Rajiv Gandhi University of Health Sciences, Karnataka

III Year B.Sc. Operation theatre Technology Degree Examination – 16-May-2023

Time: Three Hours | Max. Marks: 100 Marks

CLINICAL OPERATION THEATRE TECHNOLOGY - PAPER – I (RS2)

Q.P. CODE: 2926

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. Discuss decontamination and disinfection of the instruments
2. Discuss the instrumentation and steps of modified radical mastectomy
3. Discuss the peripheral support areas in operating room

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

4. Handling and maintenance of surgical instruments
5. Preparation of the patient for emergency laparotomy
6. Laser in surgery
7. Principles of skin preparation
8. Principles of aseptic technique
9. Abdominal incision
10. Universal precautions
11. Hemorrhoidectomy
12. What are the precautions to be taken while using alcohol as a disinfectant?
13. Classify hazards in operation theatre
14. Colonoscopy
15. Surgical gowning

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

16. ETO sterilization
17. Nd: YAG laser
18. Tracheostomy
19. Lithotomy position complications
20. Define sterilization and disinfection
21. Informed consent
22. Define – a) Intubation b) Extubation
23. name six necessary equipment used in operation theatre
24. Indications for Hepatectomy
25. Types of drapes
26. Care of anaesthetized patient in spine surgeries
27. Powered surgical instruments

Rajiv Gandhi University of Health Sciences, Karnataka

III Year B.Sc. Operation Theatre Technology Degree Examination - 18-May-2023

Time: Three Hours | Max. Marks: 100 Marks

Applied Operation Theatre Technology
PAPER - II (RS2)
Q.P. CODE: 2927

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. Discuss following instruments – i) Oven and incubators – Use, care and maintenance, ii) Refrigerators, cold boxes – Use, care and maintenance.
2. Explain the steps in preparing the patient and OT posted for laprotomy.
3. Discuss in detail – Hypertension – definition, clinical measurement, types, pathogenesis and treatment.

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

4. Determination Blood grouping and cross matching
5. Intravenous fluids – types and uses
6. Analgesics – classification, indications and side effects
7. Surgical scrub, gloving and gowning
8. Compound microscope
9. Chest X-rays – indications and uses
10. Cardioplegic drugs – principles and types
11. Classification of local anaesthetics.
12. Diabetes Mellitus – definition, treatment and complications
13. Drugs used to treat bradycardia
14. Powdered surgical instruments
15. **What are the indications of difficult airway management. How will you arrange for difficult In incubation trolley.**

SHORT ANSWERS (Answer any Ten) 10 x 3 = 30 Marks

16. Name different types of inhalational anaesthetics
17. Atropine
18. Neuromuscular blocking drugs
19. Hand scrub and hand wash differences
20. Potential sources of injuries to patients and care givers
21. List the patient monitoring parameters during transport.
22. Haemoglobinometer
23. List the lung capacities.
24. Pasteurization
25. Patient positioning or oesophagectomy
26. Endotracheal tubes
27. Process of Specimen collection – CSF (Cerebro Spinal Fluid)

Rajiv Gandhi University of Health Sciences, Karnataka

III Year B.Sc. Operation Theatre Technology Advanced Degree Examination – 20-May-2023

Time: Three Hours | Max. Marks: 100 Marks

OPERATION THEATRE TECHNOLOGY ADVANCED - PAPER – III (RS2)

Q.P. CODE: 2928

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. What is appendectomy? Describe in detail position required and instruments needed for this procedure.
2. Write various indications for pneumonectomy. Describe patient positioning and instrument planning for this procedure.
3. Mention thyroidectomy indications. Discuss pre-operative evaluation, anaesthesia management and complications of thyroidectomy.

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

4. Classify suture materials. Add a note on VICRYL.
5. TKR – Indications and complications of the procedure.
6. Skin grafting.
7. Hemiglossectomy – indications and post op care.
8. Cadaveric donor.
9. Cataract surgery – instrument planning.
10. Complications of laparoscopic procedures.
11. Posterior stabilization and spine-positioning and complications.
12. Craniotomy – indications and instrumentation.
13. Preparation of OT for suction and evacuation.
14. Instrumentation for total abdominal hysterectomy.
15. Vascular clamps.

SHORT ANSWERS (Answer any Ten) 10 x 3 = 30 Marks

16. What are reconstructive surgeries?
17. Dressing for ENT procedures.
18. Reconstructive surgeries.
19. Indications for bilateral tube ligation.
20. List three instruments used for orthopedic procedures.
21. Define donor and recipient.
22. Complications of flap surgery.
23. List three peripheral vascular diseases.
24. Indications for renal transplant.
25. What are grafts used in CABG?
26. Ryles tube.
27. Name the suture material used for approximating sternum and how do you sterilize it.

