6.

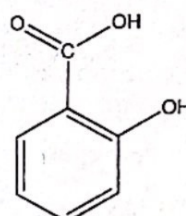
(a) The following chemical compounds are benzene derivatives with individual physicochemical properties and chemical fingerprints that make them to be absorbed differently in a spectrophotometric analysis. Benzene itself has UV-Vis absorption maxima at 255 nm. The following absorption maxima 273 nm, 276 nm, and 302 nm were obtained for benzoic acid, acetyl salicylic acid and salicylic acid, respectively. Briefly account for these observations with respect to the conditions that influence the change in wavelength and absorption intensity of molecules.



Benzoic acid



Acetyl salicylic acid



Salicylic acid

(8 marks)

(b) In the analysis of sulphathiazole by two different pharmaceutical analysts, one used a 'double-beam' spectrophotometer while the other used a 'single-beam' spectrophotometer. Which of these instruments would produce more precise, reliable and reproducible results? Give reasons for your answer. (8 marks)



AFE BABALOLA UNIVERSITY ADO-EKITI
COLLEGE OF MEDICINE & HEALTH SCIENCES
DEPARTMENT OF HUMAN ANATOMY



PATHOLOGY (PAT 401)

DATE: MONDAY 30TH JANUARY 2023

TIME ALLOWED: 150 Mins

INSTRUCTIONS: Answer Each Section in a Separate Booklet

SECTION A

ANSWER THREE QUESTIONS FROM THIS SECTION, **QUESTION 1 IS COMPULSORY**

1. State the causes of and general symptoms of infectious diseases.
(b) briefly explain the mode of contacts for infectious diseases.
2. Heart disease symptoms depend on the type of heart of heart disease, enumerate five causes and symptoms of heart arrhythmias.
(b) Enumerate and briefly explain five risk factors for heart disease
3. Human beings are subjected to a variety of metabolic diseases, as we are a complex set of structures that functions through quite a varied and intertwined metabolic processes. Most metabolic diseases have genetic basis while some are acquired in life. **Define and classify diabetes mellitus (DM).**
(b) The major organ of interest for DM is the pancreas, enumerate the five cells of the pancreas and the hormones the secret
4. Gout is an elevated level of serum uric acid and deposition of sodium urate crystals in joints and soft tissues around joints. **Briefly explain the classifications of gout and state the clinical features of Gout.**

SECTION B

ANSWER THREE QUESTIONS FROM THIS SECTION, **QUESTION 1 IS COMPULSORY**

- 1a. With the aid of appropriate diagram(s), describe the mechanistic hallmarks of cancer metastasis and comment on its pathways of spread.
- 1b. As a pharmacist, how would you tell a benign tumour from a malignant one?
- 2a. Cell injury equals tissue injury. Argue against or in favour of the statement.
- 2b. Describe the different mechanisms of cell injury.
- 3a. Inflammation is fundamentally the body's innate immune system response to cell injury with the original purpose of maintaining homeostasis. At what point is this no longer tenable? **Extensively discuss.**
- 3b. Vitamin D deficiency has been linked to the onset of different pathologies. Mention 10 other conditions linked to nutritional deficiency.
- 4a. Apoptosis is defined as programmed cell death. Elaborate on how it is different from necrosis.
- 4b. Comment on types of necrosis with examples.

GOOD LUCK!!!



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KM 3.8 AFE BABALOLA WAY, ADO-EKITI, EKITI STATE, NIGERIA
P.M.B. 1414, ADO-EKITI

**DEPARTMENT OF SOCIAL AND ADMINISTRATIVE PHARMACY
COLLEGE OF PHARMACY**

FIRST SEMESTER EXAMINATIONS 2022/2023 SESSION

Course: ICT 401 PRACTICAL

Level: 400

Time Allowed: THREE HOURS

Course Title: Information Communication Technology in Pharmacy II

Date: Friday, 27th January, 2023

INSTRUCTIONS:

1. Attempt **TWO** questions.
2. Your answers which should be in soft copy should be submitted in the provided flash drive and to the email address provided: ola-olorunoj@abuad.edu.ng.

