

To be filled by the candidate)

Booklet S. No. _____

Roll No. (In figures) _____

Roll No. (In words) _____

Name of the Candidate : _____

Father's Name : _____

Center of Examination : _____

Total No. of Questions : 50

Paper Code-2601

**Name of Examination- Senior Resident/Specialist Tutor Entrance 2026
Specialty-Anesthesiology**

Time Allowed : 90 Minutes

Maximum Marks : 200

IMPORTANT NOTE:

- (i) OMR Answer Sheet will be supplied by the Examination Centre Superintendent for answering the questions.
- (ii) Use **Blue/Black Ink/ Ball Pen only**, to darken the appropriate circle in the OMR Answer Sheet.
- (iii) Darken one circle deeply for each question in the OMR Answer Sheet, as faintly darkened circle might be rejected by the Optical Scanner.
- (iv) Darkening of more than one circle shall be rejected by the scanner. **Over-writing, cutting, erasing or use of White Fluid is not allowed.**
- (v) Before dealing with the question paper, fill-up the required information with Blue/Black Ball Pen correctly both in the Question Booklet and in the OMR Answer Sheet.
- (vi) Do not fold the OMR Answer Sheet nor put any mark here and there to avoid rejection by the Optical Scanner.
- (vii) Write Roll. No. carefully on the OMR Answer Sheet and darken the appropriate circle properly.
- (viii) **Each question carries Four Marks while 1 mark shall be deducted for each incorrect response.**
- (ix) **Use of Calculator is not allowed.**
- (x) **No over-writing, cutting, erasing or use of white fluid is allowed.**
- (xi) Rough work be done on the sheet(s) at the end.
- (xii) **MOBILE TELEPHONES (EVEN ON SWITCH-OFF MODE) AND SUCH OTHER ELECTRONIC DEVICES ARE NOT ALLOWED INSIDE THE EXAMINATION HALL.**
- (xiii) The question paper-booklet will be retained by the candidate after the entrance test is over.

Q1. The oxygen flush system provides a higher flow of oxygen of:

- (a) 25–50 L/min
- (b) 35–75 L/min
- (c) 55–95 L/min
- (d) 65–105 L/min

Q2. The main mechanism of occurrence of hypothermia during general anaesthesia is through:

- (a) Conduction
- (b) Adsorption
- (c) Convection
- (d) Evaporation

Q3. Administration of a large volume of 0.9% normal saline is most likely to produce:

- (a) Hyperchloremic metabolic acidosis
- (b) Hyperchloremic metabolic alkalosis
- (c) Hypochloremic metabolic acidosis
- (d) Hypochloremic respiratory acidosis

Q4. Sugammadex provides effective reversal of which neuromuscular blocking agent?

- (a) Atracurium
- (b) Cisatracurium
- (c) Succinylcholine
- (d) Rocuronium

Q5. The first step in managing a massive venous air embolism intraoperatively is:

- (a) Administering 100% oxygen
- (b) Informing the surgeon to flood the surgical field
- (c) Aspirating air via a central venous catheter
- (d) Placing the patient in Durant position

Q6. Which antihypertensive drug is contraindicated in pregnancy?

- (a) Clonidine
- (b) Methyldopa
- (c) Ramipril
- (d) Hydralazine

Q7. Which inhalational anaesthetic agent has the highest minimum alveolar concentration (MAC)?

- (a) Xenon
- (b) Isoflurane
- (c) Desflurane
- (d) Sevoflurane

Q8. The most appropriate statistical test to calculate significance when more than two quantitative variables are present in a data set is:

- (a) Chi-square test
- (b) McNemar test
- (c) One-way ANOVA
- (d) Paired t-test

Q9. The drug of choice for treatment of laryngospasm is:

- (a) Atracurium
- (b) Succinylcholine
- (c) Propofol
- (d) Midazolam

Q10. The oxygen delivery device that can deliver up to nearly 100% oxygen to a patient is:

- (a) Nasal cannula
- (b) Venturi mask
- (c) High-flow nasal cannula (HFNC)
- (d) Non-rebreather mask

Q11. Which of the following adjuvant drugs cannot be used along with heavy bupivacaine for spinal anaesthesia?

- (a) Remifentanyl
- (b) Fentanyl
- (c) Clonidine
- (d) Neostigmine

Q12. Urgent reversal of cardiac membrane changes due to hyperkalaemia is achieved by administration of:

- (a) Sodium polystyrene sulfonate
- (b) Insulin with glucose
- (c) Sodium citrate
- (d) Calcium gluconate

Q13. The absolute contraindication to the use of succinylcholine for endotracheal intubation is:

- (a) Acute burns within 6 hours
- (b) Hemiplegia
- (c) Chronic kidney disease with normal serum potassium
- (d) Difficult airway

Q14. All of the following are non-parametric statistical tests except:

- (a) Kruskal–Wallis test
- (b) Spearman rank correlation
- (c) Mann–Whitney U test
- (d) Analysis of covariance (ANCOVA)

Q15. The treatment of choice for systemic toxicity due to bupivacaine is:

- (a) Lignocaine
- (b) Noradrenaline
- (c) 20% intralipid
- (d) Propofol

Q16. Which of the following is NOT a complication of massive blood transfusion?

