



STUDY GUIDE FOR FCPS COMMUNITY MEDICINE



Department of Community Medicine
Allama Iqbal Medical College

PURPOSE AND SCOPE

The purpose of this document is to highlight the curriculum, educational outcomes, learning strategies and its implementation plan for FCPS postgraduate training program. This document will be available to trainers and trainees of postgraduate training programs as a guide to understand our teaching philosophy and modalities of training in this department. Trainees will use this document as a guide for curriculum and learning outcomes to prepare themselves as future public health consultants/supervisor and provide their services to improve health status of their respective communities. Trainers will use this document as tool to monitor their training programs, review progress of their trainees and evaluate the success of postgraduate program in this department.

MISSION AND VISION STATEMENTS



Department of Community Medicine

Allama Iqbal Medical College

Vision:

To become a leader in public health teaching and research, achieving excellence in academic, professional and evidence based medical education, that is aligned with international standards.

Mission:

Department of community medicine aspires to serve the community by imparting professional, practical and research-oriented knowledge and skills to the graduates.

We endeavour to train our graduates to become community leaders, life- long learners, and innovators with social accountability. Competence learned during training helps our postgraduates to perform ethical and evidence based public health practice in line with health needs of Pakistan.



Allama Iqbal Medical College (Post-graduation Program)

Vision:

To achieve excellence in academic, professional and research-oriented medical education that is aligned with international standards.

Mission:

To cultivate competent, ethical and compassionate specialists through rigorous, evidence-based education, fostering a culture of lifelong learning, critical thinking, professional excellence in terms of high quality patient-centered care & social accountability.



COLLEGE OF PHYSICIAN AND SURGEONS, PAKISTAN.

VISION STATEMENT

To attain excellence in the scientific discipline of Medical Education in order to influence health professional education in general and postgraduate Medical and Dental education in particular so as to produce quality professionals who are competent, caring and efficient in providing evidence-based Care and are capable of playing a leadership role in health delivery system, thereby contributing towards the productivity, development and economic growth of the country.

MISSION STATEMENT

To serve the community by imparting professional, practical and researched oriented knowledge and skills to the graduates. We cherish a meritorious culture that strives to inculcate professional and ethical values among the graduates as future leaders that are useful for the society.

OUTCOMES OF THE PROGRAM

By the end of course work and practical training and with fulfilling all requirements of PG programs in Community Medicine and Public Health, trainees will be able to:

- Perform tasks related to academic teaching at undergraduate and postgraduate levels.
- Supervise research projects of both undergraduate and postgraduate students and present research findings at national and international forums; publish work in peer reviewed journals.
- Work as public health experts at par with international standards.
- Coordinate public health field activities in collaboration with sister public health organizations.
- Function as assessor and evaluator of public health academic and field programs.
- Understand importance of biological, social, environmental determinants and dimensions of health and use this knowledge to improve health status of community using holistic approach.
- Develop health communication strategies for effective health education campaigns in the community.
- Conduct community based surveys and write research grants for public health agencies (WHO, UNFPA, Population Council, UNICEF, government sector and NGOs).
- Practice public health using ethical principles.
- Develop professional networking with sister organizations for collaborative projects.

Attach page of notification where we have given that cpsp curriculum will be followed.

Modular distribution of Curriculum

As per notification by Program director, department will be following CPSP curriculum which is available in elog book of the trainees.

This section deals with modular distribution of the curriculum and method of teaching which will be used in the department. However, it can be adapted and modified as per decision of the Program Faculty according to the feedback of the trainees and supervisor.

General guidelines for each module:

Review module outlines and key concepts before sessions.

Each module is designed to achieve core competencies throughout the training in step wise manner.

Engage in discussions and case studies.

Reflect on real-world application and work through exercises.

Self-assessment and feedback from supervisor.

Students will attend and observe all lectures of community medicine given by faculty in first year of training.

Each module will be concluded at test for which basic pattern is given , however, it is subjected to change accordingly.

Module 1: Basic Epidemiology, Basic Biostatistics and Demography**Total Duration:** 3 months/ 12 weeks**Week wise distribution:**

Topics	Subtopics	Week of training	Mode of study
Basic Epidemiology	<ul style="list-style-type: none">• Concept of Health and disease• Epidemiology of Communicable and Non communicable Diseases	Week 1	Lectures and Self-directed learning
	<ul style="list-style-type: none">• Measures of Disease Burden (Morbidity, Mortality & Disability):• Incidence• Prevalence• Measures of Mortality:• Crude death rate• Age specified death rates• Infant mortality rate (IMR)• Neonatal mortality rate• Post-neonatal mortality rate• Case fatality rate• Maternal mortality ratio• Perinatal mortality rate• Proportional mortality rate	Week 2	Lectures and Self-directed learning
	<ul style="list-style-type: none">• Epidemiological Studies:• Descriptive Studies• Analytic Studies:• Case-control studies• Cohort studies• Experimental studies• Investigation of an epidemic	Week 3	Discussion with supervisor, Journal club, presentation and discussion of articles of each type
	<ul style="list-style-type: none">• Concept of Association and Causation (Role of Bias, Chance, Confounding, Interaction and Effect Modification)• Life Table construction & analysis	Week 4	Lectures and Self-directed learning
	<ul style="list-style-type: none">• Screening for diseases of Public Health Importance• Concept and uses• Criteria for screening• Yield• Borderline and thresholds	Week 5	Lectures and presentations, application of screening techniques in different scenarios
Basic Biostatistics	<ul style="list-style-type: none">• Types of Data / Variables• Data presentation (Graphs & Tables)• Measures of Central	Week 6	Lectures and Self-directed learning