QUESTION 1

1. Create a new folder on the desktop named **MyMatricNo_InitialsSurname**. E.g., If my matric Number is 11/MHS23/456 and my name is Peter James ADEGUN, I will save my folder with the name: **11_MSH23_456_PJAdegun**.
2. Open the folder because you are going to save your works in it.
3. Inside the folder, create an MS Word file named **MyMatricNo_WORD_MyInitialsSurname**.
4. Perform the following tasks:
5. Type the material below (captioned: **PERCEPTION OF COMMUNITY PHARMACISTS ABOUT E-PHARMACY**) using
 - a. font type "Times New Roman",
 - b. font size 12,
 - c. normal margin,
 - d. portrait orientation,
 - e. size A4,

- f. justified paragraph
- g. double spacing
- h. font colour blue and boldened character for the topmost and chapter headings only
- i. Insert watermark in the middle having your file name
- j. Set the Proofing Language to US English
- k. Use the spelling check to current your spellings.
- l. Insert your passport photograph at the last page.
- m. Be sure to save and close your work.

PERCEPTION OF COMMUNITY PHARMACISTS ABOUT E-PHARMACY

TABLE OF CONTENT

	Page
CHAPTER ONE: INTRODUCTION AND LITERATURE REVIEW	1
1.1 Introduction	1
1.1.1 Background to the study	1
1.1.2 Justification for the study	3
1.1.3 Statement of the Problem	3
1.1.4 Objectives of the study	4
1.1.5 Contribution to knowledge	4
1.1.6 Scope and delimitation of the study	4
1.2 Literature Review	4
1.2.1 The concept of e-pharmacy	4
1.2.1.1 History of e-pharmacy	6
1.2.1.2 Models of e-pharmacy	8
1.2.1.3 Classification of online pharmacies	8
1.2.1.4 Benefits and risks of e-pharmacy in community pharmacy practice	10
1.2.2 Knowledge of community pharmacists about e-pharmacy	14
1.2.2.1 The structure of e-pharmacy in the context of community pharmacy practice	14
1.2.2.2 The e-pharmacy process	15
1.2.2.3 The e-pharmacy outcome	15
1.2.2.4 Website quality standards and trust features	16
1.2.2.4a. Conventional signals	19
1.2.2.4b. Assessment signals	19
1.2.3 Attitude of community pharmacists to e-pharmacy	22
1.2.4 Factors influencing adoption of e-pharmacy among community pharmacists	24
1.2.5 Operational definition of terms	28
CHAPTER TWO: METHODS	30
2.1 Study Setting	30

2.2	Research Design	
2.3	Study Population and Sampling	30
2.3.1	Population of the study	30
2.3.1.1	Inclusion-exclusion criteria	30
2.3.2	Sampling frame	30
2.3.3	Sampling size calculation	30
2.3.4	Sampling method	30
2.4	Research Instrument	31
2.4.1	Questionnaire design	31
2.4.2	Validation of instrument	31
2.4.2.1	Internal validity of instrument	32
2.4.2.2	Reliability of instrument	32
2.4.3	Observation of community pharmacies' websites	32
2.5	Data Sources	32
2.6	Ethical Approval	33
2.7	Methods of Data Collection	33
2.7.1	Data collection with questionnaire	33
2.7.2	Observation of community pharmacies' websites	33
2.8	Method of Data Analysis	33

CHAPTER THREE: RESULTS

3.1	Response analysis	35
3.2	Respondents' demographics	35
3.3	Knowledge of e-pharmacy among the community pharmacists	43
3.4	Community pharmacists' attitude to e-pharmacy	43
3.5	Factors influencing adoption of e-pharmacy	47
3.6	Community pharmacies' websites	49

CHAPTER FOUR: DISCUSSION

4.1	Pattern of response	51
4.2	Demographic profile of respondents	51
4.3	Knowledge of e-pharmacy among the community pharmacists	52
4.4	Community pharmacists' attitude to e-pharmacy	52
4.5	Factors determining possible adoption of e-pharmacy	53
4.6	Limitations of the study	53

CHAPTER FIVE: CONCLUSION AND RECOMMENDATIONS

5.1	Conclusion	55
5.2	Recommendations	55
5.2.1	Suggestions for further studies	55

REFERENCES

56

APPENDICES

64

ABSTRACT

Objectives

The study aimed to investigate the perception of community pharmacists about e-pharmacy in Osun State, Nigeria. The specific objectives were to determine the level of knowledge of e-

pharmacy among community pharmacists in Osun State, examine the attitude of the community pharmacists to e-pharmacy and identify the factors influencing their perception about e-pharmacy.