- (a) Urticaria
- (b) Hypothermia

- (c) Hyperkalaemia
- (d) Transfusion-related acute lung injury

Q17. Which of the following is NOT an indication for intracranial pressure monitoring?

- (a) Glasgow Coma Scale score < 8
- (b) Abnormal CT scan showing contusion or laceration
- (c) Age > 40 years with systolic blood pressure < 90 mmHg
- (d) Glasgow Coma Scale score of 14 with hemiplegia and a normal CT scan

Q18. A single donor apheresis platelet transfusion is expected to raise platelet count by approximately:

- (a) 5,000–7,000 / μ L
- (b) 50,000–70,000 / μ L
- (c) 10,000–20,000 / μ L
- (d) 1,000–5,000 / μ L

Q19. Which drug has been recently added to the resuscitation algorithm of an unresponsive patient according to updated AHA CPR guidelines?

- (a) Naloxone
- (b) Vasopressin
- (c) Flumazenil
- (d) Adrenaline

Q20. A 40-year-old male patient, a known asthmatic for the last 20 years, develops severe bronchospasm after induction of general anaesthesia. His oxygen saturation falls to 72% on FiO₂ 1.0 and peak airway pressures rise to 45 cm H₂O. The most appropriate management is:

- (a) Administration of hyperbaric oxygen
- (b) Immediate reversal and extubation

- (c) Administration of ketamine 0.5 mg/kg and deepening anaesthesia with inhaled sevoflurane along with hydrocortisone and adrenaline nebulisation
- (d) Switch to total intravenous anaesthesia with vecuronium and salbutamol puffs

Q21. A patient on long-term oral methadone therapy (180 mg/day) is most likely to show which ECG abnormality preoperatively?

- (a) Prolonged PR interval
- (b) Prolonged QTc interval
- (c) Presence of U waves
- (d) Tented T waves

Q22. A 46-year-old female undergoes transcervical resection of fibroids. Which postoperative complication should be anticipated?

- (a) Hypernatremia
- (b) Hypokalemia
- (c) Hyponatremia
- (d) Increased serum osmolality

Q23. Administration of large volumes of crystalloids during trauma resuscitation is most likely to cause:

- (a) Dilutional coagulopathy
- (b) Severe respiratory acidosis
- (c) Acute renal failure
- (d) Severe anaemia

Q24. Which drug should be stopped before general anaesthesia for total mastectomy?

- (a) Clonidine
- (b) Atenolol
- (c) Metformin
- (d) Low-dose aspirin

Q25. The appropriate statistical test for paired samples of two qualitative variables is:

- (a) Repeated-measures ANOVA
- (b) Paired t-test
- (c) McNemar test
- (d) Kruskal–Wallis test

Q26. Which oxygen delivery device provides warm, humidified gases at high flow rates without significant rebreathing?

- (a) Venturi mask
- (b) High-flow nasal cannula
- (c) Rebreathing mask
- (d) Nasal cannula

Q27. A supraclavicular approach to brachial plexus block targets the plexus at the level of:

- (a) Branches
- (b) Cords
- (c) Roots
- (d) Trunks/divisions

Q28. All of the following are relative contraindications to sitting craniotomy except:

- (a) Right-to-left cardiac shunt
- (b) Ventriculo-peritoneal shunt
- (c) Ventriculo-atrial shunt
- (d) Patent foramen ovale

Q29. Which syndrome is associated with malignant hyperthermia?

- (a) King–Denborough syndrome
- (b) Huntington chorea
- (c) Fabry disease
- (d) Wilson disease

Q30. Airway management in Klippel–Feil syndrome is difficult primarily due to:

- (a) Micrognathia
- (b) Macroglossia
- (c) Subglottic stenosis
- (d) Cervical spine fusion

Q31. Flowmeters are calibrated at low laminar flows based on:

- (a) Flowmeter type
- (b) Gas density
- (c) Gas viscosity
- (d) Relative humidity

Q32. The primary purpose of a circle breathing system is to:

- (a) Prevent rebreathing of carbon dioxide
- (b) Allow transition to self-inflating bag
- (c) Facilitate scavenging of gases
- (d) Prevent delivery of hypoxic mixtures

Q33. All of the following drugs have antiemetic properties except:

- (a) Propofol
- (b) Promethazine
- (c) Haloperidol
- (d) Etomidate

Q34. For elective surgery, warfarin should ideally be discontinued how many days before surgery?

