Rajiv Gandhi University of Health Sciences, Karnataka

II Year B.Sc. Anaesthesia Technology & Operation Theatre Technology Degree Examination – 19-May-2023

Time: Three Hours | Max. Marks: 100 Marks

Introduction to Anaesthesia & OT Technology

Q.P. CODE: 3391

Your answers should be specific to the questions asked.
Draw neat labeled diagrams wherever necessary.

LONG ESSAYS (Answer any two) 2 x 10 = 20 Marks

1. Describe difficult airway management, explain tracheostomy.
2. Explain pre-anesthetic assessment and premedication of a patient.
3. Explain lay-out of operation theatre.

SHORT ESSAYS (Answer any ten) 10 x 5 = 50 Marks

4. Explain briefly about safety features of anaesthesia machine.
5. Define autoclaving.
6. Explain briefly about pulse oximetry.
7. Add a note on regional anaesthesia. Describe spinal anaesthesia.
8. Biomedical waste management.
9. Inhalational agents.
10. What is crichothyroidotomy?
11. Classification of muscle relaxants.
12. Explain types of LMA.
13. Add a note on history of anaesthesia.
14. E T Tube.
15. Central gas supply.

SHORT ANSWER (Answer any ten) 10 x 3 = 30 Marks

16. Name three antiemetics.
17. Defribillator.
18. Styllet.
19. NIBP.
20. Video laryngoscope.
21. BIS.
22. Oxygen therapy.
23. Thiopentone sodium.
24. Types of laryngoscopes.
25. Diagram of capnography.
26. Face mask.
27. Combitube.

Rajiv Gandhi University of Health Sciences, Karnataka

II Year B.Sc. Anaesthesia Technology & Operation Theatre Technology
Degree Examination – 24-May-2023

Time: Three Hours | Max. Marks: 100 Marks

Medicines Relevant to Anaesthesia & OT Technology

Q.P. CODE: 3392

Your answers should be specific to the questions asked.
Draw neat labeled diagrams wherever necessary

LONG ESSAYS (Answer any two) 2 x 10 = 20 Marks

1. Define shock. List types of shock. Discuss clinical features, causes and management of any one type of shock.
2. Mention various causes of IHD. Discuss pre-op management of a patient with Ischemic Heart Disease (IHD).
3. Discuss causes and clinical features of CLD (Chronic Liver Disease). Add a note on pre-op management of a patient with CLD.

SHORT ESSAYS (Answer any ten) 10 x 5 = 50 Marks

4. Management of bronchial asthma.
5. Complications of hypertension.
6. Write in detail about types, indications, doses routes of administration and complications of Insulin.
7. Complications of haemodialysis.
8. Difference between pediatric and adult airway.
9. Status epilepticus – clinical features and management.
10. Clinical features of COPD patient.
11. BMI (Body Mass Index).
12. Causes, diagnosis and treatment of megaloblastic anaemia.
13. APGAR score in neonates.
14. Complications of obesity.
15. Antihypertensive drugs.

SHORT ANSWER (Answer any ten) 10 x 3 = 30 Marks

16. Name three diuretics drugs.
17. Renal function tests.
18. Uses of Spirometry.
19. Define CKD (Chronic Kidney Disease).
20. Atrial fibrillation.
21. Gestational diabetes.
22. List three complications of Cirrhosis.
23. Risk factors for stroke.
24. Uses of Benzodiazepines.
25. Types of angina pectoris.
26. Define Tidal volume.
27. Fluid therapy in pediatrics.

Rajiv Gandhi University of Health Sciences, Karnataka

II Year B.Sc. Anaesthesia Technology & Operation Theatre Technology
Degree Examination – 17-May-2023

Time: Three Hours | Max. Marks: 50 Marks

Applied Pathology – (Sec A)

Q.P. CODE: 3399

Your answers should be specific to the questions asked.
Draw neat labeled diagrams wherever necessary

(Note: Both QP Codes 3399 and 3400 are to be answered within total duration of 3 hours)

LONG ESSAYS (Answer any one) 1 x 10 = 10 Marks

1. Define and classify bleeding disorders. Briefly explain the laboratory test for bleeding disorders.
2. Define and classify anemia. Describe the diagnosis of anemia.

SHORT ESSAYS (Answer any five) 5 x 5 = 25 Marks

3. Describe the risk factors for Atherosclerosis.
4. Explain the pathogenesis and effects of hypertension.
5. Describe pneumoconiosis.
6. Describe the causes, effects and diagnosis of pericardial effusion.
7. Explain briefly about pyelonephritis.
8. Describe myocardial infarction.

SHORT ANSWER (Answer any five) 5 x 3 = 15 Marks

9. Enumerate Chronic Obstructive Pulmonary Disorders.
10. Causes of End stage renal disease.
11. Types of ischemic heart disease.
12. List the difference between benign and malignant hypertension.
13. List the causes of cardiomyopathy.
14. List the causes of leukocytosis.

