### **APRIL 2001**

[KD 1522] Sub. Code : 3030

### DIPLOMA IN ANAESTHESIOLOGY EXAMINATION.

(New Regulations)

### Part I

#### Paper I — BASIC SCIENCES RELATED TO ANAESTHESIA, HISTORY OF ANAESTHESIA AND PHYSICS IN ANAESTHESIA

Time : Three hours Maximum : 100 marks

Answer ALL questions.

1. (a) Discuss the anatomy of epidural space.

(b) Discuss the current status of epidural analgesia. (25)

2. Discuss the Biotransformation of Intravenous anaesthetic agents. (25)

3. Write short notes on :  $(5 \times 10 = 50)$ 

(a) Calcium channel blockers

(b) Propofol

(c) CVP

(d) Magill

(e) Flowmeters.

### **NOVEMBER 2001**

[KE 1522]

Sub. Code: 3030

### DIPLOMA IN ANAESTHESIOLOGY EXAMINATION.

(New Regulations)

### Part I

### Paper I — BASIC SCIENCES RELATED TO ANAESTHESIA – HISTORY OF ANAESTHESIA AND PHYSICS IN ANAESTHESIA

Time : Three hours

Maximum : 100 marks

#### Answer ALL questions.

1. Describe various types of Hypoxia and their effects on various systems. Discuss about post operative Hypoxia. (25)

2. Describe Bronchopulmonary segments and their importance in Thoracic Anaesthesia. (25)

3. Write short notes on :  $(5 \times 10 = 50)$ 

(a) Second Gas effect

(b) Kartagener's Syndrome

(c) Claude Bernard

(d) Ayre's T Piece

(e) Chloroprocaine.

[KG 1522]

Sub. Code : 3030

DIPLOMA IN ANAESTHESIOLOGY EXAMINATION.

(New Regulations)

### Part I

# Paper I — BASIC SCIENCES RELATED TO ANAESTHESIA — HISTORY OF ANAESTHESIA AND PHYSICS IN ANAESTHESIA

Time : Three hours Maximum : 100 marks

### Answer ALL questions.

1. Describe the factors affecting pulmonary function with special reference to Anaesthesia. Describe various devices and methods of administration of oxygen therapy. (25)

2. Describe various endobronchial tubes with social reference to physiology of one lung anaesthesia. (25)

3. Write short notes on :  $(5 \times 10 = 50)$ 

(a) Amethocaine.

(b) Surfactant.

(c) H.E.G. Boyle.

(d) Water's canister.

(e) Diltiazem.

### **SEPTEMBER 2002**

# [KH 1522]

Sub. Code : 3030

DIPLOMA IN ANAESTHESIOLOGY EXAMINATION.

(New Regulations)

Part I

### Paper I — BASIC SCIENCES RELATED TO ANAESTHESIA, HISTORY OF ANAESTHESIA AND PHYSICS IN ANAESTHESIA

Time : Three hours Maximum : 100 marks

Answer ALL questions.

1. (a) Describe in detail the anatomy and physiology of neuromuscular junction.

(b) Write briefly the differences between depolarising and non-depolarising neuromuscular block. (25)

2. Describe in detail the mechanism of acid base balance in human physiology. (25)

3. Write short notes on :  $(5 \times 10 = 50)$ 

(a) Sir Ralph Water

(b) CIDEX

(c) Adam valve

(d) Glomerular Filtration rate

(e) Dantrolene Sodium.

### **APRIL 2003**

[KI 1522] Sub. Code : 3030

### DIPLOMA IN ANAESTHESIOLOGY EXAMINATION.

(New Regulations)

### Part I

### Paper I — BASIC SCIENCES RELATED TO ANAESTHESIA, HISTORY OF ANAESTHESIA AND PHYSICS IN ANAESTHESIA

Time : Three hours Maximum : 100 marks

Answer ALL questions.

1. (a) Describe pharmacology of antiarrhythmic drugs.

(b) How will you detect and treat perioperative arrhythmias? (25)

2. (a) Discuss the lung function tests.

