

GUIDELINES TO HELP CANDIDATES TO PREPARE FOR THE ERPM EXAMINATION

“To study medicine without books is to sail an uncharted sea. To study medicine without patient’s is not to go to sea at all”- Sir William Osler

1 INTRODUCTION

The purpose of the ERPM examination is to assess whether a candidate can approach medical practice with the appropriate intellectual skills of enquiry, clinical reasoning, critical thinking and decision making; possessing sufficient knowledge of the basic and clinical sciences, and an understanding of the underlying principles of scientific method; and the ability to create a differential diagnosis and rationalize a treatment plan for common clinical situations prevalent in Sri Lanka.

The candidates should also be able to apply the knowledge of basic sciences to explain the aetio-pathogenesis of disease conditions. They should demonstrate an understanding of the principles of essential procedural skills and the ability to perform such procedures. They should be able to communicate with patients respecting their dignity, rights, fears and anxieties, taking into consideration the socio-economic, cultural, religious and educational background of the patients.

IN MORE SPECIFIC TERMS:

Candidates should:-

- 1) have a good knowledge of the normal and abnormal structure and function of the human body and of changes occurring during the life cycle.
- 2) have knowledge of signs and symptoms of disease, be able to take a good history, conduct an examination of the patient, order the relevant investigations, arrive at a differential diagnosis and diagnosis, and know the non-pharmacological and pharmacological management of diseases.
- 3) know to manage medical emergencies.
- 4) know about disability, rehabilitation and handicap;
- 5) know the role of the family and extended family, about inter-relationships and interactions with the society, and be aware of cultural and ethnic differences about the perception and response to illnesses;
- 6) demonstrate good communication skills e.g. breaking bad news, informing relatives of results of investigations and informing them of the patient’s condition.
- 7) Understand the concepts of patient confidentiality, privileged communication and when to breach patient confidentiality; the importance of informed consent; concept of medical negligence, civil and criminal liability.
- 8) demonstrate knowledge of medical ethics, and behave in an ethical manner.

- 9) understand the concepts of evidence based medicine
- 10) know basic statistics.
- 11) understand the concepts of self learning and lifelong learning
- 12) know about the importance of record keeping.
- 13) demonstrate ability to work as part of a team
- 14) know about doctor patient relationship, patients rights and the necessity to use a chaperone when examining adults of the opposite sex.
- 15) be able to educate patients and the public with a view to health promotion and disease prevention.

2 MEDICINE

The knowledge, attitudes and skills expected of candidates in the subject of Medicine at the ERPM are as follows:-.

2.1. Candidates should be able to diagnose, suggest treatment and recommend preventive measures for diseases common in Sri Lanka. These include:

- Hypertension, ischaemic heart disease, rheumatic fever, heart failure, sub-acute bacterial endocarditis, pericardial diseases.
- bronchial asthma, chronic obstructive airways disease, TB, pneumonia, suppurative lung disease, bronchial carcinoma.
- headache, stroke, epilepsy, encephalitis, meningitis, neuropathy, myopathy, movement disorders, coma, dementias and degenerative disorders of the brain and the spinal cord.
- viral hepatitis, chronic hepatitis, cirrhosis, upper gastrointestinal bleeding, peptic ulcer disease, malabsorption, functional abdominal pain, inflammatory bowel disease.
- leukaemias, lymphomas, plasma cell disorders, deficiency anaemias, aplastic anaemia, haemolytic anaemias, haemoglobinopathies, platelet disorders, haemophilia and other coagulation disorders.
- disorders of fluid and electrolyte balance, disorders of acid base balance
- urinary tract infection, glomerulonephritis, renal failure. Thyroid disorders, disorders of calcium metabolism, diabetes mellitus.
- rheumatoid arthritis, seronegative arthritides, SLE
- rabies, arboviral diseases typhoid, dysentery, food poisoning, leprosy, leptospirosis, STD, malaria, filariasis
- Thyroid disorders, disorders of calcium metabolism, diabetes mellitus.

2.2 Candidates should be able to recognize serious diseases in the early stages.

These include:

- Acute coronary syndromes:- Myocardial infarction: STEMI, Non-STEMI, Unstable angina, Stable angina, ECG changes in ischaemic heart disease, Acute left ventricular failure, Congestive cardiac failure, Young hypertension, Hypertension and complications, Acute severe hypertension, Acute rheumatic fever, Chronic valvular heart disease; Mitral stenosis, Mitral regurgitation, Aortic stenosis, Aortic regurgitation, Mixed valvular diseases, Infective endocarditis, Ventricular fibrillation, Ventricular tachycardia, Rapid atrial fibrillation, Conduction blocks
- Pulmonary embolism, Acute severe asthma, Chronic asthma, tuberculosis, Pneumonia and complications, Community acquired, nosocomial, in an immunocompromised pt, Poorly resolving, Bronchial carcinoma and complications, Diffuse lung diseases
- Simple and tension pneumothorax, Pleural effusion, Type I and type II respiratory failure
- Acute liver failure, Chronic liver failure
- Causes of upper gastrointestinal bleeding,
- Acute leukaemias, Lymphomas, Chronic leukaemias and, plasma cell disorders, Platelet disorders, Clotting factor, abnormalities, DIC, SDH, SAH, ICH
- Strokes and TIAs, Meningitis, encephalitis, cerebral malaria, Causes of acute and progressive flaccid paralysis
- Metabolic acidosis, Respiratory acidosis, Respiratory alkalosis, Hyperkalaemia, Hyponatraemia, hypocalcaemia, Acute renal failure, Chronic renal failure,
- Acromegaly, hypopituitarism, Hyper thyroidism, Hypothyroidism, Cushing's syndrome, Addison's disease, Other endocrine disorders
- SLE related presentations and complications, Cerebral malaria and related complications, Dengue fever and other arboviral fevers, STD and urinary tract infections, HIV and HIV related problems and, immunocompromised states,
- Organophosphates, Paraquat, Oleander, Paracetamol, Other common poisons
- Venomous snakes: , Identification of venomous bites and management

2.3 Candidates should be able to describe other diseases which illustrate important principles in medical science or are of major public importance in a global context

- HIV & AIDS,
- Multiple Sclerosis
- Pituitary disorders, Addison's, Cushing's and Conn's syndromes

- Myasthenia gravis

2.4 Candidate should be able to describe and recognize Diseases/conditions that can be prevented and/or controlled by change in behaviour of the patient or by immunisation

- Non communicable disease e.g. diabetes mellitus; vascular diseases; alcoholic liver disease; COAD; bronchial carcinoma; anaemias; metabolic syndrome
- Communicable diseases: TB, Diphtheria, Pertussis (whooping cough), Tetanus, Poliomyelitis, Measles, Rubella, viral hepatitis; H1N1 Influenza, Dengue, HIV and other STDs
- Genetic diseases
- Malnutrition

- Candidates should know the Immunisation schedule used in Sri Lanka.

2.5 Counseling

Candidates should show the ability to counsel patients and their relatives when necessary.

Demonstrate knowledge of communication skills and basic managerial and administrative skills required to function efficiently in a hospital ward setting.

2.6 Candidates should be able to describe and carry out the following procedures:

- obtaining a sample for blood culture
- ophthalmoscopy
- lumbar puncture
- paracentesis (abdominal and thoracic)
- urethral catheterization
- naso-gastric and gastric intubation.

2.7 Recommended reading for Medicine

- Clinical Medicine (6th ed) by Parveen Kumar & Michael Clark
- Davidson's Principles and Practice of Medicine (20th ed) by Nicholas A Boon, Nicki R Colledge, Brian R Walker & John AA Hunter
- McLeod's Clinical Examination (10th ed) by John F Munro & Ian W Campbell (editors)

3 OBSTETRICS AND GYNAECOLOGY

3.1 OBSTETRICS

The student should be competent to prevent, recognize, diagnose and manage normal and abnormal pregnancy, labour and puerperium.

- Normal Pregnancy:
anatomy & physiology of the female reproductive system, anatomical & physiological changes in normal pregnancy, fetal physiology, pre-pregnancy counselling, diagnosis & duration of the normal pregnancy, placenta & fetus (development & functions), prenatal care, course & mechanism of normal labour & delivery, puerperium, nutrition in pregnancy.
- Pregnancy complicated by:-
abnormalities of the pelvic organs such as congenital deformities of the uterus and the vagina, uterine fibroids, ovarian tumours, miscarriage, gestational trophoblastic disease, ectopic pregnancy, antepartum haemorrhage (placenta praevia, abruptio placentae, vasa praevia), polyhydramnios and oligohydramnios, multiple pregnancy, breech presentation, malpresentations, malpositions, prematurity and post maturity, pre-labour rupture of membranes, intrauterine growth restriction, intrauterine death, fetal anomalies.
- Labour complicated by:
prolonged labour, obstructed labour, breech presentation, face and brow presentation, shoulder presentation, transverse lie, oblique lie, occipito-posterior position, pelvic abnormalities and cephalopelvic disproportion, fetal distress, cord prolapse, postpartum haemorrhage, retained placenta.
- Puerperium complicated by:
obstetric shock, infections, thrombophlebitis, lactational problems and breast abnormalities (engorgement, cracked nipples, acute puerperal mastitis, breast abscess, suppression of lactation, galactocoele), mood disorders (puerperal blues and depression).