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Rajiv Gandhi University of Health Sciences, Karnataka

II Year B.Sc. Anaesthesia Technology & Operation Theatre Technology
Degree Examination – 17-May-2023

Time: Three Hours | Max. Marks: 50 Marks

Applied Microbiology – (Sec B)

Q.P. CODE: 3400

Your answers should be specific to the questions asked.
Draw neat labeled diagrams wherever necessary

(Note: Both QP Codes 3399 and 3400 are to be answered within total duration of 3 hours)

LONG ESSAYS (Answer any one) 1 x 10 = 10 Marks

1. Enumerate the virus that are transmitted by blood and body fluids. Describe in detail the laboratory diagnosis of HIV infection. Add a note on the measures to prevent exposure to healthcare workers.

2. Define Nosocomial infection. Describe in detail Ventilator Associated Pneumonia.

SHORT ESSAYS (Answer any five) 5 x 5 = 25 Marks

3. Vancomycin Resistant Enterococci significance and treatment.
4. Sampling techniques.
5. Hepatitis C virus – spread, diagnosis and treatment.
6. Autoclave – principle, working and uses.
7. CRBSI (Catheter Related Blood Stream Infections).
8. Ebola virus – mode of spread and prevention.

SHORT ANSWER (Answer any five) 5 x 3 = 15 Marks

9. How do you sterilize a) Bronchoscope b) Optical instruments?
10. Hot air oven uses.
11. Samples used for detecting Moraxella catarrhalis and its detection.
12. Infection control measures in the ICU.
13. Needle stick injuries.
14. Disinfection of patient care unit - any three.

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Rajiv Gandhi University of Health Sciences, Karnataka

II Year B.Sc. Anaesthesia Technology Degree Examination – 22-May-2023

Time: Three Hours | Max. Marks: 100 Marks

INTRODUCTION TO ANAESTHESIA TECHNOLOGY (RS2)

Q.P. CODE: 1237

Your answers should be specific to the questions asked.
Draw neat labeled diagrams wherever necessary.

LONG ESSAYS (Answer any Two) 2 x 10 = 20 Marks

1. Describe gas laws in anaesthesia.
2. Discuss blood transfusion reactions and their management.
3. Discuss about the inhalational anaesthetics

SHORT ESSAYS (Answer any Twelve) 12 x 5 = 60 Marks

4. Capnography
5. Clamping and occluding instruments
6. Succinyl choline
7. What is general anaesthesia? Mention the complications.
8. Post operative care of surgical patient
9. Endo tracheal intubation
10. Laminar air flow principle
11. Trash autoclave
12. Halothane
13. Hanger yolk assembly
14. Epidural anaesthesia
15. Hot air oven
16. Possible injury during a lithotomy position
17. Anaesthesia mask

SHORT ANSWERS (Answer any Ten) 10 x 2 = 20 Marks

18. **I – gel LMA**
19. Venturi principle
20. What are the materials sterilized by gamma radiation
21. Indications of nasal intubation
22. What are the different types of endotracheal tubes?
23. Name the types of regional anaesthesia.
24. Uses of alcohol
25. Lignocaine 5%
26. What are the stages of autoclaving?
27. Define asepsis.
28. Guidelines for eye protection during laser surgery
29. Types of laryngoscope's

Rajiv Gandhi University of Health Sciences, Karnataka

II Year B.Sc. Anaesthesia Technology Degree Examination – 24-May-2023

Time: Three Hours Max. Marks: 80 Marks

MEDICINE RELEVANT TO ANAESTHESIA TECHNOLOGY (RS2)

Q.P. CODE: 1238

Your answers should be specific to the questions asked.
Draw neat, labeled diagrams wherever necessary.

LONG ESSAYS (Answer any Two) 2 x 10 = 20 Marks

1. Classify types of Diabetes mellitus. Describe pathophysiology and management of type II DM.
2. Physiological considerations and anaesthetic challenges in managing obese patients
3. Define and classify anemia. Management of patient with iron deficiency anemia

SHORT ESSAYS (Answer any Eight) 8 x 5 = 40 Marks

4. Classification of hypertension.
5. Preoperative preparations of COPD patients.
6. Hypotension during anesthesia.
7. Utero-placental circulation and anaesthetic drugs.
8. Hypovolemic shock.
9. Classification of chronic hepatitis.
10. Physiological changes in elderly.
11. Anaesthetic considerations in an epileptic patient.
12. Universal precautions.
13. Febrile convulsions.

