

POSTGRADUATE INSTITUTE OF MEDICINE
UNIVERSITY OF COLOMBO

MD (ANAESTHESIOLOGY) PART I EXAMINATION
AUGUST 1990

Date: - 7th August, 1990

Time:- 2.00 p.m.- 5.00 p.m.

ESSAY PAPER

Answer each part in a separate book, marked A, B and C.

Answer two questions from each part.

The maximum possible marks, which can be awarded for each essay, are the same.

PART A
PHARMACOLOGY
(BOOK 'A')

1. Describe the mode of action of anti-coagulant drugs. How may their effects be modified by other drugs?
2. How may drugs modify the processes involved in neurotransmission at post-ganglionic sympathetic nerve endings?
3. Write short notes on:
 - (a) midazolam
 - (b) aminophylline
 - (c) amiodarone

PART B
PHYSIOLOGY
(BOOK 'B')

1. Discuss the physiological role of the kidney in the regulation of arterial pH.
2. What physiological mechanisms are involved in perception of peripheral somatic pain ?
3. What mechanisms are responsible for the difference between the partial pressure of oxygen in the alveoli and arterial blood ?
How are these affected by age?

PART C
PHYSICS, CLINICAL MEASUREMENTS
& CLINICAL CHEMISTRY
(BOOK 'C')

1. Describe the physical principles involved in the direct measurement of arterial blood pressure.

2. Write short notes on:
 - (a) Confidence intervals
 - (b) the isobestic point
 - (c) thermistors

3. Discuss the laboratory tests used in assessing thyroid function.

POSTGRADUATE INSTITUTE OF MEDICINE
UNIVERSITY OF COLOMBO

MD (ANAESTHEESIOLOGY) PART I EXAMINATION
APRIL, 1991

Date: 22nd April 1991

Time: 2.00 p.m. - 5.00 p.m.

ESSAY PAPER

Answer each part in a separate book, marked A, B and C.

Answer two questions from each part.

The maximum possible marks, which can be awarded for each essay, is the same.

PART A
PHARMACOLOGY
(BOOK 'A')

1. Classify the opioid receptors.
Describe the action of drugs that act on them.
2. Evaluate the drugs, which may be used to increase myocardial contractility.
3. Write short notes on :
 - (a) competitive antagonism
 - (b) 2nd messengers
 - (c) Hofmann degradation

PART B
PHYSIOLOGY
(BOOK 'B')

1. "In the homeostasis of extra cellular fluid (ECF), the body gives priority to volume maintenance". Discuss the validity of this statement.
2. Describe the physiological events following oral administration of 100 grams of glucose.
3. What is closing volume? Describe the factors, which influence it.

PART C
PHYSICS, CLINICAL MEASUREMENTS
& CLINICAL CHEMISTRY
(BOOK 'C')

1. Describe the principles involved in the indirect measurement of blood pressure. How are these utilized in automated apparatus?

2. What are the electrical hazards in the operating theatre? What precautions can be taken to minimize them?

3. Write short notes on three of the following:
 - (a) Probability
 - (b) Standard deviation
 - (c) Chi-Squared test
 - (d) Students t test

POSTGRADUATE INSTITUTE OF MEDICINE
UNIVERSITY OF COLOMBO

MD (ANAESTHESIOLOGY) PART I A EXAMINATION
NOVEMBER, 1992

Date: - 10th November 1992

Time: 2.00 p.m. - 5.00 p.m.

Answer six questions (3 questions from each part)
Each question should be answered in a separate book.

PART ONE

1. List the reasons why pregnant patients are at high risk of aspiration of gastric contents during anesthesia. What steps should be taken to minimize the risk?

2. Write short notes on 3 of the following
 1. Atracurium
 2. Bupivacaine
 3. Neostigmine
 4. Ketamine

3. List the sources of fluid loss during surgery indicating how you would replace these losses.

What non-invasive monitoring methods help you to assess the adequacy of fluid replacement?

4. Give an account of the management of a 6-year-old child presenting for interval appendicectomy under general anesthesia.

PART TWO

5. List the anatomical structures encountered in the passage of a needle during lumbar puncture.
How would you manage the immediate complications that may arise from spinal subarachnoid block?

6. Enumerate the problems of massive blood transfusion. How can you minimize such complications?

7. A 40-year-old diabetic of 10 years duration presents for routine abdominal surgery.
How would you evaluate his fitness for anesthesia? Outline the problems that could occur during the intra-operative period.

8. A 32-year-old becomes cyanosed soon after induction of general anesthesia.
Discuss the likely causes.

POSTGRADUATE INSTITUTE OF MEDICINE
UNIVERSITY OF COLOMBO

MD (ANAESTHESIOLOGY) PART I A EXAMINATION
APRIL, 1993

Date: 20th April 1993

Time : 9.00 a.m. - 12.00 noon

**Answer six questions (3 questions from each part).
Each question should be answered in a separate book.**

PART ONE

1. Discuss the problems associated with anaesthetizing a patient with severe pre eclampsia for emergency Caesarian section.

2. Write short notes on 3 of the following :
 - a. Cimetidine
 - b. Metoclopramide
 - c. Neostigmine
 - d. Naloxone

3. Describe how you would administer a caudal anaesthetic for haemorrhoidectomy for an adult. Outline the complications and their management.

4. A three-year-old child presents for laparotomy for intussusception
Describe the
 - a. Pre operative assessment and preparation
 - b. Intraoperative management of this patient

PART TWO

5. Write short notes on the following intravenous fluids:
 - a. 5% Dextrose solution
 - b. Hartmann's solution (compound sodium lactate solution)
 - c. Gelatin solutions (Gelafundin, Haemaccel)

6. Discuss the anaesthetic management of an adult for repair of an open eye injury following a road traffic accident.

7. A 40-year-old male with essential hypertension presents for repair of an inguinal hernia. He is found to have a blood pressure of 180/120 mm. on pre-operative examination.
Discuss the anaesthetic management of this patient.

8. What factors would lead you to anticipate a difficult intubation during the pre operative visit?

POSTGRADUATE INSTITUTE OF MEDICINE
UNIVERSITY OF COLOMBO

MD (ANAESTHESIOLOGY) PART IA EXAMINATION
NOVEMBER, 1993

Date: 15th November 1993

Time: 1.00 p.m. - 4.00 p.m.

**Answer six questions (3 questions from each part).
Each question should be answered in a separate book.**

PART ONE

1. Describe the anaesthetic management of a 7-year-old child (20-Kg) requiring urgent surgery for torsion of testis.
2. Describe the anaesthetic management of a mother with severe bleeding after normal delivery, presenting for exploration of the uterus.
3. Give an account of the immediate management of a 23-year-old male admitted to hospital with severe injuries following a road traffic accident.
4. Write short notes on 3 of the following:
 - a. Hydrallazine
 - b. Dopamine
 - c. Aminophylline
 - d. Mannitol

PART TWO

5. Compare the differences between lumbar epidural and spinal anesthesia with regard to advantages and disadvantages
6. Outline the peri-operative management of a patient with a history of bronchial asthma presenting for upper abdominal surgery.
7. Describe how you would anaesthetize a patient for fixation of fracture mandible highlighting the problems involved.
8. Describe the immediate management of a severe anaphylactoid reaction following induction of anesthesia.

POSTGRADUATE INSTITUTE OF MEDICINE
UNIVERSITY OF COLOMBO

MD (ANAESTHESIOLOGY) PART I A EXAMINATION
APRIL, 1994

Date: 4th April 1994

Time: - 1.00 p.m. - 4.00 p.m.

