

# HEALTH EDUCATION

- **PREAMBLE**

This examination syllabus is drawn from the Senior School Health Education curriculum and directed towards empowering students to have correct, adequate and timely information that will make them acquire attitude and practices which will restore, maintain and promote positive health.

Since Health Education is skill-based and involves knowledge, belief, attitude and practices, evidence of involvement in practical work will be determined through practical test. It is therefore, essential that the examination syllabus is used in conjunction with the Teaching curriculum.

- **OBJECTIVES**

This examination syllabus is designed to assess the extent to which candidates have been able to:

- acquire basic knowledge of the human body and necessary skills for maintenance of health;
- acquire positive health practices in the school and community;
- identify and show the ecological relationship between man and his environment as a basis for preventing diseases;
- make observations and draw inferences from practical experiences that may have implications for health;
- develop readiness necessary for professional training in health related careers.

### **3. SCHEME OF EXAMINATION**

There will be three papers – Papers 1, 2, and 3, all of which must be taken. Papers 1 and 2 will be a composite paper to be taken at one sitting.

**PAPER 1** - Will consist of fifty multiple choice objective questions, all of which must be taken in 1 hour for 50 marks.

**PAPER 2** - Will consist of two sections, Sections A and B.

Section A will consist of six short-structured questions, all of which must be answered for 30 marks.

Section B will consist of three essay questions out of which candidates will be required to answer two questions for 40 marks. The paper will last 1 hour.

**PAPER 3** - Will be a practical test for school candidates and an alternative test of practical work for private candidates. The paper will last for 1¼ hours and carry 80 marks.

## DETAILED SYLLABUS

CONTENTS	NOTES
<ul style="list-style-type: none"><li>● <u>HISTORY AND DEVELOPMENT OF HEALTH EDUCATION</u></li> <li>● Meaning and setting for health Education.</li> <li>● Meaning</li><li>● Setting:<ul style="list-style-type: none"><li>● home-based;</li><li>● school-based;</li><li>● community-based;</li><li>● health facility-based;</li><li>● work place-based.</li></ul></li> <li>● Meaning of health promotion.</li> <li>● <u>HUMAN ANATOMY AND PHYSIOLOGY</u></li> <li>● Cells and tissues of Human Body.</li> <li>● Types of cell:<ul style="list-style-type: none"><li>● somatic cells;</li><li>● sex cells.</li></ul></li> <li>● Cell division:</li></ul>	

- Mitosis;
- (ii) Meiosis
- Cell differentiation:
  - Formation of tissues,  
Organs and Systems.

### **CONTENTS**

- Growth and development
- Sense Organs
- Structure and functions of the following  
sense organs:
  - eye;
  - ear;
  - skin;
  - nose;
  - tongue.
- Systems of the Body
  - Skeletal system and muscles
  - The general plan of the axial and appendicular skeleton.

Students should visit to observe community, health facility and work place base, health education programmes and services.

Structure of a typical animal cell and functions of its parts should be discussed.

Differences between mitosis and meiosis should be emphasized.

Mention should be made of epithelial, connective and muscular tissue, an organ and a system should be explained.

### **NOTES**

- Functions of the skeletal system.

- Joints: Structures and types.

- Structures and types of muscles  
tissues.

- Movement.

- Circulatory System

- Structure and functions.

## CONTENTS

- Heart

- Blood and lymph vessels

- Composition of blood and lymph

- Differences between growth and development should be emphasized.

- Factors that affect growth and development should be discussed.

Accommodation should be discussed.

Process of hearing and balancing should be discussed

A chart/model of a human skeleton should be examined.

Types of bones that make up the mammalian skeleton should be identified.

- Emphasis should be on synovial joint.
- Location of the different types of joint should be identified.
- Specific examples should be used to illustrate the classes of levers.

The three different types of muscles should be discussed in relation to their functions.

Reference should be made to origin and insertion of muscles in relation to movement.

