1. In a patient who has had a traumatic quadriplegia for one week:

   a) Intermittent positive pressure ventilation can cause hypotension
   b) Suxamethonium sensitivity occurs
   c) Retention of urine occurs
   d) Increased tendon reflexes occur
   e) Steroids improve prognosis

2. Dystrophia myotonica is associated with:

   a) Cataracts
   b) Frontal baldness
   c) Sternomastoid wasting
   d) Dysarthria
   e) Sensitivity to non-depolarising muscle blockers

3. A raised reticulocyte count is found in:

   a) Untreated pernicious anaemia
   b) Aplastic anaemia
   c) Untreated iron deficiency anaemia
   d) Chronic lymphocytic anaemia
   e) Recovery from acute bleeding

4. The standard deviation of a sample taken from a normally distributed population:

   a) Is the square root of variance
   b) Is greater than the standard error
   c) Indicates the limits from the mean that contain 2/3 of the values
   d) Reflects the bias in selecting the original population
   e) Is greater than the mean
5. The celiac plexus is related:

a) Anteriorly to the crura of the diaphragm  
b) Anteriorly to the inferior vena cava  
c) Anteriorly to the aorta  
d) To the L3 vertebra  
e) Posteriorly to the pancreas

6. In the diagnosis of brain death:

a) Lack of EEG activity is essential  
b) Caloric tests must be performed bilaterally  
c) The admitting consultant must certify death  
d) Lack of stretch reflexes in all limbs is essential  
e) The pupils must be fixed and dilated

7. After head injury, increased intracranial pressure is indicated by:

a) Fall in blood pressure  
b) Reduction in the Glasgow coma score  
c) Increase in heart rate  
d) Increase in pCO₂  
e) Small pupils

8. An 8-year-old child is rescued 20 minutes after drowning and has a core temperature of 30 degrees C and fixed dilated pupils. Further appropriate treatment includes:

a) Phenobarbitone  
b) Rapid rewarming  
c) Hypoventilation  
d) Steroids  
e) Cardiopulmonary resuscitation
9. The following drugs may be safely used in porphyria:

a) Barbiturates  
b) Bupivacaine  
c) Lidocaine  
d) Chlorpromazine  
e) Sulphonamides

10. Complex regional pain syndrome:

a) May be associated with osteoporosis  
b) May be associated with an increase in skin temperature  
c) Often presents with pain as the presenting complaint  
d) Is associated with vasomotor disturbances  
e) Is more common in athletes

11. For amputation at mid-thigh, the following nerves must be blocked:

a) Obturator  
b) Femoral  
c) Sciatic  
d) Genitofemoral  
e) Lateral cutaneous nerve of the thigh

12. Helium:

a) Is less viscous than O₂  
b) Is in liquid form in brown cylinders  
c) Inhalation causes voice changes  
d) Is used to decrease the work of breathing in bronchospasm  
e) Supports combustion
13. Features of amniotic fluid embolus include:

a) Convulsions
b) Cardiovascular collapse
c) Bronchospasm
d) Abnormal bleeding
e) Pulmonary hypertension

14. Intercostal block of one rib at the posterior angle causes:

a) Somatic analgesia throughout the dermatome
b) Visceral analgesia
c) Low blood pressure because of preganglionic sympathetic block
d) Increased blood levels of local anaesthetic
e) Vasoconstriction

15. An untoward reaction to the following may occur in a patient on monoamine oxidase inhibitors when given:

a) Adrenaline
b) Thiopentone
c) Diazepam
d) Tricyclic antidepressants
e) Amphetamine

16. The following may be used to attenuate the pressor response to intubation:

a) Ramipril
b) Intravenous lidocaine
c) Topical lidocaine to the cords
d) A large dose of induction agent
e) Beta-blockade
17. Features of disseminated intravascular coagulation include:

a) A lowered fibrinogen level  
b) A normal prothrombin time and activated partial thromboplastin time  
c) Heparin is a reasonable treatment following placental abruption  
d) It may occur secondary to malaria  
e) It may have a compensated phase with no bleeding

18. In Eisenmenger's syndrome:

a) Hypovolaemia improves R to L shunt  
b) Hypoxia decreases R to L shunt  
c) A ventricular septal defect is always present  
d) A decrease in systemic vascular resistance reduces the R to L shunt  
e) Pulmonary hypertension is always present

19. Concerning day case surgery:

a) Only ASA grade one patients are suitable  
b) The operation should be done in such a way that no postoperative opioids are needed  
c) The patient should be accompanied home with an adult  
d) Patients should have a working phone  
e) Intubation is not appropriate

20. Positive end-expiratory pressure can cause:

a) Sodium retention  
b) Decreased cardiac output  
c) Increased residual volume  
d) Decreased functional residual capacity  
e) Decreased central venous pressure
21. During one-lung anaesthesia, the PaO$_2$ is influenced by:

a) The amount of blood flow in the upper lung  
b) The cardiac output  
c) The mixed venous oxygen concentration  
d) The haematocrit  
e) The FIO$_2$