**Answer six questions (3 questions from each part).
Each question should be answered in a separate book.**

PART ONE

1. List the complications that may arise when providing spinal anesthesia for a Caesarian section.
What precautions would you take to minimize these complications?
2. Write short notes on three of the following:
 - (a) Salbutamol
 - (b) Ranitidine
 - (c) Soda lime
 - (d) Pancuronium
3. What are the possible causes of cardiac dysrhythmias during general anesthesia indicating the preventive measures that should be taken?
4. Describe the peri-operative management of a young female with a large goitre presenting for thyroidectomy.

PART TWO

5. Describe the anaesthetic management of a 6-year-old child (15-Kg) presenting with bleeding tonsil, one hour following tonsillectomy.
6. What are the advantages and disadvantages of using suxamethonium in anaesthetic practice ?
7. What are the problems encountered in the anaesthetic management of a 75-year-old patient, presenting for cataract surgery under general anesthesia?
8. How would you prevent and treat the complications arising from the administration of local anaesthetic agents?

POSTGRADUATE INSTITUTE OF MEDICINE
UNIVERSITY OF COLOMBO

MD (ANAESTHESIOLOGY) PART I A EXAMINATION
NOVEMBER, 1994

Date: 7th November 1994

Time: 1.00p.m. - 4.00p.m.

Answer six questions (3 questions from each part).
Each question should be answered in a separate book.

PART ONE

1. What are the conditions in which a rapid sequence induction is indicated? Describe in detail how you would carry out this procedure, giving your reasons for each step.
2. List the pharmacological effects of Thiopentone sodium. What are the indications and contraindications for its use?
3. What are the problems encountered in the anaesthetic management of a morbidly obese patient presenting for major surgery?
4. What methods are used to monitor the cardio vascular system in routine anaesthetic practice for major surgery? What are the advantages and disadvantages of each method?

PART TWO

5. Discuss the anaesthetic management of a 4-year-old child (12 kg.) presenting for laparotomy for intestinal obstruction.
6. Write short notes on any three of the following:
 - a) Halothane
 - b) Atropine
 - c) Magill breathing system (Mapleson A)
 - d) Hypokalaemia
7. Describe the causes and management of respiratory obstruction occurring in the immediate postoperative period following thyroidectomy.
8. Discuss the methods available to relieve acute postoperative pain.

POSTGRADUATE INSTITUTE OF MEDICINE
UNIVERSITY OF COLOMBO

MD (ANAESTHESIOLOGY) PART I A EXAMINATION
APRIL 1995

Date: 4th April 1995

Time: 1 .00 p.m. - 4.00 p.m.

Answer six questions (3 questions from each part).
Each question should be answered in a separate book.

PART ONE

1. Write short notes on any three of the following
 - a. Hyperkalaemic response to suxamethonium.
 - b. Control of intra-ocular pressure during anesthesia.
 - c. Uses and hazards of colloid intravenous solutions.
 - d. Nifedipine.
2. Give an account of the causes and management of acute respiratory obstruction in a five-year-old child in the recovery room after adenoidectomy.
3. List the problems associated with general anaesthesia for dental extraction in children as an outpatient procedure, How would you overcome such problems?
4. Describe briefly the anaesthetic management of a forty-five year old jaundiced patient having a serum bilirubin of 10 mg/dl. Presenting for cholecystectomy.

PART TWO

5. Describe how you would check an anaesthetic machine and the circle system prior to its use.
6. What information can be gained by monitoring airway pressure in the ventilator during anesthesia ?
7. What are the signs and symptoms of central nervous system toxicity of local anaesthetic agents ?

What precautions would you take to prevent it's occurrence?

How would you manage such a complication?
8. Describe the anaesthetic management of a woman with an uncomplicated pregnancy of 35 weeks gestation, presenting for appendicectomy.

POSTGRADUATE INSTITUTE OF MEDICINE
UNIVERSITY OF COLOMBO

MD (ANAESTHESIOLOGY) PART IA EXAMINATION
NOVEMBER, 1995

Date: 7th November 1995

Time: 1.00 p.m. - 4.00 p.m.

**Answer six questions (3 questions from each part).
Each question should be answered in a separate book.**

PART ONE

1. What are the components of the Circle System with carbon-dioxide absorption?
What are its advantages and disadvantages?

2. List the causes and describe the immediate management of three of the following life threatening situations in an anaesthetised adult.
 - (a) Extreme sinus bradycardia
 - (b) Pneumothorax
 - (c) Severe bronchospasm
 - (d) Acute left ventricular failure

3. List the causes of post-operative hypoxia.
What methods of oxygen therapy are available for a spontaneously breathing patient?

4. An 86 year old patient is scheduled for open reduction and internal fixation of a sub-trochanteric fracture of femur.
Describe the pre, intra and postoperative management.

PART TWO

5. List the pharmacological effects of ketamine.
What are its advantages and disadvantages as compared with thiopentone.

6. A soldier involved in a blast injury is brought to the emergency department.
Outline the management prior to surgery.

7. What anaesthetic techniques are available for Caesarean section of a pre-eclamptic patient ?

Describe briefly the complications of each of these techniques.

8. A three-year-old boy is scheduled for surgery for correction of squint. Discuss the pre, intra and postoperative management.

POSTGRADUATE INSTITUTE OF MEDICINE
UNIVERSITY OF COLOMBO

MD (ANAESTHESIOLOGY) PART I A EXAMINATION
FEBRUARY, 1996

Date: 12th February 1996

Time: 1.00p.m. - 4.00 p.m.

Answer six questions (3 questions, from each part).
Each question should be answered in a separate book.

PART ONE

1. Describe the pre operative assessment and preparation of a mother presenting for ligation of fallopian tubes within 24 hours of vaginal delivery.
How would you overcome the problems associated with administering general anaesthesia for this patient?
2. Describe in detail the administration of intravenous regional anaesthesia (Bier's Block) for surgery of the forearm, indicating the precautions you would take to minimise complications.
3. Describe the components and flow requirements of the Mapleson F breathing system used to anaesthetize a 5kg child for a laparotomy, indicating the advantages of this system.
4. Describe the perioperative management of a young adult presenting for surgery for suspected splenic rupture following a blunt injury to the abdomen.

PART TWO

5. During a general anaesthetic procedure for a laparotomy the pulse oximeter shows 85% oxygen saturation. Describe how you would manage this situation indicating the causes.
6. Describe the pre operative evaluation and preparation of a 50-year-old man with ischaemic heart disease, presenting for elective major surgery.
7. What are the adverse effects of the following drugs.
 - a) Halothane
 - b) Ketamine
 - c) Bupivacaine
8. A young adult with acute intestinal obstruction of 2 days duration presents for laparotomy. Describe the preoperative evaluation and optimization of this patient.

POSTGRADUATE INSTITUTE OF MEDICINE
UNIVERSITY OF COLOMBO

MD (ANAESTHESIOLOGY) PART IA EXAMINATION
DECEMBER, 1996

Date : 2nd December, 1996

Time 1.00 p.m. - 4-00 p.m.

Answer six questions (3 questions from each part).
Each question should be answered in a separate book.

PART ONE

1. Discuss the anaesthetic management of a 6-year-old child who presents for multiple dental extractions under general anaesthesia.
2. Outline the consequences of anaesthetising a patient with uncorrected
 - a) hypovolaemia
 - b) hypokalaemia
 - c) anaemia (Haemoglobin less than 7gm%)
3. How would you manage a patient who develops convulsions following a peripheral nerve block with Bupivacaine? What precautions should you take when administering such a block?
4. What are the complications of a massive blood transfusion? How would you minimize these complications?

