

SPECIALTY: ULTRASONOGRAPHY (ULS)

PAPER: CASE STUDY

Credit Value: 14

Objective/s of the paper: To assess student's knowledge on the Sonographic approach in evaluating clinical cases involving various organs of the body Nature of the Exam:

written Format of the Exam:

Exam Paper	Option	Different sections of the paper	Duration per section	Mark allocated	Percentage
Case Study	ULS	Section A: cases in abdomino-pelvic ultrasound	60 minutes	20	20
		Section B: cases in obstetric ultrasound	60 minutes	20	20
		Section C: cases in cardiovascular ultrasound	60 minutes	20	20
		Section D: cases in small parts ultrasound	60 minutes	20	20
		Section E: cases in musculoskeletal and pediatrics ultrasound	60 minutes	20	20
TOTAL MARK				100	100

Contents of the paper:

- ☐ Sonographic evaluation of clinical cases involving abdomino-pelvic organs
- ☐ Sonographic evaluation of clinical cases involving fetal development
- ☐ Sonographic evaluation of clinical cases involving the heart and its associated structures
- ☐ Sonographic evaluation of clinical cases involving either the eyes, thyroid, breast, or scrotum
- ☐ Sonographic evaluation of clinical cases involving the muscles and pediatrics organs

PAPER: CARDIOVASCULAR ULTRASOUND

Credit Value: 4

Objective/s of the paper: To assess student's knowledge and understanding on the echographic/electrographic imaging of the heart and its associated structures Nature of the Exam: Written Format of the Exam:

Exam Paper	Option	Different sections of the paper	Duration per section	Mark allocated	Percentage
Cardiovascular Ultrasound	ULS	Multiple Choice Questions	30 minutes	30	30
		Structural Questions	60 minutes	30	30
		Long Essay Questions	90 minutes	40	40
TOTAL MARK				100	100

Contents of the paper:

- ☐ Anatomy of the heart and its associated structures
- ☐ Electrophysiology of the heart
- ☐ Echo/ECG Imaging of the heart and its associated structure
- ☐ Echographic evaluation of Cardiovascular diseases
- ☐ Electrographic evaluation of Cardiovascular diseases

PAPER: ABDOMINAL ULTRASOUND

Credit Value: 3

Objective/s of the paper: To assess student's knowledge on the techniques and procedures for evaluating Abdominal organs with real-time 2-D and Doppler imaging,

Nature of the Exam: Written

Format of the Exam:

Exam Paper	Option	Different sections of the paper	Duration per section	Mark allocated	Percentage
Abdominal Ultrasound	ULS	Multiple Choice Questions	30 minutes	30	30
		Structural Questions	60 minutes	30	30
		Long Essay Questions	90 minutes	40	40
TOTAL MARK				100	100

Contents of the paper:

- ☐ Anatomy of major abdominal organs
- ☐ Physiology and pathophysiology of major abdominal organs
- ☐ sonographic Imaging and Interpretation of various abdominal organs
- ☐ sonographic evaluation of pathologies affecting major abdominal organs

PAPER: OBSTETRIC AND GYNEACOLOGICAL ULTRASOUND

Credit Value: 3

Objective/s of the paper: To assess student's knowledge, techniques and procedures for evaluating the female pelvis and the developing fetus with real-time 2-D and Doppler imaging
Nature of the Exam: WRITTEN Format of the Exam:

Exam Paper	Option	Different sections of the paper	Duration per section	Mark allocated	Percentage
Obstetric and Gyneacological Ultrasound	ULS	Multiple Choice Questions	30 minutes	30	30
		Structural Questions	60 minutes	30	30
		Long Essay Questions	90 minutes	40	40
TOTAL MARK				100	100

Contents of the paper:

- ☐ Anatomy of the female pelvic organs and structures
- ☐ Physiology and pathophysiology of the female pelvic organs
- ☐ First, second and third trimester anatomy and associated structures
- ☐ sonographic Imaging and interpretation of gyneacological/obstetrics anatomy
- ☐ sonographic evaluation of gyneacological and obstetrics pathologies

PAPER: ULTRASOUND PHYSICS AND INSTRUMENTATION

Credit Value: 7

Objective/s of the paper: To assess student's knowledge and understanding on fundamental principles of acoustic physics

Nature of the Exam: WRITTEN Format
of the Exam:

Exam Paper	Option	Different sections of the paper	Duration	Mark	Percentage
Ultrasound Physics and Instrumentation	ULS	Multiple Choice Questions	30 minutes	30	30
		Structural Questions	60 minutes	30	30
		Long Essay Questions	90 minutes	40	40
TOTAL MARK				100	100