- Medical disorders:
pregnancy induced hypertension, gestational diabetes mellitus, anaemia and nutritional deficiencies, Rhesus isoimmunization, coagulation disorders, thrombo-embolic disease, heart diseases, hepatitis, respiratory diseases, renal diseases, epilepsy, thyroid dysfunction, urinary tract infection, upper respiratory tract infections, gastro enteritis, reflux oesophagitis.
- Traumatic lesions, operative and diagnostic procedures:
rupture of the uterus, acute inversion of the uterus, perineal lacerations, fistulae, haematoma of broad ligament and vulva, maternal nerve injuries, caesarean section, forceps delivery, vacuum delivery, breech delivery, twin delivery, manual removal of placenta, repair of perineal tears, induction of labour by artificial rupture of membranes and oxytocin, ultrasonography, monitoring of fetal wellbeing, cardiotocography, prenatal diagnosis.

3.2 GYNAECOLOGY

The candidate should be competent to prevent, recognize, diagnose and manage common gynaecological problems and diseases.

- normal development of the female genital tract, abnormalities in the genital tract, disorders of sexual development.
- Genital tract Infections:- Bartholinitis, vulvitis, vaginal discharge, nonspecific vaginitis, acute and chronic cervicitis, endometritis, pelvic inflammatory disease, TB of the genital tract, chlamydia, gonorrhoea, syphilis, herpes genitalis, papilloma virus infection.
- Benign tumours in female genital tract:- cysts of the vulva and vagina, fibromyoma, cervical and endometrial polyps, benign tumours of the ovary, endometriosis, adenomyosis.
- Premalignant and malignant tumours:- cervical intraepithelial neoplasia, endometrial hyperplasia, gestational trophoblastic tumours, vulval carcinoma, vaginal carcinoma, cervical carcinoma, endometrial carcinoma, uterine sarcoma, ovarian malignancies, carcinoma of the fallopian tubes.
- Menstrual disorders:- primary and secondary amenorrhoea, oligomenorrhoea, menorrhagia, dysfunctional uterine bleeding, postmenopausal bleeding and intermenstrual bleeding, premenstrual tension, dysmenorrhoea.

- Infertility and contraception:- primary and secondary infertility, treatment methods available, hormonal contraception, intrauterine contraceptive device, tubal sterilization.
- Urogynaecology disorders:- genuine stress incontinence, detrusor instability, mixed incontinence, genital tract injuries and fistulae, genital prolapse, retroversion of the uterus.
- Endocrine disorders:- precocious puberty, normal and delayed puberty, intersex, hyperprolactinaemia, polycystic ovarian disease, hirsutism, climacteric symptoms and menopause.
- Operative and diagnostic procedures:- dilatation and curettage, evacuation of uterus, biopsy, cauterization, abdominal and vaginal hysterectomy, tubal surgery, cystectomy, stress repair, myomectomy, laparoscopic surgery, hysterosalpingography, ultrasonography, cervical smear.

3.3 Recommended Reading for Obstetrics and Gynaecology

- Philip N Baker (editor). *Obstetrics by Ten Teachers* (18th ed). London, Hodder Arnold, 2006
- Ash Monga (editor). *Gynaecology by Ten Teachers* (18th ed). London, Hodder Arnold, 2006
- Hiralal Konar (editor). *Textbook of Obstetrics by DC Dutta* (6th ed). Calcutta, New Central Book Agency, 2004
- Hiralal Konar (editor). *Textbook of Gynaecology by DC Dutta* (4th ed). Calcutta, New Central Book Agency, 2003
- J Oats, S Abraham (editors). *Llewelyn Jones' Fundamentals of Obstetrics & Gynaecology* (8th ed). Edinburgh, Elsevier-Mosby, 2005
- Michael Swash (editor). *Hutchison's Clinical Methods* (22nd ed). Edinburgh, Elsevier Science 2007.
- S Arulkumaran, I Symonds, A Fowlie (editors). *Oxford Handbook of Obstetrics & Gynaecology* (1st ed) Oxford, Oxford University Press, 2004
- DK Edmonds (editor). *Dewhurst's Textbook of Obstetrics & Gynaecology* (7th ed). Oxford, Blackwell Publishing, 2007
- CN Piercy. *Handbook of Obstetric Medicine*. (3rd ed). Andover, Hampshire, Taylor & Francis, 2006.

4 PAEDIATRICS

4.1 Candidates should be able to:-

- describe the normal development of the fetus, and factors that affect fetal growth
- Identify common congenital abnormalities and their causes and consequences

- explain the principles of infant nutrition including breast feeding, weaning and recommended diets for infants specifying food items
- Compare human and cow milk and the advantages of human milk
- recognise the normal pattern of growth and causes and management of abnormalities – such as failure to thrive, obesity, short and tall stature.
- describe the normal development of the infant and preschooler and recognize deviations from the normal
- take a good Paediatric clinical history, identify important information in the patients history and be able verify whether information is correct. Interpretation of investigation results according to the clinical situation, and familiarity with common invasive and non invasive diagnostic investigations.
- describe the epidemiology of common communicable diseases seen among children in Sri Lanka and explain their pathophysiology, clinical features, management and prevention.
- e.g. acute gastro-enteritis, respiratory tract infections, hepatitis, meningitis, encephalitis, typhoid, tuberculosis, leptospirosis, whooping cough, measles, rubella, and mumps.
- describe common and important congenital heart diseases and acquired heart diseases eg , rheumatic fever and Kawasaki disease – including their aetiology, clinical presentation and management
- recognize and manage acute respiratory infections including bronchiolitis bacterial pneumonia, stridor and upper respiratory infections. Describe and recognize X ray changes seen in common respiratory conditions of children. With regard to bronchial asthma – describe its triggers, prevention, assessment of severity and treatment options.
- describe lung function tests and their practical use.
- with regard to non communicable diseases in the paediatric age group in Sri Lanka _ Identify common conditions such as acute post streptococcal glomerular nephritis, nephrotic syndrome, malnutrition, bronchial asthma, urinary tract infections, thalassaemia haemophilia, acute flaccid paralysis, cerebral palsy, mental retardation, and epilepsy.- and be able to diagnose, treat, prevent and advice on prognosis of such conditions.
- Identify the common nutritional problems in Sri Lanka.e.g. protein energy malnutrition, iron deficiency, iodine deficiency, Vitamin A deficiency & other micro nutrient deficiencies, know their predisposing causes, presentations, and

management, including available food supplements and principles of nutrition therapy and rehabilitation.

- explain the pathophysiology, identify clinical features and complications, describe the management and prevention of neonatal problems common in Sri Lanka e.g. low birth weight, preterm births, respiratory distress, jaundice, sepsis including umbilical sepsis, meningitis and septicaemia, hypothermia, hypoglycaemia, hypocalcaemia, seizures and surgical problems.
- describe the Principles and practical aspects of resuscitation of an asphyxiated newborn
- describe common renal, endocrine and metabolic disorders including hypothyroidism, diabetes mellitus and inborn errors of metabolism. .
- describe common haematological conditions especially deficiency anaemias, haemolytic anemia (especially Thalassemia) , immune thrombocytopenic purpura, haemophilia, aplastic anaemias and haematological malignancies.
- diagnose and manage common dermatological conditions in childhood e.g. eczema, scabies, impetigo, dematophytes, and head lice.
- diagnose common psychiatric disorders in childhood.e.g. autism, ADHD, enuresis, tantrums, enuresis and other paediatric psychiatric disturbances.
- describe and diagnose common childhood malignancies – especially leukaemias and common solid tumours
- diagnose and manage burns and common surgical problems of infants and children including hypertrophic pyloric stenosis, intussusception and volvulus:
- describe and recognize genetically acquired diseases and chromosomal abnormalities, including inheritance patterns, show familiarity with pedigree charts, and assessment of risks of affection. Also, describe the clinical features of common genetic diseases, prevention and treatment modalities available for such diseases.
- describe the current morbidity and mortality patterns in paediatrics in Sri Lanka including changes and improvements as well as the underlying causes and interventions.
- Describe the expanded program of immunization(EPI) in Sri Lanka, the sites and routes of administration of vaccines, and adverse effects which may follow immunization. Also, describe vaccines and their storage for both EPI and important non EPI vaccines.