PART TWO

5. Describe how the Magill breathing system (Mapleson A) functions during spontaneous respiration.
What problems would arise if the system is used for controlled ventilation?
6. What are the special precautions you would take when anaesthetising a patient with bronchial asthma for cholecystectomy?
7. What are the problems involved in anaesthetizing a patient with burns for repeated wound toilet?
8. Enumerate the causes of delayed recovery from anaesthesia in a 70-year-old man after an emergency laparotomy. What immediate steps would you take to arrive at a diagnosis.

POSTGRADUATE INSTITUTE OF MEDICINE
UNIVERSITY OF COLOMBO

MD (ANAESTHESIOLOGY) PART I A EXAMINATION
FEBRUARY, 1997

Date: 10th February 1997

Time: 1.00p.m. 4.00p.m.

Answer six questions only.
Each question should be answered in a separate book.

1. Describe the safety features of a modern anaesthetic machine.
2. What problems would you anticipate in anaesthetising a patient in the Radiology Department? What precautions would you take ?
3. Describe the problems in anaesthetising a patient with ante-partum haemorrhage for a caesarean section.
4. How do you minimise the problems encountered with placing a patient in the prone position during anaesthesia ?
5. What are the likely causes of hypercarbia during anaesthesia ? What are its clinical manifestations.
6. What are the uses and limitations of electro cardio-graphy (ECG) in monitoring cardio vascular function during anaesthesia.
7. What are the indications for the use of Benzodiazepines in modern anaesthetic practice? What are the adverse effects of these drugs?
8. Describe the initial management of a patient admitted with obvious facial trauma following a road traffic accident.

POSTGRADUATE INSTITUTE OF MEDICINE
UNIVERSITY OF COLOMBO

MD (ANAESTHESIOLOGY) PART IA EXAMINATION
DECEMBER, 1997

Date: 15th December 1997

Time: 1.30 p.m. - 4.30 P.m.

Answer six questions only

Each question should be answered in a separate book.

1. A patient with severe pre eclamptic toxemia needs an emergency Caesarean section.
Give short account of the anaesthetic problems you would anticipate in the perioperative period.

2. Describe how the Bain breathing attachment functions during spontaneous respiration.
List the advantages and disadvantages of this breathing system.

3. A 65-year-old patient undergoing open prostatectomy under spinal anaesthesia develops a fall in blood pressure to 60 mmHg.
How would you manage this patient ?

4. Describe the indications, contraindications and side effects of suxamethonium.

5. A 70 year old diabetic patient presents for a below knee amputation.
Describe the perioperative anaesthetic management.

6. Describe the anaesthetic management of a 5-year-old child (15-kg) presenting for surgery for an undescended testis.

7. How would you assess the airway during a pre operative assessment of a patient?
What preparations would you make for an anticipated difficult intubation?

8. A previously healthy 25-year-old patient with a stab injury of the right lower chest presents for emergency laparotomy.
How would you anaesthetise this patient ?

POSTGRADUATE INSTITUTE OF MEDICINE
UNIVERSITY OF COLOMBO

MD (ANAESTHESIOLOGY) PART IA EXAMINATION
MARCH, 1998

Date: - 16th March 1998

Time: 1.30 p.m. - 4.30 p.m.

Answer six questions

Each question should be answered in a separate book.

1. Describe the functions of the different components of the Magill's Breathing (Mapleson A) attachment. Enumerate the advantages and disadvantages of this breathing system.
2. Following a rapid sequence induction for an emergency laparotomy you find excessive resistance to ventilation with no chest expansion. What are the possible causes ?
Briefly describe the immediate management of this patient ?
3. List the methods of pain relief available to a 75-year-old patient following surgery for fracture neck of femur. Discuss the advantages and disadvantages of these methods.
4. A 40-year-old man needs a laparotomy for intestinal obstruction. Describe the peri operative management.
5. List the complications of blood transfusion. What factors would you take into account when you decide to administer blood during surgery?
6. Write short notes on :
 - (a) Cardio vascular effects of halothane
 - (b) Adverse effects of ketamine
 - (c) Use of adrenaline in anaesthetic practice.
7. You fail to intubate a patient who is to undergo a Caesarean section. What is your plan of management?
8. Describe the anaesthetic management of a 4-year-old (15kgm) child presenting for correction of squint.

POSTGRADUATE INSTITUTE OF MEDICINE
UNIVERSITY OF COLOMBO

MD (ANAESTHESIOLOGY) PART IA EXAMINATION
DECEMBER, 1998

Date: 14th December 1998

Time: 1.30 p.m. - 4.30 p.m.

Answer six questions.

Each question should be answered in a separate book.

1. Describe how you would check the anaesthetic machine and the Bain Breathing attachment prior to administering an anaesthetic.
2. Describe the anaesthetic management of a patient undergoing spinal subarachnoid anaesthesia for an elective caesarian section.
3. Write short notes on:
 1. Side effects of thiopentone sodium.
 2. Clinical assessment of adequate reversal from non-depolarising muscle relaxants.
4. Describe the anaesthetic management of a 5 year old (15 kg) for Tonsillectomy.
5. A 25-year-old patient is admitted with multiple injuries following a road traffic accident. Outline the immediate management (primary survey).
6. Describe the clinical features and management of anaphylactic shock during an anaesthetic.
7. Describe the preoperative evaluation and preparation of a 50-year-old patient with ischaemic heart disease presenting for routine major surgery.
8. What information can be obtained by monitoring the airway pressure during anaesthesia.

POSTGRADUATE INSTITUTE OF MEDICINE
UNIVERSITY OF COLOMBO

MD (ANAESTHESIOLOGY) PART IA EXAMINATION
APRIL, 1999.

Date: - 19th April 1999

Time: 1.30 p.m. - 4.30 p.m.

Answer six questions.

Each question should be answered in a separate book.

1. Draw a clearly labelled diagram of the Mapleson F circuit. What are the advantages of this circuit?
What flow rates would you use for a 10kg baby for
 - (a) Spontaneous ventilation and
 - (b) Intermittent positive pressure ventilation.
2. Describe the peri-operative anaesthetic management of a mother for evacuation of retained products following post partum haemorrhage.
3. List the signs and symptoms of local anaesthetic toxicity. How would you minimize its occurrence ?
Describe the management of severe toxicity.
4. A 25-year-old previously healthy male was admitted to hospital with a history of blunt trauma to the right lower chest only. He was pale, dyspnoeic and showed evidence of subcutaneous emphysema.
Describe the pre-operative preparation and induction of anaesthesia.
5. Describe the anaesthetic management of a healthy young man presenting for wiring of a fractured mandible.
6. Describe the special problems in anaesthetising an elderly patient.
7. Describe the special problems of anaesthetising a patient presenting for electro-convulsion therapy.
8. What special precautions should be taken when anaesthetising a deeply jaundiced patient ?

POSTGRADUATE INSTITUTE OF MEDICINE
UNIVERSITY OF COLOMBO

MD (ANAESTHESIOLOGY) PART IA EXAMINATION
DECEMBER, 1999

Date: - 13th December 1999

Time: 1.30 p.m. - 4.30 p.m.

Answer six questions.

Each question should be answered in a separate book.

