

**POSTGRADUATE INSTITUTE OF MEDICINE**  
**UNIVERSITY OF COLOMBO**

**CERTIFICATE OF COMPETENCE IN ANAESTHESIOLOGY EXAMINATION**  
**JUNE, 1997**

Date: 16<sup>th</sup> June 1997

Time: 2.00 - 4.00 p.m.

**Answer all questions.**

**Each part should be answered in a separate book.**

**PART A**

1. List the groups of patients susceptible to aspiration of gastric contents during anesthesia. What precautions would you take to prevent its occurrence?
2. What are the causes of arterial hemoglobin oxygen saturation (SaO<sub>2</sub>) of below 90% in a patient breathing air in the immediate postoperative period?
3. You are required to anaesthetize a six-year-old child for a bleeding tonsil. What are the special problems encountered in this situation and what precautions would you take ?
4. List the changes that occur in stored blood.  
How do these changes affect a patient receiving a massive blood transfusion ?

**PART B**

5. A patient in ICU having an indwelling urinary catheter following a major abdominal surgery done the previous day was found to have his urine output reduced to 10ml per hour for the last three hours. List the possible causes and briefly outline the management.
6. What clinical features would lead you to anticipate a difficult intubation ?
7. What safety features are incorporated in the modern anaesthetic machine.
8. What are the adverse effects of the followings ?
  - (a) Ketamine
  - (b) Bupivacaine

**POSTGRADUATE INSTITUTE OF MEDICINE**  
**UNIVERSITY OF COLOMBO**

**CERTIFICATE OF COMPETENCE IN ANAESTHESIOLOGY EXAMINATION**  
**MAY, 1998**

Date: 18<sup>th</sup> May 1998

Time: 2.00 - 4.00 p.m.

**Answer all questions.**

**Each part should be answered in a separate book.**

**PART A**

1. List the problems encountered when administering a general anaesthetic to a patient with eclampsia. What drugs may be used to minimize them?
2. Write short notes on:
  - (a) atracurium
  - (b) Soda lime
3. Outline the assessment and pre-operative preparation of a patient with severe bronchial asthma presenting for elective abdominal surgery.
4. A 2 year old child weighing 10 kg. presents for laparotomy for intussusception. Briefly describe the pre-operative assessment and preparation.

**PART B**

5. Describe briefly the peri-operative management of a healthy 10 year old child presenting for correction of squint.
6. Describe the immediate management of a patient who develops severe hypotension and dyspnoea during injection of a dye in the radiology department.
7. Briefly describe how you would check the anaesthetic machine and the breathing circuits before use.
8. A young adult is admitted in respiratory failure after the ingestion of an organo-phosphate insecticide. Outline the management in the first 24 hours.

**POSTGRADUATE INSTITUTE OF MEDICINE**  
**UNIVERSITY OF COLOMBO**

**CERTIFICATE OF COMPETENCE IN ANAESTHESIOLOGY EXAMINATION**  
**MAY, 1999**

Date: 24<sup>th</sup> May, 1999

Time: 2.00 - 4.00 p.m.

**Answer all questions.**

**Each part should be answered in a separate book.**

**PART A**

1. How would you manage a mother complaining of a headache following spinal anesthesia for a caesarian section?
2. What are the cardiovascular effects of
  - (a) Ketamine
  - (b) Halothane
3. What are the causes of delay in recovery following general anesthesia.
4. How would you calculate the postoperative fluid requirement of a 20-Kg child in the first 24 hours following a laparotomy.

**PART B**

5. Outline the immediate management of a young adult admitted to the hospital with severe injuries following a road traffic accident.
6. Outline how you would manage a patient who suddenly develops ventricular ectopics during general anesthesia.
7. Draw the circle system with Co<sub>2</sub> absorption and name the components. What are its advantages?
8. How would you manage a patient admitted to the ICU following the successful resuscitation after a cardiac arrest?

**POSTGRADUATE INSTITUTE OF MEDICINE**  
**UNIVERSITY OF COLOMBO**

**CERTIFICATE OF COMPETENCE IN ANAESTHESIOLOGY EXAMINATION**  
**MAY, 2000**

Date :- 29<sup>th</sup> May, 2000

Time :- 2.00 p.m. - 4.00 p.m.