Methods

The study was a cross-sectional descriptive survey of community pharmacists. Primary data were obtained using a set of a pre-tested and validated semi-structured questionnaire consisting of three main sections in line with the study objectives. This was randomly administered to 82 community pharmacists. Descriptive and inferential statistics were employed in analysing the collected data at 5% level of significance with the aid of computer statistical package for social sciences (SPSS), Version 21.0.

Results

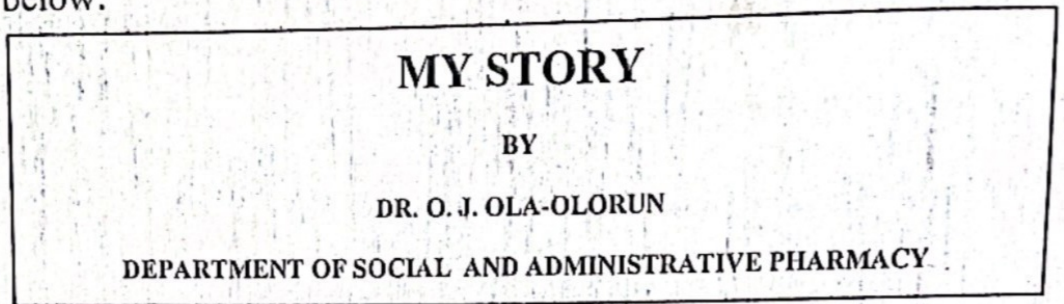
The results showed that a significant number (62.45%) of the respondents possessed knowledge of e-pharmacy and their attitude to e-pharmacy was positive (MWA = 3.09). Organisational factors, comprising business size, competitive strength and financial strength of the community pharmacy, were the only significant ($p < .05$) set of factors determining the perception of the community pharmacists about e-pharmacy.

Conclusion

Community pharmacists in Osun state possessed a fair knowledge of e-pharmacy and a positive attitude to the technology. With the possibility of adoption of this technology in community practice, regulatory agencies need to ensure up-to-date policy and legislation addressing its implementation while professional associations should organise training sessions such as seminars, workshops and conferences to educate community pharmacists more about e-pharmacy.

1. Inside the same folder that you used for the Word processing file, create a new MS PowerPoint file named **MyMatricNo_MSPowerPoint_MyInitialsSurname**.
2. **Follow the instruction below to create a presentation.**
 - n. Start Microsoft Office PowerPoint
 - o. Pick the Title and Content layout for all the slides
 - p. Use font type Calibri (Headings) for titles and Calibri (body) for the content
 - q. Use font size 40 for headings and 28 for the content
 - r. Use portrait orientation
 - s. Use font colour blue and boldened character for the title slide and for the title of other slides only.
 - t. Tell your story titled **"MY STORY"** (on the title slide) in seven to twenty slides covering the following sections on one or more slides:
 - i. My Birth
 - ii. My Early Childhood
 - iii. My Elementary School
 - iv. My High School
 - v. My fortune so far at Afe Babalola University
 - vi. What I expect to make out
 - vii. Conclusion
 - u. Use the seven sections named above as your Title text in Italics.
 - v. Set the Language to US English
 - w. Use the spelling check to current your spellings.
 - x. Be sure to save and close your work.

- y. On the title slide, write “MY STORY” “BY” “Your Name” and “Matriculation number” as below:



- i. Use font size 72 for “MY STORY” (Headings) and 60 for the remaining (the content)
- z. Use the “Organic” Design Theme

QUESTION 3

1. Load the data in the **Excel file** into your **SPSS data editor file**
2. Load the **“variables”** and the **“variable labels”** too
3. Assume that both 9 and 99 are used for missing values in the coding of the data
4. Adjust the **“decimals”** to zero
5. Align the data to the centre
6. Use the questionnaire supplied to enter the **“measure”** values
 - i. Generate the data file information for the data
 - ii. Generate the **“frequencies”** for the data including
 - a. **under the central tendency pane**; mean, median and mode; and
 - b. **under the dispersion pane**; minimum, maximum, range only.
 - c. Generate the bar charts as well.
 - iii. From your results in the **“frequencies”** table, what is the **median age range** of the respondents
 - iv. From the generated bar charts, what is the **modal part (level)** of the students

Find the questionnaire for the SPSS data on the next page.