SHORT ANSWERS (Answer any Ten) 10 x 2 = 20 Marks

14. Risk factors for development of IHD.
15. Cardioversion.
16. Dialysis.
17. Insulin.
18. **Mallampati** scoring.
19. Mechanism of action of Aminophylline.
20. β-blockers.
21. Intravenous Lignocaine (Xylocard).
22. Soda bicarbonate.
23. Defibrillator.
24. Central venous pressure.
25. Positioning in thoracotomy.

Rajiv Gandhi University of Health Sciences, Karnataka

II Year B.Sc. Operation Theatre Technology Degree Examination – 22-May-2023

Time: Three Hours | Max. Marks: 100 Marks

Introduction to Operation Theatre Technology (RS 2)

Q.P. CODE: 1241

Your answers should be specific to the questions asked
Draw neat labeled diagrams wherever necessary

LONG ESSAYS (Answer any Two) 2 x 10 = 20 Marks

1. Basic monitoring in operation theatre.
2. Discuss the various duties of a nurse posted to operation theatre.
3. Define Sterilization. What are the different methods of Sterilization followed in hospitals?

SHORT ESSAYS (Answer any Twelve) 12 x 5 = 60 Marks

4. Closed method of gloving technique.
5. ETO sterilization.
6. Soda lime.
7. Massive blood transfusion.
8. Types and uses of electro Cautery.
9. Types of regional anesthesia.
10. Cleaning of operation theatre.
11. Explain in brief about local anesthesia techniques.
12. Types of patient positioning in operation theatre.
13. Balanced anesthesia.
14. Safety features in anaesthesia machine.
15. Explain in detail about hospital waste management.
16. Explain the cycle of sterile supply or the functional flow of a CSSD.
17. Blood Transfusion Reactions.

SHORT ANSWERS (Answer any Ten) 10 x 2 = 20 Marks

18. Disposal of waste sharps.
19. Advantages of premedication.
20. Indications of Endotracheal tube intubation.
21. Spinal needles.
22. Various positions during anesthesia.
23. Hot air oven.
24. Post operative care.
25. TSSU.
26. Sponge holding forceps.
27. Mention various injuries while positioning of patient during surgery.
28. Discuss the steps of surgical hand scrub.
29. Differentiate bougie and stylet.

Rajiv Gandhi University of Health Sciences, Karnataka

II Year B.Sc. Operation Theatre Technology Degree Examination – 24-May-2023

Time: Three Hours | Max. Marks: 80 Marks

MEDICINE RELEVANT TO OPERATION THEATRE TECHNOLOGY (RS2)

Q.P. CODE: 1242

Your answers should be specific to the questions asked.
Draw neat labeled diagrams wherever necessary.

LONG ESSAYS (Answer any Two) 2 x 10 = 20 Marks

1. Mention all cardiac arrhythmias during surgery. Discuss about cardiac arrest and CPR.
2. Types of shock. Discuss about causes, clinical features and management of hypovolemic shock.
3. Discuss about acute complications of diabetes. Add a note on causes, clinical features and management of hypoglycemia.

SHORT ESSAYS (Answer any Eight) 8 x 5 = 40 Marks

4. Angina pectoris.
5. Complications during labour. Add a note on labour analgesia.
6. Antihypertensive drugs. Management of hypertensive emergencies.
7. Complications of blood loss during surgery. Add a note on blood transfusion.
8. Types, clinical features and treatment of epilepsy.
9. Iron deficiency anemia.
10. Renal transplantation.
11. Causes and management of respiratory failure.
12. Clinical features, investigations and treatment of bleeding and clotting disorders.
13. I.V fluids.

SHORT ANSWERS (Answer any Ten) 10 x 2 = 20 Marks

14. Nitroglycerine (NTG).
15 Oxygen cylinder.
16. ET Tube.
17. Paracetamol.
18. Xylocaine (XYLOCARD).
19. Bronchodilators.
20. Causes of unconsciousness.
21. Central Venous Pressure (CVP) monitoring.
22. Thrombophlebitis.
23. Hepatitis B prophylaxis/vaccination.
24. Adenosine.
25. Anti-emetics.

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Rajiv Gandhi University of Health Sciences, Karnataka

II Year B.Sc. Anaesthesia Technology & Operation Theatre Technology
Degree Examination – 22-May-2023

Time: Three Hours | Max. Marks: 100 Marks

Applied Pharmacology
Q.P. CODE: 3401

Your answers should be specific to the questions asked.
Draw neat labeled diagrams wherever necessary

LONG ESSAYS (Answer any two) 2 x 10 = 20 Marks

1. Define general anaesthetics. Classify them and write a detailed note on any one inhalation general anaesthetics.
2. Define diuretics. Classify and write the mechanism of action, uses and side effects of furosemide.
3. Write a note on vasopressors.