**Answer all questions.**

**Each part should be answered in a separate book.**

**PART A**

1. List the special precautions you should take when anaesthetising a head injured patient for evacuation of an extra dural haematoma.
2. Outline the problems you would anticipate in an ASA I patient undergoing a diagnostic laparoscopy under general anaesthesia for subfertility.
3. How would you manage a patient who develops a convulsion immediately following a caudal extra dural block with 0.5% bupivacaine.
4. Outline the preoperative management of a patient with impending eclampsia in the intensive care unit.

**PART B**

5. What are the advantages and disadvantages of diclofenac sodium as a postoperative analgesic ?
6. Describe the methods available for postoperative pain relief in a 5 year old child undergoing circumcision.
7. List the uses of capnography during anaesthesia.
8.
  - (a) List the systemic derangements which may occur in a 40 year old patient with a three day history of intestinal obstruction.
  - (b) If this patient has 500 ml of blood loss after 2 hours of surgery, outline the fluid balance indicating what fluids you will use.

**POSTGRADUATE INSTITUTE OF MEDICINE**  
**UNIVERSITY OF COLOMBO**

**CERTIFICATE OF COMPETENCE IN ANAESTHESIOLOGY EXAMINATION**  
**MAY, 2001**

Date: 28<sup>th</sup> May, 2001

Time: 2.00 p.m.-4.00 p.m.

**Answer all questions.**

**Each Part should be answered in a separate book.**

**PART A**

1. Enumerate the methods available for administration of oxygen for spontaneously breathing patients.  
Indicate the advantages and disadvantages of each.
2. Outline your anaesthetic management for an emergency Caesarian section for fetal distress in an uncomplicated pregnancy.
3. Enumerate the special problems you would look for in the pre-op. assessment of a diabetic patient.
4. 35 yr old patient develops hypotension, tachycardia & tachypnoea with high temperature 6 hours after surgery for appendicular abscess.  
Outline the management of this patient in the first 24 hours.

**PART B**

5. List the indications for rapid sequence induction of anaesthesia.  
Describe briefly how you would carry out this procedure.
6. Describe the anaesthetic management of a 9 month old baby (weight 8 kg) for surgery of extension of Tendo Achillis (ETA).
7. Describe the problems that may arise with the use of suxamethonium.
8. Draw a clearly labeled diagram of Bain circuit.  
What flow rates would you use for 60 kg man for
  - (a) Spontaneous breathing
  - (b) IPPV.

**POSTGRADUATE INSTITUTE OF MEDICINE**  
**UNIVERSITY OF COLOMBO**

**CERTIFICATE OF COMPETENCE IN ANAESTHESIOLOGY EXAMINATION**  
**MA Y, 2002**

Date :- 29<sup>th</sup> May, 2002

Time :- 2.00 p.m. - 4.00 p.m.

**Answer all questions.**

**Each part should be answered in a separate book.**

**PART A**

1. A 70 kg patient who had been admitted to ICU following major surgery is found to have a urine output of less than 15 ml/hr for the last two hours.  
List the possible causes and outline the management.
2. What monitoring should be carried out in a patient undergoing major abdominal surgery. Indicate the advantages of each.
3. Describe the special problems associated with anaesthesia in the prone position.
4.
  - (a) List the uses of adrenaline
  - (b) What are the contraindications for the use of NSAIDS ?

**PART B**

5. Following rapid sequence induction for caesarean section, you fail to intubate the trachea.  
What is your immediate management ?
6. A ten month old baby (8kg) is scheduled for cataract surgery.  
Describe the anaesthetic management.
7. What safety features are incorporated in a modern anaesthetic machine to prevent the delivery of a hypoxic gas mixture.
8. Outline the immediate management of a patient with severe head injury, admitted to the casualty ward.

**POSTGRADUATE INSTITUTE OF MEDICINE**  
**UNIVERSITY OF COLOMBO**

**CERTIFICATE OF COMPETENCE IN ANAESTHESIOLOGY EXAMINATION**  
**MAY, 2003**

Date :- 28<sup>th</sup> May, 2003

Time :- 2.00 p.m. - 4.00 p.m.

**Answer all questions.**

**Each part should be answered in a separate book.**

**PART A**

1. A 55 year old patient was admitted to the Intensive Care Unit following major abdominal surgery. One hour after admission, his systolic blood pressure was 60 mmHg.
  - 1.1. List the possible causes.
  - 1.2. Outline the immediate management of one of the causes listed above.
2.
  - 2.1. What are the advantages of the pulseoximeter ?
  - 2.2. List its limitations.

