



श्री चित्रा तिरुनाल आयुर्विज्ञान और प्रौद्योगिकी संस्थान, तिरुवनंतपुरम् -

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SREE CHITRA TIRUNAL INSTITUTE FOR MEDICAL
SCIENCES & TECHNOLOGY,
THIRUVANANTHAPURAM—695 011

ENTRANCE EXAMINATION : ACADEMIC SESSION JANUARY 2018

M.Ch Neurosurgery direct 5 year course (Post MBBS)

Time: 90 min

Max.Marks: 100

(Select the most appropriate answer) *No negative marks*

1. A 70 year old man is undergoing an elective open repair of an infra-renal abdominal aortic aneurysm. Which one of the following structures is most likely to be adherent to the aneurysm neck?
 - A. Left renal vein
 - B. Neck of pancreas
 - C. Third part of duodenum
 - D. Portal vein
2. A 36 year old woman with feature of Grave's disease is on the waiting list for subtotal thyroidectomy. She had been on antithyroid treatment for 2 months. During preoperative assessment in the outpatient clinic she complaints of feeling too hot and was found to be sweating with sinus tachycardia of 90 beats per min and arterial BP of 170/90mmHg. Which of the following is the most effective management?
 - A. Postpone the operation for further stabilization
 - B. Referral to cardiologist for management of hypertension
 - C. Reiterate that antithyroid drugs and surgery are the way forward
 - D. Turn down the thermostats in the outpatient department
3. Which of these arise from the upper trunk of brachial plexus?
 - A. Dorsal scapular
 - B. Lateral pectoral nerve
 - C. Long thoracic nerve
 - D. None of the above

4. An ideal patient for trans-hiatal esophagectomy and gastric pull up would be,
- A 25 year old lady with upper third esophageal squamous cell carcinoma.
 - A 40 year old man with lower third esophageal adenocarcinoma.
 - A 30 year old man with a middle third esophageal perforation and mediastinitis.
 - A 45 year old lady with gastroesophageal junction ulceroproliferative adenocarcinoma and ascites
5. The mechanism of action common to both immunosuppressants, cyclosporine and tacrolimus
- Purine biosynthesis inhibition
 - Blockade of Interleukin-2 receptors
 - Inhibition of Interleukin-2 production
 - Inhibition of signal transduction from Interleukin-2 receptor
6. End tidal CO₂ monitoring helps in all except,
- Confirming tracheal position of endotracheal tube
 - Detecting accidental extubation
 - Presence of hypoxemia
 - Spontaneous ventilator attempts during mechanical ventilation
7. About jugular venous oximetry all are true except,
- Estimates balance between cerebral oxygen demand and supply.
 - Normal SjVO₂ is 60-70%.
 - SjVO₂ increases to more than 75% during ischaemic injury.
 - Changes in oxygenation of systemic blood influences SjVO₂.
8. Which of the following statement is false regarding follicular carcinoma thyroid?
- A.** Follicular carcinoma is the second most common carcinoma of the thyroid gland, and is the commonest cause of microcarcinomas of the thyroid.
- ~~The incidence of follicular carcinoma is high in endemic areas and is due to increased TSH stimulation.~~
 - The incidence of follicular carcinoma is high in endemic areas and is due to increased TSH stimulation.

- C. They are grossly well encapsulated lesions with very little tendency to involve lymph nodes.
- D. Those lesions with Hurthle cells predominate have a poorer prognosis with a risk of haematogenous spread.

9. Regarding oesophageal diverticulae which among the following statements is false:

- A. Mid oesophageal diverticulae are pulsion diverticulae and are usually small.
- B. Traction diverticulae are less common and follows granulomatous disease.
- C. A diverticulum, in isolation, should not be assumed to account for a patient's illness just because it looks dramatic on a radiograph.
- D. Epiphrenic diverticulae are traction diverticulae, which can reach great sizes.

10. Which of these statements is false regarding lacosomide:

- A. Used in painful diabetic neuropathy
- B. Used in partial onset seizures
- C. Affects voltage gated sodium channels
- D. It is a GABA uptake inhibitor.

11. All are true regarding syringomyelia except

- A. Bilateral loss of pain and temperature in the affected dermatomes
- B. Bilateral loss of touch sensation in the affected dermatomes
- C. Destruction of the crossing fibers of the lateral spinothalamic tracts
- D. Destruction of the crossing fibers of the ventral spinothalamic tracts

12. Which cranial nerve nuclei is not present in floor of IV ventricle?

- A. Abducent nucleus
- B. Facial nucleus
- C. Dorsal motor nucleus of Vagus
- D. Hypoglossal nucleus.

13. The following nuclei project their axons to the cerebellum except

- A. Red nucleus.
- B. Accessory cuneate nucleus.