22. The occurrence of bronchospasm at the end of an operation to repair an umbilical hernia in an asthmatic child can be caused by:

a) Light anaesthesia  
b) Irritation of a tracheal tube  
c) Morphine in the premedication  
d) Isoflurane  
e) Reversal by neostigmine

23. The birth canal is innervated by:

a) Pudendal nerve  
b) Femoral nerve  
c) Obturator nerve  
d) Ilioinguinal nerve  
e) Genitofemoral nerve

24. Mitral stenosis is associated with:

a) Subacute bacterial endocarditis  
b) Rheumatic fever  
c) Pulmonary hypertension  
d) Systolic murmur at the apex  
e) Atrial fibrillation
25. In a pregnant woman at term:

a) Tidal volume is increased
b) Functional residual capacity is increased
c) Physiological dead space is decreased
d) Total vital capacity is reduced
e) Airway resistance is reduced.

26. Suxamethonium significantly increases serum potassium concentrations in:

a) Quadriplegia
b) Myasthenic syndrome
c) Malignant hyperpyrexia syndrome
d) Adrenocortical insufficiency
e) Tetanus

27. Regarding pulmonary artery catheters in a normal person:

a) The wedge pressure is about 12 mmHg
b) The pulmonary artery pressure is about 20/5 mmHg
c) The central venous pressure is about 5 cm H2O
d) The right ventricular pressure is about 30/0 mmHg
e) The internal jugular to wedged distance is about 70 cm

28. There is no heart rate response to a Valsalva manoeuvre in:

a) Aortic incompetence
b) Patients on beta blockers
c) Autonomic neuropathy
d) Horner's syndrome
e) Increased V/Q mismatch
29. The following increase intraocular pressure in the normal eye:

a) Hypercarbia
b) Acetazolamide
c) Atropine
d) Hypotension
e) Respiratory obstruction

30. The management of air embolism during posterior fossa surgery may include:

a) Positioning the patient on the right side
b) Administration of mannitol
c) Raising cerebral venous pressure
d) Discontinuation of nitrous oxide
e) Rapid infusion of fluid

31. In a 2 year old child:

a) The narrowest point of the airway is the cricoid ring
b) Fluid requirements are 100 ml/kg/day
c) Blood volume is 50 ml/kg
d) Chest wall compliance is decreased compared with the adult
e) There is increased platelet function

32. Goldman criteria include:

a) Previous cardiac surgery
b) Mitral valve disease
c) Hypertension
d) Atrial fibrillation
e) Previous myocardial infarction
33. You are asked to attend to a woman, 30 minutes after delivery, who is fitting. The cause for this may be:

a) Eclampsia  
b) Local anaesthetic toxicity  
c) Grand mal epilepsy  
d) Hyperventilation  
e) Cerebral thrombosis

34. In the elimination of drugs:

a) Alkalinisation of urine enhances elimination of weak acids  
b) Oxidation increases elimination of polar compounds  
c) Glucuronidation occurs at the microsomal level  
d) Terminal half-life determines drug dose intervals  
e) A decrease in glomerular filtration rate reduces gentamicin excretion

35. In the management of the amitryptiline overdose, the following may be useful:

a) Digitalisation  
b) Beta-blockers  
c) Alkaline diuresis  
d) Atropine  
e) Isoprenaline infusion

36. TENS:

a) Works via A fibres  
b) Is useful for peripheral nerve injuries  
c) Is useful for thalamic pain  
d) Uses voltages of 0 to 50 volts  
e) Uses frequencies of 1 to 100 Hz
37. Neonates compared with adults have:

a) Decreased oxygen consumption
b) Decreased ability to shiver
c) Increased Vd/Vt
d) Increased body surface area/weight ratio
e) Increased airway resistance

38. Cricoid pressure:

a) Is effective in the presence of a nasogastric tube
b) Requires a complete cricoid cartilage to be effective
c) Should be performed with the neck extended
d) Should be performed after 5 minutes' pre-oxygenation
e) Compresses the oesophagus against the cervical vertebrae

39. Syncope

a) Is more often due to heart disease
b) Associated with Bradycardia
c) May be precipitated by failure of vision
d) Can be indirectly due to retention of urine
e) May occur in severe uncontrolled asthma during coughing

40. To calculate P(A-a)O2 the following are required:

a) CvO2- CaO2
b) Respiratory quotient
c) FIO2
d) QT
e) Haematocrit
41. Electroconvulsive therapy is

a) Indicated in endogenous severe depression  
b) Contraindicated in well controlled grand mal epilepsy  
c) Contraindicated in the presence of a pacemaker  
d) Contraindicated in a patient with a brain tumour  
e) Contraindicated in patients above the age of 60 years

42. Regarding floating circuits:

a) Are possible due to inductive coupling  
b) Eliminate risk of electrocution  
c) Earthed only on mains side  
d) Can isolate entire theatre with single transformer  
e) Prevents electrocution even if patient contacts earth

43. Severe middle third fractures of the face:

a) Are associated with brain injury  
b) May cause breathing difficulties  
c) Always require immediate fixation  
d) Require the patient to be intubated through the nose for fixation  
e) Include fractures of the orbit and zygoma.