1. List the immediately life threatening complications of suxamethonium. Briefly describe the management of each.
2. Describe the problems you would encounter when anaesthetizing 10 month old infant.
3. Describe the perioperative control of blood sugar in a diabetic patient presenting for abdominal hysterectomy.
4. Describe the perioperative management in a 40 year old ASA I male patient presenting for cataract surgery under general anaesthesia.
5. Outline the anaesthetic management of a patient with severe degree of placenta praevia for elective Caesarean section.
6. A 40-year-old, whose hypertension is controlled on atenolol is scheduled for major elective surgery.
List the problems that you may encounter during general anaesthesia and outline the management of each.
7. List the clinical indices, which are useful in assessing volume status of a patient with intra-abdominal bleeding.
Describe briefly the volume resuscitation of such a patient.
8. List the signs and symptoms that would lead to a diagnosis of a "high spinal block", and describe your management.

POSTGRADUATE INSTITUTE OF MEDICINE
UNIVERSITY OF COLOMBO

MD (ANAESTHESIOLOGY) PART IA EXAMINATION
APRIL, 2000

Date: 3rd April 2000

Time: 1.30 p.m. - 4.30p.m.

Answer six questions.

Each question should be answered in a separate book.

1.
 - (a) Draw a clearly labelled diagram of the circle system.
 - (b) Outline the function of each component.
 - (c) List the advantages and disadvantages of this system.
(Each part carries equal marks)
2. Describe the immediate management (within the first hour) of a 35-year-old bomb blast victim admitted to the emergency department.
3. List the problems you would encounter in giving general anaesthesia for a patient with pre eclamptic toxemia presenting for emergency Caesarian section.
4. Describe the anaesthetic management of a 3-year-old child (12kg) presenting for correction of squint.
5. A 50-year-old man with a suspected laryngeal tumour presents for direct laryngoscopy.
Describe the anaesthetic management.
6. A 50 year old lady (ASA - 1) with intestinal obstruction presents for laparotomy.
Describe the anaesthetic management.
7.
 - (a) What are the special indications for use of ketamine in anaesthetic practice.
 - (b) Give an account of advantages and disadvantages of ketamine as an anaesthetic agent.
(Each part carries equal marks)
8. A patient, following laparotomy in the recovery room desaturates on air (SPO₂ of 80%). List the possible causes.
How would you arrive at the diagnosis ?

POSTGRADUATE INSTITUTE OF MEDICINE
UNIVERSITY OF COLOMBO

MD (ANAESTHESIOLOGY) PART IA EXAMINATION
DECEMBER, 2000

Date: 4th December, 2000

Time: 1.30 p.m. - 4.30 p.m.

Answer six questions.

Each question should be answered in a separate book.

1. Enumerate the methods you would use to monitor the cardiovascular system during anaesthesia for major surgery. Give the limitations of 4 of the methods.
2. Five minutes following intubation of a young A.S.A.I. patient, the pulse oxymeter shows a saturation of 85% and a pulse rate of 110/min. List the causes of desaturation. How would you manage this patient ?
3. Describe the anaesthetic management of a patient who needs general anaesthesia for emergency Caesarean section for severe foetal distress.
4. List the causes of delayed recovery from general anaesthesia. What steps would you take to arrive at a diagnosis ?
5. Write short notes on the following :
 - 5.1 Use of adrenaline in anaesthetic practice
 - 5.2 Atracurium
 - 5.3 Contraindications to the use of diclofenac sodium
6. List the clinical features and bed side tests which are useful in predicting difficult intubation. How would you confirm correct tracheal placement of an endotracheal tube ?
7. A 4 year old 12 kg child is scheduled for multiple dental extractions (including pre-molars). Describe the anaesthetic management.
8. Describe the peri-operative management of a 35 year old with a history of bronchial asthma scheduled for mastectomy.

POSTGRADUATE INSTITUTE OF MEDICINE
UNIVERSITY OF COLOMBO

MD (ANAESTHESIOLOGY) PART IA EXAMINATION
APRIL 2001

Date: 2nd April, 2001

Time: 1.30 p.m. -4.30 p.m.

Answer six questions only.

Each question should be answered in a separate book

1. A primigravid mother with a blood pressure of 170/110 needs a caesarean section. Describe your pre operative assessment and preparation.
2. What are the safety features incorporated in an anaesthetic machine to prevent delivery of a hypoxic gas mixture ?
3. Describe the anaesthetic management of a 4 year old child (15kg) for tonsillectomy.
4. What are the problems in anaesthetising for a surgical procedure in the prone Position ? Outline how would you try to overcome these.
5. In a patient following a spinal anaesthetic how would you
 - a. prevent and treat hypotension
 - b. prevent and treat headache
 - c. diagnose a "high spinal"
6. Write short notes on :-
 - i. Side effects of halothane
 - ii. Toxicity of lignocaine
 - iii. Adverse effects of suxamethonium
- "
7. Describe the perioperative management of a young ASA I patient presenting for laparotomy for liver damage following blunt trauma to the abdomen.
8. List the causes of high airway pressure during intermittent positive pressure ventilation.

How would you manage anaphylactic shock during a general anaesthetic ?

POSTGRADUATE INSTITUTE OF MEDICINE
UNIVERSITY OF COLOMBO

MD (ANAESTHESIOLOGY) PART IA EXAMINATION

DECEMBER, 2001

Date : 3rd December, 2001

Time: 1.30 p.m, -- 4.30 p.m.

Answer six questions.

Each question should be answered in a separate book.

1.
 - a) Describe the components and the functions of Magill (Mapleson A) breathing system.
 - b) How does it perform during spontaneous and intermittent positive pressure ventilation.
2. How may hypercarbia develop during anaesthesia ?
What clinical changes may result ?
3. A 60 year old patient who had a laparotomy under general anaesthesia developed hypotension (systolic BP 60 mm Hg.) in the immediate post operative period.
List the causes and describe your management in the recovery area.
4. Outline why regional anaesthesia is safer in pregnancy.
What is your pre-operative preparation of a patient undergoing spinal (sub arachnoid) anaesthesia for an elective cesarean section.
5. Describe your anaesthetic management of a 4 year old, 14 kg. child scheduled for an elective inguinal herniotomy.
6. Describe the anaesthetic problems in an obese patient.
7. Describe the initial assessment and resuscitation of a young male (ASA1) admitted to the casualty ward following multiple trauma.
8. What are the side effects of
 - a) Thiopentone sodium
 - b) Morphine sulphate
 - c) Ketamine

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POSTGRADUATE INSTITUTE OF MEDICINE
UNIVERSITY OF COLOMBO

MD(ANAESTHESIOLOGY) PART I A EXAMINATION
APRIL, 2002

Date: 1st April, 2002

Time: 1.30 p.m. - 4.30 p.m.

Answer six questions

Each question should be answered in a separate book.

1. Draw and label the Bain breathing attachment. (Mapleson D coaxial circuit)
List the advantages and disadvantages of Bain breathing system.
How do you check this attachment?
2. List the indications for rapid sequence induction.
Describe how you would perform rapid sequence induction.
3. Describe the preoperative evaluation and preparation of a 60 year old male with Ischaemic heart disease presenting for elective abdominal surgery.
4. Write short notes on :
 1. Uses of Midazolam
 2. Bupivacaine
 3. Atracurium
5. You fail to intubate a patient who is to undergo caesarean section. What is your management plan ?
6. Describe the anaesthetic management of a 5 year old (15kg) child for correction of squint.
7. What are the possible causes of hypoxia in the immediate post operative period (recovery)?
Outline your immediate management.
8. List the methods of pain relief available for a 60 year old patient scheduled for gastrectomy ?
What are the advantages and disadvantages of each method ?