(b) Narrate the preoperative evaluation of a patient coming for lung resection. (25)

Write short notes on : (5 × 10 = 50)

(a) Laplace's law

(b) Ideal gas equation

(c) Double burst stimulation

(d) Green morton

(e) Magnesium.

### **OCTOBER 2003**

[KJ 1522] Sub. Code : 3030

DIPLOMA IN ANAESTHESIOLOGY EXAMINATION.

(New Regulations)

#### Part I

#### Paper I — BASIC SCIENCES RELATED TO ANAESTHESIA, HISTORY OF ANAESTHESIA AND PHYSICS IN ANAESTHESIA

Time : Three hours	Maximum : 100 marks
Theory : Two hours and forty minutes	Theory : 80 marks
M.C.Q. : Twenty minutes	M.C.Q. : 20 marks

M.C.Q. must be answered SEPARATELY on the answer sheet provided as per the instructions on the first page of M.C.Q. Booklet.

Answer ALL questions.

Draw suitable diagrams wherever necessary.

I. Essay:  $(2 \times 15 = 30)$ 

(1) Describe the anatomy of the larynx and tracheobronchial tree and the clinical applied anatomy in relation to the anaesthesiologist.

(2) Describe the cardiac cycle in detail with diagrammatic representation and discuss factors controlling cardiovascular physiology.

- II. Short notes :
  - (1) Sir Robert Magill.
  - (2) Venturi principle.
  - (3) Oxygen dissociation curve.
  - (4) Anatomy of the neuromuscular junction.
  - (5) Hypoxic Pulmonary Vasoconstriction (HPV).
  - (6) Intrathecal opioids.
  - (7) Aprotinin.
  - (8) LUFT principle and its clinical application.
  - (9) Pharmacogenetics of suxamethonium.
  - (10) ACE inhibitors.

2

 $(10 \times 5 = 50)$ 

### AUGUST 2004

# [KL 1522]

Sub. Code : 3030

# DIPLOMA IN ANAESTHESIOLOGY EXAMINATION.

#### (New Regulations)

### Part I

# Paper I — BASIC SCIENCES RELATED TO ANAESTHESIA, HISTORY OF ANAESTHESIA AND PHYSICS IN ANAESTHESIA

- Time : Three hours Maximum : 100 marks Theory : Two hours and Theory : 80 marks forty minutes
- M.C.Q. : Twenty minutes M.C.Q. : 20 marks Answer ALL questions.

Draw suitable diagrams wherever necessary.

- I. Essay: (2×15 = 30)
  - (1) Describe the anatomy of epidural space.
  - (2) Describe the transport of oxygen in the blood.
- II. Short notes : (10 × 5 = 50)
  - (a) Triple Index.
  - (b) Shunt Fraction.
  - (c) Liquid Oxygen.
  - (d) Buffer systems of body.

- (e) Remi fantanyl.
- (f) Neuromuscular junction.
- (g) Hagen-Poiseuille's equation.
- (h) John snow.
- (i) Pathways of pain in labour.
- (j) Liver function Tests.

2

### **FEBRUARY 2005**

[KM 1522]

Sub. Code : 3030

DIPLOMA IN ANAESTHESIOLOGY EXAMINATION.

(New Regulations)

Part I

# Paper I — BASIC SCIENCES RELATED TO ANAESTHESIA, HISTORY OF ANAESTHESIA AND PHYSICS IN ANAESTHESIA

Time : Three hours	Maximum : 100 marks
Theory : Two hours and	Theory : 80 marks
forty minutes	

M.C.Q. : Twenty minutes M.C.Q. : 20 marks

Answer ALL questions.

Draw suitable diagrams wherever necessary.

I. Essay: (2×15 = 30)

 Describe the historical milestones in the development of regional anaesthesia (drugs and technique) from its early days to as it stands today. (15)

(2) Describe the physiological effects of CENTRAL NEURAXIAL BLOCKADE. (15)

- II. Short notes : (10 × 5 = 50)
  - (a) Anatomy of Nasal Cavity.
  - (b) Reynolds Number
  - (c) Trascutaeneous monitoring of O2 and CO2

(d) Checking the integrity of circle system with CO<sub>2</sub> absorbant in anaesthesia machine

- (e) Differences between crystalloids and colliods
- (f) Protamine
- (g) FRANK STARLING relationship
- (h) Etomidate

 (i) High dose opioid anaesthesia advantages and limitations

2

(j) Carbon monoxide poisoning.