44. In Haemophilia A

a) There is a prolonged prothrombin time  
b) There is polyarthropathy  
c) Gastrointestinal haemorrhage occurs  
d) There is a deficiency of factor VIII  
e) DDAVP may be given therapeutically.
45. Advantages of using 1.5% glycine during TURP:

a) Clearer surgical field  
b) Risk of electrical conduction is less when compared to using saline  
c) Does not cause TURP syndrome  
d) Osmolality is equal to plasma  
e) Has haemostatic properties

46. Appropriate methods to reduce bleeding during anaesthesia for tympanoplasty include:

a) 15 degree head up tilt  
b) IPPV  
c) Controlled hypotension  
d) PEEP  
e) Use of a beta blocker

47. R wave in ECG corresponds to

a) Closure of aortic valve  
b) First heart sound  
c) Dicrotic notch on arterial wave form  
d) Ventricular depolarisation  
e) Ventricular contraction

48. An enhanced recovery programme may involve

a) Neuraxial opioids  
b) Early mobilization  
c) Avoidance of surgical drains  
d) Early NG feeds  
e) Goal directed fluid therapy
49. With regards to post herpetic neuralgia

a) Is caused by reactivation of herpes simplex
b) Can be prevented by early treatment with acyclovir
c) More common in elderly people
d) Amitriptyline is drug of choice
e) Is a self-limiting disease

50. Regarding DVT

a) Increased incidence in malignancy
b) Easily detected clinically
c) Causes a rise in D-dimers
d) Can present bilaterally
e) Is associated with von Willebrands Disease

51. With regard to the Blood Brain Barrier

a) It is formed by arachnoid villi
b) The endothelium is impermeable to organic anions
c) The endothelium is more permeable than liver endothelium
d) It is well developed in neonates
e) Physostigmine can cross the BBB

52. In theatre the risk of electrocution may be reduced by:

a) Conductive flooring
b) The use of isolating transformers
c) A separate earth for each socket
d) The use of fuses
e) Battery powered equipment
53. APACHE-II scoring involves the following parameters

a) Sodium  
b) Haematocrit  
c) pH  
d) Calcium  
e) Glucose

54. Anaesthesia is maintained and induced in an adult breathing 30% O2, 70% N2O and a volatile agent. Uptake of nitrous oxide into the blood

a) Exceeds 2L/min during the 1st minute  
b) Is likely to exceed uptake of O2 after an hour of anaesthesia  
c) During the 1st few minutes is smaller than the elimination of N2O  
d) Proportional to the difference between inspired and expired partial pressure of N2O, provided ventilation is constant  
e) Still occurs 2 hours of anaesthesia

55. The first rib:

a) Is crossed by the subclavian artery  
b) Is crossed by the vagus nerve  
c) Is crossed by the supratentorial fascia  
d) Lies above the stellate ganglion  
e) Is a landmark for supraclavicular brachial plexus block

56. Primary treatment of full thickness burn

a) 20 mls of fluids per % of burn over 48 hours  
b) Dextran infusion  
c) Whole blood infusion  
d) Blood gas measurements  
e) Steroids
57. Following are true of clinical trials

a) Phase 2 confirms kinetics of drug under development
b) Cross-over studies are useful for evaluating the effect of a drug on mortality in mild hypertension
c) Parametric studies require that the sample of patients is homogenous and will have many exclusion criteria after recruitment
d) Intention to treat analysis includes patients withdrawn from treatment
e) A narrow confidence interval for difference of 2 means indicates no real difference between them

58. After major abdominal surgery (e.g. abdomino-perineal resection), the following metabolic changes would be expected to occur in the first 4 postoperative days:

a) An increased utilisation of glucose
b) A reduction in the amount of sodium excreted in the urine
c) A decrease in the free fatty acid concentration
d) An increase in the amount of potassium in the urine
e) An increase in the oxygen consumption per kg body weight

59. Sumatriptan:

a) Used for treatment of nausea and vomiting
b) Is a 5-HT3 antagonist
c) Is used in the treatment of
d) Crosses the blood brain barrier
e) Can be administered trans-cutaneously

60. Guillan Barre syndrome:

a. Signs begin centrally and progress peripherally
b. Autonomic changes are common
c. Ophthalmoplegia, ataxia and areflexia exclude the diagnosis
d. Sensory changes are greater than motor changes
e. CSF protein is normal early in disease