**PART B**

3. How would you manage a patient who develops a high spinal block during caesarean section?
4. Describe the precautions you would take before transferring a 35 year old male with suspected extra dural haemorrhage.

**PART C**

5. Describe the pre, intra and post operative management of a 3 year old child weighing 12 kg for adenotonsillectomy.
6. Write short notes on :
  - 6.1. Bupivacaine
  - 6.2. Fentanyl

## **PART D**

7. How would you predict a difficult intubation during the pre operative assessment ?
  
8. List the causes of stridor approximately two hours following thyroidectomy. Outline the management.



**POSTGRADUATE INSTITUTE OF MEDICINE**  
**UNIVERSITY OF COLOMBO**

**CERTIFICATE OF COMPETENCE IN ANAESTHESIOLOGY EXAMINATION**  
**JUNE, 2004**

Date: 1<sup>st</sup> June, 2004

Time: 1.30 p.m. - 3.30 p.m.

**Answer all questions.**

**Each question to be answered in a separate book.**

1.
  - i. What is suxamethonium ?
  - ii. What are the indications for its use ?
  - iii. List the side effects.
  
2. A patient with a history of bronchial asthma develops bronchospasm following endotracheal intubation.
  - i. Outline the management of bronchospasm during anaesthesia.
  - ii. List the other causes for high airway pressure in this patient.
  
3. What are the problems encountered when administering anaesthesia to a patient with eclampsia ?
  
4. Regarding tracheostomy:
  - i. List the indications.
  - ii. Outline the management.
  - iii. What are the complications of tracheostomy ?
  
5. A six week old infant (body weight -3 kg.) with pyloric stenosis is admitted with severe dehydration. Outline the pre operative management.

6.
  - i. What is a capnograph ?
  - ii. Draw a normal capnograph tracing.
  - iii. List the uses of capnography.
  
7.
  - i. What are the life threatening complications of severe chest injury ?
  - ii. How would you diagnose. and manage a tension pneumothorax ?
  
8.
  - i. How would you perform intravenous regional anaesthesia (Bier's block) in a patient with a fracture of the distal end of the radius ?
  - ii. What are the contraindications for a Bier's block.

**POSTGRADUATE INSTITUTE OF MEDICINE**  
**UNIVERSITY OF COLOMBO**

**CERTIFICATE OF COMPETENCE IN ANAESTHESIOLOGY EXAMINATION**  
**JUNE, 2005**

Date: 1<sup>st</sup> June, 2005

Time: 2.00 p.m. – 4.00 p.m.

**Answer all questions.**

**Each question to be answered in a separate book.**

1.
  - 1.1. List the complications of endotracheal intubation
  - 1.2. Enumerate the different types of endotracheal tubes.
  - 1.3. Give one indication for each of the tubes you have mentioned in 1.2.
  
2.
  - 2.1. List the differences between epidural and subarachnoid block.
  - 2.2. Outline the management of a patient with post dural puncture headache.
  
3. You have been asked to anaesthetize a 4 year old child with post tonsillar bleeding.  
Outline the problems you would encounter when managing this child.
  
4. A 35 year old lady is admitted with 40% burns including the face. She is restless and has stridor.
  - 4.1. List the probable causes for her restlessness.
  - 4.2. Outline the immediate management of this patient.

5.
  - 5.1. List the indications for central venous access in the ICU.
  - 5.2. State how you would confirm correct placement.
  - 5.3. Enumerate complications of central venous cannulation.
  
6. A 25 year old lady with mitral stenosis needs an elective caesarean section.
  - 6.1. Describe the preoperative assessment of this patient.
  - 6.2. Outline the pre operative preparation.
  
7. Write short notes on -
  - 7.1. Atracurium
  - 7.2. Propofol
  
8. A patient regurgitates on induction of general anaesthesia.
  - 8.1. Briefly outline your immediate management.
  - 8.2. List the clinical features that indicate pulmonary aspiration.
  - 8.3. List the methods you would adopt to prevent aspiration stomach contents.

**POSTGRADUATE INSTITUTE OF MEDICINE**  
**UNIVERSITY OF COLOMBO**

**CERTIFICATE OF COMPETENCE IN ANAESTHESIOLOGY EXAMINATION**  
**JUNE, 2006**

Date: 1<sup>st</sup> June, 2006

Time: 2.00 p.m. – 4.00 p.m.