[KO 1522]

Sub, Code : 3030

### DIPLOMA IN ANAESTHESIOLOGY EXAMINATION.

### Paper I — BASIC SCIENCES RELATED TO ANAESTHESIA, HISTORY OF ANAESTHESIA AND PHYSICS IN ANAESTHESIA

Time : Three hours	Maximum : 100 ma	rks
Theory : Two hours and forty minutes	Theory: 80 ma	rks

M.C.Q. : Twenty minutes M.C.Q. : 20 marks

Answer ALL questions.

Draw suitable diagrams wherever necessary.

I. Essay:  $(2 \times 15 = 30)$ 

 Classify anti arrhythmic drugs and write in detail about one drug.

(2) Bronchopulmonary segments.

II. Short notes :  $(10 \times 5 = 50)$ 

- (a) 2,3-diphosphoglycerate
- (b) Standard Base Excess (SBE)

- (c) Cardioversion
- (d) Adrenergic agonists
- (e) Standard deviation
- (f) Hagen Poiseuille's law.
- (g) Osmolality
- (h) Opiate receptors
- (i) John snow
- (j) Transport of CO2 in Blood.

2

[KQ 1522]

Sub. Code : 3030

### DIPLOMA IN ANAESTHESIOLOGY (D.A.) EXAMINATION.

### Paper I — BASIC SCIENCES RELATED TO ANAESTHESIA, HISTORY OF ANAESTHESIA AND PHYSICS IN ANAESTHESIA

#### Common to

(Candidates admitted from 1993-94 onwards)

#### and

(Candidates admitted from 2004-05 onwards)

Time : Three hours	Maximum : 100 marks		
Theory : Two hours and forty minutes	Theory :	80 marks	
M.C.Q. : Twenty minutes	M.C.Q. :	20 marks	

Answer ALL questions.

Draw suitable diagrams wherever necessary.

I. Essay questions :

 Classify Opoioids according to their anaesthetic uses. Describe opoioid anaesthesia (high dosage opoioid anaesthesia).
(20) (2) Describe Cardiovascular effects of Epidural Blockade. Mention clinical tests to evaluate residual activity in cardiac sympathetic nerves. (15)

- (3) Discuss closed circuit anaesthesia. (15)
- II. Write short notes :  $(6 \times 5 = 30)$ 
  - (a) Atypical Thoracic Vertebra
  - (b) Dr. Ralph M. Waters
  - (c) Mivacurium
  - (d) High air flow with oxygen enrichment marks

 (e) Intraosseous administration of fluids and drugs.

(f) Factors affecting hypoxic pulmonary vaso constriction.

2

[KQ 1522]

# [KS 1522]

#### Sub. Code : 3030

DIPLOMA IN ANAESTHESIOLOGY (D.A.) EXAMINATION.

Paper I — BASIC SCIENCES RELATED TO ANAESTHESIA, HISTORY OF ANAESTHESIA AND PHYSICS IN ANAESTHESIA

(Common to All Regulations)

### Q.P. Code: 343030

 $Time: Three \ hours$ 

Maximum : 100 marks

Answer ALL questions.

Draw suitable diagrams wherever necessary.

I. Essay questions :  $(2 \times 20 = 40)$ 

(1) Discuss the pharmacology of various drugs used for controlled hypotension. What are the demerits of controlled hypotensive anaesthesia. (20)

(2) Describe the anatomy of broncho-pulmonary segments with the help of a diagram. Discuss the pulmonary function tests. (20)

II. Write short notes :

 $(10\times 6=60)$ 

- (1) Three-in-one block.
- (2) Autologous blood transfusion.
- (3) Positioning under anaesthesia.
- (4) 16th October 1846.
- (5) Anaesthesia for laproscopic surgery.
- (6) Flow meters.
- (7) Amniotic fluid embolism.
- (8) Venturi principle.
- (9) Pharmacology and clinical utilization of Heparin.
- (10) Low flow anaesthesia.