Rajiv Gandhi University of Health Sciences, Karnataka

III Year B.Sc. Anaesthesia Technology Degree Examination – 16-May-2023

Time: Three Hours | Max. Marks: 100 Marks

Clinical Anaesthesia Technology, Paper – I (RS2)

Q.P. CODE: 2932

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 the role of pre medication and the drugs used in pre medication.
2. What is endotracheal intubation? Explain detail the requirements of intubation.
3. Monitoring system.

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

4. Complications in recovery room.
5. What is hypothermia? Mention the sites to monitor core body temperature. Write any four drugs used to prevent or treat shivering.
6. Protection of patient while transport and positioning.
7. What is minimum alveolar concentration? Mention the factors that increases and decreases MAC.
8. Reversal from anaesthesia.
9. Oropharyngeal airways.
10. Write a note on Atropine.
11. Causes of intra operative bradycardia.
12. Arterial blood gas.
13. Flow meters.
14. Safety features of anaesthesia machine.
15. Hydrocortisone.
16. Vaporizers.
17. Preoxygenation.

SHORT ANSWERS (Answer any Ten) 10 x 3 = 30 Marks

18. What is NPO?
19. Purpose of skin preparation before surgery.
20. Mention the sites of neuromuscular monitoring.
21. Mallampati classification.
22. Ketamine.
23. Face mask.
24. Boyle’s machine and its uses.
25. Types of endotracheal tubes.
26. Pin index of oxygen, nitrous oxide and air.
27. Electrocardiogram.
28. Morphine.
29. Maintenance of anaesthesia.

Rajiv Gandhi University of Health Sciences, Karnataka

III Year B.Sc. Anesthesia Technology Examination – 18-May-2023

Time: Three Hours | Max. Marks: 100 Marks

APPLIED ANAESTHESIA TECHNOLOGY

PAPER – II (RS-2)

Q.P. CODE: 2933

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 neuromuscular blockers. Explain any two muscle relaxants.
2. Describe subarachnoid block, with indications, contra-indications and complications.
3. Describe a ventilators. Describe various modes of ventilation.

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

4. Electrical hazards in O.T
5. Mallampatti grading of airway.
6. Ketamine.
7. Brachial plexus block.
8. Complications in recovery room.
9. Monitoring during **Anaesthesia.**
10. What is hypothermia? And how do you maintain body temperature intra-operatively?
11. LMA.
12. Narcotics in anaesthesia.
13. WTG Morton.
14. **Biers block**
15. Drugs used in regional Anaesthesia.

SHORT ANSWERS (Answer any Ten) 10 x 3 = 30 Marks

16. Pulse Oximeter.
17. MAC.
18. Uses of lignocaine.
19. Airway trauma.
20. Name the drugs used in Pre-medication.
21. Propofol.
22. BCLS.
23. Name the drugs used for reversal of general anaesthesia.
24. Tramadol.
25. Hypoxia.
26. ET tube.
27. Nasopharyngeal Airway.

Rajiv Gandhi University of Health Sciences, Karnataka

III Year B.Sc. Anesthesia Technology Degree Examination – 20-May-2023

Time: Three Hours | Max. Marks: 100 Marks

ADVANCED ANAESTHESIA TECHNOLOGY (RS2)

Q.P. CODE: 2934

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? Classify the type of shock and their management
2. Discuss anaesthesia management for LSCS? What is aortocaval syndrome?
3. Classify anti-arrhythmic drugs? Define ventricular tachycardia and ventricular fibrillation and their management

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

4. Define Pain? Classify Pain
5. APGAR Score
6. Elaborate on clinical signs of hyperthyroidism
7. Management of hypo tension after sub-arachanoid block
8. Bronchial foreign body and its management
9. What is DLT? Types and indications of DLT
10. Transport to ICU
11. Fluid management in children
12. Coagulation pathway
13. Perioperative Myocardial Infarction
14. Spirometer and its implication
15. Anatomy of Larynx

SHORT ANSWERS (Answer any Ten) — 10 x 3 = 30 Marks

16. DKA
17. HELLP syndrome
18. Morbid obesity
19. Types of Insulin
20. Treatment of Bronchospasm
21. Types of PEEP
22. Thyroid storm
23. Humidifier
24. Various modes of ventilation
25. Hepatic encephalopathy
26. Uses of cardioverter
27. Paediatric airway

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Rajiv Gandhi University of Health Sciences, Karnataka

III Year B.Sc. Anaesthesia Technology Degree Examination – 16-May-2023

Time: Three Hours Max. Marks: 100 Marks

ANAESTHESIA TECHNOLOGY – CLINICAL – PAPER-I (RS-3)

Q.P. CODE: 3271

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. Preoperative preparation, general principles and physical examination.
2. What are the investigations to be done prior to vascular surgery? Write a brief note on its anaesthetic management.
   OR
   Transfer of the patient to OT and vice versa.