- define Issues relating to child rights and child protection, and presentations of child abuse including physical, emotional and sexual abuse.
- counsel parents in the event of a child's death or when a child has a serious illness or disability and break bad news to them.
- Show familiarity with cultural habits, misbeliefs, and alternative healing methods practised by Sri Lankan people, and how to plan treatment options taking into consideration buying capacity of patients when possible.
- calculate perinatal mortality rate, infant mortality rate and child mortality rate and be able to describe the trends shown in the recent past in Sri Lanka, and how these figures are important in policy planning. Describe other important demographic data in Sri Lanka such as birth rate, immunization coverage pertaining to child health.
- Show awareness of Importance of road traffic and home accidents and poisonings- both accidental and intentional, especially paracetamol poisoning. Animal bites including dog bite and snake bite, complications and management.
- Show awareness of environmental hazards such as air pollution and mosquito borne diseases and their impact on child health, diseases caused and their prevention and control.
- show familiarity with and describe the management of common paediatric emergencies such as stridor, anaphylaxis, severe dehydration and hypovolaemic shock, dengue shock syndrome, cardiac failure, status epilepticus, status asthmicus and diabetic ketoacidosis.

4.2 Recommended Reading for Paediatrics

- Hospital Paediatrics (3rd ed) by Anthony D Milner & David Hull, 1998
- Illustrated Paediatrics – (3rd ed) by Tom Lissauer, Graham Clayden
- A Neonatal Vade Mecum (3rd ed), B Spiedel (ed), 1998
- A Paediatric Vade Mecum (14th ed) TG Barrett, AD Lander, V Diwakar, 2003
- A manual of neonatal intensive care (4th ed) JM Rennie and NRC Robertson, 2002
- Nelson's Textbook of Paediatrics (18th ed) RM Kliegman et al, 2007

5 SURGERY

5.1 The candidate should be

- able to obtain a comprehensive history and elicit and interpret physical signs of a surgical patient
- able to arrange appropriate investigations and be able to interpret them
- able to arrive at a probable diagnosis and rationalise a treatment strategy and pre and post-operative care
- familiar with the spectrum of surgical care available and be able to assess the risks and benefits
- able to understand the principles of management of critically injured patients and other surgical emergencies
- explain in simple terms the intended surgical procedure and be able to obtain informed consent
- emphasise the important ethical, moral and social issues involved in surgical practice and to induce a discussion on cost benefit analysis
- perform simple basic essential surgical procedures
- demonstrate a kind and caring attitude towards patient care
- be able to describe the etiology pathogenesis and complications of the following disease states.

5.2 The candidate should be able to diagnose and describe management of:-

- hernias (inguinal, femoral, Para umbilical, umbilical, epigastric & incisional)
- scrotal lumps (hydrocoeles, cyst of the epididymis, spermatocele, varicocele & epididymo – orchitis)
- acute appendicitis, appendicular mass & abscess
- breast lumps (fibroadenomas, fibroadenosis & carcinomas)

- fissure in ano, fistula in ano, ischiorectal abscess, haemorrhoids, perianal haematoma
- varicose veins
- deep vein thrombosis and pulmonary embolism
- lymphoedema and other lymphatic disorders
- goitres and other neck lumps (thyroglossal cyst, branchial cyst, cystic hygromas & carotid body tumour)
- thyrotoxicosis and hypothyroidism
- thyroid Cancers
- parathyroid adenomas, hyperparathyroidism and hypoparathyroidism
- haematemesis and oesophageal varices
- dysphagia (achalasia and oesophageal cancer)
- peptic ulcers and gastric cancers
- acute and chronic pancreatitis
- cancers of the pancreas
- liver cysts, tumours and abscess
- cholecystitis, biliary calculous disease and obstructive jaundice
- salivary glands – calculi, infections and neoplasms
- cancers of mouth, tongue, pharynx and larynx
- rectal bleeding, colorectal cancer and anal cancer
- diverticular disease, and Inflammatory bowel disease
- intestinal obstruction
- peritonitis

- haematuria, urinary tract infections, urinary tract calculi, hydronephrosis
- bladder outflow obstruction, benign hypertrophy of prostate and cancer of the prostate
- urethral strictures
- cancers of the penis and testis
- renal cysts and renal tumours
- acute and chronic limb ischaemia
- diabetic wounds
- abdominal aortic aneurysm, A-V malformations and A-V fistulas
- skin infections (abscess, cellulitis, erysipelas, carbuncles, gas gangrene)
- skin pre malignant and malignant conditions
- fractures, osteomyelitis and tumours
- common paediatric surgical problems – e.g. cleft lip / palate, tracheo-oesophageal fistula (TOF), pyloric stenosis, phimosis, posterior urethral (PU) valves, hypospadias, congenital dislocation of hip (CDH), scoliosis, club foot, slipped upper femoral epiphysis, and congenital herniae
- raised intracranial pressure and space occupying lesions (SOL)
- eye injuries, retinal detachment, cataract and conjunctivitis
- chronic otitis media and sinusitis

5.3 The candidate should be able to :-

- manage cases of trauma (mass disaster, triage, according to Advance Trauma Life Support (ATLS) guidelines, head injury, chest injury, abdominal injury; blunt and penetrating, liver lacerations and splenic rupture, injury to major blood vessels, spinal injuries, burns)
- perform pre-operative assessment and preparation
- perform post-operative assessment and management after surgery of fever, nutrition, pain, urine output, and pulmonary atelectasis

- manage drains
- prescribe prophylactic and therapeutic antibiotics in surgery
- describe issues related to HIV infection and Hepatitis B infection in surgery..
- describe the principles of renal, lung, liver, and bone marrow transplantation.
- describe the management of surgical emergencies e.g. surgical airways
- describe technique of emergency IV access.
- perform and describe cardio pulmonary resuscitation (CPR)
- perform and describe insertion of intercostal tube and describe management of the IC tube
- manage oliguria and anuria
- manage hepato renal syndrome
- describe the incidence of common malignancies in Sri Lanka

5.4 Recommended Reading for Surgery

- RCN Williamson & BP Waxman. Scott: An Aid to Clinical Surgery (6th ed), 1998
- H Ellis, R Calne & C Watson. Lecture Notes on General Surgery (11th ed). 2006
- GR McLatchie & DJ Leaper. Oxford Handbook of Clinical Surgery (2nd ed) 2002
- NL Browse. An introduction to the symptoms and signs of surgical disease (4th ed), 2005
- A Clain (editor). Hamilton Bailey's Demonstration of Physical Signs in Clinical Surgery (17th ed). 1986
- RCG Russell et al (editors). Bailey & Love's Short Practice of Surgery (24th ed). 2004
- PJ Morris & WC Wood (editors). Oxford Textbook of Surgery Volumes 1, 2 & 3 (2nd ed). 2000
- Mohan de Silva. Clinical Surgery made Easy. A companion to problem based learning (1st Edition) September 2008

6 PSYCHIATRY

6.1 The candidate should be able to :-

- describe the common psychiatric conditions encountered in Sri Lanka

- obtain a relevant history and conduct a mental state examination with a view to arriving at a differential diagnosis.

6.2 the candidate should possess knowledge, skills and attitudes to manage and refer as necessary for further opinion and care, the common psychological conditions presenting to a primary care physician

- Psychotic illnesses (schizophrenia, affective disorders, delusional disorders, brief psychotic episodes).
- Organic psychiatric illness (delirium, dementia, epilepsy related psychiatric disorders).
- Patients who presents after deliberate self-harm.
- Neurotic stress related disorders (anxiety disorders, phobia, obsessive compulsive disorder and dysthymia, adjustment disorder, somatoform and dissociative disorders).
- Substance misuse (eg. alcohol, cannabis, heroin)
- Sexual dysfunction (eg. erectile dysfunction, premature ejaculation, vaginismus, general lack of desire)
- Puerperal psychiatric disorders.
- Normal and abnormal grief reaction.
- Psychiatric ailments encountered in childhood (eg. conduct disorder, emotional disorders, learning disabilities, pervasive developmental disorders, attention deficit disorders).
- Suicide risk assessment, brief supportive psychotherapy, motivational interview, conduct family meetings, liaison of agencies relevant to the care of the patient.
- Screening for alcohol dependence,

6.3 the candidate should be able to work out the differential diagnosis and management of common psychiatric emergencies such as acute dystonic reactions, neuroleptic malignant syndrome, lithium toxicity, delirium, seizures, suicidal behaviour, depressive stupor, intoxication due to alcohol and drugs, an agitated patient, violent and homicidal behaviour