September 2008

[KT 1519]

Sub. Code: 3027

# DIPLOMA IN ANAESTHESIOLOGY EXAMINATION.

# Paper I – BASIC SCIENCES RELATED TO ANAESTHESIA, HISTORY OF ANAESTHESIA AND PHYSICS IN ANAESTHESIA

(Common to all candidates)

Q.P. Code: 343030

**Time : Three hours** 

Maximum : 100 marks Draw suitable diagram wherever necessary.

Answer ALL questions.

# I. Essay questions :

- 1. Discuss in detail the uptake and distribution of inhalational anaesthetic agents and factors affecting it.
- 2. Describe the anatomy and discuss stellate ganglion block.

# **II.** Write short notes on :

- 1. Anaphylactic reactions during anaesthesia.
- 2. Monitoring neuromuscular blockade.
- 3. Malignant hyperthermia.
- 4. Weaning from mechanical ventilation.
- 5. Horace wells.
- 6. Thromboelastograph Tracings.
- 7. Epidural analgesics.
- 8. Hyperkalemia.
- 9. Propofol.
- 10. Oxygen dissociation curve.

# (2 X 20 = 40)

(10 X 6 = 60)

### **MARCH -2009**

[KU 1522]

Sub. Code: 3030

# DIPLOMA IN ANAESTHESIOLOGY EXAMINATION. Paper I – BASIC SCIENCES RELATED TO ANAESTHESIA, HISTORY OF ANAESTHESIA AND PHYSICS IN ANAESTHESIA (Common to all candidates)

**O.P.** Code : 343030

**Time : Three hours** 

#### Maximum : 100 marks

### Draw suitable diagram wherever necessary.

# Answer ALL questions.

### **I.** Essay questions : (2 X 20 = 40)

- 1. Describe coronary circulation. Discuss factors affecting cardiac output.
- 2. Describe in detail the development, functioning and usage of circle absorber system.

### II. Write short notes on : $(10 \times 6 = 60)$

- 1. Phase II block.
- 2. Pulmonary capillary wedge pressure.
- 3. Failed intubation drill.
- 4. Recurrent laryngeal nerve.
- 5. James young simpson.
- 6. Sodium nitroprusside.
- 7. Autologous Transfusion.
- 8. PEEP.
- 9. Pulse oximetry.
- 10. Glasgow coma scale.

September - 2009

[KV 1522]

Sub. Code: 3030

# DIPLOMA IN ANAESTHESIOLOGY EXAMINATION.

# Paper I – BASIC SCIENCES RELATED TO ANAESTHESIA, HISTORY OF ANAESTHESIA AND PHYSICS IN ANAESTHESIA

(Common to all candidates)

# **Q.P.** Code : 343030

**Time : Three hours** 

Maximum : 100 marks

# Draw suitable diagram wherever necessary. Answer ALL questions.

- I. Essay questions :  $(2 \times 20 = 40)$ 
  - 1. Discuss about sympathomimetic drugs.
  - 2. Hyponatremia and hypernatremia causes, clinical features, treatment and anaesthetic considerations.

II. Write short notes on :  $(10 \times 6 = 60)$ 

- 1. Sodalime.
- 2. Total intravenous anaesthesia.
- 3. Nerve supply of larynx.
- 4. Extra-Junctional receptors.
- 5. Double burst stimulation.
- 6. Principles of pulse-oximetry.
- 7. Ivan Magill.
- 8. Malignant hyperthermia.
- 9. Monitored anaesthesia care.
- 10. Anatomy of epidural space.

# DIPLOMA IN ANAESTHESIOLOGY EXAMINATION

# BASIC SCIENCES RELATED TO ANAESTHESIA, HISTORY OF ANAESTHESIA AND PHYSICS IN ANAESTHESIA

# (Common to all candidates)

# Q.P. Code : 343030

# Time : Three hours Maximum : 100 marks Draw suitable diagram wherever necessary Answer ALL questions

# I. Essay questions :

 $(2 \times 20 = 40)$ 

 $(10 \ge 6 = 60)$ 

Sub. Code: 3030

- 1. Describe the brachial plexus.
- 2. Discuss the physiological changes during pregnancy in relation to anaesthesia.