SHORT ESSAYS (Answer any ten) 10 x 5 = 50 Marks

4. Aspirin – mode of action, indications and dose.
5. Pharmacological protection of organs during Cardio Pulmonary Bye Pass.
6. Write a note on neuromuscular blocking agents and its uses.
7. Classify antianginal drugs give one example for each class. Write a note on propranolol.
8. Diazepam – mode of action**, indications** and adverse **effects**
9. Pharmacotherapy of cough.
10. Third generation cephalosporins.
11. **Quinine – Indications and adverse effects.**
12. Write a note on electrolyte supplements.
13. What are analgesics? Write the mechanism of action, precautions and uses of morphine.
14. Warfarin **– indications,** dose and mode of action
15. **Write the mechanism of action of reversible anticholinesterases, their uses and adverse effects.**

SHORT ANSWER (Answer any ten) 10 x 3 = 30 Marks

16. Name any three opioid analgesics.
17. Name any three potassium sparing diuretics.
18. Phases of Biotransformation.
19. Name any three CNS stimulants.
20. Name three antiemetics and its uses.
21. Name three anti tussives and its uses.
22. Halothane – Indication and adverse effect.
23. Drugs used as pre-anaesthetic medication.
24. Adverse effects of corticosteroids.
25. Name the drugs used in electrolyte imbalance.
26. Name the first line antitubercular drugs.
27. Name any three H1 antihistaminics with their pharmacological action.

Rajiv Gandhi University of Health Sciences, Karnataka

II Year B.Sc. Operation Theatre Technology Degree Examination – 22-May-2023

Time: Three Hours | Max. Marks: 100 Marks

Introduction to Anaesthesia & OT Technology (RS-3)

Q.P. CODE: 3407

Your answers should be specific to the questions asked
Draw neat labeled diagrams wherever necessary

LONG ESSAYS (Question No.2 Choice) 2 x 10 = 20 Marks

1. Enumerate various blood grouping systems. Explain in brief the indications of blood transfusion. Briefly list the various complications of blood transfusion.

2. Discuss the physical methods of sterilization.
   OR
   Discuss in details the intraoperative patient monitoring.

SHORT ESSAYS (Question No.5 & 10 choice) 10 x 5 = 50 Marks

3. Complications of general anaesthesia.
4. Premedications and their uses.
5. Classify muscle relaxants. Explain in detail about nondepolarising muscle relaxants.
   OR
   Classify intravenous induction agents. Explain in detail about Thiopentone sodium.
6. Lateral position of patient.
7. Definition of CSSD, functions of CSSD.
8. Alcohols as sterilization agents.
9. Briefly describe the instruments set up for hemorrhoidectomy case.
10. OT sterilization.
    OR
    Safety equipments in OT- lead apron, goggles etc
11. Duties of nurses in OT.
12. Contraindications of epidural anaesthesia.

SHORT ANSWER (Question No. 15 & 20 choice) 10 x 3 = 30 Marks

13. Bougie.
14. Laryngeal Mask Airway (LMA).
15. Succinyl choline.
    OR
    Adrenaline.
16. List three tissue holding instruments.
17. **Quineke Babcock needle**
18. What are the wastes discarded in red bin in OT?
19. Gamma radiation.
20. List three absorbable suture materials.
    OR
    List three non absorbable suture materials.
21. Lignocaine – Different preparation.
22. Bier's block.

Rajiv Gandhi University of Health Sciences, Karnataka

II Year B.Sc. Anaesthesia Technology Degree Examination – 22-May-2023

Time: Three Hours Max. Marks: 100 Marks

Introduction to Anaesthesia Technology (RS-3)

Q.P. CODE: 3268

Your answers should be specific to the questions asked
Draw neat labeled diagrams wherever necessary

LONG ESSAYS (Question No.2 Choice) 2 x 10 = 20 Marks

1. Describe how to prepare a trolley for epidural anaesthesia and the difficulties that can occur
2. Give an overview of the anaesthetic machine's safety features
   OR
   Make a list of the various inhalational agents utilized in the operating room and make a note on the vaporizer

SHORT ESSAYS (Question No.5 & 10 choice) 10 x 5 = 50 Marks

3. The Jackson Rees System
4. Fire-prevention measures in the operating room
5. Soda lime
   OR
   Significance of oxygen saturation in general anesthesia
6. CVP and its applications
7. Fentanyl
8. Operation theatre, medicines and equipment for paediatric anaesthetic preparation
9. Add a note on nitrous oxide
10. Complications of endotracheal intubation
    OR
    Describe your function in asepsis in the Operation Room
11. Make a note about manifold
12. Anti-emetics

SHORT ANSWER (Question No. 15 & 20 choice) 10 x 3 = 30 Marks

13. Indications of central venous pressure monitoring
14. Basic life support
15. Uses of Atropine
    OR
    Any three precautions to prevent fire in operating room
16. Any three crystalloid solutions used in operating room
17. Care of tracheostomy
18. Mention three routine investigations
19. Name any three muscle relaxants
20. Advantages of Premedication
    OR
    Common components of breathing system
21. Yoke Assembly
22. Ringer lactate IV fluid