## NOTES

Candidates should examine the heart of a dissected mammal.

● (I) Blood and lymph  
circulation

- Process of blood clotting
- Blood groups, rhesus factors hemoglobin, genotype.
- Diseases disorder of the circulatory system and their causes; sickle cell anaemia, leukaemia, haemophilia arteriosclerosis, hypertension, coronary thrombosis and stroke.

(c) Digestive system

- Organs of the digestive system and their functions.
- Process of digestion

**CONTENTS**

- Absorption, assimilation and metabolism.
- Diseases/disorders of the digestive system and their prevention.

Pulse rate should be counted. The web of a toad/frog should be examined with a hand lens to observe the capillaries. The importance of lymph nodes should be mentioned.

Prepared slides of blood should be observed under microscope.  
Pulmonary and systemic circulation should be emphasized.

The relevance of these factors in relation to blood transfusion should be mentioned.

- Heredity aspect of sickle cell and haemophilia should be discussed.
- Prevention of anaemia and arteriosclerosis should be discussed.

Candidates should examine the alimentary canal of a dissected mammal. The location and function of accessory organs of digestion should be emphasized.

Digestive enzymes should be discussed in relation to substrates and end-product.

**NOTES**

- Mentioned should be made of tissue respiration in relation to metabolism.
- Osmosis and diffusion should be demonstrated and their importance in absorption should be emphasized.

Importance of proper eating habits and the effects of over-eating and under-eating should be discussed.

#### (d) Excretory System

- Structure and functions of the kidney and skin.
  
  
  
  
  
  
  
  
  
  
- Process of urine formation.

#### (e) Respiratory System

- Structure and functions of the respiratory system
  
  
  
  
  
  
  
  
  
  
- Process of respiration
- Mechanism of breathing
  
  
  
  
  
  
  
  
  
  
- Gaseous exchange.

#### CONTENTS

- Tissue/Cellular

respiration.

- Candidates should examine the parts of the urinary system of a dissected mammal.
- Candidates should examine prepared slides of the skin under the microscope.

Reference should be made to the excretory functions of the lungs. The use of dialysis machine for kidney failure should be mentioned.

Candidates should examine the respiratory organs of a dissected mammals.

Experiment to demonstrate the inhalation and exhalation of air should be performed.

Total, complemental and residual air should be explained.

Experiment to show that expired air contains more carbon dioxide and water vapour should be performed.

#### NOTES

The brain, spinal cord and nerves should be discussed.

The reflex arc should be studied.

- Diseases/disorders of the respiratory system and their control.

(f) Nervous System:

- Structure and functions of the components of the nervous system
- Voluntary and involuntary actions
- Diseases/disorders of the nervous system.
- Endocrine System:

Location of the different endocrine glands, the hormones produced and their functions.

- Homeostasis

Physiological factors affecting homeostasis

4. Posture and Postural Defects.

- Definition;

(ii) Characteristics of correct posture.

(iii) Determination of correct postures

(iv) Types of postural defects:  
Flat foot; scoliosis, kyphosis and

lordosis

**CONTENTS**

(v) Effects of incorrect posture on physical appearance, position and functions of body organs.

- Characteristics of endocrine glands should be mentioned.
- Charts/models should be used to study the location of the glands.
- The effects of over- and under – secretion of hormones should be emphasized.

- Body temperature, blood sugar level, water balance, electrolytes balance, pH and blood pressure should be highlighted.
- Candidates should test urine with litmus paper and also, count pulse rate.
- Mention should be made of the positive and negative feed back control system.

Posture should be related to the following: sitting; standing; walking and lifting.

The roles of nutrition and exercise as determinants of correct posture should be discussed.

- The causes of postural defects e.g. habits, accidents, heredity and diseases should be discussed.

**NOTES**

- The roles of orthopaedic hospital and physiotherapy unit in the correction of postural defect should be mentioned.