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

3. Hazards of Blood transfusion and blood products.
4. Arterial Blood Gas (ABG).
5. Central venous pressure monitoring
   OR
   Hypotension in OT.
6. Intravenous anaesthetic agents.
7. Inotropic drugs.
8. Reversal agents from anaesthesia.
9. Supraglotic airway devices.
10. Postoperative seizures.
    OR
    Intubating LMA.
11. Liquid oxygen.
12. **Macintosh** laryngoscope.

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

13. Venous cannulation.
14. NTG
15. Ketamine.
    OR
    Colour coding of gas cylinders.
16. Ambu bag.
17. Premedication.
18. Pin index.
19. ASA grading.
20. Jackson Rees circuit.
    OR
    Types of breathing systems.
21. Soda lime.
22. Normal ECG.

Rajiv Gandhi University of Health Sciences, Karnataka

III Year B.Sc. Anaesthesia Technology Degree Examination – 18-May-2023

Time: Three Hours Max. Marks: 100 Marks

ANAESTHESIA TECHNOLOGY – APPLIED - PAPER-II (RS-3)

Q.P. CODE: 3272

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. Which are the anaesthetic agents no more in common use? Write a note on Ether, Anaesthetic properties and advantages of Ether.
2. Why are intravenous anaesthetics used in anaesthesia? Write the classification of IV anaesthetic agents. Treatment of Thiopentone's high alkalinity.
   OR
   Discuss the factors prolonging the neuromuscular blockade.

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

3. Management of Anticipated and Non Anticipated difficult intubation.
4. Signs of adequate reversal and causes of inadequate reversal.
5. What are the blocks of upper limb? Complications of supraclavicular approach.
   OR
   Intra operative complications of spinal anaesthesia and the treatment.
6. Modes of ventilation in detail.
7. Complications of mechanical ventilation and associated problems.
8. Rhythms of cardiac arrest.
9. Epinephrine, systemic effects metabolism.
10. B - Blockers, systemic effects, dose and uses.
    OR
    Management of respiratory failure.
11. **Basic life support.**
12. Opioid antagonists.

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

13. Uses of Buprenorphine.
14. Four components of balanced anaesthesia.
15. Yoke assembly.
    OR
    Mechanism of gas flow in an anaesthesia machine.
16. Indications of FFP.
17. Ringer lactate.
18. Airway resistance.
19. Comparison of the anatomy of the right and left bronchus.
20. Foreign body aspiration.
    OR
    Patient confirmation.
21. Management of transfusion reaction.
22. Post operative arrhythmias.

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Rajiv Gandhi University of Health Sciences, Karnataka

III Year B.Sc. Anaesthesia Technology Degree Examination – 20-May-2023

Time: Three Hours Max. Marks: 100 Marks

ANAESTHESIA TECHNOLOGY - ADVANCED – PAPER – III (RS-3)

Q.P. CODE: 3273

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 anaesthetic considerations for paediatric patients? Explain the induction, maintanence and recovery of paediatric patients in detail.
2. What is COPD? Management of COPD and carbon monoxide poisoning.
   OR
   Compensatory mechanism in shock, clinical features, monitoring and management of shock.

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

3. Pulmonary function tests.
4. Causes of type I and type II respiratory failures.
5. Discharge criteria for day care surgery patients.
   OR
   Organ function changes in geriatrics.
6. Management of neonatal surgical emergencies.
7. Anaesthesia for surgeries during pregnancy.
8. Diabetic ketoacidosis.
9. Diagnosis and treatment of tension pneumothorax.
10. Post operative considerations of obese patients.
    OR
    What are the thyroid dysfunction write a note on it.
11. TURP syndrome.
12. Choice of anaesthesia for tuberculosis.

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

13. Signs and symptoms of Raised ICT.
14. Write some advantages of regional anaesthesia over general anaesthesia.
15. Humidification.
    OR
    Techniques used for micro laryngeal surgery.
16. Reasons for increased outpatient surgeries.
17. Bronchoscopy.
18. Sequences of CPR.
19. Rhythms in cardiac arrest.
20. Treatment of Pulmonary Embolism.
    OR
    Which are the structure having end arteries.
21. Saddle Block.
22. Analgesia for labour.

