

## Syllabus of the competitive examination to be conducted through the Commission for appointment to the post of Specialist Medical Officers (Anaesthesia) under Bihar Health Services.

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Name of Post	- Specialist Medical Officer (Anaesthesia)
Type of Examination	- Objective Type (Computer Based Test)
Time Duration	- 02:00 Hours
Number of Questions	- 100
Total Marks	- 400 Marks
Marks for Each Right Answer	- 04 Marks
Negative Marks for Each Wrong Answer	- 01 Mark

Question will be asked under following syllabus :

1. Anatomy related to
  - a. Diaphragm, upper and lower airway
  - b. Regional anaesthesia, field block, central neuraxial, blockade, block for acute pain states
  - c. Intramuscular injections, arterial and venous cannulations and positioning
2. Physics related to:
  - a. Anaesthesia machine-assembly of necessary items.
  - b. Airway equipment including laryngoscopes, airway devices
  - c. Breathing systems
  - d. Monitoring in anaesthesia with concepts of minimum monitoring
  - e. Gas laws, medical gas supply system
  - f. Fluidics
  - g. Electricity and diathermy
  - h. Oxygen therapy

3. Physiology related to:
  - a. Theories of anaesthesia
  - b. Respiratory, cardiovascular, hepatobiliary, renal and endocrine system, pregnancy, blood, muscle and N-M junction, Nerve impulse transmission, ECG, regulation of temperature and metabolism, stress response, cerebral blood flow and ICP.
  - c. Central, autonomic and peripheral nervous systems.
  - d. Metabolic response to stress and trauma
4. Pharmacology related to:
  - a. General principles, concepts of pharmacokinetics and pharmacodynamics
  - b. Drug interactions in anaesthesiology, anaphylactoid reactions
  - c. Drugs used for premedication, induction of anaesthesia, general anaesthetics- intra-venous and inhalational, neuromuscular block and reversal of muscle relaxants.
5. Biochemistry relevant to fluid balance and blood transfusion, perioperative fluid therapy, acid base homeostasis in health and diseases.
6. Introduction to the operation theatre, Post- anaesthesia care rooms
7. Introduction to acute, chronic pain and pain and pain management.
8. Resuscitation- basic and advanced life support (cardiac and trauma life support). neonatal resuscitation.
9. Intensive care of critical patients with introduction to artificial ventilation, management of unconscious patients, oxygen therapy, shock-pathophysiology and management.

10. Pharmacology of drugs used in cardiovascular, respiratory, endocrine, renal diseases and CNS disorders.
11. Special anaesthetic techniques as relevant to -
  - a. Outpatient anaesthesia, hypotensive anaesthesia, anaesthesia in abnormal environments including rural area and calamitous situations
  - b. Associated medical disorders in surgical patients
12. Geriatric and pediatric anaesthesia
13. Third world anaesthesia.
14. Shock, types, pathogenesis and management of a patients in shock, renal failure, critically ill and/or on ventilator.
15. Infection control, cross contamination in OT and ICU.

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