6.4 Recommended Reading for Psychiatry

- Shorter Oxford Textbook of Psychiatry (5th ed or latest) by Michael Gelder, Richard Mayou & Philip Cowen
- Psychiatry (3rd ed or latest) by Michael Gelder, Richard Mayou & John Geddes (Oxford Core Text Series)
- Concise Textbook of Clinical Psychiatry (2nd ed or latest) by Benjamin J Sadock & Virginia A Sadock
- Oxford Handbook of Psychiatry by Semple, Smyth, Burns, Darjee, McIntosh (Latest edition)
- Lecture Notes in Psychiatry (8th ed or latest) Paul Harrison, John Geddes & Michael Sharpe

7 COMMUNITY MEDICINE

7.1 The candidate should be able to provide definitions of and describe the concepts of health

- Define the term health
- Explain the concept of Primary Health Care and describe its application in healthcare programmes in Sri Lanka

7.2 With regard to Public Health Administration, the candidate should be able to:-

- Describe the organisation of the public health services at the central, provincial, district and divisional levels and describe the area of authority and the functions of the different categories of staff.
- List the duties of the medical officer of health, public health inspectors, public health nursing sisters, public health midwives and school dental therapists at divisional level, and the Medical Officer (Maternal and Child Health) and the Regional Epidemiologist at the regional level.
- Describe the organisation and functions of special units and special disease control programmes: Family Health Bureau, Epidemiology Unit, Health Education Bureau, and the special disease control programmes- malaria control, filariasis control, STD/AIDS control, leprosy control, control of dengue, Japanese encephalitis and other vector borne diseases, rabies control, Port Health Services

7.3 With regard to Epidemiology and Statistics and Control of Communicable Diseases, the candidate should be able to:-

- Define the scope of epidemiology and describe the uses of epidemiology and the methods used for the measurement of disease frequency: prevalence, incidence, mortality, case fatality
- Describe the commonly used types of epidemiological studies and their classification: observational, analytical and experimental studies.
- Explain the basic statistical measures used in summarising and analysing data: measures of central tendency, variability, normal distribution, hypothesis testing, simple statistical tests.
- Discuss the common errors encountered in epidemiological studies: random and systematic errors.
- Define the term epidemiological surveillance, and describe the methods of data collection used in Sri Lanka in epidemiological surveillance of communicable and non-communicable diseases

- Describe the current system of notification of communicable diseases and list the Notifiable Communicable Diseases and describe the methods used in their prevention.
- Discuss the importance of prevention of non-communicable diseases and describe the system of notification of these diseases.
- Describe the epidemiology, prevention and control of important communicable disease: vector borne diseases (malaria, filariasis, dengue fever, Japanese encephalitis, yellow fever), rabies, plague, tuberculosis, diphtheria, pertussis, tetanus, hepatitis B, HIV/AIDS
- Describe the Expanded Programme of Immunisation

7.4 With regard to demography the candidate should be able to:-

- Define the term Demography; and describe the methods used for the collection, display and interpretation of demographic data.
- Describe the factors that affect population change- births, deaths, population migration - and explain how these are measured- fertility rates, mortality rates (infant, neonatal, age specific, maternal, perinatal), rates of population migration
- Describe the trends in population change in Sri Lanka and explain the reasons for such change. Explain the changes in the population pyramid over the years.

7.4 With regard to Maternal and Child Health and Nutrition, the candidate should be able to:-

- Describe the organisation and implementation of the maternal and child health services: antenatal care, natal care, postnatal care, care of the newborn, Early Childhood Development Programme, school health programme, immunisation programmes, family planning services and special intervention programmes, adolescent health programmes, well woman clinics, school health programmes
- Describe the management information systems on MCH, and interpret the relevant indicators e.g., maternal mortality ratio/rate, contraceptive prevalence, etc.
- Describe the contraceptive methods in use and discuss their advantages and disadvantages.
- Discuss the components of the Child Development Record and interpret the significance of the recordings on the growth charts.
- Describe the aetiology, identification and management of common nutritional deficiencies prevalent in Sri Lanka: protein energy malnutrition, iron and folic acid deficiency, vitamin A deficiency, iodine deficiency

7.5 With regard to Environmental Health and Occupational Health, the candidate should be able to:-

- Identify safe sources of drinking and discuss the methods used for purification of water.
- List the water related diseases and explain the methods used for the prevention of water related diseases
- Discuss the methods used for the sanitary disposal of excreta in urban and rural areas.
- Discuss the importance of provision safe food and describe the objectives of food safety programmes and their implementation.
- Explain the important features of the Food Act and other legislation related to food safety and describe how these enactments are enforced.
- List the different types of solid waste and explain the methods used in the disposal of solid waste in urban and rural areas.
- Classify the common types of disasters that occur in Sri Lanka and describe the prevention, control and rehabilitation measures used to minimise their effects.
- Describe the common occupational hazards encountered in Sri Lanka and discuss the aetiology, prevention and control of occupational diseases.

7.6 With regard to Health Education and Intersectoral collaboration, the candidate should be able to:-

- Explain the importance of health education (information education communication-IEC, behavioural change communication - BCC) in the implementation of public health programmes.
- Discuss the role of other agencies and individuals such as local authorities, schools, estates, general practitioners and hospitals in the implementation of public health programmes

7.7 Recommended reading for Community medicine

- Park JE, Park K (eds), Park's Textbook of Preventive and Social Medicine. 19th edition, 2007
- Beaglehole, R. Bonita, R., Kjellstrom, T. Basic Epidemiology. World Health Organization, 2007
- Abramson JH: Survey Methods in Community Medicine. 4th edition. Edinburgh: Churchill Livingstone; 1990
- Annual Health Bulletin- Ministry of Healthcare and Nutrition

- Integrated Nutrition Package (Key interventions to improve Maternal and Child Nutrition in Sri Lanka for Primary Health Care Staff), Family Health Bureau 2008
- Immunization Handbook National Expanded Programme on Immunization, Epidemiological Unit, Ministry of Health, 2002
- Family Health Report, Family Health Bureau 2005-2006

8 FORENSIC MEDICINE

8.1 Candidates should be able to describe:-

- The medico-legal framework in the country and the duties required of a medical officer within this system while working in the roles of an intern medical officer, an officer in the out-patient department of a hospital, a house officer of a ward as a medical officer in medico-legal work, as a General practitioner as a Specialist in Forensic medicine, and as a doctor working in any other capacity.
- Inquests – Definition, types of deaths that require an inquest, procedure of the inquest, appointment and powers of Inquirer into sudden death, doctor’s role in the inquest, judicial and pathological post mortems, dying declaration, dying deposition
- Changes after death - Definition of death, classification of changes after death, hypostasis, rigor mortis, putrefaction, adipocere, mummification. Estimation of time since death: eye changes, cooling, hypostasis, rigor mortis and putrefaction, cessation of bodily functions, circumstantial factors, forensic entomology.
- Injuries – Definition, characteristic features, mechanism of producing injuries of abrasions, contusions, lacerations, incised injuries, stabs, fractures, effects of injury and cause of death, circumstances of injury (accident /suicide / homicide), injury patterns, defense, self-inflicted and fabricated injuries, injuries due to falls, medico-legal importance of injuries, healing of injuries, antemortem and postmortem injuries, Interpretation of injuries and determination of the features of weapons producing injuries. Regional injuries: face, head, neck, chest, abdomen, pelvis, spine, limb.
- Categories of hurt - non-grievous hurt, grievous hurt (section 311 penal code), endangering life, fatal in the ordinary course of nature, necessarily fatal injuries, Medico-legal Examination form and Medico-legal report
- Autopsy examination and report writing, dissection procedures in special circumstances eg neck, face, pelvic dissection, musculoskeletal, spinal cord, suspected thromboembolism, pneumothorax, air embolism, Death certification and cause of death according to the WHO format, declaration of death