POSTGRADUATE INSTITUTE OF MEDICINE
UNIVERSITY OF COLOMBO

MD (ANAESTHESIOLOGY) PART IA EXAMINATION
DECEMBER, 2002

Date: 2nd December, 2002

Time: 1,30 p.m.- 4.30 p.m.

Answer six questions only.

Each question should be answered in a separate book.

1. Outline the safety features of the anaesthesia machine.
2. A young healthy female, who is thirty two weeks pregnant, is to undergo laparotomy for a twisted ovarian cyst.
Describe your pre and intra operative management.
3. Describe the pre-operative assessment and preparation of a 6 yr. old child (20 kg.) with intestinal obstruction scheduled for urgent laparotomy.
4. What are the methods available to assess a difficult airway preoperatively ?
List the equipment used in difficult intubation.
5. Regarding local anaesthetic toxicity :
 - a. List the causes.
 - b. What precautions should you take ?
 - c. What are the symptoms and signs ?
6. List the complications of blood transfusion.
" What factors do you take into account when transfusing blood during surgery ?
7. What special considerations should be made to ensure patient safety when the patient is kept in the lateral position for surgery ?
8. Describe the peri-operative management of a 30 year old patient with bronchial asthma for elective repair of a paraumbilical hernia.

POSTGRADUATE INSTITUTE OF MEDICINE
UNIVERSITY OF COLOMBO

MD (ANAESTHESIOLOGY) PART IA EXAMINATION
APRIL, 2003

Date :- 1st April, 2003

Time :- 1.30 p.m. - 4.30 p.m.

Answer six questions only.

Each question should be answered in a separate book.

1.
 - (a)
 - i. Draw a clearly labelled diagram of the circle system.
 - ii. How would you check the circle system ?
 - (b) List the methods available for post operative oxygen therapy
(Part A and B carry equal marks)
2. Following general anaesthesia for a laparotomy, a patient was found to be restless in the recovery room.
List the possible causes.
Briefly describe how you would arrive at a clinical diagnosis.
3. Give an account of the immediate management of a young healthy man with severe injuries following a road traffic accident.
4. Immediately following spinal anaesthesia for a caesarean section, a young healthy mother complained of difficulty in breathing.
How would you manage this patient ?
5. Describe the problems you would encounter when anaesthetising a 5 year old child for extraction of teeth.
6. An adult male (ASA-I) is scheduled for haemorrhoidectomy.
 - (a) List the anaesthetic techniques which could be used.
 - (b) How would you perform **one** of the regional anaesthetic techniques mentioned.

7. A 52 year old diabetic patient who is on short acting oral hypoglycaemic drugs is presenting for abdominal hysterectomy.
Describe the perioperative management.

8. Write short notes on **three** of the following :-
 1. uses and side effects of atropine
 2. side effects of diclofenac sodium
 3. uses of midazolam in anaesthetic practice
 4. propofol

POSTGRADUATE INSTITUTE OF MEDICINE
UNIVERSITY OF COLOMBO

MD (ANAESTHESIOLOGY) PART IA EXAMINATION
DECEMBER, 2003

Date: 1st December, 2003

Time: 1.30 p.m. - 4.30 p.m.

Answer six questions only.
Each question should be answered in a separate book

- I.
 - (a) What are the characteristic features of an ideal anaesthetic breathing system.
 - (b) Draw and label a Magill (Mapleson A) breathing system and briefly describe how it differs from a ideal breathing system.

2. Outline briefly the **pre-operative** management of an eclamptic mother presenting for an emergency caesarean section.

3. Describe the anaesthetic management of a 5 year old (15 kg) child admitted for a circumcision.

4. 40 year old lady with simple obesity (70kg) is scheduled for an open cholecystectomy.
Briefly describe the problems you would encounter when anaesthetising this patient.

5. Write short notes giving the uses and disadvantages of the following fluids in the perioperative period.
 - a) Normal saline
 - b) 5 % dextrose
 - c) Gelatin solution

6. A patient anaesthetised with thiopentone sodium and suxamethonium for an elective herniotomy immediately develops a red urticarial rash and severe hypotension.
 - a) What is your diagnosis.
 - b) Describe your management.

7. A 48 year old lady with menorrhagia is scheduled for a total abdominal hysterectomy is found to have a haemoglobin level of 7g/dl.
 - a) How would you evaluate and prepare this patient for surgery.
 - b) List the intra operative problems you would encounter.

8. Regarding spinal sub arachnoid block (spinal anaesthesia) for non-obstetric surgery.
 - a) List the contraindications.
 - b) Outline intra operative management.
 - c) What are the complications.

POSTGRADUATE INSTITUTE OF MEDICINE
UNIVERSITY OF COLOMBO

MD (ANAESTHESIOLOGY) PART IA EXAMINATION
MARCH, 2004

Date: 22nd March, 2004

Time: 1.30 p.m.- 4.30 p.m.

Answer six questions only.

Each question should be answered in a separate book

1. How do you ensure that the pulse oximeter reading is reliable ?
Outline the limitations of its use.
2. A 34 year old lady is brought to the operating theatre with severe foetal distress for an emergency caesarean section.
Outline your anaesthetic management.
3. Briefly describe the methods of pain relief available for a 4 year old child weighing 15 kg, undergoing circumcision.
4. A patient with a long standing multinodular goitre is scheduled for thyroidectomy.
 - a) Outline the pre-operative assessment of this patient.
 - b) List the possible post operative complications.
5. A 65 year old man has been vomiting for the last 48 hrs. He is admitted with intestinal obstruction. You are the casualty anaesthetist and have been asked to see this patient before laparotomy. He complains of thirst and has a pulse rate of 110/min, and BP of 90/70 mmHg.
 - a) List the aims of pre-operative preparation of this patient.
 - b) Briefly describe how you would prepare him for surgery.
6. A medium built ASA I female of 60 yrs was anaesthetised for a paraumbilical herniotomy and repair. Within 3 minutes of intubation her oxygen saturation dropped to 85 % and pulse rate was 100/min.
 - a) List the possible causes.
 - b) Outline your immediate management.

7. List the
 - a) Contra-indications for the use
 - b) Cardiovascular and respiratory effects of the following drugs:
 - i. Ketamine
 - ii. Thiopentone sodium
 - iii. Propofol

8. A young adult is admitted with a history of blunt trauma to the left hypochondrium. Briefly outline the anaesthetic management of this patient.

POSTGRADUATE INSTITUTE OF MEDICINE
UNIVERSITY OF COLOMBO

MD (ANAESTHESIOLOGY) PART IA EXAMINATION
DECEMBER, 2004

Date: 1st December, 2004

Time: 1.30 p.m.- 4.30 p.m.

Answer six questions only.
Each question should be answered in a separate book.

1. A five (05) year old child weighing 15 kg is scheduled for inguinal herniotomy under general anaesthesia.
 - a) Draw a labelled diagram of the anaesthetic breathing system used.
 - b) Describe the function of each component.
 - c) Give the reasons for selecting the above system.
 - d) What is the recommended Fresh Gas Flow for
 - i) Spontaneous breathing
 - ii) IPPV

2. List three (03) life threatening complications that may follow the use of suxamethonium.
Briefly describe the clinical management of two of these complications.