# II. Write short notes on :

- 1. Visual analogue scale.
- 2. Rocuronium.
- 3. John snow.
- 4. Capnography.
- 5. Propofol.
- 6. Oxygen toxicity.
- 7. Allens test.
- 8. Safety devices on anaesthesia machines.
- 9. Venturi principle and its application.
- 10. Surfactant.

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# **March 2010**

[KW 1522]

September 2010

Sub. Code: 3030

# DIPLOMA IN ANAESTHESIOLOGY (D.A.) EXAMINATION. Part I for Candidates admitted upto 2003-04 & Candidates admitted from 2008-09 onwards

### And

Paper I for Candidates admitted from 2004-05 to 2007-08

# BASIC SCIENCES RELATED TO ANAESTHESIA, HISTORY OF ANAESTHESIA AND PHYSICS IN ANAESTHESIA

# Q.P. Code: 343030

Time : Three hours

[KX 1522]

# Draw suitable diagram wherever necessary. Answer ALL questions.

# I. Essay questions :

- 1. Discuss in detail positioning under Anaesthesia.
- 2. Discuss in detail about post operative Hypoxia.

### **II.** Write short notes on :

- 1. Nerve supply of larynx.
- 2. Limitations of pulse oximetry.
- 3. Respiratory effects of subarachnoid block.
- 4. Aortacaval compression.
- 5. Propofol.
- 6. Fentanyl.
- 7. Caudal block.
- 8. Ether dome.
- 9. Liquid Oxygen.
- 10. Carbondioxide absorbants.

(2 X 20 = 40)

Maximum : 100 marks

 $(10 \times 6 = 60)$ 

# **APRIL 2011**

[KY 1522]

Sub. Code: 3030

# **DIPLOMA IN ANAESTHESIOLOGY (DA) EXAMINATION**

# **BASIC SCIENCES RELATED TO ANAESTHESIA,** HISTORY OF ANAESTHESIA AND PHYSICS IN ANAESTHESIA

Q.P. Code : 343030

### Time : 3 hours (180 Min)

### Maximum: 100 marks

Answer ALL questions in the same order.

I. Elaborate on :		Time (Max.)	Marks (Max.)
1. Describe the physiology of neuro muscular transmission Discuss the factors that modify the action of muscle relaxants.	uscular transmission. action of muscle 11	35	15
2. Classify vaporizers. Briefly discuss the functioning of TEC 6 vaporizer and mention about pumping and pressurizing effect.	11	35	15
II. Write notes on :			
1. Anatomy of internal jugular vein.	4	10	7
2. Critical temperature.	4	10	7
3. Hoffmann's degradation.	4	10	7
4. Anion gap.	4	10	7
5. Changes in vocal cord in various types of palsies.	4	10	7
6. Capnography and various abnormal capnographs.	4	10	7
7. Ralph waters.	4	10	7
8. B. Adrenergic blocking drugs.	4	10	7
9. Oxygen toxicity.	4	10	7
10. Hyperkalemia.			

# October 2011

[KZ 1522]

Sub. Code: 3030

# DIPLOMA IN ANAESTHESIOLOGY (DA) EXAMINATION BASIC SCIENCES RELATED TO ANAESTHESIA,

# HISTORY OF ANAESTHESIA AND PHYSICS IN ANAESTHESIA

Q.P. Code : 343030

Time : 3 hours	Maximum : 100 marks
(180 Min)	

# Answer ALL questions in the same order.

I. Elaborate on :	Pages (Max.)	TimeN(Max.)()	Marks Max.)
1. Draw anatomy of Brachial plexus and summarize various approaches for shock with merits and demerits.	11	35 min.	15
2. Definition and classification of shock. Anaesthetic manager days old perforation peritonitis in a male aged 62 years. such patients?	ment of t 11	wo 35 min.	15
II. Write notes on :			
1. W.T.G. MORTON.	4	10 min.	7
2. Etomidate.	4	10 min.	7
3. Cerebro spinal fluid.	4	10 min.	7
4. Duschenne muscular dystrophy.	4	10 min.	7
5. First pass metabolism.	4	10 min.	7
6. Hagen – Poiseuille's law.	4	10 min.	7
7. GABA.	4	10 min.	7
8. Post dural puncture head ache.	4	10 min.	7
9. Transverse abdominis block.	4	10 min.	7
10. Q-T interval prolongation.	4	10 min.	7