Questionnaire for SPSS Data

DEPARTMENT OF SOCIAL AND ADMINISTRATIVE PHARMACY

COLLEGE OF PHARMACY

Dear Respondent,

This instrument is designed to assess digital literacy among undergraduate students of Faculty of Pharmacy. Kindly respond to all items in each of the sections. We recognise that people's opinions or perceptions vary and so there is no right or wrong response. Your appropriate response will be of use in the research effort aimed at improving the use of Information and Communication Technology (ICT) for academic purposes. Be assured that your response will be treated with strict confidentiality.

Thank you.

SECTION A: Demographic data

Please tick (✓) the appropriate column.

1. Name or any other form of identification: **NOT REQUIRED**

2. Faculty: _____

3. Course of Study: _____

4. Level/Part: _____

5. Gender: Male () Female ()

6. Age: Less than 16 () 16-20 () 21-25 () 26-30 () 31-35 () 36-40 () Above 40 ()

7. Marital status: Single () Married () Separated () Divorced () Widowed ()

SECTION B: The Types of Mobile Devices used by students

Please tick (✓) the appropriate column

Do you own a mobile device? Yes () No ()

Please fill the table below:

S/N	Mobile Device Possessed	Yes	No
1	Android		
2	IPhone		

S/N	Mobile Device Possessed		
		Yes	No
3	Android tablet		
4	IPad		
5	Kindle		
6	Computer		
7	Windows phone		
8	Windows tablet		

SECTION C1: How students use mobile technologies (devices and applications)

Rank what you use your mobile device(s) for in the order of priority, employing '1' for what you mostly use it for, '2' for the next, up to '5' for the least purpose: -

- i. Listening to music _____
- ii. Watching videos _____
- iii. Playing games _____
- iv. Academic purposes _____
- v. Communications (such as telephoning, messaging, chatting etc.) _____

SECTION C2: How frequently do you use the following for academic purposes?

Please tick (✓) the appropriate column

Nev = Never, Rar = Rarely (once in several months), Som = Sometimes (once a month), Oft = Often (once a week) and Alw = Always (day to day).						
S/N	Item	Nev	Rar	Som	Oft	Alw
1	Camera (to take academic-work-related pictures)					
2	Voice recorder (for academic-work-related recordings)					
3	WPS Office					
4	Microsoft Office					
5	Adobe reader					
6	Instagram					
7	YouTube					

Nev = Never, **Rar** = Rarely (once in several months), **Som** = Sometimes (once a month),
Oft = Often (once a week) and **Alw** = Always (day to day).

S/N	Item	Nev	Rar	Som	Oft	Alw
8	Blogs					
9	Facebook					
10	WhatsApp					
11	Wikipedia					
12	Blackberry Messenger					
13	Skype					
14	Twitter					
15	Pinterest					
16	Google (information searching)					
17	Bing					
18	Yahoo					
19	Simulations and educational games					
20	Strictly speaking, I consider my use of mobile technologies for academic purposes as					

Thank you for your kind attention.

SECTION B (20 marks): Answer only one question from this section.

1. (a) Provide four examples of the application of ICT in Pharmacy Education.
(b) Explain briefly with two examples what you understand by the term Learning Management System (LMS)?
(b) Outline four ways in which ICT can enable continuity of pharmacy education during a crisis such as Covid-19 pandemic?

(20 marks)
2. (a) List four functions of the hospital pharmacy management system (HPPMS)?
(b) The hospital pharmacy management system (HPMS) is divided into two main parts. Name these parts.
(c) Mention four kinds of records/functions which the community pharmacy management system (CPMS) manage.

(20marks)

SECTION C (20 marks): Compulsory

3. Assume you have had five (5) years' experience of being a Drug Information Pharmacist in the Drug Information Centre of the College of Pharmacy, Afe Babalola University, Ado-Ekiti (ABUAD).

Provide answers to the following questions being asked by an intern pharmacist who has just been posted to your unit for training (for a period of two weeks).

- i. How is Drug Information Service different from Drug Information Services?
- ii. What are the sources of information (with one example each) in a Drug Information Centre?
- iii. What are your competencies as a Drug Information Pharmacist?
- iv. How do you support the Formulary System Committee of ABUAD Multisystem Hospital as a Drug Information Pharmacist?
- v. How do you assess the quality of the Drug Information Service?

SECTION C: Attempt only THREE questions from this section (60 marks).