**Answer all questions.**

**Each question to be answered in a separate book.**

1.
  - 1.1. List the uses of lignocaine in anaesthetic practice.
  - 1.2. State its maximum safe dose.
  - 1.3. List the symptoms and signs of systemic toxicity.
  
2. A 35 year old ASA 1 patient is admitted to ICU following successful resuscitation from a VF cardiac arrest. He is unconscious. Outline the management of this patient in the first 24 hours.
  
3.
  - 3.1. Define morbid obesity.
  - 3.2. List the anaesthetic problems in an obese patient.
  
4. Describe the anaesthetic management of a 3 year old (12kg) child for inguinal herniotomy.
  
5. You are called to the labour ward to see a 30 year old ASA 1 patient who is bleeding following vaginal delivery.
  - 5.1. Briefly describe your assessment.
  - 5.2. Outline the preparation for emergency surgery.

6. A 40 year old man is admitted to the Emergency Treatment Unit with Maxillo-facial injuries following a road traffic accident.  
Outline the management of this patient in the first hour.
  
7.
  - 7.1. Enumerate the indications for a laryngeal mask airway in anaesthetic practice.
  - 7.2. List the limitations to it's use.
  
8. Outline the problems you would encounter during gynaecological **laparoscopy**.

**POSTGRADUATE INSTITUTE OF MEDICINE**  
**UNIVERSITY OF COLOMBO**

**CERTIFICATE OF COMPETENCE IN ANAESTHESIOLOGY**  
**JUNE, 2007**

Date: 4<sup>th</sup> June 2007

Time: 2.00pm - 4.00 pm

**Answer all questions.**

**Each question to be answered in a separate book**

1. The Casualty surgical team is requesting you to assess a 50 year old male diabetic patient with a septic and gangrenous right lower limb for an above knee amputation.
  - 1.1. Describe briefly your preoperative assessment of this patient.
  - 1.2. List the measures you would take to optimize this patient for surgery.
2.
  - 2.1. Describe the principles of pulse oximetry
  - 2.2. List 5 situations in which pulse oximetry may be unreliable
  - 2.3. What is the difference between SaO<sub>2</sub> and SpO<sub>2</sub> ?
3. A young healthy patient with a history of septic abortion is admitted to the Intensive Care Unit. She is conscious; the systolic BP is 70mmHg, pulse rate 120/min, & respiratory rate 30/min. Outline the initial management of this patient.
4.
  - 4.1. List 4 different situations in which you would prefer to use ketamine
  - 4.2. Describe the advantages of ketamine in the above mentioned situations.
  - 4.3. List the contraindications for its use.
5. Outline the special problems in providing anaesthesia to patients outside the operating theatre complex.
6.
  - 6.1. List the signs of upper airway obstruction in children.
  - 6.2. Briefly outline how you would intubate a child with acute upper airway obstruction in the operating theatre.
7. Outline briefly the anaesthetic management of a 24 year old primi gravida in breech presentation admitted for an elective caesarean section.
8. A 25 year old patient admitted with a penetrating injury to the right upper quadrant of the abdomen, needs surgery. Outline the anaesthetic risks and the management.

**POSTGRADUATE INSTITUTE OF MEDICINE**  
**UNIVERSITY OF COLOMBO**

**CERTIFICATE OF COMPETENCE IN ANAESTHESIOLOGY**

**JUNE 2008**

Date: 2<sup>nd</sup> June 2008

Time:- 2.00pm - 4.00pm

**Answer all questions.**

**Each question to be answered in a separate book.**

1.
  - 1.1. List 5 categories of drugs used in premedication giving one example from each.
  - 1.2.. Describe one disadvantage or side effect of each category. of drug you have mentioned.
  
2. A 40 year old asthmatic patient is to undergo thyroidectomy under general anaesthesia. Describe briefly the measures to be taken to prevent the occurrence of bronchospasm during the peri-operative period.
  
3.
  - 3.1. List the methods available to monitor blood pressure.
  - 3.2. Outline the limitations of one of the above methods.
  - 3.3. List the indications for invasive blood pressure monitoring.
  
4. A 25 year old eclamptic primigravida is admitted to the Intensive Care Unit following an emergency caesarean section.
  - 4.1. Enumerate the problems you would anticipate in this patient ?
  - 4.2. Outline the management of this patient in the Intensive Care Unit.



5. A 10 month old baby ( 8 kg body weight) with intussusception needs emergency surgery.
  - 5.1. List the preoperative problems that you will anticipate in this child.
  - 5.2. Outline the anaesthetic management.
  
