

# Rajiv Gandhi University of Health Sciences, Karnataka

## II Year B.Sc. Anaesthesia Technology Degree Examination – 04-Nov-2025

**Time: Three Hours**  
**100**

**Max. Marks:**

### INTRODUCTION TO ANAESTHESIA TECHNOLOGY (RS-3)

**Q.P. CODE: 3268**

**(QP Contained two pages)**

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. Illustrate with a neat, labelled diagram, the parts of a circle breathing system. List out all the components, briefly explaining their purpose in the system. how do we sterilize each component after use?
2. Enlist the gas laws. Describe any three gas laws in detail, with its application in anaesthesia  
**OR**  
Explain the Boyle's anaesthesia machine in detail, differentiating into high, intermediate and low pressure systems. Enlist the safety features, categorizing them accordingly

### SHORT ESSAYS (Question No.5 & 10 choice)

**10 x 5 = 50 Marks**

3. History of the regional anaesthesia era
4. What is capnography? Explain with respect to
  - a) Working principle
  - b) A neat labelled diagram / graph
  - c) Types
  - d) Advantages
5. Enumerate where colour coding is used in anaesthesia. Why is it used?  
**OR**  
Explain in detail a) Density b) Specific gravity
6. Describe the various oxygen administration devices with neat, labelled diagrams
7. Differentiate Magill's circuit and Bain's circuit with neat, labelled diagrams
8. Protocol for Tracheostomy decannulation
9. Manual resuscitation unit (AMUB)
10. Bourdon's pressure gauge  
**OR**  
Differentiate Felxo metallic endotracheal tube and RAE tube with neat, labelled diagrams
11. Explain in detail the golden rules of anaesthesia
12. Illustrate the components of anaesthesia airway trolley and explain the purpose of each equipment

### SHORT ANSWER (Question No. 15 & 20 choice)

**10 x 3 = 30 Marks**

13. Jackson Rees Circuit
14. Reservoir Bag
15. Poynting effect and its applications  
**OR**  
Differentiate between Nasopharyngeal airway and oropharyngeal airway
16. Diameter Indexed Safety System (DISS)
17. Name four inhalational agents with one special use of each
18. Types of Humidifiers. Why do we use them?
19. Horace wells
20. Rendell Baker Soucek mask  
**OR**  
Name and explain the principle on which pulse oximetry is based? Mention the sites where the pulse oximeter probe can be placed.
21. Use of a) Glutaraldehyde b) Ethylene oxide gas
22. Manifold Room

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