- Road traffic and train accidents – Injuries and injury patterns seen in pedestrians such as primary impact, secondary impact, secondary and run-over injuries, vehicle occupants, motor cyclists, pedal cyclists, three wheeler injuries, protective devices in vehicles, injuries caused by a moving train
- Firearm injuries: basic types and parts of gun, mechanism of firing, smooth bore and rifled weapons, mechanisms of causing of injury, entrance wound, exit wound, estimation of approximate range, identification of weapons, direction of firing, atypical features of gunshot wounds.
- Death from explosives: types of explosives devices, mechanisms of injury, injury patterns, post mortem examination, investigation of mass disasters to include procedure, requirements for conducting a medico-legal investigation, the role of the Forensic pathologist in a major disaster
- Injuries and effects of physical agents - heat, cold, electricity, lightning eg Types of burns, effects and sequelae, degree of burns and categorization, medico-legal issues in a burnt body, antemortem and postmortem burns, hypothermia and hyperthermia, features, effects, sequelae and circumstances of electrocution, mechanisms and causation of death, injuries due to lightning and medico-legal investigation
- Sudden natural death – Definition, causes in different systems, negative autopsy and establishing the cause of death, autopsy findings in starvation and neglect
- Identification of the living and dead – medico-legal importance, general and specific methods of identification, clothing and personal effects, scars, stigmata, tattoos, deformities, disease, primary identifiers, determination of age, sex, stature, examination of skeletal remains, forensic odontology, exhumation and excavation of mass graves
- Criminal abortion - law of Sri Lanka and developments in other countries, types and methods of abortion, spontaneous abortion as a differential diagnosis, objectives of the medico-legal examinations, reporting on evidence of recent pregnancy and delivery, evidence of abortion and evidence of interference, cause of death.
- Sexual offences – law of sexual offences and related offences, medico-legal investigation of a victim of sexual abuse to include history, examination, sample collection and investigation, referrals, follow up and report writing, examination of an alleged assailant, medico-legal examination in child sexual abuse, unnatural offences
- Infanticide - Definition, objectives of medico-legal investigation, stillbirths and natural infant deaths as a differential diagnosis, viability, establishment of

maturity, signs of live birth, signs of recent delivery, modes of infanticide, autopsy examination and investigation in a suspicious infant death, examination of alleged mother and referral to psychiatrist.

- Child abuse and Sudden Infant Death Syndrome (SIDS) – Definition, laws in Sri Lanka, types of abuse, features and injuries seen in child abuse, differential diagnosis, medico-legal investigation and management of suspected child abuse, autopsy findings in child abuse, definitions, possible aetiologies and autopsy examination in SIDS
- Torture and battering – Definition, methods of torture, identification of injuries, injury patterns and scars in torture and report writing, modes of presentation, weapons used, investigation of a death in custody, wife battery, abuse of domestic servants, cause of death.
- Asphyxia – Definition, types and circumstances of death, general features of asphyxia, medico-legal investigation to include history, scene visit, post mortem examination and investigation in smothering, gagging, choking, overlaying, hanging, manual and ligature strangulation, traumatic asphyxia, postural asphyxia and sexual asphyxia
- Drowning and immersion in water – Definition, features, circumstances, types of drowning, investigation of a body recovered from water.
- Scene of crime, collection of samples and chain of custody - Definition, importance of scene visit, investigation, recording and collection of evidence at a scene, Locard's principle and its use at a scene, role of the Forensic Pathologist at a scene of crime, despatch of body to the mortuary, examination of blood and other stains, use of blood in disputed paternity, DNA profiling, collection of samples and maintenance of chain of custody in medico-legal work

8.2 With regard to Forensic Toxicology the candidate should be able to describe:-

- Definitions, routes of administration and elimination, actions, factors affecting outcome, diagnosis, principles of management, autopsy, sending specimens for analysis, classification of poisons, circumstances of poisoning (accident, suicide, homicide), sources, preparations, properties, circumstances of poisoning, basic mechanism of action, basic clinical and pathological stages and post mortem appearance.
- List the common poisons in Sri Lanka.

Agro-chemicals (insecticides, rodenticides, weedicides), organophosphorous compounds, organo-chlorate compounds, carbamates, paraquat, diquate.

Corrosive poisons: acids, alkali.

Alcohol: methyl alcohol, ethyl alcohol, investigation of a death due to alcohol

Plant poisons: Definition and classification: atropine, strychnine, modecca palmate, Gloriosa superba, Manioc, other common plant poisons.

Metal poisons : lead, arsenic, mercury, copper, (cyanide).

Anti-narcotic legislation: heroin, opium, cannabis

Barbiturates, phenothiazines, salicylates

Other poisons: carbon monoxide, ammonia and other poisonous gases, phenol.

Ethical and medical issues in poisoning

8.3 Candidates should be able to describe the medico-legal aspects of alcohol and addictive drugs, alcoholic beverages, absorption, metabolism and actions on the body, stages and intoxication, examination, and reporting on drunkenness, criteria in diagnosing drunkenness, differential diagnosis of drunkenness, completion of medico-legal examination form and medico-legal report in drunkenness.

8.4 Candidates should be able to give an account of the legal system in Sri Lanka: - Magistrates Court, Primary Court, District Court, High Court, trial by jury, Court of Appeal, Supreme Court, Tribunals, Commissions, Attorney General's Department. Medical evidence: Evidence Ordinance, Oral and documentary evidence, preparation of reports, giving oral evidence in court, doctor as an expert witness.

8.5 The candidate should be able to describe:-

- Basic medical ethics - consent and its types and uses, professional secrecy and privileged communications, consent and its various features, professional misconduct.
- Medical negligence - criminal and civil medical negligence, definition of negligence, causation, damages, standard of care, accepted practice, burden of proof, Res Ipsa Loquitur, Defenses, malpractice litigation, common defences by the Practitioner.
- Forensic psychiatry: Criminal responsibility, testamentary capacity, fitness to plead, fitness to stand trial, detention of mentally ill patients, guardianship of mentally ill patients.
- Industrial accidents and compensation: Doctor's duties, procedure in claiming compensation, assessment of disability.
- The Sri Lanka Medical Council - Members and office bearers, powers and duties of the Council, categories of registration, procedure in obtaining registration, rights and privileges of registered persons, disciplinary proceedings, Preliminary Proceedings Committee, Professional Conduct Committee, Erasure.

8.6 Recommended reading for Forensic Medicine.

- Keith Simpson's Forensic Medicine (edited by Bernard Knight)
- Lecture Notes in Forensic Medicine (Vols I & II) – Dr. L.B.L. de Alwis
- Forensic Medicine and Medical Law – Dr. Hemamal Jayawardena
- Clinical Forensic Medicine edited by W.D.S. Mc Lay

9 EMERGENCY MEDICINE

9.1 Candidates should be able to recognize medical emergencies from history, examination and investigations; deal effectively with such emergencies at different levels (including resuscitation and management); and demonstrate detailed knowledge on how to perform life saving procedures.

They should have clinical experience and be able to describe the management of the following:-

- Acute chest pain, acute pulmonary oedema, congestive cardiac failure, cardiac arrhythmias, cardiac arrest, cardiogenic shock, hypertensive encephalopathy, massive pulmonary embolism, cardiac tamponade.
- Acute respiratory failure, acute severe asthma, tension pneumothorax, massive pulmonary collapse, acute laryngeal obstruction, epistaxis.
- Upper gastro-intestinal bleeding, hepatic encephalopathy, acute pancreatitis, typhoid perforation, severe diarrhoea and dehydration, electrolyte imbalance.
- Unconsciousness, status epilepticus, meningitis, viral encephalitis, stroke, subarachnoid haemorrhage, intracranial hypertension, bulbar paralysis, respiratory muscle paralysis, myasthenia gravis, Guillain Barre syndrome,
- Acute renal failure.
- Acute disseminated intravascular coagulation, acute massive intravascular haemolysis.
- hypothermia, heat stroke, electric shock, near drowning,
- Dengue haemorrhagic fever
- Diabetic keto-acidosis, hypoglycaemic coma, thyrotoxic crisis, myxoedema coma, acute adrenal Insufficiency, acute hypopituitarism, tetany, acute hypercalcaemia, acute water intoxication.
- Acute poisoning

- Acute Organic Psychoses
- Shock
- Complicated Falciparum malaria
- Snake Bite,
- Rabies

9.2 Candidates should be able to describe the management of common paediatric emergencies such as :-

- stridor,
- anaphylaxis,
- severe dehydration
- hypovolaemic shock
- dengue shock syndrome
- cardiac failure
- status epilepticus
- status asthmalicus and
- diabetic ketoacidosis.

10 PATHOLOGY

10.1 With regard to general pathology, the candidate should be able to:-

- identify causative agents and predisposing factors of disease. This would include including pathogenic organisms, physical and chemical agents, cigarette smoking, alcohol, nutritional, metabolic, immune-related, environmental, genetic and age-related factors.
- describe the different mechanisms through which the above factors produce disease.