6. Briefly describe the methods available to safely intubate a patient with predicted difficult intubation.
  
7. Outline the problems of anaesthetising a head injured patient with a Glasgow Coma Scale of 6 presenting for emergency laparotomy.
  
8. A 26 year old previously healthy patient is brought to the Emergency Treatment Unit following a road traffic accident. He is in shock and is diagnosed as having a fracture of the pelvis.
  - 8.1. Up to how much blood loss can occur in this situation ?
  - 8.2. List the fluids (other than blood) you would use to resuscitate this man describing their advantages and disadvantages.
  - 8.3. Define massive blood transfusion
  - 8.4. Describe how you would minimise the problems of massive blood transfusion.

**POSTGRADUATE INSTITUTE OF MEDICINE**  
**UNIVERSITY OF COLOMBO**

**CERTIFICATE OF COMPETENCE IN ANAESTHESIOLOGY EXAMINATION**  
**JUNE 2009**

Date: 1<sup>st</sup> June 2009

Time:- 2.00pm - 4.00pm

**Answer all questions.**

**Each question to be answered in a separate book.**

1.
  - 1.1. Draw and label the circle system.
  - 1.2. List the advantages and disadvantages of its use.
  - 1.3. State the composition of soda lime.
  
2. List
  - 2.1. Three (03) indications
  - 2.2. Three (03) side-effectsfor each of the following drugs:
  - (a) Magnesium sulphate
  - (b) Epinephrine (adrenaline)
  - (c) Glyceryl trinitrate (GTN)
  
3.
  - 3.1. State the clinical features of post-dural puncture headache (PDPH).
  - 3.2. Outline your treatment.
  - 3.3. State the precautions you would take to prevent it.

4. A primigravida in labour is found collapsed.
  - 4.1. List five (05) possible causes.
  - 4.2. Outline your initial management.
  
5. A 40 year old man admitted with an acute head injury.
  - 5.1. List the indications for intubation and ventilation.
  - 5.2. List the indications for referral to a specialist neurosurgical unit.
  
6.
  - 6.1. Enumerate the anatomical and physiological differences of the respiratory system in an infant.
  - 6.2. State how you modify your anaesthetic management to overcome these differences.
  
7. You are asked to assess a 60 year old male who is ill with high fever and lower limb cellulites.
  - 7.1. State the criteria to diagnose severe sepsis in this patient.
  - 7.2. Outline the management in the first 6 hours.
  
8.
  - (a) A 70 year old man with hypertension controlled on atenolol 50 mg mane awaiting transurethral resection of the prostate.
  - (b) A 40 year old lady with obstructive jaundice awaiting laparotomy

In each of these patients:

  - 8.1. List the pre-operative investigations you would order, giving reasons.
  - 8.2. Enumerate the premedication you would prescribe for each of these patients.
  - 8.3. List the instructions you would give pre-operatively.

**POSTGRADUATE INSTITUTE OF MEDICINE**  
**UNIVERSITY OF COLOMBO**

**CERTIFICATE OF COMPETENCE IN ANAESTHESIOLOGY EXAMINATION**

**JUNE 2010**

Date: 1<sup>st</sup> June 2010

Time:- 2.00 p.m. - 4.00p.m.

**Answer all questions.**

**Each question to be answered in a separate book.**

1. An 85 year old patient is undergoing a laparotomy.  
List the factors you would consider when prescribing post-operative analgesia, giving reasons.
  
2. A 20 year old female is brought to the A & E with a history of being unwell for 10 days. She gives a history of thirst, increased frequency of urination, loss of weight and lethargy in the recent past.  
On examination, she is drowsy, dehydrated, emaciated and has oral thrush but has no bleeding manifestations.  
CVS : Pulse – 120/min, low volume ; Blood pressure – 70/40 mmHg  
RS : tachypnoeic, lungs- clear
  - 2.1. List the likely differential diagnoses in this patient
  - 2.2. Enumerate the investigations you would order to arrive at a diagnosis
  - 2.3. Outline your initial management
  
3.
  - 3.1. List the minimum standards of monitoring for a laparotomy.
  - 3.2. List 4 limitations of ECG monitoring in anaesthetic practice.
  - 3.3. List 4 uses of neuromuscular monitoring in anaesthesia.
  