Rajiv Gandhi University of Health Sciences, Karnataka

II Year B.Sc. Anaesthesia Technology & Operation Theatre Technology
Degree Examination – 23-Nov-2023

Time: Three Hours | Max. Marks: 50 Marks

Applied Pathology – (Sec A)

Q.P. CODE: 3399

Your answers should be specific to the questions asked.
Draw neat labeled diagrams wherever necessary

(Note: Both QP Codes 3399 and 3400 are to be answered within total duration of 3 hours)

LONG ESSAYS (Answer any one) 1 x 10 = 10 Marks

1. Define atherosclerosis. Discuss the risk factors and pathogenesis and morphology of atherosclerosis.
2. Define hypertension. Discuss the types, pathogenesis and consequence of hypertension.

SHORT ESSAYS (Answer any five) 5 x 5 = 25 Marks

3. Describe polycythemia.
4. Explain briefly about post streptococcal glomerulonephritis.
5. Describe etiopathogenesis of myocardial infarction.
6. Define and enumerate COPD. Describe pathogenesis and morphology of emphysema.
7. Describe causes and pathology of end stage renal diseases.
8. Explain briefly about acute renal failure.

SHORT ANSWER (Answer any five) 5 x 3 = 15 Marks

9. List the morphological types of anemia.
10. Define leukocytosis with examples.
11. Name the laboratory tests for bleeding disorders.
12. List the etiological types of aneurysm.
13. Classify cardiomyopathy.
14. List the causes of pleural effusion.

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Rajiv Gandhi University of Health Sciences, Karnataka

II Year B.Sc. Anaesthesia Technology & Operation Theatre Technology
Degree Examination – 23-Nov-2023

Time: Three Hours | Max. Marks: 50 Marks

Applied Microbiology – (Sec B)

Q.P. CODE: 3400

Your answers should be specific to the questions asked
Draw neat labeled diagrams wherever necessary

(Note: Both QP Codes 3399 and 3400 are to be answered within total duration of 3 hours)

LONG ESSAYS (Answer any one) 1 x 10 = 10 Marks

1. Enumerate different health care associated infections. Add a note on ventilator associated pneumonia

2. Define sterilisation. Describe in detail about Central Sterile Supply Department (CSSD) and its functions

SHORT ESSAYS (Answer any five) 5 x 5 = 25 Marks

3. Serological markers of Hepatitis B Virus (HBV)
4. Laboratory diagnosis of Human Immunodeficiency Virus (HIV)
5. Methicillin Resistant Staphylococcus Aureus (MRSA) – detection and treatment
6. Haemophilus influenzae – morphology and laboratory diagnosis
7. Use of personal protective equipment
8. Infection control measures in ICU's

SHORT ANSWER (Answer any five) 5 x 3 = 15 Marks

9. Name three bacteria causing catheter associated UTI
10. Name three gram negative bacteria
11. Name three DNA viruses
12. Universal precautions to prevent Hepatitis A infections
13. Name three occupationally acquired infections in health care professionals by respiratory route
14. Prevention of transmission of tuberculosis in health care workers

Rajiv Gandhi University of Health Sciences, Karnataka

II Year B.Sc. Allied Health Sciences Degree Examination – 23-Nov-2023

Time: Three Hours Max. Marks: 50 Marks

APPLIED PATHOLOGY – (Sec A) - (RS-3)
(Anaesthesia Technology and Operation Technology)

Q.P. CODE: 3404

Your answers should be specific to the questions asked
Draw neat labeled diagrams wherever necessary

(Note: Both QP Codes 3404 and 3405 are to be answered within total duration of 3 hours)

LONG ESSAYS 1 x 10 = 10 Marks

1. What is Ischaemic heart disease? Explain the pathology and complications of its various types

SHORT ESSAYS (Question No. 4 choice) 5 x 5 = 25 Marks

2. Laboratory diagnosis of Iron deficiency anemia
3. Briefly describe the complications of artificial valves of heart
4. Pathology and complications of chronic bronchitis
   OR
   Define and classify bleeding disorders
5. Discuss the etiopathogenesis of Myocardial infarction
6. Differentiate obstructive and restrictive pulmonary disease

SHORT ANSWER (Question No.9 choice) 5 x 3 = 15 Marks

7. Morphologic features of chronic glomerulonephritis
8. List cause of Pulmonary congestion
9. Mention causes of chronic renal failure
   OR
   Normal values of bleeding time and clotting time
10. Classify anemia
11. Morphology of atherosclerosis

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Rajiv Gandhi University of Health Sciences, Karnataka