Care of body parts including the teeth, mouth, hair, hands and nails should be discussed.

- PERSONAL HEALTH

- Meaning and importance of physical health.
- Personal hygiene
- Promotion and maintenance of health:

- Definition
- Factors and their roles in the maintenance of health.

- Health Screening

- Eye defects and their corrections.

Myopia;  
Hypermetropia;  
Astigmatism;  
Presbyopia;  
Squints (cross eye).

- Auditory defects
- Conductive impairment

- (ii) Neurosensory impairment
- (iii) Disorder of the skin
- (iv) Care of the eye, ear and skin.

- Dental health education

- Meaning and types

- Types of human teeth

- Teeth diseases

The use of snellen chart for vision screening should be mentioned. The roles of eye specialist in the correction of the defects should be discussed.

Otitis media should be mentioned

The use of tuning fork; audiometer, guitar strings and wrist watch in auditory screening should be mentioned. Also, mention should be made of the sign language.

### NOTES

Structure and functions of the different types of teeth should be discussed.

Advantages and disadvantages of traditional medicine should be mentioned.

Awareness campaign should be discussed.

Both physical and biological environment should be

discussed.

## CONTENTS

Dental caries and gingivitis should be mentioned.

- COMMUNITY HEALTH
  
- Community health services
  
- Definition
- Providers:
  - Orthodox services e.g. primary health care;
  - Traditional services e.g. bone setters, birth attendance.
  
- Community efforts in health promotion.
  
  
- School health programme
  - Definition
  - Components
  
- Skill-based health education
  
  
- Healthful school environment
  
  
  
- School feeding services
  
  
  
- School health and nutrition services
  
  
  
- School, home and community relationship.

- Goals and Objectives.
- Linkages for promotion (initiatives)
  
- Health Promoting School (HPS)
- Child-Friendly School (CFS)
- Focusing resources on Effective Schools Health (FRESH)
- Life Skills (LS)
- Education for All (EFA)

- **CONTENTSNOTES**

- Meaning
- Different aspects of family health:

Maternal and child health

- Family size and budgeting
  
- Ageing and death education

  - Definition and features of the elderly.
  - Ways of relating with the elderly.
  - Meaning of grief and death.
  - Common causes of death.

  
- Epidemiology and vital statistics
  
- Definitions
  
- Components of vital statistics
  - (i) Birth rate
  - (ii) Mortality rate

Antenatal care, immunization, oral rehydration therapy (ORT), breast feeding and safe motherhood should be discussed.

Candidates should be able to define epidemiology, vital statistics and population dynamics.

The importance and use of health records should be stressed.

- Morbidity rate
- Uses of the major components of vital statistics.

- **ENVIRONMENTAL HEALTH**

- Housing.
  - Criteria for good housing to include siting, ventilation, lighting and sanitation.
  - Components of a standard house.

- Water supply
  - Definition and sources
  - Purification and uses.

- Waste disposal

- Meaning
- Types:
  - (i) refuse;
  - (ii) Sewage.

- Methods

- Pollution

- Meaning
- Types: air, water, soil and noise.

Effects of poor sanitation and pest infestation in home should be discussed.

Effects of substandard housing on health should be discussed.

Sources should include rain, borehole, rivers, streams, springs, well pond, pipe borne water

Advantages and disadvantages of each method should be discussed.

**CONTENTSNOTES**

- Health consequences of pollution.
- Industrial occupation
  - Meaning
  - Programmes: Industrial health services
  - Occupation hazard
- Pests and vectors control

- Meaning
- Habitats of pests and vectors
- Harmful effects and control.

- **NUTRITION AND FOOD NUTRIENTS**

Nutrition

(i) Classes, sources and functions of food nutrients.

(ii) Caloric value of food nutrients

- Balanced/adequate diets
- Definition
- Classification
- Nutritional problems
- Factors influencing feeding habits/choice of foods
- Water
- Nutritional processes: ingestion, digestion, absorption, assimilation and metabolism and defecation/ejection.
- Beverages
- Definition
- Types and effects
- Diet for different group of people: children, male adolescent; female adolescent; athletes; pregnant woman; adult and aged.