	<p>Tendency and Dispersion• Types of Data distribution • Skewed distribution • Standard error of mean • Confidence interval</p>		
	<p>• Hypothesis testing • Tests of statistical significance (chi square, t-test and correlation) • Sample size calculation & Sampling Techniques • Simple random sampling • Systematic sampling • Stratified sampling • Multistage sampling • Cluster sampling and z transformation</p>	Week 7-8	Lectures and Self-directed learning, Practice with assignments
	<p>• Research/ Survey process: (Qualitative & Quantitative Methods) • Conceiving a question • Literature search • Use of Internet • Questionnaire designing • Writing a research protocol • Application of research ethics in designing a protocol</p>	Week 9-11	Presentations, assignments and preparation of own research proposal within 6 months of training and get it approved from CPSP
Demography	<p>• Demographic cycle • Population pyramid • Fertility indicator • Population indicators</p>	Week 12	Self-directed learning, household visit

Reference books:

Epidemiology: K. Park and Leon Gordis

Biostatistics: Bluman and Kirkwood

Demography: K. Park and Ilyas Ansari

Module 2: Primary Clinical Care, Maternal and Child Health, Immunization, Mental Health

Duration: 3 months/ 12 weeks

Week wise distribution:

Topic	Subtopics	Week of training	Mode of study
Primary clinical care	<ul style="list-style-type: none"> •Communicable diseases of public health importance (epidemiology, clinical features, management & prevention strategies) • Respiratory Infections 	Week 13-14	Self-directed learning, Field visits to BHU and RHC
	<ul style="list-style-type: none"> •Gastrointestinal infections 	Week 15	Self-directed learning, Field visits to BHU and RHC
	<ul style="list-style-type: none"> • Arthropod borne infections • Zoonoses 	Week 16	Self-directed learning, Field visits to BHU and RHC
	<ul style="list-style-type: none"> • Surface infections •Emerging and re-emerging infectious diseases • Hospital-acquired infections 	Week 17	Self-directed learning, Field visits to BHU and RHC
	<ul style="list-style-type: none"> • Non communicable diseases of public health importance (Epidemiology, clinical features, management and prevention strategies) • Rheumatic fever • Diabetes • Cardio vascular diseases • Coronary artery disease • Hypertension • Cerebro-vascular accidents • Arthritis • Endocrine disorders • Asthma • Chronic obstructive pulmonary diseases • Cancers • Blood dyscrasias (thalassemia) 	Week 18-19	Self-directed learning, Field visits to BHU and RHC
Maternal, neonatal and child care	<ul style="list-style-type: none"> • Abortion Care • Ante-natal care • Recognition of high risk pregnancy • Normal pregnancy • Abnormal pregnancy • Maternal Immunization 	Week 20	Self-directed learning, visit to MCH center
	<ul style="list-style-type: none"> • Basic & Comprehensive Emergency Obstetric Care • 	Week 21	Self-directed learning, visit to MCH center

	Post-natal care • Lactation management • Maternal nutrition • Specific health protection during pregnancy for prevention of diseases in neonates • Early neonatal care • Neonatal measurements & screening • Breast Feeding & weaning • Baby friendly hospital initiative		
	• Family planning	Week 22	Self-directed learning, visit to MCH center
Child health and immunization	• Childhood diseases preventable with immunization (EPI) • Child health indicators • Integrated Management of childhood Illnesses • Concept of immunology • Cold chain and vaccine logistics • Immunization for travelers • Immunization for other diseases of public health importance	Week 23	Self-directed learning, visit to EPI center
Mental health	• Mental health and Drug abuse • Adolescent health	Week 24	Self directed learning, consult WHO website for various programs on mental health and drug abuse

Reference books:

Primary Clinical Care: K. Park

MCH and Immunization: K. Park and Ilyas Ansari

Mental Health: K. Park

Module 3: Environmental Health, Occupational Health and Nutrition**Duration:** 2 months/ 8 weeks**Week wise distribution:**

Topics	Subtopics	Week of training	Mode of study
Environmental health	Water	Week 25	Lectures and Self-directed learning
	Air and ventilation, waste disposal	Week 26	Lectures and Self-directed learning
	Noise, Radiation, Light	Week 27	Lectures and Self-directed learning
	Meteorological environment, Housing	Week 28	Self-directed learning and visit to meteorology department and FFD
Occupational health	<ul style="list-style-type: none">• Ergonomics• Occupational hazards & diseases• Pneumoconiosis	Week 29	Lectures and Self-directed learning
	<ul style="list-style-type: none">• Lead poisoning • Arsenic poisoning • Mercury Poisoning• Heavy metal poisoning • Occupational cancers • Occupational dermatitis	Week 30	Lectures and Self-directed learning
	<ul style="list-style-type: none">• Specific work hazards • Accidents in industry • Sickness absenteeism • Prevention and control	Week 31	Self-directed learning and visit to factory
Nutrition	<ul style="list-style-type: none">• Methods of nutritional assessment • SDG 1 & 2 indicators/ target/ strategies to achieve • Malnutrition (Obesity, stunting, wasting) • Micronutrient deficiency disorders • Nutrition specific and Nutrition sensitive interventions • Classification of	Week 32	Lectures and Self-directed learning

	nutrients • Etiology, identification and Management of Common nutritional disorders like • Anaemia • Iodine deficiency • Vitamin deficiency		
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Reference books:

K. Park, Ilyas Ansari, Maxcy

Module 4: Health Management, Medical and Clinical Audit, Public Health Programs**Total Duration:** 2 months/ 8 weeks**Week wise distribution:**

Topics	Subtopics	Week of training	Mode of study
Health Management	• Management models	Week 33	Lectures and Self-directed learning
	• Resource management	Week 34	Lectures and Self-directed learning
	• Health economics	Week 35	Lectures and Self-directed learning
	• Management indicators	Week 36	Lectures and Self-directed learning
Public Health Programs	• Knowledge of public health programs of Pakistan	Week 37-38	Websites of WHO, National Programs, Discussion with supervisor
Medical / Clinical Audit	• Importance of medical / clinical audit • Requirements of medical audit • How to carry out medical audit / audit cycle.	Week 39	Lectures and Self-directed learning
	• Barriers to medical audit in Pakistan • Importance of quality in health care • Quality management systems in hospitals	Week 40	Lectures and Self-directed learning

Reference books:

Health Management: K. Park, Ilyas Ansari, Robins and Andrew Green

Public Health Programs: Various websites

Medical / Clinical Audit: Ilyas Ansari

Module 5: Communication Skills, Health Promotion, Patients' Safety and First Aid Management

Total Duration: 3 months/ 12 weeks

Week wise distribution:

Topics	Subtopics	Week of training	Mode of study
Communication skills	• Principles of health education • Models and theories of Communication & Health promotions • Barriers to communication	Week 41	Lectures and Self-directed learning
	• Counselling • Counseling at the primary care level for • Family planning • Weaning • Lactation management • Drug compliance • Immunization • History taking • Use of audiovisual aids effectively	Week 42	Mandatory workshop on communication skills, practice
Health Promotion / Health Communication and Information	• Develop health education messages • Strategies for health promotion in Pakistan • Barriers to health promotion and strategies to overcome those barriers	Week 43	Lectures and Self-directed learning
Patients' Safety	• Identification of hazards / risks of unsafe patient care • Patients' safety initiatives • Principles of patients' safety	Week 44	Lectures and Self-directed learning and WHO patients' safety program
	• Impact of human factor on patient's safety • Modes / Strategies for patients' safety system • Indicators of safety • Patients' safety culture • National patients' safety goals / guidelines	Week 45	Lectures and Self-directed learning and DRAP
First Aid Management	• Initial management and referral of patients with accidents • Splinting and appropriately referring fractures • Wound care including, stopping bleeding, assessing the wound and local suturing. • Stabilizing and transporting seriously injured patients	Week 46	Lectures and Self-directed learning
	• CPR • management of Licks and bites of poisonous insects and animals • Snake bite • Dog bite • Rat bite	Week 47	Workshop on BLS and Self-directed learning

• Revisiting important topics from whole syllabus	Week 48-52
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Reference books:

Communication skills: K. Park

Health Promotion / Health Communication and Information: K. Park

Patients' Safety:

First Aid Management: K. Park

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Table of Specification & Blue Printing

Unit Title: *Integrated Epidemiology and Disease Measurement*

Total Marks: 100

Paper Composition:

- **MCQs (C2 & C3):** $50 \times 1 = 50$ marks
- **Long Essay Questions:** $5 \times 10 = 50$ marks

Table of Specification

Sr. No.	Major Topics / Subtopics	Cognitive Level	No. of MCQs (1 mark each)	Essay Questions (10 marks each)	Total Marks	Remarks / Weightage Justification
1	Concept of Health and Disease	C2	3	–	3	Foundation for understanding disease patterns
2	Integrated Management of Neonatal & Child Illnesses (IMNCI)	C3	4	1	14	Application-based concept integrating primary care and epidemiology
3	Epidemiology of Communicable & Non-Communicable Diseases	C2, C3	6	1	16	Core epidemiological principles and public health response
4	Measures of Disease Burden (Morbidity, Mortality, Disability)	C2	6	–	6	Essential quantitative indicators of disease frequency
5	Measures of Mortality (Crude, Age-specific, IMR, MMR, etc.)	C2	8	1	18	Central quantitative topic requiring

Sr. No.	Major Topics / Subtopics	Cognitive Level	No. of MCQs (1 mark each)	Essay Questions (10 marks each)	Total Marks	Remarks / Weightage Justification
						interpretation and calculation
6	Epidemiological Studies (Descriptive, Analytical, Experimental)	C2, C3	8	1	18	Application in design and interpretation of studies
7	Investigation of an Epidemic	C3	4	1	14	Applied field epidemiology scenario
8	Concept of Association & Causation (Bias, Chance, Confounding, etc.)	C3	5	–	5	Conceptual and analytical reasoning
9	Life Table Construction & Analysis	C2, C3	3	–	3	Analytical life expectancy application
10	Screening for Diseases of Public Health Importance (Concept, Criteria, Yield, Thresholds)	C2, C3	3	1	13	Strong applied concept in preventive medicine
Total			50 MCQs = 50 Marks	5 Long Questions = 50 Marks	100 Marks	

Blueprint of Paper

Section	Type of Question	No. of Questions	Marks / Question	Total Marks	Cognitive Level Distribution
A	MCQs	50	1	50	C2: 60% (30 MCQs), C3: 40% (20 MCQs)
B	Long Essay Questions	5	10	50	C2: 2 Questions, C3: 3 Questions
Total				100 Marks	

Suggested Essay Question Distribution

Essay Question No.	Topic	Cognitive Level	Expected Focus
Q1	Integrated Management of Neonatal & Child Illnesses (IMNCI)	C3	Application of IMNCI approach in reducing child morbidity & mortality
Q2	Epidemiology of Communicable & Non-Communicable Diseases	C2	Comparative understanding, control & surveillance
Q3	Measures of Mortality (IMR, MMR, CDR, etc.)	C3	Calculation, interpretation & use in health planning
Q4	Investigation of an Epidemic	C3	Steps of field investigation & interpretation
Q5	Screening for Diseases of Public Health Importance	C2	Concept, criteria, yield, and public health application

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Table of Specification (TOS)

Topic: *Demographic Cycle & Population Indicators* **Assessment Type:** *Objective*
(MCQs) **Total Marks:** 50 (Each = 1 mark)

Main Content Area	Subtopics / Competencies	Learning Objectives	Cognitive Level (Bloom's)	Approx. No. of MCQs	Marks
1. Demographic Cycle	Stages of demographic transition, characteristics, examples of countries, implications for health planning	Describe stages of demographic cycle, recognize country examples, interpret public health implications	Knowledge / Comprehension / Application	15	15
2. Population Pyramid	Types and interpretation, age–sex distribution, uses in health planning	Identify types of population pyramids, interpret data and trends	Knowledge / Application	10	10
3. Fertility Indicators	Crude Birth Rate, Total Fertility Rate, General Fertility Rate, Age-Specific Fertility Rate, Reproductive Rate	Define, calculate, and interpret fertility indicators	Knowledge / Comprehension / Analysis	15	15
4. Population Indicators	Growth rate, dependency ratio, sex ratio, literacy, life expectancy,	Recognize and interpret major demographic	Knowledge / Application	10	10

	migration, urbanization	and health indicators			
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| **Total** | | | | **50 MCQs** | **50 Marks** |

Blueprint for Demographic Cycle & Population Indicators (MCQs – 50 Marks)

Cognitive Domain	Expected Competence	Weightage (%)	No. of MCQs	Marks
Knowledge / Recall	Recall definitions, formulas, and key terms	40%	20	20
Comprehension / Understanding	Explain concepts, relationships, and patterns	35%	18	18
Application / Analysis	Apply indicators to interpret real population data	25%	12	12
Total		100%	50 MCQs	50 Marks

Summary

- **Assessment Type:** Objective (MCQs)
 - **Total:** 50 MCQs × 1 mark = **50 Marks**
 - **Coverage:** Demographic cycle, fertility, and population indicators comprehensively
 - **Level:** FCPS/Postgraduate
 - **Purpose:** To evaluate understanding and application of demographic principles in public health planning
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Department of Community Medicine

Table of Specification (TOS)

Topic: *Demographic Cycle & Population Indicators* **Assessment Type:** *Objective*
(MCQs) **Total Marks:** 50 (Each = 1 mark)

Main Content Area	Subtopics / Competencies	Learning Objectives	Cognitive Level (Bloom's)	Approx. No. of MCQs	Marks
1. Demographic Cycle	Stages of demographic transition, characteristics, examples of countries, implications for health planning	Describe stages of demographic cycle, recognize country examples, interpret public health implications	Knowledge / Comprehension / Application	15	15
2. Population Pyramid	Types and interpretation, age–sex distribution, uses in health planning	Identify types of population pyramids, interpret data and trends	Knowledge / Application	10	10
3. Fertility Indicators	Crude Birth Rate, Total Fertility Rate, General Fertility Rate, Age-Specific Fertility Rate, Reproductive Rate	Define, calculate, and interpret fertility indicators	Knowledge / Comprehension / Analysis	15	15
4. Population Indicators	Growth rate, dependency ratio, sex ratio, literacy, life expectancy,	Recognize and interpret major demographic	Knowledge / Application	10	10

	migration, urbanization	and health indicators			
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| **Total** | | | | **50 MCQs** | **50 Marks** |

Blueprint for Demographic Cycle & Population Indicators (MCQs – 50 Marks)

Cognitive Domain	Expected Competence	Weightage (%)	No. of MCQs	Marks
Knowledge / Recall	Recall definitions, formulas, and key terms	40%	20	20
Comprehension / Understanding	Explain concepts, relationships, and patterns	35%	18	18
Application / Analysis	Apply indicators to interpret real population data	25%	12	12
Total		100%	50 MCQs	50 Marks

Summary

- **Assessment Type:** Objective (MCQs)
- **Total:** 50 MCQs × 1 mark = **50 Marks**
- **Coverage:** Demographic cycle, fertility, and population indicators comprehensively
- **Level:** FCPS/Postgraduate
- **Purpose:** To evaluate understanding and application of demographic principles in public health planning

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Table of Specification (TOS)

Topic: *Health Planning and Management*
Marks: 50

Assessment Type: Viva Voce **Total**

Content Area	Learning Objectives / Competencies Assessed	Cognitive Level (Bloom's Taxonomy)	Weightage (%)	Marks	Type of Viva Question
1. Basic Concepts & Definitions of Planning & Management	Define and explain the basic concepts of planning and management; differentiate between types and levels	Knowledge / Comprehension	10%	5	Short conceptual questions
2. Health Planning Cycle	Describe and apply each step of the planning cycle with examples from national programs	Comprehension / Application	15%	7.5	Case-based discussion
3. Management Models	Explain and compare management models (classical, participatory, system-based, decision-making)	Application / Analysis	15%	7.5	Analytical questioning
4. Resource Management	Discuss management of manpower, materials, money, and time; identify	Application / Evaluation	20%	10	Problem-solving scenarios

	efficiency indicators				
5. Health Economics	Explain key economic concepts (cost-benefit, cost-effectiveness, cost-utility) and their applications in health programs	Analysis / Evaluation	15%	7.5	Concept + applied question
6. Management Indicators	Define and interpret health management indicators; relate them to program evaluation	Analysis / Synthesis	10%	5	Interpretation of indicators
7. Integrative Application (Comprehensive Question)	Integrate planning, resource allocation, and evaluation in a hypothetical health project	Synthesis / Judgment	15%	7.5	Integrative viva scenario

| Total | | | 100% | 50 Marks | |

Blueprint for Viva (Health Planning & Management)

Cognitive Domain	Competency Tested	Weightage (%)	Approx. No. of Questions	Marks
Knowledge / Recall	Basic definitions & concepts	10%	3–4	5

Comprehension	Understanding of processes & relationships	20%	4–5	10
Application / Analysis	Applying models, interpreting scenarios	30%	6–7	15
Evaluation / Synthesis	Integration, justification, judgment	40%	6–8	20
Total		100%	20–25 viva prompts	50 Marks

Summary for Viva Board

Structure: 20–25 short to medium questions (2–3 minutes each).

- **Focus:** Practical understanding, analytical reasoning, and application to field and program settings.
- **Scoring guide:**
 - **Excellent (8–10):** Integrates theory with public health context, clear and confident.
 - **Good (6–7):** Accurate understanding, minor gaps in examples.
 - **Average (4–5):** Basic recall, weak linkage to application.
 - **Below Average (<4):** Incomplete or incorrect responses.

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Table of Specification (TOS)

Topic: Occupational Health Total Marks: 50 (30 MCQs + 4 SEQs)

Content Area	Learning Objectives / Outcomes	Cognitive Level (Bloom's Taxonomy)	Type of Question	No. of MCQs (1 Mark Each)	No. of SEQs (5 Marks Each)	Total Marks
1. Ergonomics	Define ergonomics and describe its principles in workplace design	Knowledge / Application	MCQ	2	–	2
2. Occupational Hazards & Diseases	Classify occupational hazards and list examples	Knowledge / Comprehension	MCQ	2	–	2
3. Pneumoconiosis	Define, classify, and describe prevention and control measures	Comprehension / Application	MCQ	3	1	8
4. Lead Poisoning	Describe sources, pathophysiology, clinical features, and prevention	Application / Analysis	MCQ	2	–	2
5. Arsenic Poisoning	Identify clinical features and	Knowledge / Application	MCQ	2	–	2

	preventive strategies					
6. Mercury Poisoning	Discuss sources, effects, and management	Application	MCQ	2	–	2
7. Heavy Metal Poisoning (General)	Compare and contrast toxic effects of common heavy metals	Analysis / Evaluation	MCQ	2	–	2
8. Occupational Cancers	Define and describe etiological agents and preventive measures	Application / Evaluation	MCQ	3	1	8
9. Occupational Dermatitis	Discuss causes, diagnosis, and prevention	Knowledge / Application	MCQ	2	–	2
10. Specific Work Hazards	Identify physical, chemical, biological, mechanical, and psychosocial hazards	Comprehension / Analysis	MCQ	3	–	3
11. Accidents in Industry	Discuss causes and prevention of industrial accidents	Application / Evaluation	MCQ	2	1	7
12. Sickness Absenteeism	Define and discuss its importance	Comprehension / Analysis	MCQ	2	–	2

	and methods of control					
13. Prevention and Control	Describe principles of prevention at all levels (primary, secondary, tertiary)	Application / Synthesis	MCQ	3	1	8

| Total | | | 30 MCQs | 4 SEQs | 50 Marks |

Blueprint for Occupational Health Test

Level of Cognitive Domain	Weightage (%)	Type of Question	Number of Questions	Marks
Knowledge & Recall	25%	MCQ	8	8
Comprehension / Understanding	25%	MCQ + SEQ	8	10
Application & Analysis	35%	MCQ + SEQ	9	20
Evaluation / Synthesis	15%	SEQ	5	12
Total	100%		30 MCQs + 4 SEQs	50 Marks

Summary by Content Area

- **Toxicological and Chemical Hazards (Lead, Arsenic, Mercury, Heavy Metals):** 25% weightage
- **Industrial Safety and Ergonomics:** 25% weightage
- **Occupational Diseases (Pneumoconiosis, Dermatitis, Cancers):** 30% weightage

- **Administrative & Preventive Aspects (Absenteeism, Prevention):** 20% weightage

TABLE OF SPECIFICATION FOR COMMUNICABLE DISEASES

Content Area / Disease Group	Learning Objectives (Students should be able to...)	Knowledge Level (<i>Bloom's Taxonomy</i>)	Weightage (%)	Suggested Teaching Methods	Assessment Methods
1. Acute Respiratory Infections (ARI)	Describe epidemiology & risk factors; Identify clinical features; Formulate management & prevention plan at individual and community level	Knowledge, Application, Analysis	15%	Lectures, Case-based discussion, Community survey	MCQs, Case-based SAQs, Viva
2. Tuberculosis	Explain burden and determinants; Recognize clinical types; Discuss DOTS strategy & public health management	Knowledge, Comprehension, Application	15%	Interactive lecture, DOTS center visit, Role play	MCQs, Short notes, OSCE
3. Diarrheal Diseases	Classify diarrheal diseases; Outline pathophysiology & clinical features; Apply case management and ORT strategy; Design prevention programs	Knowledge, Application, Evaluation	15%	Demonstration (ORS prep), Field visits	MCQs, SAQs, OSCE

4. Parasitic Infections (e.g., <i>Malaria</i> , <i>Helminthiasis</i> , <i>Amoebiasis</i>)	Discuss epidemiology; Recognize clinical spectrum; Propose control & eradication measures	Knowledge, Comprehension, Synthesis	10%	Problem-based learning, Group presentations	MCQs, Short notes
5. Ear Infections & Hearing Impairments	Identify common infections; Explain causes of hearing loss; Outline management & screening approaches	Knowledge, Application	10%	ENT clinic observation, Tutorial	MCQs, Case scenarios
6. Eye Infections & Visual Impairments	Describe common infectious causes (trachoma, conjunctivitis); Plan preventive eye health strategies	Knowledge, Application, Evaluation	10%	Eye camp visit, Videos, Practical session	MCQs, SAQs
7. Urinary Tract Infections (UTI)	Identify etiological agents; Discuss diagnosis and treatment; Outline preventive strategies	Knowledge, Application	10%	Case study, Tutorial	MCQs, SAQs
8. Reproductive Tract & Sexually Transmitted Infections	Classify STDs; Recognize syndromic approach; Design preventive and	Knowledge, Application, Evaluation	15%	Role plays, WHO case scenarios, Counseling practice	MCQs, SAQs, OSCE

(RTIs/STDs)	counseling strategies				
TOTAL			100%		

Cognitive Level	Approximate % Weight
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Knowledge & Comprehension	25%
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Application & Analysis	45%
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Synthesis & Evaluation	30%
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Notes:

- **Integration:** Link with epidemiology, biostatistics, and health system modules (e.g., TB surveillance, ARI reporting).
- **Community Component:** Incorporate field-based learning — e.g., visits to TB clinic, water purification plant, primary health center.
- **Assessment Blueprint:** For a 100-mark exam:
 - 40% MCQs
 - 40% Short answer / case-based
 - 20% Viva / OSCE

BLUEPRINTING FOR COMMUNICABLE DISEASES

Unit / Disease Area	Specific Learning Outcomes (Students will be able to...)	Competencies (Knowledge / Skill / Attitude)	Cognitive Level (Bloom's)	Suggested Teaching-Learning Methods	Assessment Methods / Tools	Marks / Weightage (% out of 100)
1. Acute Respiratory Infections (ARI)	- Describe epidemiology, risk factors & agents- Recognize clinical features of URTI, LRTI, pneumonia- Apply IMNCI/WHO case management- Propose prevention & control strategies	K, S	K, C, A	Interactive lecture, Case-based learning, IMNCI demo	MCQs (2), Case-based SAQ, Viva	15
2. Tuberculosis (TB)	- Explain global & national burden- Identify risk factors & pathogenesis - Recognize clinical forms of TB- Apply DOTS & NTP guidelines- Discuss preventive & social measures	K, S, A	K, A, E	Lecture, Field visit to TB center, Role play (DOTS)	MCQs (2), SAQ, OSCE (DOTS counseling)	15
3. Diarrheal Diseases	- Classify types & etiologies- Outline pathophysiology	K, S	K, A, S	Demonstration, PBL, Field exposure	MCQs, SAQ, OSCE	15

	gy & dehydration grading- Demonstrate ORT & IV fluid replacement- Explain control & prevention (safe water, sanitation, hygiene)					
4. Parasitic Infections <i>(e.g., Malaria, Amoebiasis, Helminths)</i>	- Describe epidemiology & transmission cycles- Identify clinical features & diagnosis- Propose control measures (vector control, chemoprophylaxis, deworming)	K	K, A	Lecture, Group discussion, Case review	MCQs, Short note	10
5. Ear Infections & Hearing Impairments	- Identify common infections (otitis media/externa)- Outline diagnosis & management- Discuss causes & prevention of hearing loss	K, S	K, A	Tutorial, ENT clinic observation	MCQs, SAQ	10
6. Eye Infections & Visual	- Describe trachoma, conjunctivitis, onchocerciasis	K, S	K, A, E	Lecture, Eye camp, Demonstration	MCQs, SAQ	10

Impairments	s- Explain community eye care & preventive measures- Identify vision screening techniques					
7. Urinary Tract Infections (UTI)	- Discuss etiology & pathophysiology- Identify symptoms & diagnosis- Propose management & preventive measures	K	K, A	Tutorial, Case discussion	MCQs, SAQ	10
8. Reproductive Tract & Sexually Transmitted Infections (RTIs/STDs)	- Classify RTIs/STIs & causative agents- Recognize clinical syndromes (ulcer, discharge, PID)- Apply syndromic management & counseling- Discuss prevention including partner treatment	K, S, A	K, A, E	Lecture, WHO case scenarios, Role play (counseling)	MCQs, SAQ, OSCE	15
Total						100%

SUGGESTED ASSESSMENT BLUE PRINT

Assessment Component	Type	Weight (%)	Skills/Competencies Assessed
MCQs (30 items)	Objective written	30	Knowledge, Comprehension
SAQs / Case-based Questions	Short written	40	Application, Analysis
OSCE / Viva Voce	Practical / Oral	20	Clinical reasoning, Counseling
Class performance / Field Work / Logbook	Formative	10	Attitude, Skill integration
Total		100%	

Integration & Public Health Linkages

- **ARI & Diarrheal Diseases:** integrate with IMNCI & Water, Sanitation & Hygiene (WASH) programs.
- **TB:** link with NTP, DOTS, and community-based DOTS providers.
- **RTIs/STDs:** tie into reproductive health programs & behavioral change communication.
- **Eye & Ear diseases:** connect to school screening and community outreach models.

TABLE OF SPECIFICATION NON-COMMUNICABLE DISEASES

Content Area / Topic	Learning Objectives	Knowledge (K1)	Understanding (K2)	Application (K3)	Analysis / Evaluation (K4-K5)	Total Marks	Assessment Method (MCQ / SEQ / OSCE / Viva)
1. Diabetes Mellitus	Define, classify, describe pathophysiology, complications, prevention & management	2	2	4	2	10	4 MCQs, 1 SEQ, OSCE (Insulin adjustment)
2. Cardiovascular Diseases (General)	Epidemiology, risk factors, prevention strategies	1	2	3	2	8	3 MCQs, 1 SEQ
3. Coronary Artery Disease (CAD)	Diagnosis, acute management, secondary prevention	1	1	3	2	7	3 MCQs, OSCE (ECG interpretation)
4. Hypertension	Diagnosis, staging, management, prevention programs	1	2	3	2	8	4 MCQs, 1 SEQ
5. Cerebrovascular	Recognition, acute management	1	1	2	2	6	3 MCQs, OSCE (Stroke)

Accidents (Stroke)	nt, rehab & prevention						assessment)
6. Asthma	Pathophysiology, classification, management, inhaler technique	1	1	2	1	5	2 MCQs, OSCE (Inhaler technique)
7. COPD	Diagnosis, staging, management, prevention	1	1	2	1	5	2 MCQs, 1 SEQ
8. Cancers	Screening, prevention, palliative care	1	1	2	2	6	2 MCQs, 1 SEQ, OSCE (Palliative counseling)
9. Endocrine Disorders (non-DM)	Common endocrine diseases, diagnosis, management	1	1	1	1	4	2 MCQs
10. Arthritis	Epidemiology, classification, management & disability prevention	1	1	1	1	4	2 MCQs
11. Blood Dyscrasias	Screening, prevention, genetic counseling	1	1	1	1	4	2 MCQs, SEQ (on screening)

(Thalassemia)	management						g program)
Total	—	12	14	24	17	67 marks (MC Qs 40 + SE Qs 20 + OSCE 5 + Viva 2)	—

Summary of Weightage

Cognitive Domain	% Weight	Approx. Marks	Assessment Type
Knowledge (K1)	15%	15	MCQs
Understanding (K2)	20%	20	MCQs / SEQ
Application (K3)	40%	40	MCQ, SEQ, OSCE
Analysis / Evaluation (K4–K5)	25%	25	SEQ, OSCE, Viva
Total	100%	100 marks	—

BLUEPRINTING OF NON-COMMUNICABLE DISEASES

Content Area / Topic	MCQs (1 mark each)	SEQs (5 marks each)	OSCE (4 marks each)	Viva (10 marks total)	Total Marks	Cognitive Domain (Dominant Level)
1. Diabetes Mellitus	6	1	1	—	15	Application / Analysis
2. Cardiovascular Diseases (General)	5	1	—	—	10	Understanding / Application
3. Coronary Artery Disease (CAD)	4	—	1	1	10	Application / Evaluation
4. Hypertension	5	1	—	—	10	Application / Analysis
5. Cerebrovascular Accidents (Stroke)	4	—	1	—	8	Application / Evaluation
6. Asthma	3	—	1	—	7	Understanding / Application
7. COPD	4	1	—	—	9	Application / Analysis
8. Cancers	3	1	1	1	10	Analysis / Evaluation
9. Endocrine Disorders (non-DM)	2	—	—	—	2	Understanding

10. Arthritis	2	—	—	—	2	Understanding / Application
11. Blood Dyscrasias (Thalassemia)	2	1	—	—	7	Application / Evaluation
Total	40 marks	30 marks	20 marks	10 marks	100 marks	—

Cognitive Domain Distribution

Cognitive Level	Approx. Weight (%)	Marks	Assessment Tools
Knowledge (K1)	10%	10	MCQs
Understanding (K2)	20%	20	MCQs / SEQs
Application (K3)	40%	40	MCQs / SEQs / OSCE
Analysis / Evaluation (K4–K5)	30%	30	SEQs / OSCE / Viva
Total	100%	100	—

Assessment Summary

Assessment Tool	No. of Items	Marks	Percentage Weight	Domains Tested
MCQs (1 mark each)	40	40	40%	Knowledge–Application

SEQs (5 marks each)	6	30	30%	Understanding– Analysis
OSCE Stations (4 marks each)	5	20	20%	Application– Evaluation
Viva (structured)	—	10	10%	Analysis– Evaluation
Total	—	100	100%	—

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Table of Specification (TOS)

Topic: Maternal and Child Health (MCH) Total Marks: 50 (30 MCQs + 4 SEQs)

Content Area	Learning Objectives / Outcomes	Cognitive Level (Bloom's Taxonomy)	Type of Question	No. of MCQs (1 Mark Each)	No. of SEQs (5 Marks Each)	Total Marks
1. Abortion Care	Define abortion, types, and outline principles of post-abortion care	Knowledge / Application	MCQ	2	–	2
2. Ante-natal Care	Enumerate components of antenatal care and its objectives	Comprehension / Application	MCQ	2	–	2
3. Recognition of High-Risk Pregnancy	Identify risk factors and screening criteria	Analysis / Application	MCQ	2	1	7
4. Normal Pregnancy	Describe physiological changes, care, and nutrition	Comprehension	MCQ	2	–	2
5. Abnormal Pregnancy	Discuss common complications (eclampsia, ectopic, etc.)	Application / Evaluation	MCQ	2	1	7
6. Basic & Comprehensive Emergency Obstetric Care (BEmONC & CEmONC)	Describe components and signal functions	Knowledge / Application	MCQ	3	–	3

7. Post-natal Care	Explain postnatal follow-up and maternal complications	Comprehension / Application	MCQ	2	–	2
8. Lactation Management	Discuss physiology, problems, and solutions in lactation	Application	MCQ	2	–	2
9. Family Planning	Describe methods, advantages, and contraindications	Knowledge / Application	MCQ	3	1	8
10. Maternal Nutrition	Define nutritional requirements and supplementation	Comprehension	MCQ	2	–	2
11. Specific Health Protection in Pregnancy	Discuss immunization and prophylaxis for fetal health	Knowledge / Application	MCQ	2	–	2
12. Early Neonatal Care	Explain immediate care after birth, thermal care, and cord care	Application	MCQ	2	–	2
13. Neonatal Measurements & Screening	Define growth monitoring and screening programs	Knowledge / Analysis	MCQ	2	–	2
14. Breastfeeding & Weaning	Describe WHO recommendations and benefits	Comprehension	MCQ	2	–	2
15. Baby Friendly Hospital Initiative (BFHI)	List ten steps and purpose	Knowledge	MCQ	1	–	1
16. Adolescent Health	Identify common health issues and	Application / Evaluation	MCQ	2	–	2

	preventive strategies					
17. Mental Health & Drug Abuse in Youth	Describe preventive and supportive community measures	Comprehension / Application	MCQ	2	–	2
18. Child Health Indicators	Define, interpret, and apply indicators	Knowledge / Analysis	MCQ	2	1	7
19. Integrated Management of Neonatal & Childhood Illness (IMNCI)	Explain components, rationale, and community strategy	Application / Evaluation	MCQ	3	1	8

| Total | | | 30 MCQs | 4 SEQs | 50 Marks |

Blueprint for Maternal and Child Health (MCH) Test

Level of Cognitive Domain	Weightage (%)	Type of Question	Number of Questions	Marks
Knowledge & Recall	25%	MCQ	8	8
Comprehension / Understanding	30%	MCQ + SEQ	10	10
Application & Analysis	35%	MCQ + SEQ	9	20
Evaluation / Synthesis	10%	SEQ	3	12
Total	100%		30 MCQs + 4 SEQs	50 Marks

Summary by Content Area

- **Maternal Health Topics:** 10 areas = 60% weightage
- **Child Health Topics:** 9 areas = 40% weightage
- Cognitive balance maintained between **recall, understanding, and applied community-level decision-making.**

- Emphasis on **preventive, promotive, and programmatic understanding** rather than pure clinical recall.
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Table of Specification (TOS)

Topic: *Environmental Health* **Assessment Type:** Objective (MCQs) **Total Marks: 50**

Main Content Area	Subtopics / Competencies	Learning Objectives	Cognitive Level (Bloom's)	Approx. No. of MCQs	Marks
1. Water	Safe & wholesome water, requirements, sources, uses, pollution, water-related diseases, purification (large & small scale), disinfection, WHO standards, surveillance, hardness	Define safe and wholesome water; describe water pollution, purification, standards and surveillance	Knowledge / Application	13	13
2. Air & Ventilation	Composition, air quality, thermal comfort indices, air pollution & monitoring, standards of ventilation	Describe air composition, ventilation principles, and control of air pollution	Knowledge / Comprehension / Analysis	7	7
3. Light	Requirements, measurement, lighting standards	Identify good lighting characteristics and its health significance	Knowledge / Comprehension	3	3

4. Noise	Characteristics, effects on health, noise pollution and prevention	Explain causes, effects, and prevention of noise pollution	Comprehension / Application	3	3
5. Radiation	Sources, exposure, types, effects, protection	Recognize radiation types, health effects, and control measures	Knowledge / Application	4	4
6. Atmospheric Pressure, Heat & Humidity	Effects on health, preventive measures, measurement, indices	Describe physiological effects and preventive measures	Knowledge / Analysis	5	5
7. Housing	Healthful housing, standards, indicators	State standards and health significance of housing	Knowledge / Comprehension	5	5
8. Waste Disposal	Solid & liquid waste management, excreta disposal	Identify sanitary methods of waste disposal and public health importance	Knowledge / Application	10	10

| Total | | | | 50 MCQs | 50 Marks |

Blueprint for Environmental Health (MCQs – 50 Marks)

Cognitive Domain	Expected Competence	Weightage (%)	No. of MCQs	Marks
Knowledge / Recall	Recall of facts, definitions, and standards	40%	20	20

Comprehension / Understanding	Understanding of relationships, processes, and basic concepts	30%	15	15
Application / Analysis	Applying knowledge to field situations, identifying health implications	30%	15	15
Total		100%	50 MCQs	50 Marks

Summary

- **Exam type:** Objective (MCQs)
- **Total:** 50 MCQs × 1 mark each = **50 marks**
- **Coverage:** Broad yet focused across water, air, waste, housing, and radiation
- **Level:** Postgraduate / FCPS standard
- **Purpose:** Assess integrated understanding of environmental determinants of health and preventive measures