II Year B.Sc. Allied Health Sciences Degree Examination – 23-Nov-2023

Time: Three Hours | Max. Marks: 50 Marks

Applied Microbiology – (Sec B) (RS-3)
(Anaesthesia Technology and Operation Technology)
Q.P. CODE: 3405

Your answers should be specific to the questions asked
Draw neat labeled diagrams wherever necessary

(Note: Both QP Codes 3404 and 3405 are to be answered within total duration of 3 hours)

LONG ESSAYS 1 x 10 = 10 Marks

1. List a communicable viral infection, which infects healthcare workers. Describe in detail about morphology, pathogenicity and laboratory diagnosis of hepatitis B virus infection. Add a note on its prevention

SHORT ESSAYS (Question No. 4 choice) 5 x 5 = 25 Marks

2. Disinfection of instruments used in patient care
3. Needle stick injury and its prevention
4. Infections caused by Salmonella
   OR
   Infections caused clostridium difficile
5. Laboratory diagnosis of pulmonary tuberculosis
6. Moist heat method of sterilisation

SHORT ANSWER (Question No.9 choice) 5 x 3 = 15 Marks

7. Vancomycin resistant enterococci
8. Name three RNA viruses
9. Name three drug resistant bacteria
   OR
   Name three gaseous disinfectants
10. Name three healthcare associated infections
11. Name three pathogens causing catheter related urinary tract infections

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Rajiv Gandhi University of Health Sciences, Karnataka

II Year B.Sc. Anaesthesia Technology Degree Examination – 02-Dec-2023

Time: Three Hours | Max. Marks: 100 Marks

INTRODUCTION TO ANAESTHESIA TECHNOLOGY (RS2)

Q.P. CODE: 1237

Your answers should be specific to the questions asked
Draw neat labeled diagrams wherever necessary

LONG ESSAYS (Answer any Two) — 2 x 10 = 20 Marks

1. Describe different sterilization methods used in maintenance of anaesthesia equipments. How do you sterilize classic LMA?
2. Mention the minimum monitoring standard used while providing anaesthesia. Describe the role of End Tidal CO_2 Monitoring.
3. Describe the various positioning of the patients in the operation theatre.

SHORT ESSAYS (Answer any Twelve) — 12 x 5 = 60 Marks

4. Pulse oximeter and its uses.
5. WTG morten
6. Classification of breathing circuit
7. Goals of oxygen therapy
8. Complications of laryngoscopy
9. Hanger Yoke assembly
10. Checklists for drugs and equipment for regional anaesthesia
11. Clinical signs of hypoxia
12. Anaesthesia masks
13. Medical gas pipeline system
14. What are the parts of anaesthesia delivery system?
15. Mention various methods of chemical sterilization. How will you do OT sterilization?
16. What are the safety features in anaesthetic machine?
17. Thiopentane sodium

SHORT ANSWERS (Answer any Ten) — 10 x 2 = 20 Marks

18. EMLA cream
19. Draw a neat diagram of LMA with labeled parts.
20. Mention 3 indications of Tracheostomy
21. Two adverse effect of succinyl choline.
22. Mallampatti classification
23. Dopamine – dosage and uses
24. Pin index system of air, oxygen and N_2O
25. Drugs used for premedication
26. Ether
27. Core temperature monitoring
28. What is lignocaine and write its uses?
29. Name two advantages of Bain circuit.

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Rajiv Gandhi University of Health Sciences, Karnataka

II Year B.Sc. Anaesthesia Technology Degree Examination – 05-Dec-2023

Time: Three Hours | Max. Marks: 80 Marks

MEDICINE RELEVANT TO ANAESTHESIA TECHNOLOGY (RS-2)

Q.P. CODE: 1238

Your answers should be specific to the questions asked
Draw neat, labeled diagrams wherever necessary

LONG ESSAYS (Answer any Two) 2 x 10 = 20 Marks

1. Define ischemic heart disease with peri operative management.
2. Explain chronic obstructive pulmonary disease with types. Write the anaesthetic management.
3. Describe obesity with etiology and types. Explain the complications and anaesthetic management of obesity.

SHORT ESSAYS (Answer any Eight) 8 x 5 = 40 Marks

4. Type 1 diabetes mellitus.
5. Classification of anemia.
6. Blood transfusion.
7. Write the complications and anesthetic management of hypertension.
8. Physiological changes in pediatrics.
9. Cardio pulmonary resuscitation.
10. Classify shock with management of hypovolemic shock.
11. Types of laryngoscopes.
12. Liver function test.
13. IV fluids.

SHORT ANSWERS (Answer any Ten) 10 x 2 = 20 Marks

14. Mention the drugs used to treat shock.
15. Blood gas analysis.
16. BMI classification of obesity.
17. Adrenaline.
18. Emphysema.
19. Name few antiepileptic drugs.
20. Epidural needle.
21. Name three anti hypertensive drugs.
22. Types of insulin.
23. Bupivacaine.
24. Morbid obesity.
25. Mention three complications of hypertension.