**NOTES**

Food handling; cleanliness of cooking utensils and surroundings should be discussed. Effects of poor food handling should be stressed.

Effects of washing, boiling, frying, baking and roasting should be discussed.

The processes, advantages and disadvantages of each method should be discussed.

Qualities of First Aider should be stressed. Both standard and improvised kit should be discussed in relation to their uses.

The causes and characteristics of each condition should be discussed. Respective care where applicable should be demonstrated.

Agencies involved in First Aid should be discussed. Mention should include Red Cross Society, Blue Crescent Society, Girls Guide, Boys Scout and Sheriff Guards, Saint John ambulance. (Local, national and international agencies should be discussed) Relief measures should be discussed.

- Types of accidents in relation to location e.g home, road, schools, industries etc. should be discussed.
- Safety principles and measures of various types of accidents should be discussed

## CONTENTS

- Food hygiene, preservation and storage
- Meaning and Principles of food hygiene
- Effects of methods of food preparation on nutrients.
- Methods of food preservation:
  - Smoking/drying/dehydration,
  - Freezing/refrigeration, addition of chemicals/sugar salts,
  - Bottling/pickling/canning.
- **SAFETY EDUCATION AND FIRST AID**

- First Aid
- Meaning/aims and principles of first aid
- First aid kit
- Specific emergency conditions cuts;

Wounds; bleeding dislocation; fractures; burns; scalds; shocks; asphyxia/suffocation; poisoning.

- Agencies providing First Aid Services.

- Disaster

- (i) Meaning and types
- (ii) Disaster relief activities

- Accident

- (i) Types and causes
- (ii) Prevention

- Disability and rehabilitation

- (i) Meaning
- (ii) Types and prevention.

## **NOTES**

Mention should include drug abuse, drug dependence, drug misuse, drug addiction, self medication, alcoholism, rehabilitation. This should include oral, injection, inhalation, topical and anal. Prevention of drug abuse should be highlighted.

Reasons for smoking and the methods of controlling smoking should be discussed.

Reasons for drinking alcohol and methods of controlling drinking should be discussed.

Differences in the classes of diseases should be emphasized. Meaning of the terms: endemic; epidemic and pandemic in relation to communicable diseases should be explained. Each disease should be discussed under the following headings:

- Causative agent;
- Mode of transmission;
- Signs and symptoms;
- Prevention and control.

## ● **DRUG, ALCOHOL AND TOBACCO**

### **EDUCATION**

- Drug Education
- Terminologies in drug education
- Classes of drugs commonly abused.
- Ways of taking drugs into the body
- Drug abuse and consequences of self medication.
- Behaviour altering chemicals
- Tobacco

#### (i) Components

##### (ii) Effects of smoking on health.

- Alcohol on health

Effects of alcohol on health.

- Drugs

Effects of drug on health

- **COMMUNICABLE AND NON COMMUNICABLE DISEASES**

- Diseases

Meaning and classes of diseases.

The need for health care and rehabilitation should be discussed.

The need for health insurance schemes should be stressed.

Students should be able to identify to differentiate between pests and vectors.

Tests for starch, simple and complex sugars, proteins and fats should be carried out.

Local example of sources of food nutrients should be mentioned.

Caloric needs in relations to age, occupation and health condition should be discussed.

Food deficiency diseases should be emphasized.

Factors responsible for unbalanced diet and effects associated with poor diet should be discussed.

Factors should include: availability, religion education, age, belief, health condition and cost

The role of water in relation to nutrition should be discussed.

Negative and positive effects should be stressed. Nutritional value of non-alcoholic beverages should be stressed.

Charts should be used to show diets for the different groups of people.

- Communicable diseases
- Definition
- Classification of communicable diseases.