# **April 2012**

[LA 1522]

Sub. Code: 3030

# DIPLOMA IN ANAESTHESIOLOGY (DA) EXAMINATION

# BASIC SCIENCES RELATED TO ANAESTHESIA, HISTORY OF ANAESTHESIA AND PHYSICS IN ANAESTHESIA

# Q.P. Code : 343030

Maximum: 100 marks

Time : 3 hours (180 Min)

# Answer ALL questions in the same order.

I. 1	Elaborate on :	Pages (Max.)	Time (Max.)	Marks (Max.)
1.	Explain in detail the cardiac cycle, Factors regulating cardiac output and methods of measuring cardiac output.	16	35	15
2.	Describe the mode of action of Local Anesthetic Drugs. What are the pharmacological requisites of an ideal local anesthetic?	16	35	15
II.	Write notes on :			
1.	Write about AMBU bag, its usage and the different types of			
	valves used.	4	10	7
2.	Hagen poiselle law-state the law and its anesthetic application	ons. 4	10	7
3.	Discuss in detail about Intubating Laryngeal Mask Airway (	(ILMA).4	4 10	) 7
4.	Diagnosis of Hyperkalemia and its anesthetic implications.	4	10	7
5.	Mention the Factors affecting cerebral blood flow.	4	10	7
6.	Causes and prevention of Mendelsons syndrome.	4	10	7
7.	Describe the Bedside pulmonary functions tests.	4	10	7
8.	Factors affecting Hypoxic pulmonary Vasoconstriction.	4	10	7
9.	Explain Goldman cardiac risk index.	4	10	7
10	Uses of Peripheral nerve stimulator in monitor muscle			
	relaxation.	4	10	7

#### [LB 1522] OCTOBER 2012 Sub. Code: 3030 **DIPLOMA IN ANAESTHESIOLOGY (DA) EXAMINATION** BASIC SCIENCES RELATED TO ANAESTHESIA, HISTROY OF ANAESTHESIA AND PHYSICS IN ANAESTHESIA O.P. Codo: 3/3030

		Q.P. Code: 545050			
Tin	ie:	3 hours	Maxin	num: 10	0 marks
(18	0 N	fin)			
		ANSWER ALL QUESTIONS IN THE SAMI	E ORDEF	ł.	
<b>I.</b> E	lat	oorate on:	Pages (Max.)	Time (Max.)	Marks
	1.	Discuss the lung function tests.	16	35	15
		How will you evaluate preoperatively a patient coming for lung resection?			
	2.	Discuss the pharmacology of anti-arrhythmic drugs. How will you detect and manage peri-operative arrhythmias?	16	35	15
II.	W	rite Short Notes on:			
	1.	Anatomy of epidural space and the anaesthetic	4	10	7
		implications.			
	2.	Phase 2 block and it's significance to the	4	10	7
		Anaesthesiologists.			
	3.	Autologous transfusion and it's role in the	4	10	7
		peri-operative period.			
	4.	Signs, Symptoms of Malignant hyperpyrexia	4	10	7
		and it's management.			
	5.	Role of Thromboelastography for practicing	4	10	7
		Anaesthesiologists.			
	6	Ralph Waters and his Inventions in Anaesthesiology	4	10	7

6. Ralph Waters and his Inventions in Anaesthesiology. 10 4 1 7. Pharmaco dynamics & Pharmaco Kinetics of 4 10 7 Propofol. 8. Role of 2, 3 – DPG in massive Blood Transfusion 4 7 10 9. Hagen-Poiseuille's law. 4 10 7 10. Transport of carbon-di-oxide in blood. 7 4 10

# DIPLOMA IN ANAESTHESIOLOGY (DA) EXAMINATION BASIC SCIENCES RELATED TO ANAESTHESIA, HISTORY OF ANAESTHESIA AND PHYSICS IN ANAESTHESIA *O.P. Code : 343030*

# **Time: Three Hours**

# I. Elaborate on:

- 1. Describe the factors influencing the normal cardiac output.
- 2. Describe the anatomy of epidural space. Discuss the physiological effects and complications of epidural block.