Content of the paper:

- ☐ Nature of Sound and its Interaction with Soft Tissue
- ☐ Real-time scanning with Sonographic Image Interpretation
- ☐ Pulse Echo Imaging
- ☐ Transducers & Beam Geometry
- ☐ Imaging System Components and artifacts
- ☐ Hemodynamics and doppler imaging

PAPER: SMALL PARTS ULTRASOUND

Credit Value: 4

Objective/s of the paper: To assess student's knowledge, techniques and procedures involve in Small Parts sonography. Nature of the Exam: written Format of the Exam:

Exam Paper	Option	Different sections	Duration per section	Mark allocated	Percentage
Small Parts Ultrasound	ULS	Multiple Choice Questions	30 minutes	30	30
		Structural Questions	30 minutes	30	30
		Long Essay Questions	60 minutes	40	40
TOTAL MARK				100	100

Contents of the paper:

- ☐ Anatomy of the male pelvic, eye, breast, thyroid and parathyroid
- ☐ Physiology and pathophysiology of the male pelvic, eye, breast, thyroid and parathyroid
- ☐ sonographic Imaging and Interpretation of the male pelvic, eye, breast, thyroid and parathyroid
- ☐ sonographic evaluation of pathologies affecting male pelvic, eye, breast, thyroid and parathyroid

COMMON PAPERS: Domain Health

PAPER: PUBLIC HEALTH (NUS, MLS, PHT, DTH, MID, NUD, HCM, ULS)

Objective/s of the Paper: Student is expected to be able to explain basic notions use in public health and be able to apply strategies in disease prevention and health promotion Nature of the Exam Paper: Written

Format of the exam

Exam paper	Option	Different sections	Duration per section	Mark	(%)
Public health	NUS, MLS, PHT, DTH, MID, NUD, HCM, ULS	Section A: MCQ	45 mins	25	25
		Section B: Structural Questions	45 mins	25	25
		Section C: Essay	1.5 hours	50	50
Mark total				100	100

Content

- ➡ Epidemiology, demography, environmental health and health promotion (30%)
- ➡ Communication for behavior change, community health and health and development (30%)
- ➡ Health economics, hospital management and Health Information System (10%)
- ➡ School and occupational health (10%)
- ➡ Infectious and parasitic diseases (10%)

PAPER: PUBLIC HEALTH (NUS, MLS, PHT, DTH, MID, NUD, HCM, ULS)

Credit Value: 6

Objective/s of the paper: To assess knowledge and understanding of students of public health

Nature of the Exam: Written Format of the Exam:

Exam Paper	Option	Different sections of the paper	Duration per section	Mark allocated	Percentage
PUBLIC HEALTH	NUS, MLS, PHT, DTH, MID, NUD, HCM, ULS	SECTION A : MCQ	60min	30	30%
		SECTION B:SHORT AWNERS	30min	20	20%
		SECTION C:SHORT ESSAY	30min	20	20%
		SECTION D:LONG ESSAY	60min	30	30%
TOTAL MARK				100	

Contents of the different sections of the paper:

HEALTH ECONOMICS

- Basic concepts in health economics: - The offer; - The request; - The financing of the health.
- Concept of the market in health - The supply of care; - Request of care; - Financing of care.
- The funding to health - Social protection; - Pooling of the financing of the Health;
- Financing of Health in Cameroon - Community funding (CNPS, mutual health and system put in place by the state for public servants); - Non-Community funding (budget of the ministries concerned, public health and other...); - Bilateral and multilateral cooperation (NGOS, other donors ...).
- The Health Planning
- Health system and their assessment - Effectiveness; - Efficiency; - Cost; - Effectiveness/efficiency; - Cost / efficiency

HEALTH INFORMATION SYSTEM

- Definition and goals.
- Statistical elements: units, populations, samples.
- Statistical sources; statistical calculations.
- The Health Information Process.
- Data collection, collection media, forwarding, treatment.
- Analysis and interpretation; feedback and decision taking.
- Computerization of Health information
- Role of health information in health care management

COMMUNITY AND PREVENTIVE DENTISTRY

- Concept of preventive dentistry
- Dental caries and periodontal disease.

