# Rajiv Gandhi University of Health Sciences, Karnataka

III Year B.Sc. Operation theatre Technology Degree Examination – OCT-2019

Time: Three Hours Max. Marks:100 Marks

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

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. Classify hazards. Explain in detail about physical and biological hazards and safe guards.
2. Draw neat diagram and label ETT tube. Write the indication and complication of intubation.
3. Discuss the role of Magnetic Resonance Imaging as a diagnostic procedure.

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

4. Explain briefly the process of gloving.
5. Write a note on laporoscopic tubectomy.
6. What are the steps to be followed for manual cleaning of instruments?
7. Patient care considerations for diagnostic procedures.
8. Blood volume expanders
9. Discuss the various suture materials used in surgery.
10. Surgical diathermy
11. Midazolam
12. Sir Ivan Magill contributions
13. Laser in OT
14. Explain peripheral support areas.
15. Ethylene oxide

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

16. Triple maneuver
17. Informed consent
18. Name four powered surgical instruments.
19. What is ABG?
20. How do you sterile Face mask, airway and laryngoscope blade?
21. Fabrication of instruments
22. Sterilization of equipment of an operation theatre
23. Magill circuit
24. Chloroform
25. Hydrogen peroxide
26. Name any two instruments required for lumber puncture.
27. Define (a) Intubation (b) Extubation.

# Rajiv Gandhi University of Health Sciences, Karnataka

III Year B.Sc. Operation theatre Technology Degree Examination – APRIL-2019

Time: Three Hours Max. Marks:100 Marks

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

## 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. What are the biological sources of hazards in operating room environment? Explain in detail along with methods of preventing such hazards.
2. Differentiate decontamination from disinfection. Explain in detail the methods of cleaning the instrument and decontamination.
3. How would you classify surgical instruments? Explain any 3 group along with the instruments included in these groups.

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

4. Briefly describe the peripheral support areas in operating room.
5. Write a note on special procedure room in the operating theatre.
6. What precautions will you take to reduce the radiation exposure of patients undergoing X ray?
7. What do you mean by appropriate operating room attire? What is the purpose of appropriate attire?
8. Explain briefly the process of open gloving technique.
9. Explain briefly the process of loading the sterilizer.
10. Write briefly various instruments required for suture placement.
11. Write in detail the functions of scrub person while assisting a surgeon performing microscopic surgery.
12. Write in brief the different abdominal incisions used by surgeons.
13. Write briefly on Liver needle biopsy.
14. Mention the difference between direct and indirect inguinal hernia. How are they repaired?
15. What is amputation? Name the different types of amputation of lower extremity.

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

16. What is hemorroidectomy? What is the position of patient required for this procedure?
17. What is colonoscopy? Name any one complication of colonoscopy.
18. Name the surgery done for pancreatic cancer. Name any one complication of such surgery.
19. Define laminar air systems.
20. What precautions should be taken when formaldehyde is used as a disinfectant?
21. Name two disadvantages of dry heat sterilization.
22. What are the advantages of chemical sterilants? (any two)
23. Where will we use no.10 and no.11 blade in surgery?
24. What is a malleable retractor? What is its advantage?
25. Name any four types of lasers.
26. Name any two advantages of steam sterilization.
27. Name some personal protective equipment during surgery.

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# Rajiv Gandhi University of Health Sciences, Karnataka

III Year B.Sc. Operation Theatre Technology Advanced
Degree Examination – OCT-2019

Time: Three Hours Max. Marks: 100 Marks

Operation Theatre Technology Advanced Paper – III (RS)
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. Explain various anesthetic techniques, positioning and recovery of the patient.
2. Describe instruments used for various general surgical procedures.
3. Describe LSCS and instruments used for the procedure.

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

4. Trans Urethral Resection of Prostate (TURP)
5. Gastroscopy
6. Urinary catheterization
7. Operations for cataract
8. Skin grafting – SSG
9. Explain tonsillectomy procedure with instruments.
10. Describe mastectomy.
11. Describe operations on varicose veins.
12. Explain total thyroidectomy instruments.
13. Renal transplant
14. External fixation
15. Uses of vascular clamps

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

16. Intra Coastal Drainage (ICD)
17. Liver abscess drainage
18. Dressings in abdominal surgery
19. Vacuum suction drain
20. Tracheostomy
21. Cardiac stenting
22. Intra Venous Pyelogram (IVP)
23. Ureteroscopy
24. Split skin graft
25. Myocutaneous flap
26. Corneal transplantation
27. Colposcopy

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# Rajiv Gandhi University of Health Sciences, Karnataka

III year B.Sc. Operation Theatre Technology Degree Examination - OCT-2019

Time: Three Hours | Max. Marks: 100 Marks

## APPLIED OPERATION THEATRE TECHNOLOGY

## Paper - II (Revised Scheme)

## 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. Boyle's Anaesthesia machine and its safety features.
2. Explain Spinal anaesthesia, its complications and indications and contra-indications.
3. Enumerate Inhalational anaesthetic agents and complications of general Anaesthesia.