This would include

- Reversible and irreversible cellular injury – fatty change, necrosis, apoptosis, infarction and gangrene
- Acute and Chronic inflammation –cellular and vascular response, chemical mediators, pathogenesis and cells in chronic granulomatous and immune-mediated inflammation, with special emphasis on Tuberculosis, systemic effects of inflammation and complications and sequelae of inflammation
- Abnormalities of the blood and vascular system – hemorrhage, thrombosis, embolism. oedema and chronic venous congestion
- Adaptive response of tissue to injury – hypertrophy, hyperplasia, hypoplasia, atrophy, metaplasia, dysplasia and in-situ carcinoma
- Healing of tissue following injury – factors which influence healing by resolution, regeneration and repair, primary and secondary wound healing, factors that impair healing, and fracture healing

- Neoplasia – principles of nomenclature, differences between benign and malignant tumours, spread of tumours, clinical effects of tumours, paraneoplastic syndromes, grading and staging, laboratory diagnosis of tumours and the genetic basis of malignancy including oncogenesis and cancer-related genes
 - Other parenchymal and interstitial responses and biochemical abnormalities – pigmentation, calcification, amyloidosis, and acid-base balance
- describe the alterations in structure and function of tissues and organs in the body at a macroscopic level as a result of the above mechanisms and thus be able to explain the different clinical symptoms and signs that arise.
 - link the basic mechanisms of Pathology learnt at a foundation level to specific diseases and disease entities of the cardiovascular, respiratory, gastro-intestinal, genitor-urinary, neurological, musculo-skeletal and lympho-proliferative systems in order to explain their pathogenesis, clinical features, complications and effects.
 - select the appropriate investigations and specimens required to identify the pathogenic mechanism and the aetiological agents and be able to describe aware of accepted methods of specimen handling and transport

10.2 With regard to haematology, the candidate should be able to :-

- Define anaemia and be aware of the normal ranges of Haemoglobin for newborns, infants, adult males and females (pregnant and non-pregnant)
- Outline the main cause, pathogenesis and clinical effects of anaemia and be able to list relevant investigations.
- State principles of treatment and outline measures used in their prevention.
- Describe different categories of anaemia such as
 - iron, folate and B12 deficiency anaemias
 - inherited and acquired haemolytic anaemias, including immune and non-immune types
 - anaemia of chronic disease

10.3 With regard to haemato-oncology the candidate should be able to describe the pathology of :-

- Acute leukaemia
- Myeloproliferative disorders
- Lymphoproliferative disorders

- Multiple Myeloma

10.4 With regard to bone marrow failure syndromes, the candidate should be able to describe:-

- Aplastic anaemias
- Myelodysplastic syndromes

10.5 With regard to normal haemostasis and the investigation and management of bleeding disorders, the candidate should be able to describe

- coagulopathies,
- Platelet function disorders and
- thrombocytopaenias
- the aetiology, investigation and management of thrombophilia

10.6 With regard to blood transfusion the candidate should :-

- Have performed or observed blood grouping, cross matching and the preparation and/or use of blood components
- be able to describe haemolytic disease of the new born
- be able to describe the investigate and management of hazards of blood transfusion and their prevention

10.7 Recommended Reading for Pathology

- Basic Pathology by Stanley L Robbins, 7th Edition
- Consise Pathology by Parakrama Chandrasoma . 3rd Edition
- Pathological basis of Disease by Stanley L Robbins.
- Essential Haematology by Hoffbrand and Petit (latest Edition)
- Practical Haematology by Dacie, Lewis and Bain (latest Edition)

SAMPLE MCQs

The answers are given at the end of each question in sequential order: T = true; F = false

MEDICINE

1. Characteristic features of aortic stenosis include
 - A. pansystolic murmur at the apex
 - B. loud second heart sound
 - C. exertional syncope
 - D. heaving apex beat
 - E. early onset of symptoms

FFTTF
2. Features that support a diagnosis of infective endocarditis in a patient with fever for 2 weeks and a pansystolic murmur at the apex would include
 - A. presence of red blood cells in urine
 - B. splenomegaly
 - C. linear haemorrhages under the nails
 - D. erythema marginatum
 - E. microcytic hypochromic anaemia

TTTTF
3. False negative Mantoux test is known to occur in
 - A. miliary tuberculosis
 - B. HIV infection
 - C. patients treated with conventional antibiotics
 - D. infection with multi-drug resistant tuberculosis
 - E. recent measles infection

TTFFT
4. Elevated blood urea with normal serum creatinine is characteristically seen in
 - A. upper gastrointestinal haemorrhage
 - B. acute renal tubular necrosis
 - C. rhabdomyolysis
 - D. dehydration
 - E. leptospirosis

TFFTF
5. Vitamin B12 deficiency
 - A. occurs in total vegetarians
 - B. is a known cause of peripheral neuropathy
 - C. due to pernicious anaemia can be effectively treated with oral cyanocobalamin
 - D. can be differentiated from folate deficiency on the blood picture
 - E. is caused by severe hookworm infestation

TTTTF

6. In idiopathic thrombocytopenic purpura
- A. splenomegaly is a characteristic feature
 - B. low WBC count is a common finding
 - C. ESR is usually raised
 - D. megakaryocyte count in the bone marrow is raised
 - E. steroid is the first line of treatment
- FFFTT
7. A 35-year old female complains of joint pain of two months duration.
The following features favour a diagnosis of rheumatoid arthritis
- A. arthritis affecting three or more joint areas
 - B. involvement of the distal interphalangeal joint
 - C. morning stiffness lasting more than 3 hours
 - D. symmetrical arthritis
 - E. anterior uveitis
- TFTTF
8. Characteristic features of Guillain-Barre syndrome include
- A. lower motor neurone facial nerve palsy
 - B. glove and stocking type sensory loss
 - C. distal more than proximal motor weakness
 - D. absent reflexes in limbs
 - E. elevated CSF protein levels
- TFFTT
9. Causes of lymphocytic pleocytosis in the CSF include
- A. viral meningitis
 - B. tuberculous meningitis
 - C. partially treated pyogenic meningitis
 - D. meningococcal meningitis
 - E. leptospirosis
- TTTFF
10. Features of primary hypothyroidism in an adult include
- A. loss of scalp hair
 - B. pericardial effusion
 - C. macrocytic anaemia
 - D. low serum creatinine phosphokinase (CPK) level
 - E. ataxia
- TTTTF

SURGERY

1. In a patient who had a history of intermittent claudication - the following conditions need urgent surgical intervention to improve the limb circulation
- A. painful ulcer at the tip of a toe
 - B. severe continuous pain of the affected calf requiring regular opioid analgesics

- C. claudication distance of 100 yards
- D. prominent varicose veins
- E. recurrent attacks of transient cerebral ischaemia (TIA)

TFFFF

2. A 55-year old man presents with symptoms suggestive of obstructive jaundice. He has a palpable gall bladder. Following is/are likely cause/s in this patient.

- A. carcinoma of the head of the Pancreas
- B. Gall stones
- C. Cholangiocarcinoma of the common hepatic duct
- D. uncomplicated choledochal cyst
- E. periampullary carcinoma

TFFFT

3. Regarding mid palmar space infections

- A. elevation of the hand delays the healing process
- B. mobilization of fingers should be delayed till infection is completely settled
- C. antibiotics are best administered orally in the initial management
- D. swelling of the dorsum of the hand is common.
- E. when the hand is splinted the metacarpophalangeal joint should be maintained in extension

FFFTF

4. A 21-year old girl presents with a clinically solitary thyroid nodule, 2 cm in diameter. Features that indicate the possibility of malignancy in this nodule include

- A. cold nodule rather than a hot nodule in the Tc isotope scan
- B. history of exposure to ionizing radiation.
- C. presence of enlarged ipsilateral cervical lymph nodes
- D. recent voice change
- E. markedly reduced TSH levels.

TTTTF

5. Saturation of oxygen (SaO₂) measured by the pulse oxymeter

- A. gives a value of 70% in a healthy adult male breathing room air
- B. is affected by anaemia
- C. is unaffected by vasoconstriction
- D. is altered in old age
- E. can be increased over 100% by giving hyperbaric oxygen.