- Oral health education and promotion, Smokeless tobacco
- Plaque, calculus and dental stains
- Plaque removal, diet and dental health, fluorides, and pit and fissure sealants.
- Clinical preventive procedures: oral hygiene instruction, diet education, topical fluorides, sealants.
- Public speaking

HEALTH MANAGEMENT

- The Cameroon Health organization
- Missions of health units in the National territory: Health centers, district hospitals, Central hospitals, University teaching hospitals, private, lay, and denominational hospitals and clinics,
 - Free medical practice
- Stakes of the health sector strategy
- Relationship with health, national and international poverty-control organizations (other ministries, donors, international organizations, NGOs, associations), - Organization of public and private health units.
- Legislation applying to health units,
- Economic and financial management
- Management of personnel, staff planning, and in service training,

HEALTH CARE MANAGEMENT

- To define management and trace its historical perspectives (know Donabedian and Demian)
- To learn about the health management cycle
- To learn the different stages of the management cycle i.e. planning, implementation, monitoring and evaluation, re-defining objectives, assessment of the problems.
- To learn about types of planning methods emphasis on: Strategic planning, Open systems planning, Mixed planning, Incremental planning.
- To learn about the advantages and disadvantages of planning.
- To learn about types of evaluation.
- To do special examples of health management e.g Drug management, health systems management etc.

ADMINISTRATION

Content: - Definition - Characteristics of an administrative document. - Administrative letter writing - Administrative documents - Public and private administrative letter writing - Pay voucher, labor contract.

EPIDEMIOLOGY, PROPHYLAXIS AND IMMUNIZATION

- Definition: Incidence, prevalence, morbidity, lethality, contagiousness, attack rate, warning threshold, primary and secondary warning.
- Epidemiological tripod - Epidemics, endemo epidemics, pandemics, demographic notions.
- Prophylaxis - Definition, prophylactic measures, systemic reporting, early screening, isolation, quarantine, rat extermination, desensitization, mollusc control. - Disposal of waste water and

human and animal refuse. - Physical, chemical, and radioactive pollution control; chemoprophylaxis.

-Immunization - Definition, classification

STRUCTURE, FUNCTION AND MAINTENANCE OF EQUIPMENTS

- The chair, function and accessories,
- Aspirating block and suction machine, foot control.
- Air compressor and the use of compressed air dentistry - Principles and operation of the dental unit - The Air vacuum system in dentistry.
- Dental Hand pieces and the air/water syringe.
- Fibre Optic Lights - Operation of auxiliary equipment including X-ray unit chemicals
- Weekly maintenance - Ordering of replacement instruments, supplies and equipment. - Packing of equipment

PAPER: BASIC SCIENCES (NUS, MLS, PHT, PHY, NUD, OPT)

Objective/s of the Paper: Student is expected to be able to demonstrate an understanding of the various concepts in the basic sciences Nature of the Exam Paper: Written

Format of the exam

Exam paper	Option	Different sections of the paper	Duration per section	Mark allocated	Percentage (%)
Basic sciences	NUS, MLS, PHT, PHY, NUD, OPT	Section A: MCQ	1.5 hours	50	50
		Section B: Structural Questions	1 hours	30	30
		Section C: Essay	30 mins	20	20
Mark total				100	100

Content

- ➡ Anatomy and physiology (40%)
- ➡ General pharmacology (20%)
- ➡ Nutrition (20%)
- ➡ Biochemistry (10%)
- ➡ Laboratory techniques (10%)

PAPER: MEDICAL LAW AND CITIZENSHIP EDUCATION (NUS, MLS, PHT, MIT, DTH, PHY, MID, NUD, HCM, ULS, OPT)

Objective/s of the paper: To assess students' knowledge on the understanding of medical law and ethics

Nature of the Exam: Written

Format of the Exam:

Exam Paper	Option	Different sections of the paper	Duration per section	Mark allocated	Percentage
MEDICAL LAW AND CITIZENSHIP EDUCATION	NUS, MLS, MIT, PHT, DTH, PHY, MID, NUD, HCM, ULS, OPT	Medical law	60mins	50	50
		Civics and ethics	60mins	50	50
TOTAL MARK				100	100

Contents of the different sections of the paper:

Presentation of concepts:

The citizen;

The Nation;

The State;

Publics Property and collective's goods;

The freedoms;

The public service;

Ethics;

Ethics, Law and reason;

Ethical Problem ;

Ethics and management.

Civics

Deontology

Moral consciousness

The universal declaration of Human Rights

Good governance in public services

The importance of civics to the life of the nation

Functions of the state and its citizens

Deontology, Professional ethics and professionalism

Relationship between morality, law and ethics

Codes of ethics