## NOTES

The life cycle of the pathogen of each disease should be discussed.

The life cycle of each worm should be discussed with the aid of a chart.

Bacteria, fungi, viruses, protozoa and worms should be mentioned as causative agents.

Reference should be made to immunization sterilization and isolation.

Each disease should be discussed under the following headings:

- Causes;
- Symptoms;
- Prevention/control.

(i) Air-borne/Respiratory diseases

Common cold, measles, whooping cough, poliomyelitis, tuberculosis and cerebro-spinal meningitis, diphtheria.

(ii) Water/food-borne diseases: Dysentery, cholera, typhoid fever and schistosomiasis, guinea worm

(iii) Insect-borne diseases: Malaria, yellow fever, trypanosomiasis and filariasis

(iv) Worm infection:

- (i) *Ascaris lumbricoides* (round worm)
  - (ii) *Taenia solium* (tape worm)
  - (iii) *Ancylostoma duodenale* (Hook worm)
  - (iv) *Dracunculus medinensis* (Guinea worm)
- (v) Animal-borne diseases rabies,

leptospirosis

(vi) Contact diseases; Gonorrhoea, syphilis, Tinea pedis (athlete/foot),

Taeniacapitis (ringworm) leprosy, scabies and Acquired Immune Deficiency Syndrome (AIDS)

(c) Factors necessary for communicable diseases to occur:

(i) Causative agent

(ii) Susceptible host;

(iii) Transmission route (environment)

(d) Non-communicable diseases:

Types

(i) Deficiency (scurvy, pellagra, rickets, Kwashiorkor, anaemia, beriberi etc)

(ii) Diseases due to growth in cells, heredity

and normal disorders (cancer, diabetes, epilepsy, haemophilia, heart disease, hypertension. Ulcer, mental illness, sickle cell, rheumatism, infertility, asthma, albinism etc.

### NOTES

Secondary sexual characteristics in boys and girls should be discussed.

Candidates should observe/study the parts of the reproductive organs in a mammal. Menstrual cycle, sex determination, ante-natal care should be discussed.

Causes of infertility should be discussed.

Artificial insemination and test tube babies should be explained.

Meaning of sexuality, sexuality education, sexual reproductive health rights, gender and equality should be discussed.

Difference between assertive and communication skills as applicable to sexuality should be discussed.

Characteristics of a happy family and the roles of each member should be discussed. Factors influencing family life should be emphasized.

Reference should be made to monogamous, polygamous, single parent, nuclear and extended family.

Challenges facing family life should be discussed. Social and emotional causes should be discussed. This should include school, community, religious group, NGOs, social welfare.

Types of birth control methods. The relative reliability, advantages and disadvantages of each method should be discussed.

### ● **FAMILY LIFE AND HUMAN SEXUALITY EDUCATION**

- **Human Reproduction**

- Definition of terms: Reproduction; sex gametes; ovulation; menstruation; fertilization; pregnancy and gestation.
- Structures and functions of male and female reproductive organs.
- Conception, pregnancy, foetal development and child birth
- Diseases disorders of the reproductive system
- Human Sexuality Education
- Meaning and importance

Life skills (Assertive Negotiation and communication skills)

- Family and family member roles.
- The family – Meaning and types
- Family size
- Family life challenges: widowhood; single parenthood, pre-marital and extra-marital affairs, in-laws etc.
- Agencies promoting healthy family living
- Family planning and safe motherhood.
- Meaning and need for family planning