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

4. Bain circuit.
5. MRI-merits and demerits.
6. What is central gas supply? What are the advantages?
7. Respiratory monitoring in Anaesthesia.
8. Live-Needle biopsy.
9. Explain Endotracheal Intubation, maintenance of anesthesia and extubation.
10. Epidural Anaesthesia.
11. Colonoscopy.
12. Choice of anaesthesia.
13. Define Laser, types and therapeutic application
14. Classify local anaesthetics. Briefly explain lighacaine.
15. CSSD.

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

16. Define FNAC and its uses.
17. Name any two radiologic examinations for breast cancer.
18. Proctoscopy.
19. Capnography.
20. Gluteraldehyde.
21. Midozolam.
22. Draw a neat diagram of LMA and label the parts.
23. Pin-Index system.
24. Arterial blood gas analysis.
25. Sevaflurane.
26. Indications for chest X-rays.
27. Name two muscle relaxant drugs.

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# Rajiv Gandhi University of Health Sciences, Karnataka

III Year B.Sc. Anaesthesia Technology Degree Examination – APRIL-2019

Time: Three Hours | Max. Marks: 100 Marks

## Clinical Anaesthesia Technology
## Paper – I (RS)
## 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. Explain the method of preparation of materials for autoclaving – packing of different types of materials, loading, holding time and unloading.
2. Explain in detail, the preparation of operating room for a Paediatric case.
3. Enumerate the 10 golden rules of Anaesthesia.

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

4. Explain briefly patient positioning.
5. Intravenous anaesthetics – types, preparation and doses
6. Goals of oxygen therapy
7. Humidity
8. Common complications after general anaesthesia
9. Blood pressure – definition, normal value and types of measurement
10. Body temperature
11. Facemask
12. Analgesics – definition, classification and side-effects
13. Premedication – aims
14. Endotracheal tubes – different types, indications
15. Biomedical waste management
16. Pulseoximeters
17. Informed consent

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

18. Patient identification
19. Manual resuscitation bag
20. Drugs used for treating bradycardia
21. List the sizes and colour coding of intravenous cannula.
22. Drugs used for reversal of general anaesthesia
23. Glucometer
24. Types of blood groups
25. Adrenaline
26. Laryngeal mask airway
27. List the lung volumes
28. Steroids
29. Spinal needles

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# Rajiv Gandhi University of Health Sciences, Karnataka

III Year B.Sc. Anaesthesia Technology Degree Examination – OCT-2019

Time: Three Hours | Max. Marks: 100 Marks

## Clinical Anaesthesia Technology
## Paper – I (RS)
## 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. Discuss the principles of setting up of operation theatre.
2. What is aseptic technique? Explain various sterilisation methods
3. Discuss in brief operating positions used in various surgeries.

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

4. Safety factors in electro cauterization during surgery
5. Technique of venepuncture
6. Adrenalin
7. Preparation of the patient posted for appendicetomy
8. Preparation for abdominal surgical cases
9. Uses of Ultrasonography in anaesthesia
10. Consent
11. Anaesthesia for remote locations
12. Complications during laser surgeries
13. Central venous cannulation
14. Recovery room problems
15. Airway suctioning
16. Write in detail the advantages and disadvantages of ETO sterilization.
17. Tracheostomy

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

18. Name four equipment not allowed in an MRI suite.
19. Name any two procedures which require prone position.
20. Emergency drugs
21. How will you position the patient for thyroid surgery?
22. Sodalime
23. Hot air oven
24. Venturi mask
25. Complication of spinal / epidural anaesthesia
26. Name three indications of endotracheal intubation.
27. What do you mean by decontamination?
28. Treatment of pneumothorax
29. Succinylcholine

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# Rajiv Gandhi University of Health Sciences, Karnataka

III Year B.Sc. Anaesthesia Technology Degree Examination – OCT-2019

Time: Three Hours | Max. Marks: 100 Marks

## Clinical Anaesthesia Technology
## Paper – I (RS)
## Q.P. CODE: 2932

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Draw neat labeled diagrams wherever necessary

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29. Succinylcholine

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# Rajiv Gandhi University of Health Sciences, Karnataka

III Year B.Sc. Anesthesia Technology Examination – OCT-2019

Time: Three Hours | Max. Marks: 100 Marks

## Applied Anaesthesia Technology - Paper – II (RS)

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 intra-operative arrhythmias and their management.
2. Classify local anaesthetics. Add a note on local anaesthesia toxicity.
3. Classify muscle relaxants. Add a note on depolarising muscle relaxants.