FFFTF

6. An arterial blood gas report of a patient is as follows:

pH - 7.21 (7.45 – 7.55)
pCO₂ – 4 kPa (4.6 – 5.6)
pO₂ – 13.3 kPa (10-13)
HCO₃ – 11.5 mmol/l

This is compatible with

- A. hypoventilation
- B. diabetic ketoacidosis
- C. gangrenous bowel
- D. pulmonary embolism
- E. tension pneumothorax

FTTFF

7. An 84-year old male is brought with acute retention of urine of 24 hours duration. He has a tender distended bladder extending up to the umbilicus. Attempted catheterization with a size 16 Foley catheter fails. In the immediate management of this patient

- A. Oral paracetamol should be administered to relieve the pain
- B. abdominal x ray should be performed urgently to exclude a bladder calculus
- C. supra pubic puncture should be performed
- D. intravenous infusion of 1 liter normal saline will facilitate urine flow
- E. intravenous frusemide will relieve the retention of urine

FFTFF

8. The following are true/false regarding head injury

- A. surgery is not indicated in most skull fractures
- B. drainage of cerebrospinal fluid from the ear is an indication for emergency surgery
- C. loss of consciousness after direct trauma to head is an indication for a skull x ray
- D. compound fractures of skull can occur without external injury
- E. rising blood pressure and bradycardia indicates raised intracranial pressure

TFTTT

9. In upper gastrointestinal endoscopy

- A. spraying the throat with lignocaine reduces the risk of aspiration
- B. varices are usually seen in the lower oesophagus
- C. “J manoeuvre” is used to visualize the fundus of the stomach.
- D. first part of the duodenum is the ideal site for biopsy to detect *Helicobacter pylori*
- E. risk of oesophageal perforation is high in the presence of strictures

FTTFT

10. The following are premalignant lesions
- A. adenomatous colorectal polyps
 - B. duct ectasia affecting the breast
 - C. intestinal metaplasia in the lower oesophagus
 - D. hyperplastic polyp in the colon
 - E. colonic angiodysplasia

TFTFF

OBSTETRICS AND GYNAECOLOGY

1. During the antenatal period
- A. an intrauterine pregnancy is recognized by transvaginal ultrasound scan at six weeks of amenorrhoea
 - B. the uterine fundus is palpable at the symphysis pubis at 14 weeks of amenorrhoea
 - C. maternal perception of fetal movements first occur between 18-20 weeks
 - D. VDRL test is done as a diagnostic test for syphilis
 - E. maternal serum triple test is offered to exclude Trisomy 21

TTTTF

2. Anaemia complicating pregnancy
- A. is a risk factor for intra-uterine growth retardation (IUGR)
 - B. is defined if the haemoglobin is below 9 g%
 - C. in Sri Lanka is predominantly due to iron deficiency.
 - D. due to iron deficiency is treated with parenteral iron when close to term
 - E. is associated with preterm labour

TFTTF

3. In preterm labour
- A. Fibronectin test is used to identify patients at risk
 - B. a potential cause is bacterial vaginosis
 - C. a vaginal swab is taken for *E.coli* culture
 - D. nifedipine is use for tocolysis
 - E. vacuum delivery is recommended

TTFTF

4. The perinatal management options of Rh D Negative alloimmunization are
- A. examination of maternal blood for rising levels of IgG
 - B. amniocentesis
 - C. ultrasound examination for fetal hydrops
 - D. Predisolone to the mother
 - E. delivery at 40 weeks

TTTTF

5. The following are compatible with a diagnosis of severe preeclampsia
- A. right hypochondrial pain
 - B. polyuria
 - C. pulmonary oedema
 - D. elevated alkaline transferase
 - E. polycythemia

TFTTF

6. The correct statements regarding contraception are
- A. failure rate is expressed as a percentage
 - B. in selecting a method patient's parity has to be considered
 - C. mitral valve prolapse is a contraindication for use of the combined oral contraceptive pill
 - D. Depo-Provera will induce amenorrhoea
 - E. Copper T 380 intrauterine device needs to be changed every 3 years
- FTFTF
7. The causes for acute pelvic pain and signs of hypovolaemia are
- A. hydrosalpinx
 - B. ruptured tubal pregnancy
 - C. torsion of an ovarian cyst
 - D. endometriosis
 - E. ruptured corpus luteum cyst
- FTFFT
8. Uterine fibromyomas are
- A. most commonly found in postmenopausal women
 - B. associated with hydronephrosis
 - C. considered as a predisposing factor for malprestations
 - D. presented with acute abdominal pain due to calcification
 - E. treated with Tamoxifen
- FTTFF
9. The causes of menorrhagia include
- A. adenomyosis
 - B. pelvic inflammatory disease
 - C. Ashermann syndrome
 - D. chronic cervicitis
 - E. retroversion of uterus
- TTFFF
10. A woman presenting with post menopausal bleeding to a district hospital
- A. needs speculum examination
 - B. needs referral for endometrial evaluation
 - C. is treated with progestogens for three months
 - D. requires transfer for urgent hysterectomy
 - E. requires hormone replacement therapy if the pelvic examination is normal
- TTFFF

PAEDIATRICS

1. Causes of neonatal jaundice on the fourth day of life include
- A. physiological jaundice
 - B. breast milk jaundice

- C. septicaemia
- D. congenital spherocytosis
- E. hyperthyroidism

TFTTF

2. Effective therapeutic modalities of management of a child with diabetic ketoacidosis include

- A. intravenous insulin infusion
- B. correction of acidosis at the onset of rehydration
- C. correction of hypokalaemia
- D. intravenous antibiotics
- E. oral metformin

TFTTF

3. In a child with excessive bleeding after a tooth extraction , a prolonged APTT (activated partial thromboplastin time)and a normal bleeding time is compatible with a diagnosis of

- A. Factor VIII deficiency
- B. Factor IX deficiency
- C. Von Willebrand disease
- D. Glanzeman Disease
- E. Idiopathic thrombocytopaenic purpura

TTFFF

4. Following anticonvulsants and their side effects are correctly paired

- | | | |
|---------------------|---|---------------------|
| A. Carbamazepine | - | hepatotoxicity |
| B. Vigabatrin | - | eye toxicity |
| C. Phenytoin | - | ataxia |
| D. Phenobarbitone | - | hyperactivity |
| E. Sodium valproate | - | erythema multiforme |

FTTTF

5. In a child with encephalopathy a diagnosis of Reye syndrome is suggested by

- A. a rapidly enlarging liver
- B. deep jaundice
- C. hypoglycaemia
- D. high serum ammonia
- E. focal neurological signs

TFTTF

6. In nephrotic syndrome in children

- A. The commonest histological type is minimal change
- B. The congenital type has a good prognosis
- C. renal vein thrombosis is a known complication

- D. spontaneous peritonitis is commonly due to E-coli
- E. abdominal pain is a sign of gut ischemia

TFTFT

7. In post streptococcal acute glomerular nephritis
- A. There is a significant risk of chronic renal failure
 - B. Serum complement (C3) is low
 - C. Microscopic haematuria is a feature
 - D. Anti-hypertensive drugs should be started prophylactically
 - E. Follow up of the patient is not necessary

FTTFF

8. In measles
- A. Koplik spots are pathognomonic
 - B. pneumonia is a serious complication
 - C. non reactivity to Mantoux test occurs following an infection, due to immune suppression
 - D. the rash typically occurs on the fifth day of the illness
 - E. There is significant lymph node enlargement in the posterior cervical region

TTTTF

9. In congenital rubella syndrome
- A. the risk of congenital infection significantly higher during the first trimester
 - B. atrio-septal defect is the commonest heart lesion
 - C. Congenital cataract is a common finding
 - D. Hydrocephalus is a known complication
 - E. Virus is excreted in the urine of the baby for a long period

TFTFT

10. In childhood obesity
- A. The best method to define obesity is with the Body Mass Index (BMI)
 - B. insulin dependent diabetes mellitus is a well known complication
 - C. During assessment measurement of the bone age and height is very important
 - D. The incidence is increasing rapidly in developing countries
 - E. There is a positive family history invariably

TTTTF

COMMUNITY MEDICINE

1. Prevalence of a disease is increased by
 - A. longer duration of the disease
 - B. high case fatality rate
 - C. increase in incidence
 - D. improved cure rate
 - E. better diagnostic facilities

TFTFT
2. Anthropometric measures that can be used in a one-year old child include:
 - A. weight
 - B. mid upper arm circumference
 - C. BMI
 - D. head circumference
 - E. chest circumference

TFFTT
3. The following statements are true regarding case control studies
 - A. it is an analytical study design
 - B. suitable to study rare diseases
 - C. can assess multiple risk factors of a disease
 - D. relative risk is calculated as a measure of association
 - E. recall bias is a limitation

TTTFT
4. Surveillance of dengue is carried out to
 - A. predict epidemics
 - B. study the disease trend
 - C. identify risk factors
 - D. evaluate control programmes
 - E. set control programme priorities

TTFTT
5. In Sri Lanka
 - A. malaria is endemic in the North Central Province
 - B. chicken pox is a common source epidemic
 - C. measles vaccination is a secondary prevention measure
 - D. non-communicable disease is the leading cause of death
 - E. post-exposure prophylaxis is a rabies control strategy

TFFTT
6. Occupational hearing loss:
 - A. occurs from exposure to noise levels over 85 decibels during a working life time
 - B. can be prevented by limiting the time of exposure
 - C. can be detected early by performing periodic audiometric examinations
 - D. starts at frequencies around 40 Hz
 - E. can be reversed by removing the worker from the noisy environment

TTTFF

7. The following statements are true of demographic indicators:
- A. The total fertility rate gives information on the average number of children born to a couple during their reproductive period.
 - B. The infant mortality rate is an indicator of the health status of a population.
 - C. Knowledge of the crude death rate and the crude birth rate will enable the calculation of the growth rate of a population.
 - D. A neonatal death is defined as the death of an infant occurring in the first week of life.
 - E. The majority of infant deaths in Sri Lanka occur in the neonatal period.