CONTENTS	NOTES
<ul style="list-style-type: none"> <li>● Birth control methods</li> <li>● Safe motherhood</li> </ul> <p>5. Population Education</p> <p>(a) Meaning of population and population education.</p> <p>(b) Census and its problems</p> <p>(c) Small and large population</p> <ul style="list-style-type: none"> <li>● <b><u>EMOTIONAL AND SOCIAL HEALTH</u></b></li> <li>● Interrelationship</li> <li>● Attributes: <ul style="list-style-type: none"> <li>● Definition of personality and personality traits</li> <li>● Personality problems and solution</li> </ul> </li> <li>● Mental health: <ul style="list-style-type: none"> <li>● Definition</li> <li>● Promotion</li> <li>● Types and prevention</li> <li>● Importance</li> </ul> </li> <li>● <b><u>CONSUMER HEALTH EDUCATION</u></b></li> <li>● Consumer health products and services</li> <li>● Laws protecting the consumer</li> </ul>	<p>Candidates should be able to distinguish between family planning and safe motherhood.</p> <p>Candidates should be able to distinguish between population and census.</p> <p>Advantages of accurate census should be discussed.</p> <p>Meaning and the interrelationship between emotional health and social health should be discussed.</p> <p>The attributes of emotional and social health should be discussed.</p> <p>Candidates should be able to identify personal problems and proffer solutions.</p> <p>Candidates should be able to state factors that promote mental health.</p> <p>Types, causes prevention and management of mental health should be discussed.</p> <p>Importance of mental and social health should be discussed.</p> <ul style="list-style-type: none"> <li>● The importance of checking label expiry dates on products before purchase should be highlighted.</li> </ul> <p>Various agencies promoting consumers health should be discussed.</p> <p>Mention features of genuine products and services</p>

CONTENTS	NOTES
<ul style="list-style-type: none"> <li>● Factors influencing choice of consumer products; Authenticity; cost; availability; accessibility; availability and advertisement.</li> <li>● Consumer health care services</li>   <li>● Quacks and quackery meaning and types</li>   <li>● Health insurance and advertisement of health products and services</li>   <li>● Nostrum: <ul style="list-style-type: none"> <li>● Definition and types</li> <li>● Reasons for avoiding nostrum.</li> </ul> </li> </ul>	<p>Various types of health services: traditional medicine, orthodox medicine, alternative methods of healing (acupuncture, yoga and faith healing) should be discussed.</p> <ul style="list-style-type: none"> <li>● Different types of quackery such as mechanical, electrical, drug and cosmetic and medical quackery should be discussed</li> <li>● The danger of quacks and quackery should be highlighted.</li>   <li>● Meaning and importance of health insurance</li> <li>● State of health insurance</li> <li>● Advertisement of health products and consumer services.</li> </ul> <p>Types should include:</p> <ul style="list-style-type: none"> <li>● Health tonic;</li> <li>● Miracle substances;</li> <li>● Magic portions;</li> <li>● Amulets and talisman.</li> </ul>

#### Materials needed in Health Education Laboratory/Examination

- Models of various organs of the body;
- Models of various parts of the body e.g. tooth;
- Human skeleton;
- Bones of the body;
- Contraceptive devices;
- Reagents for testing of starch, protein, fat;
- Road safety signs;
- Different types of safety elements;
- Posters/charts of systems of the body e.g. reproductive, digestive, excretory;
- First aid box and kits;
- Fire extinguisher;
- Sand bucket;
- Photographs of health facilities and workers e.g. doctors , nurses, dentist at work;
- Photographs of methods of sewage and refuse disposals;

- Microscope
- Stethoscope
- Preserved worms;
- Preserved pests and vectors
- Photographs/posters of various types of communicable and non-communicable diseases;
- Model/poster showing parts of the body;
- Materials for personal hygiene e.g. toothpaste, comb, toothbrush;
- Dissecting set
- Photographs/posters of accident scenes;
- Photographs/posters showing methods of food preservation
- Photographs/posters showing disaster scenes;
- Safety;
- Photographs/posters of drugs commonly misused/abused
- Tobacco products;
- Hand lens;
- Real objects/photographs/poster/charts of classes of food;
- Photographs/posters showing correct postures
- Photographs/posters showing postural abnormalities;
- Poster/real object of sphygmomanometer, thermometer, litmus paper snellen chart.