4. A 35 year old multipara with placenta praevia is scheduled for an elective Caesarean section.
  - 4.1. List 5 important factors in your pre-operative assessment which would influence your choice of anaesthetic technique.
  - 4.2. If severe bleeding is anticipated during surgery, outline the precautions you would take in the peri-operative management of this patient ?
  
5. A 5 year old child (20kg) is diagnosed to have acute epiglottitis and brought to the operating theatre for emergency intubation. Outline how you would manage this child.

6. Regarding the following drugs
  - a) isoflurane
  - b) fentanyl
  - c) bupivacaine
  - d) dobutamine
  - 6.1. List the indications for clinical use
  - 6.2. Outline the cardiovascular effects
  
7. A 40 year old mason is admitted to the casualty surgical unit following a fall from a scaffolding 12m high. He complains of left-sided chest pain and difficulty in breathing. On examination there is a bruise over his left lower chest. His respiratory rate is 35/min and shallow. Pulse 120 beats/min and blood pressure is 80/60 mmHg. GCS- 15/15.
  - 7.1 List three life-threatening injuries that he may have (include at least one from above and below the diaphragm)
  - 7.2. What is the important precaution you should take when assessing this man ?
  - 7.3. Outline in point form the steps taken to resuscitate this man in the first 30 minutes after admission.
  
8. A 40 year old asthmatic patient is anaesthetized for a thyroidectomy. Following intubation and positioning of the patient her air way pressure is noted to be 35 cmH<sub>2</sub>O.
  - 8.1. List the possible causes.
  - 8.2. Outline your initial management.

**POSTGRADUATE INSTITUTE OF MEDICINE**  
**UNIVERSITY OF COLOMBO**

**CERTIFICATE OF COMPETENCE IN ANAESTHESIOLOGY EXAMINATION**  
**JUNE 2011**

Date : 1<sup>st</sup> June 2011

Time : 2.00 p.m. – 4.00p.m.

**Answer all questions.**

**Each question must be answered in a separate book.**

1.
  - 1.1. Draw and label a normal capnograph tracing.
  - 1.2. List and draw the corresponding graph of the critical incidents that can be identified by the capnograph.
  
2. A 40 year old man with cellulitis and renal impairment develops atrial fibrillation in ICU with a heart rate of 180-190 beats per minute.
  - 2.1. List the possible causes of atrial fibrillation in this patient.
  - 2.2. Outline how you would manage the atrial fibrillation in the first few hours.
  
3. Outline the problems in an 86 year old patient undergoing hemiarthroplasty for fracture neck of femur.
  
4. A young fit man is admitted to the emergency unit after a road traffic accident.
  - 4.1. List the indications for intubation.
  - 4.2. What are the special precautions you would take when intubating this patient.

5. List the clinical indications and side effects of the following drugs:
  - 5.1. Intravenous calcium
  - 5.2. Midazolam
  - 5.3. Nitrous oxide
  - 5.4. Noradrenaline
  
6. A 30 year old primigravida (POA of 37 weeks) presents with antepartum haemorrhage for an emergency Caesarean section. Her heart rate is 120 beats per minute and blood pressure is **80/60** mmHg. Outline your anaesthetic management.
  
7. List the perioperative methods of pain relief that can be given to a 4 year old boy who weighs 15kg having a circumcision, giving the drug doses and frequency.
  
8. A 50 year old female is admitted with a blood pressure of 180/115 mmHg for a total abdominal hysterectomy. Explain your preoperative assessment and management plan.

**POSTGRADUATE INSTITUTE OF MEDICINE**  
**UNIVERSITY OF COLOMBO**

**CERTIFICATE OF COMPETENCE IN ANAESTHESIOLOGY EXAMINATION**  
**JUNE 2012**

Date : 1<sup>st</sup> June 2012

Time : 2.00 p.m. – 4.00 p.m.

**Answer all questions.**

**Each question must be answered in a separate book.**

1. Describe briefly the safety features incorporated in an anaesthetic machine to prevent the delivery of a hypoxic gas mixture.
2. A 28 year old primigravida with severe foetal distress needs an emergency Cesarean section.
  - 2.1. Enumerate the problems when anaesthetizing this patient.
  - 2.2. Briefly outline how you would anaesthetize this patient.
3. A 6 week old infant weighing 3.0 Kg is diagnosed to have pyloric stenosis.
  - 3.1. List the problems of anaesthetising this baby.
  - 3.2. Outline how you would resuscitate this baby and the targets you want to achieve.
4. A 62 year old patient was admitted to the intensive care unit (ICU) following an exploratory laparotomy for intestinal obstruction. Over the last two hours his urine output has been 0.3 ml/kg/hour.
  - 4.1. List the possible causes of low urine output.
  - 4.2. Outline your management within the first 24 hours.