# II. Write notes on:

(**10X7=70**)

- 1. John Snow
- 2. Hagen Poiseuille's law
- 3. Hypokalemia
- 4. Sodalime
- 5. Nerve supply of larynx
- 6. High airflow oxygen enrichment masks
- 7. Pin index system
- 8. Principles of pulse oximetry
- 9. Phase II block
- 10. Sodium nitroprusside

\*\*\*\*\*\*

# (LC 1522)

# (2X15=30)

Maximum: 100 marks

# DIPLOMA IN ANAESTHESIOLOGY (DA) EXAMINATION APPLIED BASIC SCIENCES RELATED TO ANAESTHESIA, HISTORY OF ANAESTHESIA AND PHYSICS IN ANAESTHESIA

Q.P. Code : 343030

# **Time: Three Hours**

# I. Elaborate on:

- 1. Describe the anatomy, indications and methods of stellate ganglion block.
- 2. Discuss the physiological changes occuring during pregnancy and their influence on anaesthesia.

# II. Write notes on:

# (10X7=70)

- 1. Oxygen cascade.
- 2. Protamine.
- 3. Cardioversion.
- 4. John Snow.
- 5. Fat embolism.
- 6. Ayre`s T piece.
- 7. Sodium bicarbonate.
- 8. Allen`s test.
- 9. Low flow anaesthesia.
- 10. Malignant hyperthermia.

\*\*\*\*\*\*

# (2X15=30)

Maximum: 100 marks

# **APRIL 2014**

# DIPLOMA IN ANAESTHESIOLOGY (DA) EXAMINATION

# APPLIED BASIC SCIENCES RELATED TO ANAESTHESIA, HISTORY OF ANAESTHESIA AND PHYSICS IN ANAESTHESIA

# Q.P.Code: 343030

Maximum: 100 marks

# I. Elaborate on:

**Time: Three Hours** 

- 1. Define functional residual capacity and closing capacity. Briefly describe their significance in anaesthetic practice.
- 2. Describe CVP (central venous pressure) wave forms and correlate with ECG with the help of a diagram. Discuss the diagnostic significance of the CVP wave forms.

# II. Write notes on:

- 1. Caudal epidural space.
- 2. BOHR Effect.
- 3. W.T.G Morton.
- 4. Hypokalemia.
- 5.  $\alpha_2$  agonists.
- 6. Boyle's law.
- 7. Alveolar Air equation.
- 8. Oxygen fail safe devices.
- 9. Proseal LMA (Laryngeal mask airway).
- 10. Innervation of larynx.

\*\*\*\*\*\*

# (2X15=30)

# (10X7=70)

### OCTOBER 2014

### **DIPLOMA IN ANAESTHESIOLOGY (DA) EXAMINATION**

# APPLIED BASIC SCIENCES RELATED TO ANAESTHESIA, HISTORY OF ANAESTHESIA AND PHYSICS IN ANAESTHESIA

Q.P.Code: 343030

**Time: Three Hours** 

I. Elaborate on:

- 1. Describe the anatomy of the Broncho pulmonary segments with the help of a diagram. Discuss the Pulmonary Function Tests.
- 2. Describe the pharmacology of anti-arrhythmic drugs. How will you detect and treat perioperative arrhythmias?

### **II.** Write notes on:

- 1. Cerebral auto regulation.
- 2. Beer Lamberts Law.
- 3. 16<sup>th</sup> October 1846.
- 4. Etomidate.
- 5. Liquid Oxygen.
- 6. Venturi Principle.
- 7. Carotid and aortic reflexes and respiration.
- 8. Diaphragm.
- 9. Target controlled Infusion.
- 10. Sir Ralph Water.

\*\*\*\*\*\*

 $(2 \times 15 = 30)$ 

**Maximum: 100 marks** 

 $(10 \times 7 = 70)$