Rajiv Gandhi University of Health Sciences, Karnataka

III Year B.Sc. Operation Theatre Technology Degree Examination – 16-May-2023

Time: Three Hours Max. Marks: 100 Marks

OPERATION THEATRE TECHNOLOGY – CLINICAL – PAPER-I (RS-3)

Q.P. CODE: 3408

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. Define hazards in OT. List various types of hazards and explain methods of preventing such hazards.
2. Describe physical layout of OT.
   OR
   Differentiate between sterilization and disinfection. Mention various techniques of sterilization with examples.

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

3. Gowning.
4. Explain technical zones and different units included in it.
5. Special procedure rooms.
   OR
   Explain in brief about peripheral support areas.
6. Hand washing technique.
7. Lasers in OT.
8. Bio medical waste management.
9. Preparation of patient for laparoscopic cholecystectomy.
10. Mono-polar cautery.
    OR
    Surgical gloving in OT.
11. Types of positions given to patients in OT.
12. Electrically powered instruments.

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

13. MRI scan.
14. Foleys Catheterization.
15. Tracheostomy.
    OR
    Fumigation.
16. Drapping.
17. Preparation for extubation.
18. Position for thyroidectomy.
19. Methods of handling cytotoxic agents.
20. Define decontamination.
    OR
    Types of cautery.
21. Isoflurane.
22. Types of surgeries done for cataract.

Rajiv Gandhi University of Health Sciences, Karnataka

III Year B.Sc Operation Theatre Technology Degree Examination – 18-May-2023

Time: Three Hours Max. Marks: 100 Marks

OPERATION THEATRE TECHNOLOGY – APPLIED- PAPER-II (RS-3)

Q.P. CODE: 3409

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. Explain in detail intraoperative monitoring of a patient on general anaesthesia.
2. List all the emergency drugs to be kept ready in crash cart. Explain the steps of emergency intubation.
   OR
   List the indications, procedure and complications of emergency tracheostomy.

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

3. Classify IV fluids. Describe the composition and uses of various crystalloids.
4. Calcium gluconate.
5. Difficult intubation – Gadgets to be kept ready and their uses.
   OR
   Epidural anaesthesia.
6. Spinal needles – Different types and color coding.
7. Mismatched blood transfusion and its management.
8. List various local anaesthetic agents. Explain the indications and complications of brachial block.
9. Upper GI endoscopy – Indications and complications.
10. Biopsy – Types and uses.
    OR
    Incision and Drainage.
11. Color coding in a) Pipelines b) Vapourisers
12. Nitrous oxide.

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

13. Tuohy needle.
14. Ryle's tube.
15. C- Arm three uses.
    OR
    Intravenous Pyelography.
16. Mammography.
17. Name inhalation anesthetic agents.
18. Propofol.
19. Three complications of spinal anaesthesia.
20. Three non absorbable suture materials.
    OR
    Three synthetic suture materials.
21. Drugs used for reversal of patient from general anaesthesia.
22. Proctoscopy.

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Rajiv Gandhi University of Health Sciences, Karnataka

III Year B.Sc. Operation Technology Degree Examination – 20-May-2023

Time: Three Hours | Max. Marks: 100 Marks

OPERATION THEATRE TECHNOLOGY – ADVANCED – PAPER-III (RS-3)

Q.P. CODE: 3410

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. Write in detail about preoperative evaluation, indications, anaesthesia, procedure and complications of thyroidectomy
2. Classification of suture materials its applications
   OR
   Describe the problems during positioning a patient on an operating table

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

3. Informed consent
4. Hysteroscopy
5. Write on total hip replacement surgery
   OR
   Jack knife position
6. Skin grafting
7. Female sterilization
8. Tracheostomy
9. How you will measure and treat blood loss?
10. Phacoemulsification
    OR
    Perianal abscess
11. Arrangement of instruments for vaginal hysterectomy
12. Write a note on cesarean section

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

13. Write the special instruments used in ophthalmic surgery
14. Write on medical suction apparatus
15. Diathermy and its uses
    OR
    Urethroscopy
16. Abscess drainage
17. What are the precautions to be taken while shifting a patient to recovery room?
18. Write the position for spinal anaesthesia and general anaesthesia
19. Inhalation Bronchodilators
20. Orthopaedic cements
    OR
    C-Arm
21. Prolene suture
22. Mention the instruments used for cutting long bones in orthopaedic surgeries