- (a) 12 hours
- (b) 5 days
- (c) 24 hours
- (d) 7 days

Q35. A 2-year-old child weighing 13 kg is scheduled for surgery. The appropriate internal diameter of endotracheal tube is:

- (a) 4.0 mm
- (b) 3.0 mm
- (c) 5.0 mm
- (d) 4.5 mm

Q36. The pulmonary artery is typically entered by a pulmonary artery catheter at approximately:

- (a) 15–25 cm
- (b) 25–35 cm
- (c) 35–45 cm
- (d) 45–55 cm

Q37. Pulse oximetry accuracy is least affected by:

- (a) Intravenous methylene blue
- (b) Intravenous heparin
- (c) Severe acidosis
- (d) Severe hypothermia

Q38. Which drug increases the amplitude of somatosensory evoked potentials?

- (a) Sevoflurane
- (b) Propofol
- (c) Etomidate
- (d) Midazolam

Q39. All of the following solutions contain potassium except:

- (a) Hespan
- (b) Ringer lactate
- (c) Plasmalyte
- (d) Packed red blood cells

Q40. The most common non-haemolytic transfusion reaction is:

- (a) Allergic
- (b) Anaphylactoid
- (c) Urticarial
- (d) Febrile

Q41. Which antibiotic potentiates the action of non-depolarising neuromuscular blockers?

- (a) Penicillin
- (b) Streptomycin
- (c) Erythromycin
- (d) Cephalosporin

Q42. During midline epidural placement, which structure is NOT traversed?

- (a) Supraspinous ligament
- (b) Interspinous ligament
- (c) Subarachnoid membrane
- (d) Ligamentum flavum

Q43. After intrathecal administration of preservative-free morphine, postoperative respiratory monitoring should continue for at least:

- (a) 24 hours
- (b) 48 hours
- (c) 12 hours
- (d) 6 hours

Q44. The most common haemodynamic abnormality following cardiopulmonary bypass is:

- (a) Low cardiac output
- (b) Low systemic vascular resistance
- (c) High pulmonary vascular resistance
- (d) Bradycardia

Q45. An absolute contraindication to electroconvulsive therapy is:

- (a) Hypertension
- (b) Stroke
- (c) Aortic aneurysm
- (d) Pheochromocytoma

Q46. During transurethral bladder resection, stimulation of which nerve causes thigh adduction?

- (a) Inferior gluteal nerve
- (b) Pudendal nerve
- (c) Obturator nerve
- (d) Sciatic nerve

Q47. The primary reason for administering nimodipine after subarachnoid haemorrhage is to:

- (a) Control blood pressure
- (b) Prevent delayed cerebral ischaemia
- (c) Treat hydrocephalus
- (d) Reduce rebleeding risk

Q48. Anaesthetic gas supply pressure at wall outlets in the operating theatre is approximately:

- (a) 20 psi
- (b) 100 psi
- (c) 120 psi
- (d) 60 psi

Q49. Which of the following is inconsistent with post-dural puncture headache?

- (a) Presentation after 24 hours postpartum
- (b) Associated auditory symptoms
- (c) Headache localised to frontal region only
- (d) Neck stiffness

Q50. An absolute contraindication to electroconvulsive therapy is:

- (a) Cochlear implants
- (b) Raised intracranial pressure
- (c) Pregnancy
- (d) Recent myocardial infarction

ANSWER KEY + ONE STANDARD REFERENCE EACH

Q	Answer	Standard Reference
1	b	Miller's Anesthesia, 9th ed
2	c	Miller's Anesthesia
3	a	Ganong's Physiology
4	d	Stoelting's Pharmacology
5	a	Miller's Anesthesia
6	c	Dutta's Obstetrics
7	a	Miller's Anesthesia
8	c	Medical Statistics – Park
9	b	Miller's Anesthesia
10	d	Nunn's Respiratory Physiology
11	a	Barash Clinical Anesthesia
12	d	Harrison's Internal Medicine
13	b	Miller's Anesthesia
14	d	Park – Preventive Medicine
15	c	ASRA LAST Guidelines
16	a	AABB Transfusion Medicine
17	d	Brain Trauma Foundation
18	b	Transfusion Medicine Textbook
19	a	AHA ACLS Guidelines (2020+)
20	c	Miller's Anesthesia
21	b	Goodman & Gilman
22	c	Gynaecologic Endoscopy Text
23	a	ATLS Manual
24	c	Miller's Anesthesia
25	c	Park – Biostatistics
26	b	Nunn's
27	d	Gray's Anatomy
28	b	Miller's Neuroanaesthesia

Q	Answer	Standard Reference
29	a	Miller's Anesthesia
30	d	Pediatric Anesthesia – Smith
31	c	Dorsch & Dorsch
32	a	Dorsch & Dorsch
33	d	Miller's
34	b	ACCP Guidelines
35	a	Pediatric Anesthesia
36	c	Swan-Ganz Catheter Manual
37	b	Clinical Monitoring – Miller
38	c	Neurophysiology – Miller
39	a	Transfusion Medicine
40	d	AABB
41	b	Stoelting
42	c	Anatomy for Anaesthetists
43	a	Barash
44	b	Cardiothoracic Anaesthesia
45	d	APA ECT Guidelines
46	c	Gray's Anatomy
47	b	Neurocritical Care
48	d	Dorsch & Dorsch
49	c	Chestnut
50	b	APA ECT Guidelines