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

4. Stages of the anaesthesia
5. Define hypoxemia. Causes, signs and management of post-operative hypoxemia.
6. Tramadol
7. Epidural anaesthesia – indications method and complications
8. Thiopentone
9. Post-operative complications and management
10. Lignocaine Vs Bupivacaine
11. Reversal agents
12. Mallampatti grading of airway
13. Horace wells
14. Complications of prone position during anaesthesia and surgery
15. Emergency drugs

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

16. Suggamadex
17. Sodium bicarbonate
18. Pattern of nerve stimulation
19. Drugs uses for regional anaesthesia
20. Atracurium
21. Causes of intra-operative Tachycardia and treatment
22. Airway trauma
23. Accidents during anaesthesia
24. Hypotension
25. Defibrillators
26. Nitrous oxide
27. Protocol for confirming identify of patient

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# Rajiv Gandhi University of Health Sciences, Karnataka

III Year B.Sc. Anesthesia Technology Degree Examination – OCT-2019

Time: Three Hours | Max. Marks: 100 Marks

## ADVANCED ANAESTHESIA TECHNOLOGY (Revised Scheme)

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. A 60 year old male patient is scheduled for Laparoscopic appendectomy. How will you evaluate this patient prior to surgery?
2. Define PH. What is the normal PH of blood? Write the normal values and expand the following po2, Pco2, Hco3, base excess (B.E) and their importance.
3. Describe in detail physiological changes during pregnancy.

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

4. Liver function tests
5. Acute severe asthma
6. Post Anaesthesia Care Unit (PACU)
7. Diabetic keto acidosis
8. Management of hypothermia
9. Bariatric surgery
10. Ventricular Fibrillation (VF)
11. Beta adrenergic blockers
12. Asystole
13. Thoracoscopy
14. Body mass index
15. Bronchodilators

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

16. Left bundle branch block
17. Sites of temperature monitoring
18. Positive End Expiratory Pressure (PEEP)
19. Activated clotting time
20. Sleep apnoea syndrome
21. Transport to ICU
22. Sites of Central Venous Pressure (CVP) catheter insertion
23. Glucose tolerance
24. Mallampatti scoring
25. Non Invasive Blood Pressure (NIBP)
26. Fentanyl
27. Thyroidectomy (surgical steps)

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# Rajiv Gandhi University of Health Sciences, Karnataka

## III Year B.Sc. Anesthesia Technology Degree Examination – 28-Aug-2020

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. Anatomy of Larynx - Enumerate the types of vocal cord palsis with diagram.
2. Anesthesia management of 80-year-old patient for TURP
3. Discuss the anaesthetic management of a case of diabetic patient scheduled for open cholecystectomy.

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

4. Causes and management of Hypokalemia
5. Post anaesthesia recovery room
6. Anaphylactic shock
7. Causes for postoperative seizures and its management
8. Physiological changes during pregnancy
9. Difference between adult and pediatric air ways
10. Massive blood transfusion
11. Sickle cell disease
12. Liver function test
13. End stage renal disease
14. Acute severe asthma
15. Foreign body in larynx - How will you manage?

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

16. Pace makers
17. Propofol
18. Acute postoperative pain management
19. What are the criteria for weaning the patient from ventilators?
20. Nasopharyngeal airway
21. Respiratory alkalosis
22. Protamine sulphate
23. Nifidipine
24. Functional residual capacity
25. Pressure controlled ventilation
26. Transport to ICU
27. Lignocaine toxicity

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# Rajiv Gandhi University of Health Sciences, Karnataka

## III Year B.Sc. Anesthesia Technology Degree Examination – 16-Dec-2020

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. Risk factors for ischaemic heart disease, anaesthesia management for patient with ischaemic heart disease posted for laprotomy.
2. Physiological changes in pregnancy, discuss anaesthesia management of pregnancy-induced hypertension posted for LSCS.
3. Enumerate pulmonary function tests. How do you prepare a patient with chronic obstructive pulmonary disease posted for surgery and what are the anaesthetic implications?

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

4. Causes of intraoperative hypothermia, how do you prevent and manage?
5. Management of hypothyroid patient for elective surgery
6. Define shock. Write briefly on septic shock.
7. Define anaemia and classify.
8. Spinal anaesthesia
9. Diabetic ketoacidosis
10. Physiologic differences of neonate from adults with respect to respiratory and cardiovascular system
11. Renal function tests
12. Cardiac pacemakers
13. Signs and symptoms of intra cranial hypertension and what are the methods to decrease it intraoperatively?
14. Monitoring in cardiac anaesthesia
15. Thyrotoxic crisis

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

16. Protamine
17. Complications of central venous cannulation
18. Atracurium
19. PEEP
20. Pulse oximeter
21. Lignocaine
22. Pressure modes of ventilation
23. Basic life support
24. Noradrenaline
25. Oral hypoglycemic drugs
26. Intraoperative of myocardial intaration
27. Adrenaline

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