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Rajiv Gandhi University of Health Sciences, Karnataka

II Year B.Sc. Operation Theatre Technology Degree Examination – 02-Dec-2023

Time: Three Hours | Max. Marks: 100 Marks

Introduction to Operation Theatre Technology (RS 2)

Q.P. CODE: 1241

Your answers should be specific to the questions asked
Draw neat labeled diagrams wherever necessary

LONG ESSAYS (Answer any Two) 2 x 10 = 20 Marks

1. Classify muscle relaxants. Write about the indication, contraindication, mechanisms of action and complication of Succinylcholine.
2. How will you arrange an OT for spinal anesthesia? What are the drugs used in spinal anaesthesia. Write short note on post dural puncture headache.
3. Discuss in detail about each operating positioning used inside OT.

SHORT ESSAYS (Answer any Twelve) 12 x 5 = 60 Marks

4. Capnography.
5. Pre-operative assessment and evaluation.
6. Care of laparoscopic instruments.
7. Dry heat sterilization.
8. Classify retractors with their specific uses.
9. Ultraviolet as a means for sterilization.
10. Sterile precautions inside operating room.
11. What are invasive and non-invasive blood pressure monitoring. Explain about arterial pressure monitoring.
12. Informed consent.
13. How will you prepare an OT for HIV positive case?
14. Mention five differences between crystalloids and colloids with examples.
15. Sterile gowning and gloving technique.
16. Thiopentone sodium.
17. Intraoperative temperature monitoring.

SHORT ANSWERS (Answer any Ten) 10 x 2 = 20 Marks

18. Bougie.
19. Atracurium.
20. Lead apron.
21. ETO sterilization.
22. Lateral Decubitus position.
23. General Random Blood Sugar (GRBS).
24. Normal Saline.
25. Suction apparatus.
26. Antiemetic drugs.
27. Three respiratory complications followed by General Anaesthesia.
28. Ultrasonic cleanser.
29. Isoflurane.

Rajiv Gandhi University of Health Sciences, Karnataka

II Year B.Sc. Operation Theatre Technology Degree Examination – 05-Dec-2023

Time: Three Hours | Max. Marks: 80

MEDICINE RELEVANT TO OPERATION THEATRE TECHNOLOGY (RS2)

Q.P. CODE: 1242

Your answers should be specific to the questions asked
Draw neat labeled diagrams wherever necessary

LONG ESSAYS (Answer any Two) 2 x 10 = 20 Marks

1. Etiopathogenesis, clinical features, investigation and treatment of cardiogenic shock
2. Risk factors, clinical features, investigations and treatment of COPD
3. Etiopathogenesis, clinical features, investigation and treatment of type II diabetes mellitus

SHORT ESSAYS (Answer any Eight) 8 x 5 = 40 Marks

4. Physiological changes in elderly
5. Management of obesity
6. Pregnancy induced hypertension
7. Management of hypovolemic shock
8. Etiology and pathophysiology of Chronic Kidney Disease (CKD)
9. Blood transfusion
10. Status epilepticus
11. Management of ischemic stroke
12. Anatomy of coronary vessels with diagram
13. Etiology and pathophysiology of Chronic Liver Disease (CLD)

SHORT ANSWERS (Answer any Ten) 10 x 2 = 20 Marks

14. Name three complications of dialysis
15. Name three anti-hypertensive drugs
16. Three causes of hypovolemic shock
17. Name three drugs used in thrombolysis
18. Name three complications of Chronic Liver Disease (CLD)
19. Three causes of iron deficiency anemia
20. Three signs of COPD
21. Name three common infections in a neonate
22. Three drugs used in obesity
23. Three complications of Chronic Kidney Disease (CKD)
24. Three vaccines given in elderly
25. Parenteral iron therapy

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Rajiv Gandhi University of Health Sciences, Karnataka

II Year B.Sc. Anaesthesia Technology & Operation Theatre Technology
Degree Examination – 02-Dec-2023

Time: Three Hours | Max. Marks: 100

APPLIED PHARMACOLOGY
Q.P. CODE: 3401

Your answers should be specific to the questions asked
Draw neat labeled diagrams wherever necessary

LONG ESSAYS (Answer any two) 2 x 10 = 20 Marks

1. Classify general anaesthetics. Discuss the salient features of intravenous anaesthetic agents
2. Classify antihypertensive drugs. Write the therapeutic uses and adverse effects of β blockers
3. Classify NSAIDs. Discuss the pharmacological actions, therapeutic uses and adverse effects of aspirin