3.
 - a) How would you estimate the intra-operative fluid requirement for a 55 yr. old man undergoing major bowel surgery.
 - b) Outline how you would monitor the adequacy of fluid replacement.
 - c) List the IV fluids you might require in this patient stating indications for their use.

4. What prophylactic measures would you undertake in a patient undergoing general anaesthesia to minimize the risk of pulmonary aspiration syndrome in the peri operative period.

5. A. 50 year old hypertensive patient is scheduled for abdominal hysterectomy under general anaesthesia. Describe the perioperative management of this patient.

6.
 - a) How would you perform a Bier's block (Intra venous Regional Anaesthesia) for removal of a ganglion in the left wrist.

 - b) List the contraindications for Bier's block.

7. Why is Spinal Anaesthesia safer than General Anaesthesia for a patient presenting for Caesarean Section ?
Outline how you would perform a sub arachnoid block (spinal) for a caesarean section.

8. You are called to the Casualty ward to attend to a 45 yr old man following a road traffic accident. He is bruised over the front of his chest and complains of right sided chest pain. His pulse is 120 beats/min and BP is 80/60 mmHg..
Describe your management of this patient in the first hour.

POSTGRADUATE INSTITUTE OF MEDICINE
UNIVERSITY OF COLOMBO

MD (ANAESTHESIOLOGY) PART IA EXAMINATION
APRIL, 2005

Date :- 4th April, 2005

Time :- 1.30 p.m. - 4.30 p.m.

Answer six questions only.

Each question should be answered in a separate book.

1.
 - (a) Describe the factors that would affect the accuracy of the reading when using a mercury sphygmomanometer.
 - (b) List other methods available to monitor blood pressure.
2. Describe the peri-operative management of a five year old child weighing 15 kg, presenting for removal of a foreign body in the nose.
3. Describe the anaesthetic management of a mother presenting for manual removal of the placenta.
4.
 - (a) You have anaesthetised a 45 year old man (ASA I) for elective cholecystectomy using a non-depolarizing muscle relaxant. At laryngoscopy you find it difficult to intubate. Describe your immediate management.
 - (b) Outline how you predict a difficult intubation.
5.
 - (a) List the indications for mechanical ventilation in general anaesthesia.
 - (b) Outline the advantage and disadvantages of mechanical ventilation.
6. A 50 year old female with a history of stable angina presents with an obstructed para umbilical hernia. Describe the peri-operative management of this patient.

7. A 25 year old man undergoing inguinal herniotomy under a spinal anaesthetic starts to complain of pain and discomfort when the surgeon dissects the hernial sac. Outline briefly the steps you would take to manage this patient.

8. Write short notes on the following drugs :
 - (a) metoclopramide
 - (b) morphine sulphate
 - (c) neostigmine

POSTGRADUATE INSTITUTE OF MEDICINE
UNIVERSITY OF COLOMBO

MD (ANAESTHESIOLOGY) PART IA EXAMINATION
DECEMBER, 2005

Date: - 1st December 2005

Time :- 1.00 p.m. - 4.00 p.m.

Answer six questions only.

Each question should be answered in a separate book.

1. Describe how you would check the
 - (a) Anaesthetic machine
 - (b) Bain breathing system
 - (c) Circle system

2. A 30 year old multipara after normal delivery at term, is brought to the operating theatre with vaginal bleeding. Her systolic blood pressure is 60 mmHg and her pulse rate is 130 beats per minute.
 - (a) List the important steps in the resuscitation of this patient.
 - (b) Outline briefly your anaesthetic management for emergency surgery.

3. Describe your anaesthetic management of a 5 year old child (15 kg) admitted for a right inguinal herniotomy.

4. Write short notes on the following :
 - (a) The universal precautions that should be followed during intra-venous cannulation.
 - (b) Uses of the laryngeal mask airway.

5. A 70 year old female with a history of diabetes mellitus of 15 years duration presents with a peri anal abscess.
Describe your anaesthetic management.

6.
 - (a) List the causes of restlessness in the immediate post operative period.
 - (b) Outline the management of an adult patient with laryngospasm in the recovery area.

7. A 20 year old male is admitted with multiple injuries following a road traffic accident.
Outline how you would assess the patient for life threatening injuries and briefly describe the management (Primary survey).

8. Regarding local anaesthetic toxicity,
 - (a) Describe briefly the symptoms and signs.
 - (b) Outline the preventive measures.

POSTGRADUATE INSTITUTE OF MEDICINE
UNIVERSITY OF COLOMBO

MD (ANAESTHESIOLOGY) PART IA EXAMINATION
APRIL, 2006

Date :- 3rd April, 2006

Time :- 1.00 p.m. - 4.00 p.m.

Answer six questions only.

Each question should be answered in a separate book.

1.
 - (a) Draw and label a normal capnograph.
 - (b) Briefly describe its uses in anaesthetic practice.

2. A five year old child weighing 15 kg with suspected torsion of testis needs exploration of the scrotum. Describe the anaesthetic management highlighting the special problems.

3.
 - (a) Describe how you would diagnose a 'high spinal block' in a patient undergoing an elective lower segment caesarean section. (LSCS)
 - (b) Briefly describe your management.

4. A 24 year old (ASA 1) male is admitted to the casualty ward with a history of a stab injury to the right hypochondrium. He is pale, dyspnoeic, pulse rate 120/min, BP 100/70 mmHg and a respiratory rate of 35/min.
Describe how you would assess and prepare this patient prior to surgery.

5. Write short notes on
 - (a) Propofol
 - (b) Atracurium
 - (c) Halothane

6. The airway pressure rises to more than 40 cm H₂O in a 50 year old patient anaesthetized for a total abdominal hysterectomy.
 - (a) List the likely causes.
 - (b) Outline your immediate management.

7. Describe the anaesthetic management of a 17 year old healthy male for removal of impacted wisdom teeth.

8. A 45 year old 50 kg ASA 1 patient is to undergo an open cholecystectomy.
Describe the methods available for postoperative pain relief.

POSTGRADUATE INSTITUTE OF MEDICINE
UNIVERSITY OF COLOMBO

MD (ANAESTHESIOLOGY) PART IA EXAMINATION
NOVEMBER, 2006

Date :- 20th November, 2006

Time :- 1.00 p.m. - 4.00 p.m.

Answer six questions only.

Each question should be answered in a separate book.

1. List the safety features incorporated in an anaesthetic machine to prevent ;
 - (a) delivery of a hypoxic gas mixture
 - (b) delivery of gases at high pressure

2. A patient anaesthetized with thiopentone sodium and suxamethonium for an appendicectomy is red, flushed with a systolic BP 60 mmHg and is difficult to ventilate.
 - (a) What is the most likely diagnosis ?
 - (b) Describe how you would manage this patient.

3. A 35 year old unconscious patient with severe head injury (GCS of 8) needs transfer for a CT scan to another hospital. Describe how you would prepare this patient for transfer.

4. List the adverse effects of the following drugs ;
 - (a) Suxamethonium
 - (b) Ketamine
 - (c) Morphine

5. Describe the peri-operative management of a mother (ASA 1) undergoing caesarean section under general anaesthesia.
6. Describe the anaesthetic management of a 5 year old (15kg) child for correction of squint.
7.
 - (a) Outline the ASA classification.
 - (b) A 50 year old controlled hypertensive patient, on diuretics and an ACE inhibitor, is to undergo total abdominal hysterectomy. State with reasons what preoperative investigations you would order.
8. A 70 year old woman is scheduled for vaginal hysterectomy and repair.
 - (a) Outline the advantages of a subarachnoid block for this patient.
 - (b) State the precautions you would take for this elderly patient.