5. How do you carry out a primary survey in a young fit male with severe head injury ?

Outline the precautions you would take to minimize secondary brain damage.

6. Briefly describe the problems of anaesthetizing patients for laparoscopic procedures.

7. Write the (a) clinical uses  
(b) side effect  
of **three** (03) of the following drugs

7.1. Diclofenac Sodium

7.2. Amiodarone

7.3. Suxamethonium

7.4. Potassium chloride (KCl)

- 8.
- 8.1. Outline the advantages of good pain relief during the postoperative period.
- 8.2. List the methods available to provide postoperative pain relief following hemiarthroplasty.

**POSTGRADUATE INSTITUTE OF MEDICINE**  
**UNIVERSITY OF COLOMBO**

**CERTIFICATE OF COMPETENCE IN ANAESTHESIOLOGY EXAMINATION**  
**JUNE 2013**

Date : 3<sup>rd</sup> June 2013

Time : 2.00 p.m. – 4.00p.m.

**Answer all questions.**

**Each question must be answered in a separate book.**

1. List the indications and the complications of the following catheter placements.
  - 1.1. Central venous
  - 1.2. Arterial
  
2. An ASA 1 woman is undergoing a LSCS under subarachnoid block.
  - 2.1. Enumerate the clinical features that would alert you, if the patient is developing a high block.
  - 2.2. Describe your management of high spinal block.
  
3. Outline the anaesthetic management of a 5 year old child admitted for removal of a foreign body from the right bronchus.
  
4. A 55 year old female diagnosed with stable angina is scheduled for a mastectomy for carcinoma of breast.  
  
Outline the perioperative management.

5. A 24 year old healthy man is brought to the ICU following ingestion of organophosphate poison. His GCS is 6/15.

Outline your management.

6. A 35 year old ASA 1 male is brought to the ETU following gunshot injury to the neck. He is conscious but restless. He needs to be transferred to the nearest tertiary care centre for further management.

Outline how you would prepare him for transfer.

7. Write short notes on

- 7.1. Uses of propofol

- 7.2. Contra-indications of NSAIDs.

- 7.3. Uses of adrenaline.

8. A 55 year old patient brought to the recovery area following surgery is noted to have a SpO<sub>2</sub> of 85%.

- 8.1. Enumerate the possible causes.

- 8.2. Outline your management.

**POSTGRADUATE INSTITUTE OF MEDICINE**  
**UNIVERSITY OF COLOMBO**

**CERTIFICATE OF COMPETENCE IN ANAESTHESIOLOGY EXAMINATION**  
**JUNE 2014**

Date : 2<sup>nd</sup> June 2014

Time : 2.00 p.m. – 4.00p.m.

**Answer all questions.**

**Each question must be answered in a separate book.**

1.
  - 1.1. Draw a diagram of a Bain circuit and clearly label it.
  - 1.2. Compare and contrast the Magill and Bain breathing systems during spontaneous and controlled ventilation, giving their respective fresh gas flows.
2. A 27 year old previously healthy lady, at 36 weeks of pregnancy presents with a history of fits to the obstetric ward. Her blood pressure is 180/110 mmHg. Briefly describe how you would stabilize this patient prior to Caesarean section.
3. A one year old infant with a weight of 10 kg is awaiting cleft palate repair. Outline your considerations during
  1. preoperative assessment
  2. anaesthesia
4. List the reasons for hyperkalaemia in a critically ill patient. Outline the management options in a patient with a serum potassium of 6.5 mmol/L, giving reasons.

5.

An 82 year old ASA I lady is scheduled to undergo a vaginal hysterectomy and repair under spinal anaesthesia.

Enumerate the problems that may arise in the peri-operative period, briefly indicating what measures you would take to overcome them.

6. A 30 year old man is brought to the Accident and Emergency department rescued from a house fire. He has burns in the face, arms and trunk.

How would you manage this patient in the first 8 hours ?

7. Describe the cardiovascular effects of the following drugs:

1. Ketamine
2. Propofol
3. Halothane

8.

1. List the patients who are likely to develop laryngospasm in the peri-operative period.
2. Outline the management of a patient who develops laryngospasm during the recovery period.