SHORT ESSAYS (Answer any ten) 10 x 5 = 50 Marks

4. Parenteral anticoagulants
5. Advantages and disadvantages of intravenous route
6. Non-depolarising skeletal muscle relaxants
7. Drugs used in bronchial asthma
8. Lignocaine
9. Prokinetic drugs
10. Cardioplegic drugs
11. Adrenaline
12. Write briefly on antiseptics and disinfectants
13. Classify diuretics with examples
14. First line Anti-TB drugs
15. Antianginal drugs

SHORT ANSWER (Answer any ten) 10 x 3 = 30 Marks

16. Name three skeletal muscle relaxants
17. Define Teratogenicity with two examples
18. Therapeutic uses of atropine
19. Name three drugs used in medical emergencies
20. Mention three adverse effects of phenytoin
21. List three uses of opioid analgesics
22. Name three antiplatelet drugs
23. Enlist the drugs used to treat insomnia
24. Enumerate three immunosuppressants
25. Write two uses and one adverse effects of tetracyclines
26. Name three anti-arrhythmic drugs
27. Name three second generation antihistamine

Rajiv Gandhi University of Health Sciences, Karnataka

II Year B.Sc. Operation Theatre Technology Degree Examination – 02-Dec-2023

Time: Three Hours | Max. Marks: 100 Marks

Introduction to Anaesthesia & OT Technology (RS-3)

Q.P. CODE: 3407

Your answers should be specific to the questions asked
Draw neat labeled diagrams wherever necessary

LONG ESSAYS (Question No.2 Choice) 2 x 10 = 20 Marks

1. What are the medical ethics to be followed by a nurse? Mention the duties to be followed in the operation theatre.
2. Describe in detail the types, sizes, uses of anaesthesia facemasks.
   OR
   Discuss various methods of surgical asepsis in the operation theatre.

SHORT ESSAYS (Question No.5 & 10 choice) 10 x 5 = 50 Marks

3. Blood groups.
4. Care of anaesthetized patient.
5. Local anaesthetics.
   OR
   Gauze count.
6. Sponge holding forceps.
7. Closed method of gloving.
8. Complications of blood transfusion.
9. Layout of operation theatre with a neat labelled diagram.
10. Cardiopulmonary resuscitation.
    OR
    Low flow oxygen delivery devices.
11. Hot air oven.
12. Epidural and spinal needle with diagrams.

SHORT ANSWER (Question No. 15 & 20 choice) 10 x 3 = 30 Marks

13. Difficult airway trolley.
14. Disposal of radioactive wastes.
15. Laminar airflow in operating room.
    OR
    WTG Morton.
16. Adrenaline.
17. Pre operative consent.
18. Care of sharp instruments.
19. Differentiate between disinfection and sterilization.
20. How will you prepare for tension sutures?
    OR
    Types and uses of BP handle.
21. Sodalime canister.
22. Differences between oropharyngeal & Nasopharyngeal airways.

Rajiv Gandhi University of Health Sciences, Karnataka

II Year B.Sc. Anaesthesia Technology Degree Examination – 02-Dec-2023

Time: Three Hours Max. Marks: 100

Introduction to Anaesthesia Technology (RS-3)

Q.P. CODE: 3268

Your answers should be specific to the questions asked
Draw neat labeled diagrams wherever necessary

LONG ESSAYS (Question No.2 Choice) 2 x 10 = 20 Marks

1. What type of sterilization is possible with autoclaving? Describe in detail the functioning of high pressures, high vacuum autoclave with a neat diagram
2. Name the different parts of a modern operation table. Describe how you will position a patient in a semi recumbent position / terndetenburg and what care will you take before the surgeon starts the procedure
   OR
   Oxygen therapy – indications and modalities

SHORT ESSAYS (Question No.5 & 10 choice) 10 x 5 = 50 Marks

3. Describe the closed glove technique
4. Mention any five ways of preventing the chance of missing mop at surgery
5. What are the methods of cold sterilization? Write a short note on any one of them
   OR
   Cylinders
6. What is Betadine? How does it differ from Iodine? Mention uses of Betadine
7. How will you sterilize the gastroscope?
8. Ten golden rules of anesthesia
9. How should you store anaesthesia equipments / drugs in the operation theatre? What are the minimum requirements?
10. What is Ambubag? How does it function? What are the uses of Ambubag?
    OR
    Classify breathing system
11. Name any five types of retractors and their specific uses
12. Discuss various suture materials

SHORT ANSWER (Question No. 15 & 20 choice) 10 x 3 = 30 Marks

13. Artery forceps
14. Skin staplers
15. Hot air oven
    OR
    Glutaraldehyde
16. Stylet
17. Patient confidentiality
18. Muscle relaxants
19. Lignocaine
20. Pulse Oximeter
    OR
    Bupivacaine
21. Instruments for abscess drainage
22. Jack knife position