TTFFT

8. The following statements are true of contraceptive methods:
- A. The CuT 380A intrauterine device gives protection for 10 years after insertion
 - B. Menstrual irregularities are a common side effect experienced by users of injectable DMPA.
 - C. Traditional methods of family planning are included in the computation of the contraceptive prevalence rate (CPR).
 - D. Oral contraceptives are contraindicated in women with migraine.
 - E. The most popular method of contraception in Sri Lanka is the use of the intra-uterine device.

TTTTF

9. The following statements are true regarding notification of communicable diseases in Sri Lanka
- A. A fever of more than seven days duration is notifiable
 - B. HIV/AIDS is now included in the list of notifiable diseases
 - C. Medical practitioners in the private sector are not legally bound to notify
 - D. An outpatient diagnosed to have typhoid fever should be notified
 - E. Suspected cases should be notified before confirmation of the diagnosis

TFFTT

10. The following statements are true regarding tuberculosis:
- A. In Sri Lanka anti-tuberculous drugs are administered to adult contacts who are Mantoux positive
 - B. BCG vaccination is given to infants at birth
 - C. BCG vaccine is administered subcutaneously
 - D. HIV infected persons are more susceptible to tuberculosis
 - E. In a patient diagnosed with active tuberculosis, anti-tuberculous drugs should be administered for a minimum period of 6 months

FTFTT

PATHOLOGY

1. The following are features of apoptosis:
 - A. Hydropic swelling of the affected cell
 - B. Inflammatory reaction in the surrounding tissue
 - C. Chromatin condensation at the periphery of nucleus.
 - D. Formation of apoptotic bodies
 - E. Death of a large area of a tissue

FFTTF

2. A 50-year old male with a history of intermittent claudication was admitted to the casualty ward with a blackish, pulseless, cold, right foot.

The following statements are true:

- A. This is an example of secondary gangrene.
- B. Gross oedema of the area is a feature.
- C. Affected area appears well demarcated from the normal area.
- D. Septicaemia is a common complication.
- E. Venous obstruction is the most likely cause.

TFTF

3. Fat embolism syndrome

- A. manifests within 12 hours of injury
- B. peticheal rash is a feature
- C. is associated with microinfarcts of brain
- D. can complicate air embolism
- E. may be definitely diagnosed in paraffin embedded sections.

FTTTF

4. The following statements are true regarding leprosy

- A. Spread of the disease occurs following close contact with a tuberculoid leprosy patient.
- B. Lepra bacilli are easily demonstrable in lepromatous leprosy.
- C. Leonine (Lion like) facies is a characteristic feature of tuberculoid leprosy.
- D. Claw hand is a complication observed in tuberculoid leprosy.
- E. Humoral immunity plays an important role during the healing process.

FTFFF

5. The following statements are true regarding cellular adaptive mechanisms:

- A. Metaplasia is when a fully differentiated mature tissue changes to undifferentiated tissue.
- B. Hyperplasia of cardiac muscle is seen around a site of myocardial infarction.

- C. Atrophic tissue functions at a lower metabolic rate.
- D. Removal of a diseased kidney leads to compensatory hypertrophy of the remaining kidney.
- E. Both hypertrophy & hyperplasia occurs in the uterine smooth muscle during pregnancy.

FFTTT

6. The following statements are true regarding dystrophic calcification
- A. Deposition of calcium salts occur in normal tissues.
 - B. The serum calcium levels are usually normal.
 - C. Phlebolith is an example.
 - D. Demonstrable as blue purple deposits in a H & E section.
 - E. Is a common finding in long standing multinodular goitre.

FFTTT

7. Regarding wound healing
- A. Deep burns involving the skin heals by primary union
 - B. Macrophages play an important role
 - C. Fibrosis occurs within the first 72 hours of healing
 - D. Rapid in a facial wound
 - E. Irradiation is a promoting factor

FTFTF

8. Chronic venous congestion
- A. occurs in hypovolaemic shock
 - B. produces a nutmeg pattern in the liver
 - C. is a cause of generalized oedema
 - D. of the lungs is seen in tricuspid valve stenosis
 - E. of the lungs leads to the formation of heart failure cells

FTTFT

9. Infarction
- A. is defined as necrosis of tissue due to loss of blood supply
 - B. of cardiac muscle heals by regeneration of surrounding cells
 - C. is not usually accompanied by an inflammatory reaction
 - D. Release of intracytoplasmic enzymes from infarcted tissue is helpful in the diagnosis
 - E. of brain appears as a fluid filled cyst after one month

TFFTT

10. The following are features of pulmonary tuberculosis:
- A. Caseation occurs in both primary and post primary tuberculosis
 - B. Haematogenous spread of tubercle bacilli produces miliary tuberculosis
 - C. Haemorrhagic pleural effusion is a presenting feature
 - D. Primary complex includes the apical cavity and enlarged hilar lymph nodes

- E. Primary pulmonary tuberculosis leads to bronchiectasis of the middle lobe in some cases.

TTTTFT

FORENSIC MEDICINE

1. The following are true regarding abdominal injuries:
- A. they are the commonest cause of death in road traffic accidents
 - B. subcapsular liver ruptures causes sudden collapse
 - C. a stab injury of the gall bladder is categorized as “fatal in the ordinary course of nature”
 - D. ascites is a common complication
 - E. effects of a blast wave are commonly seen in the liver and the kidney

FTTFF

2. In a death due to multiple rifled fire arm injuries
- A. a full body x-ray is warranted at the autopsy
 - B. range of firing is best estimated with test-firing
 - C. exit wounds on the skull shows inner beveling
 - D. tattooing indications intermediate range of shooting
 - E. a scene visit is done only if the ballistic specialist is available

TTFTF

3. When completing a Medico-Legal Examination Form (MLEF)
- A. a fracture of a milk tooth is categorized as non-grievous
 - B. the medical officer’s short signature is placed in the relevant cage
 - C. the JMO relies upon the patient’s history in filling the alcohol status
 - D. when a patient claims that he has lost consciousness, the category of hurt is “endangering life”
 - E. a large extradural hemorrhage is categorized as fatal in the ordinary course of nature

FTFFT

4. In electrocution
- A. the “joule burn” can be caused after death
 - B. the endogenous thermal burn produces the crocodile skin lesion
 - C. the exit wound is rarely found
 - D. “arc eye” is a complication
 - E. death could result due to asphyxia

TFTTT

5. A mason had fallen off a 20 ft height. The following injuries are likely to be found at the autopsy:
- A. grazed abrasions on the limbs
 - B. lacerations of the liver

- C. “sparrow foot” cut injuries on the face
- D. a depressed fracture on the occipital region
- E. tramline contusions on the back of the chest

TTFTF

6. In sexual offences:

- A. evidence of injuries of restraint indicate lack of consent
- B. the finding of a fresh laceration in the posterior region of the hymen indicates there has been recent penetration of the vagina
- C. the presence of spermatozoa in the vagina is required to prove a charge of rape
- D. injuries in parasexual regions are not seen
- E. consenting sexual intercourse is not considered rape when the child is 15 years

TFFFF

7. In a putrefied body, the following are useful for identification:

- A. The presence of natural disease
- B. The facial features
- C. The presence of surgical scars
- D. The type of clothing worn and its contents
- E. The presence of tattoos

TFTTT

8. Common injuries seen in victims of torture include:

- A. tram-line contusions
- B. intramuscular contusions of the gluteal region
- C. depressed skull fracture with extradural haemorrhage
- D. falanga (blunt injuries to the soles)
- E. fractures of the long bones in the lower limbs

TTFTT

9. In burn injuries

- A. heat haematomas are seen in the subdural space
- B. pugilistic attitude (flexed posture) is a common finding in charred bodies
- C. heat fractures of the skull are usually blow-out fractures
- D. flexion seen in the fingers indicate cadaveric spasm.
- E. heat ruptures of the skin do not bleed

FTTFT

10. The following statements are true regarding manual strangulation of the neck:

- A. Petechial haemorrhages may be found in the eyes
- B. Death could occur due to vagal inhibition
- C. Cerebral ischaemia is a known consequence
- D. Intimal tears of the carotid artery are commonly seen
- E. Hyoid bone fractures are not seen

TTTFF

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