- ✓ 1. (a) Discuss briefly the commencement and the establishment of the Pharmacy Council of Nigeria (PCN) Act No. 31 of 2022.
(b) What is the composition of the Pharmacy Council of Nigeria?
(c) If there were twenty-seven accredited Faculties/Colleges of Pharmacy in Nigeria, what would be the number of the Council members. 91
25 (20marks)
- ✓ 2. (a) Where a substance included in Part 1 of the First Schedule is supplied, a record is required to be kept on the premises of the supply; what particulars of the transaction are to be kept for record purposes, and
(b) For how long?
(c) Make a sketch of the Form B set out in the Third Schedule to the Poisons and Pharmacy Act (PPA)
(20marks)
- ✓ 3. (a) What are the goals of the Nigeria National Drug Policy?
(b) List SEVEN of the strategies for the Nigeria National Drug Policy.
(20marks)
4. Assume you are a member of the Essential Drug List Formulary Committee of Afe Babalola University, Ado-Ekiti Multi-System Hospital (AMSH). Also, you have been nominated to represent the institution as a member of the National Drug Formulary/Essential Drug List (NDF/EDL) Review Committee (the need arises because the present EDL in use in Nigeria has been found to be outdated). Your expertise, and impact, in ensuring that the AMSH Essential Drug List is up-to-date and useful made the institution nominated you (in honouring the request of the President of Nigeria, through the Minister of Health, to have a member of the NDF/EDL to be from AMSH).
During the inaugural meeting of the NDF/EDL Review Committee, the Chairman of the Committee seek your input and need you to provide answer to the following:
a. Explain how you came up with the selection of a useful and up-to-date Essential Drug List in AMSH?
b. How has your Essential Drug List been useful in AMSH?
c. Has rational use of medicine (based on the recommended drugs in the Essential Drug List) being followed in AMSH and how?
d. Come up with a brief list of drugs that you would suggest should be included with reason
(20marks)
5. As the Superintendent Pharmacist of a well-known community pharmacy in Ado-Ekiti, the pharmacy assistants in your community pharmacy had just pointed your attention to an ethical dilemma.
The most expensive brand of Amoxicillin-Clavulanic acid tablets (selling price of a pack of 2x7 is #6,000) in your premises will be expiring at the end of the month (barely four weeks remaining to expiration). You have ten (10) packs remaining in stock (meaning a potential huge loss if they expire). Three (3) patients were directed to your premises from Afe Babalola University Ado-Ekiti Multi-System Hospital (AMSH) to get their prescriptions (containing the exact brand of the Amoxicillin-Clavulanic acid tablets that will be expiring soon in your pharmacy) filled. They were

directed to your pharmacy because the drug is out of stock in AMSH pharmacy and the Head of Department of AMSH pharmacy thought you will have the drug.

- a. Identify the ethical dilemma in this scenario.
- b. Briefly explain the basic ethical principles you would employ in solving this ethical dilemma.
- c. Using these basic ethical principles, how would you solve this ethical dilemma?
- d. From your experience over the years, explain the forms in which ethical dilemma comes in business.

(20marks)

SECTION B: Attempt ALL questions from this section in the provided answer booklet.

(20 marks)

1. List the steps of risk management.
2. Identify two known risks in a pharmacy premises.
3. The word 'article' in the Food and Drugs Act consists of some items. List them.
4. Which agency regulates the manufacture, sales and advertisement of the article in the FDA Act (write the name in full)?
5. List two United Nations Sustainable Development Goals that you know.
6. List two international drug control conventions of the United Nations Commission on Narcotic Drugs.
7. What is the full meaning of NDLEA?
8. Give one reason for the establishment of NESREA?
9. Aside your institution, list two other universities offering pharmacy degree in Nigeria.
10. List two categories of membership of Pharmaceutical Society of Nigeria (PSN) that you know.
11. Give four (4) of the attributes of the eight-star pharmacist.
12. Which month and year did Pharmacy Council of Nigeria Act commence?
13. Who appoints the Chairman of PCN and how many years post-registration experience is required to be appointed as the Chairman?
14. Briefly state, in one sentence, the mandate of the United Nations Commission on Narcotics Drugs.
15. List two periods of the history of pharmacy profession.
16. List two notable pioneers of pharmacy profession in Nigeria.
17. Give two objectives of Federal Competition and Consumer Protection (FCCP) Act.
18. List two rights of consumers in the FCCP Act.
19. List two of the conditions that will make an invention patentable:
 - i. _____
 - ii. _____
20. Briefly explain patents infringement:

