(Examination Scheme)

<table>
<thead>
<tr>
<th>Subject</th>
<th>No. of Questions X Marks</th>
<th>Full Mark</th>
<th>Pass Mark</th>
<th>Time</th>
</tr>
</thead>
<tbody>
<tr>
<td>Service Specific Technical Subject</td>
<td>5 Long questions X10=50</td>
<td>100</td>
<td>50</td>
<td>3 hrs.</td>
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<tr>
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<td>10 Short questions X5=50</td>
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</tbody>
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1. Pharmacology, poisoning and critical care medicine
   1.1. Principles of pharmacology therapy
   1.2. Pharmacology of different medicines
   1.3. Acute and chronic poisoning and their management
   1.4. Principles of critical care medicine
   1.5. Oxygen delivery
   1.6. Major manifestations, monitoring and management of critical illness
   1.7. Nutrition & dietetics

2. Infection
   2.1. Basic of infection
   2.2. Major manifestations of infections
   2.3. Principles of management of infection, including different antimicrobial agent and prevention of infection.
   2.4. Diseases due to different organism like virus, bacteria, protozoa, helminthes

3. Diabetes and nutritional and metabolic disease and other endocrine disease
   3.1. Diabetes mellitus: Classification, epidemiology, aetiology, pathophysiology, clinical feature, diagnosis, management, acute and long-term complications of diabetes, special problems in management, prospects in diabetes
   3.2. Obesity – Definition & management
   3.3. Nutritional factors in health and disease
   3.4. Other metabolic disorders
   3.5. Thyroid disease: functional anatomy, physiology, investigation and major manifestations, management and prevention
   3.6. Other endocrine disease, including functional anatomy, physiology, investigations, major manifestations, management and prevention

4. Cardiovascular system and disease as required for General Physicians
   4.1. Functional anatomy, physiology and investigations
   4.2. Major manifestation and heart disease
   4.3. Disorders of heart rate, rhythm and conduction
   4.4. Ischemic heart disease
   4.5. Vascular disease
   4.6. Diseases of heart valves
   4.7. Congenital heart disease
   4.8. Diseases of the myocardium
   4.9. Diseases of the pericardium

5. Respiratory system and diseases as required for General Physicians
   5.1. Functional anatomy, physiology and investigations
   5.2. Major manifestations of lung disease
   5.3. Obstructive pulmonary diseases
   5.4. Infections of the respiratory system
   5.5. Tumors of the bronchus and lung
5.6. Interstitial and infiltrative pulmonary disease, including occupational lung disease
5.7. Pulmonary vascular disease
5.8. Diseases of the nasopharynx, larynx and trachea
5.9. Disease of the pleura, diaphragm and chest wall

6. GI and liver system & diseases as required for General Physicians
6.1. Functional anatomy, physiology and investigations
6.2. Major manifestation of gastroinestestinal and liver disease
6.3. Diseases of the mouth and salivary glands
6.4. Diseases of the esophagus
6.5. Diseases of the stomach and duodenum
6.6. Diseases of the small intestine, colon, rectum and anal canal
6.7. Diseases of the pancreas
6.8. Diseases of the liver
6.9. Gall bladder and other biliary diseases
6.10. Disease of the peritoneal cavity

7. Water, electrolyte and acid-base balance and nephrology system and disorders as required for General Physicians
7.1. Physiology and electrolytes, water and acid-base
7.2. Major electrolyte and acid-base disorders
7.3. Functional anatomy, physiology and investigations of the kidneys and urinary system
7.4. Major manifestations of renal disease
7.5. Renal vascular disease
7.6. Glomerular disease
7.7. Tubulo-interstitial disease
7.8. Congenital abnormalities of the kidneys
7.9. Renal involvement in systemic diseases
7.10. Infections of the kidney and urinary tract
7.11. Obstruction of the urinary tract
7.12. Urinary tract calculi and nephrocalcinosis
7.13. Drugs and the kidney
7.14. Tumors of the kidney and genitourinary tract