POSTGRADUATE INSTITUTE OF MEDICINE
UNIVERSITY OF COLOMBO

MD (AESTHESIOLOGY) PART IA EXAMINATION

APRIL, 2007

Date : 3rd April 2007

Time: 1.00 p.m. - 4.00 p.m.

Answer six questions only.

Each question should be answered in a separate book.

1.
 - (a) Draw and label the Mapleson A breathing system (Magill attachment) (20 marks)
 - (b) Describe the functions of each of its components. (50 marks)
 - (c) List the advantages and limitations of this system. (30 marks)

2. An otherwise healthy 35 year old man undergoes general anaesthesia for acute appendicitis. At the end of surgery lasting 45 minutes, there are no signs of recovery.
 - (a) List the possible causes. (30 marks)
 - (b) Describe your immediate assessment and management of this patient. (70 marks)

3. A 7 year old (20 kg) child is admitted with a left supracondylar fracture with an absent left radial pulse.
Describe your anaesthetic management for manipulation under anaesthesia. (100 marks)

4. Regarding the following drugs
 1. adrenaline
 2. fentanyl
 3. lignocaine
 - (a) List three (03) uses of each of the above drugs with the appropriate dosage. (60 marks)
 - (b) Enumerate three (03) common side effects of each drug. (40 marks)

5. A 22 year old healthy lady presents for an elective caesarian section.
- (a) Describe how you would perform a subarachnoid block on this patient. (80 marks)
 - (b) Outline how you would check the adequacy of the block. (20 marks)
6. A 40 year old lady with a history of bronchial asthma is scheduled for a total abdominal hysterectomy under general anaesthesia.
- (a) Describe briefly how you would assess and optimize this patient. (60 marks)
 - (b) Outline the **special precautions** you would take in anaesthetising this patient. (40 marks)
7. A 25 year old patient is admitted with multiple trauma following a road traffic accident.
He is pale, has a pulse rate of 130/min. His blood pressure is 70/50 mmHg and respiratory rate is 30/min.
Describe the **immediate** management of this patient. (100 marks)
8. Describe your anaesthetic management of a 60 year old man for rigid oesophagoscopy to remove a fish bone. (100 marks)

POSTGRADUATE INSTITUTE OF MEDICINE
UNIVERSITY OF COLOMBO

MD (AESTHESIOLOGY) PART IA EXAMINATION
NOVEMBER, 2007

Date: 19th November 2007

Time: 1.00 p.m. - 4.00 p.m.

Answer six questions only

Each question should be answered in a separate book

1.
 - 1.1 List the minimum standards of monitoring during anaesthesia
 - 1.2 Briefly describe the **advantages** and **limitations of** Electro Cardiographic monitoring (ECG) in anaesthetic practice
2.
 - 2.1 How do you recognize post dural puncture headache ?
 - 2.2 Outline its management
3. A general anaesthetic was administered for an emergency caesarean section and at laryngoscopy, you failed to intubate.
Outline your management.
4. A 60 years old previously healthy patient weighing 60 kg, was brought to the recovery area after an uneventful operation for a perforated peptic ulcer.
 - 4.1 Describe briefly the parameters you would assess before discharging this patient to the ward
 - 4.2 Outline the postoperative instructions you would give for the first 24 hours
5. List **four** contraindications to the use of each of the following drugs.
Indicate the reasons for your answer.
 - 5.1 Ketamine
 - 5.2 Suxamethonium
 - 5.3 Diclofenac sodium
 - 5.4 Thiopentone sodium

6. A 4 year old (15 kg) child with moderate dehydration is scheduled for an urgent laparotomy due to small bowel obstruction.
 - 6.1 List the preoperative problems you may encounter in this child
 - 6.2 Describe the preoperative management of dehydration in this child

7. A previously healthy young adult receives 10 units of blood following major trauma
 - 7.1 What is 'massive blood transfusion' ?
 - 7.2 Outline the problems of massive blood transfusion
 - 7.3 How would you minimize the above problems ?

8. A 50 years old male with a long standing history of diabetes mellitus presents for a wound toilet in the left leg.
Outline your perioperative management of this patient

POSTGRADUATE INSTITUTE OF MEDICINE
UNIVERSITY OF COLOMBO

MD (ANAESTHESIOLOGY) PART IA EXAMINATION
APRIL , 2008

Date : 1st April 2008

Time : 1.00 p.m. - 4.00 p.m.

Answer six questions only.

Each question should be answered in a separate book.

1.
 - 1.1. List 4 (four) causes for the following capnography measurements during anaesthesia.
 - (a) High end tidal CO₂ tension
 - (b) Low end tidal CO₂ tension
 - 1.2. Outline your management of a patient whose end-tidal CO₂ level is more than 50 mmHg during mechanical ventilation.
2.
 - (a) Describe in detail the rapid sequence induction in anaesthetic practice.
 - (b) List 5 (five) indications for its use.
 - (c) List 5 possible disadvantages of its use.
3. Prepare a check list which would be useful to the anaesthetist before anaesthetising a mother for caesarean section.
4. A 7 year old healthy child weighing 20 kg, presents for adenotonsillectomy. Describe your anaesthetic management.
5. Write short notes on the following
 - (a) uses and side effects of ephedrine
 - (b) signs and symptoms of bupivacaine toxicity
 - (c) advantages and disadvantages of propofol

6. A 45 year old ASA 1 lady was anaesthetised for an open cholecystectomy. 30 minutes later her blood pressure dropped to 70/50 mmHg.
 - (a) List 4 likely causes for her hypotension.
 - (b) Outline the immediate management of this patient.

7.
 - (a) Outline the advantages of providing adequate postoperative pain relief.
 - (b) List the appropriate methods available for providing pain relief for a Gastrectomy, giving 2 disadvantages of each method.

8. A 35 year old healthy male was brought to the accident and emergency unit following a road traffic accident. Outline the initial assessment and management of this patient.

POSTGRADUATE INSTITUTE OF MEDICINE
UNIVERSITY OF COLOMBO
MD (ANAESTHESIOLOGY) PART IA EXAMINATION
NOVEMBER 2008

Date : 17th November 2008

Time : 1.00 p.m - 4.00 p.m.

Answer six questions only.
Each question should be answered in a separate book.

1.
 - 1.1. Draw and label the circle breathing system.
 - 1.2. Outline how you check the circle system.
 - 1.3. List three (03) advantages and disadvantages of the circle system.

2.
 - 2.1. List the minimum contents of a difficult airway/intubation tray for obstetric anaesthesia.
 - 2.2. Describe briefly how each of the above items you mentioned is useful in the process of handling a difficult airway in a pregnant mother.

3. A 40 year old ASA-I lady is undergoing a total abdominal hysterectomy under general anaesthesia. 30 minutes later the patient starts to desaturate.
 - 3.1. List possible causes
 - 3.2. If the cause is found to be an anaesthetic machine malfunction, how do you manage this patient till another anaesthetic machine is arranged.

4.
 - 4.1. List your main objectives of care in the post anaesthetic recovery area.
 - 4.2. Give five (05) reasons for oxygen therapy in the immediate post operative period.

5. Describe your anaesthetic management of a five (05) year old (15 kg) boy awaiting surgery for torsion of testis.

6. Outline how you would
 - (a) prevent
 - (b) diagnose
 - (c) manage
 - 6.1. Intra arterial injection of thiopentone
 - 6.2. Bupivacaine toxicity

7.
 - 7.1. List two (02) indications where prone position is used during anaesthesia.
 - 7.2. Outline the problems encountered in this position during general anaesthesia.