8. Hematology, immunology and joint, bone and connective tissue system and disease
8.1. Inflammation
8.2. Organization and function of the immune system
8.3. Hematopoiesis, physiology of the blood and clotting
8.4. Investigations of diseases of the blood
8.5. Major manifestations of blood diseases
8.6. Anemias
8.7. Lymphoproliferative and myeloproliferative disorders
8.8. Bleeding disorders
8.9. Venous thrombosis
8.10. Blood transfusion
8.11. Functional anatomy, physiology and investigation of the diseases of the connective tissues, joints and bones
8.12. Diseases of the connective tissues, joints and bones
9. **Nervous system and Psychiatric disorders as required for General Physicians**

9.1. Functional anatomy, physiology and investigations of neurology
9.2. Major manifestations of nervous system and psychiatric disease
9.3. Diseases of the nervous system
9.4. Diseases of the spine and spinal cord
9.5. Diseases of the nerves and muscles
9.6. Classification and etiology of psychiatric disorders
9.7. The clinical interview
9.8. The psychiatry disorders and syndromes and their management

10. **Genetics, Oncology & Palliative care, Geriatrics and Skin system and disorders as required for General Physicians**

10.1. Genetics and disease, particularly molecular features of infective disease
10.2. Investigation f the molecular basic of disease
10.3. Modern molecular methods in human disease
10.4. Types of genetic disease
10.5. Genetic factors in common diseases
10.6. Epidemiology, etiology, clinical presentations, investigations and management of the oncology diseases
10.7. Palliative anticancer medicine
10.8. Normal ageing
10.9. Major manifestations of disease in frail older people
10.10. Rehabilitation
10.11. Functional anatomy and physiology of the skin
10.12. Major manifestations and investigations of skin disease
10.13. Skin diseases
10.14. The skin and systemic disease

11. **Research and Paper publication**

11.1 Planning and carrying out health research.
11.2 Methodology, design, variables, sampling, data collection, data entry, descriptive statistics, research reports, random number
11.3 Interpretation of the results of health research.
11.4 Bio-statistics, Probability, probability distributions, hypothesis tests, estimation, parametric and non-parametric statistics, regression and correlation, longitudinal studies
11.5 Dissemination of the results
11.6 Principles of paper publications and search and critical review of literature, types of papers, common headings, tables and graphs, reference writing
11.7 Medical ethics, including introduction to ethical theories, professional ethics, ethics in research, ethics in health policy

12. **Medical education and training**

12.1 General principal, curricular components, the fundamentals of educational process
12.2 Curriculum Development and Education Strategies
12.3 Identification of learning resources to meet the learning objectives,
12.4 Teaching/Learning Methods
12.5 Teaching-Learning Aids: Use of overhead projectors, slides, models etc in the teaching learning objectives
12.6 Classroom Presentation skills
12.7 Evaluation and Assessment of Learning: methods of evaluation, questions type
12.8 Organization, Management and Leadership
12.9 Continuing Professional Development (CPD)
12.10 Basics of Educational medicine
12.11 Evidence based medical practice
12.12 Problem oriented medical record
12.13 Communication and counseling in medicine

13.1 Human organ transplant act, Consumer protection act
13.2 Nepal Health Sector Programme
13.3 Rational use of drugs, drug policies
13.4 NMC and National Health Agencies
13.5 Nepal Health Service Act, 2053 and Regulation, 2055

14. Epidemiology and control of communicable diseases
14.1 Public health and epidemiology
14.2 Problem and control of communicable disease, common terminology and principle
14.3 TB Control
14.4 HIV/AIDS control
14.5 Malaria control
14.6 Kala-azar control

15. Problem and control of non-communicable diseases and of accidents and poisoning
15.1 Epidemiology and control of IHD
15.2 Epidemiology and control of hypertension
15.3 Epidemiology and control of diabetes
15.4 Epidemiology and control of chronic respiratory disease
15.5 Epidemiology and control of cancers
15.6 Epidemiology and control of accident
15.7 Emergency preparedness & disaster management
15.8 Epidemiology and prevention of poisoning including snake bite, poison information and networking

16. High altitude physiology & medicine
16.1 High altitude acute & chronic sickness
16.2 High altitude pulmonary oedema
16.3 Physiological metabolic & hormonal changes in high altitude situation