8. Describe briefly how you would assess and optimize a 30 year old male with multiple injuries for an emergency laparotomy.

POSTGRADUATE INSTITUTE OF MEDICINE
UNIVERSITY OF COLOMBO

MD (ANAESTHESIOLOGY) PART IA EXAMINATION
APRIL , 2009

Date : 6th April 2009

Time : 1.00 p.m. - 4.00 p.m.

Answer six questions only.
Each question should be answered in a separate book.

1. List the advantages and disadvantages / limitations of using the following equipment during anaesthesia.
 - 1.1. Laryngeal mask airway
 - 1.2. ECG monitor
 - 1.3. Pulse oximeter

2. A 24 year old ASA I primigravida presents for an elective Caesarean section. Briefly describe the advantages and disadvantages of spinal anaesthesia over general anaesthesia in this patient.

3. A healthy 36 year old man is noted to have an oxygen saturation of 84% in the recovery area following extubation after an emergency appendicectomy.
 - 3.1. List the possible causes of oxygen desaturation
 - 3.2. Outline your immediate management of this patient

4. A 60 year old known hypertensive patient on treatment is admitted to the surgical casualty ward with a gangrenous foot, needing **urgent** surgery. His BP is found to be 180/120 mmHg. Describe your **pre-operative** assessment and preparation of this patient.

5. describe your **peri-operative** anaesthetic management of a 5 year old boy (15 kg) for a circumcision.

6. Write short notes on the **adverse effects** of :
 - 6.1. Suxamethonium
 - 6.2. Nitrous oxide
 - 6.3. Propofol

7. Outline your **peri-operative** anaesthetic management of a 35 year old patient undergoing thyroidectomy.

8. A 23 year old soldier has been brought immediately after a blast injury with a traumatic amputation of a lower limb. Describe your immediate assessment and resuscitation of this patient.

POSTGRADUATE INSTITUTE OF MEDICINE
UNIVERSITY OF COLOMBO

MD (ANAESTHESIOLOGY) PART IA EXAMINATION
NOVEMBER 2009

Date : 16th November 2009

Time : 1.00 p.m. - 4.00 p.m.

Answer six questions only.
Each question should be answered in a separate book.

1.
 - 1.1. List the anatomical differences in the paediatric respiratory system compared to that of an adult.
 - 1.2. List the equipment used in a child for the maintenance of the airway and ventilation during anaesthesia, giving reasons.

2. Write short notes on the advantages and disadvantages of
 - 2.1. propofol over thiopentone sodium
 - 2.2. atracurium over suxamethonium
 - 2.3. isoflurane over halothane

3.
 - 3.1. Describe how you would confirm the correct placement of the endotracheal tube.
 - 3.2. Give a brief account on complications of tracheal intubation.

4. How would you perform an Intra Venous Regional Anaesthetic (Bier's Block) for the removal of a ganglion on the left wrist.
List the contraindications for Bier's Block.

5. A 29 year old previously healthy lady, at 36 weeks of pregnancy presents with a history of fits to the obstetric ward. Her blood pressure is 175/120. Outline your management.

6.
 - 6.1. List the importance of maintaining serum potassium levels within the normal range during the perioperative period.
 - 6.2. What are the clinical manifestations of hyperkalaemia ?
 - 6.3. How would you manage severe hyperkalaemia ?

7. Describe the preoperative evaluation and optimization of a patient with insulin dependent diabetes mellitus awaiting simple mastectomy.

8. Describe the initial management of a 30 year old ASA 1 patient brought to Accident and Emergency Department with severe head injury (GCS < 8).

POSTGRADUATE INSTITUTE OF MEDICINE
UNIVERSITY OF COLOMBO

MD (ANAESTHESIOLOGY) PART IA EXAMINATION

APRIL 2010

Date : 5th April 2010

Time : 1.00 p.m. - 4.00 p.m.

ESSAY PAPER

Answer six questions only.

Each question should be answered in a separate book.

1.
 - 1.1. Describe how you would check the anaesthetic machine.
 - 1.2. List the safety features incorporated in it to prevent delivering a hypoxic gas mixture.
2.
 - 2.1. What are the indications for a caudal block in
 - 2.1.1 children
 - 2.1.2. adults
 - 2.2. List the contraindications for caudal blocks
 - 2.3. Describe how you would perform a caudal block for a 5 year old boy (15 kg) undergoing circumcision.
3. A 40 year old lady undergoing a total thyroidectomy under general anaesthesia develops a heart rate of 120 beats/min and a blood pressure of 180/110 mmHg. during surgery.
 - 3.1 List the possible causes for tachycardia and hypertension in this patient
 - 3.2. Outline the management.
4. You are called to manage a 35 year old male patient brought to the Accident and Emergency Unit following an elephant attack on the chest.

Outline your **initial** assessment and management.
5. A 28 year old primigravida was anaesthetized for an elective caesarean section with a subarachnoid block. Soon after starting the surgery, her systolic blood pressure dropped to 60 mmHg.

How would you manage this patient ?

6. Discuss the **disadvantages** of the use of suxamethonium in anaesthetic practice.

7.
 - 7.1. Briefly outline the pre-operative assessment and optimization of a 50 year old lady with bronchial asthma.
 - 7.2. Outline the **problems** you will encounter if a general anaesthetic is given to this patient.

8. A 45 year old obese lady weighing 100 kg is scheduled for a mastectomy and axillary clearance.

Describe your anaesthetic management.

POSTGRADUATE INSTITUTE OF MEDICINE
UNIVERSITY OF COLOMBO

MD (ANAESTHESIOLOGY) PART IA EXAMINATION
NOVEMBER 2010

Date : 15th November 2010

Time : 1.00 p.m. - 4.00 p.m.

ESSAY PAPER

Answer six questions only.
Each question should be answered in a separate book.

1.
 - 1.1. Enumerate the advantages of the following
 - (a) Mapleson A breathing system
 - (b) Bain breathing system
 - (c) Mapleson F breathing system
 - (d) Circle breathing system
 - 1.2. Indicate the fresh gas flow that is needed for each system during spontaneous respiration and IPPV, to maintain normocarbia.
2. A 5 year old (15kg) healthy boy is awaiting a circumcision.
 - 2.1. List the methods available to provide pain relief in the peri-operative period.
 - 2.2. Enumerate the advantages and disadvantages of one of the above methods.
3. A 30-year old ASA 1 lady has an uneventful Caesarean section under spinal anaesthesia. In the recovery it is noticed that she has significant vaginal bleeding. Her heart rate is 130/min and blood pressure is 70/50 mmHg. The obstetrician wants to take her back to theatre. Outline your management of this patient.

4. Write short notes on the following drugs :
 - 4.1. Adrenaline
 - 4.2. Isoflurane
 - 4.3. Midazolam

5. A 28 year old ASA 1 male is brought to the hospital having fallen from a height. His GCS is 6. He needs to be transferred to the provincial hospital for an urgent CT scan. Outline how you would prepare him for transfer.

6. List the problems that you would encounter in anaesthetizing patients for laparoscopic procedures.

7. A 58 year old patient develops an arrhythmia under general anaesthesia.
 - 7.1. Enumerate the possible causes.
 - 7.2. Outline your immediate management.

8. A 65 year old lady with chronic stable angina is scheduled for a total abdominal hysterectomy. Describe your anaesthetic management.