- C. Arcuate nucleus.
 - D. Inferior olivary nucleus.
14. A 70 year old woman is undergoing an open operation on her pharyngeal pouch. A pharyngeal pouch occurs through the Killian's dehiscence. Between which one the following sites is the weakness most likely?
- A. Middle and inferior constrictor muscles of the pharynx
 - B. Right and left palatopharyngeus
 - C. Superior and middle constrictor muscles of the pharynx
 - D. Thyropharyngeus and cricopharyngeus (two parts of the inferior constrictor muscle)
15. A 35-year-old man has been investigated for hypercalcaemia from primary hyperparathyroidism. A technetium-labeled sestamibi scan shows a parathyroid adenoma in the superior mediastinum. The adenoma has developed from which of the following sites of origin of the parathyroid?
- A. 1st pharyngeal pouch
 - B. 4th pharyngeal pouch
 - C. 2nd pharyngeal pouch
 - D. 3rd pharyngeal pouch
16. Fondaparinux, a newer anticoagulant used for treatment of acute venous thromboembolism has the following mechanism of action.
- A. Antithrombin III -mediated selective inhibition of Factor X a
 - B. Direct Thrombin inhibition
 - C. Inactivating thrombin and activated factor XII through an antithrombin dependent mechanism
 - D. Inhibiting the synthesis of vitamin K-dependent clotting factors, which include Factors II, VII, IX, and X
17. Which is the most common malignancy is predisposed in chronic immunosuppression in liver transplant patients?
- A. Kaposi's sarcoma
 - B. Non-Hodgkin's lymphoma
 - C. Renal cell carcinoma

D. Askin's tumor

18. The most common type of congenital trachea esophageal fistula (TEF) encountered in pediatric surgical practice is

- A. Esophageal atresia with distal TEF
- B. Esophageal atresia with proximal TEF
- C. Isolated TEF
- D. "H" type TEF

19. Regarding Train of Four (TOF), which of the following is false:

- A. It can be used to distinguish between a depolarizing and non depolarizing block.
- B. TOF should not be repeated more frequently than every 10-12 sec.
- C. TOF ratio (ratio of the amplitude of the fourth response to that of the first) provides an estimation of the degree of non depolarizing neuromuscular block.
- D. A pre-relaxant control twitch is needed to interpret TOF.

20. Which of the following statements regarding GIT motility is false?

- A. The GIT motility is mainly mediated by the intrinsic nervous system, and critical in this process is the migrating motor complex.
- B. Following a meal the stomach expresses a phase of receptive relaxation, which lasts several minutes, and the antrum demonstrates tonic contractility.
- C. The duodenum can generate 10 contractions per minute but responds mainly to contractions of the antrum.
- D. In the fasting state the 3 phases of small intestinal contractions together lasts approximately 90 minutes.

21. A 45-year-old male presents with mild abdominal discomfort and he is apparently diagnosed with several gallstones. He is otherwise well. What is the most appropriate management?

- A. Consider elective cholecystectomy
- B. Investigate for impaired absorption of bile salts and bile pigments
- C. Scan his liver for hepatic secondary tumor
- D. Treat the gallstones medically with bile acid

22. TURP syndrome, a complication of transurethral resection of prostate is usually associated with all except,
- A. Hyponatremia
 - B. Hyperkalemia
 - C. Cerebral edema
 - D. Hypertension
23. Which of the following procoagulant factors is not synthesized by the liver?
- A. VonWillebrand factor
 - B. Fibrinogen
 - C. Factor VII
 - D. Factor X
24. The risk of post-operative surgical site infection (SSI) in "clean contaminated wounds" is
- A. 1-5%
 - B. 3-11%
 - C. 10-20%
 - D. 20-25%
25. Down's syndrome is associated with all except
- A. Mosaic 21
 - B. Trisomy 21
 - C. Deletion 21
 - D. Robertsonian translocation t(21:13)
26. The following statements about carpal tunnel syndrome and its treatment is true except:
- A. It is associated with thyroid dysfunction and is commonest of entrapment neuropathies.
 - B. The floor of the carpal tunnel is formed by the carpal bones and the roof by the flexor retinaculum.
 - C. The ulnar nerve passes through the Guyon's canal deep to the medial aspect of the flexor retinaculum.
 - D. Release of the flexor retinaculum is offered as a surgical treatment for carpal tunnel syndrome.

27. Which of these is a misnomer?

- A. Ependymoma
- B. Acoustic neurinoma
- C. Glioblastoma
- D. Astrocytoma

28. Which of these does not have mineralocorticoid potency?

- A. Hydrocortisone
- B. Prednisone
- C. Dexamethasone
- D. Cortisone acetate

29. Which structure runs through the petro tympanic fissure?

- A. Pterygoid artery
- B. Posterior deep temporal artery
- C. Chorda tympani
- D. Greater superficial petrosal nerve.

30. A 15-year-old boy presents with significant discharge from the left ear with severe headache, facial pain, and diplopia. On exam, he is noted to have left-sided lateral gaze palsy. What is the patient's suspected diagnosis?

- A. Venous sinus thrombosis
- B. Tolosa-Hunt syndrome
- C. Raeder paratrigeminal neuralgia
- D. Gradenigo syndrome

31. What involuntary movement disorder typically persists during sleep?

- A. Hemifacial spasm
- B. Blepharospasm
- C. Athetosis
- D. Facial myokymia

32. All are true about Brown Sequard syndrome except
- A. Ipsilateral extensor plantar response
 - B. Contralateral dorsal column impairment
 - C. Ipsilateral corticospinal tract involvement
 - D. Contralateral spinothalamic tract involvement
33. Which of the following is not associated with neuronal migration disorder?
- A. Schizencephaly
 - B. Lissencephaly
 - C. Polymicrogyria
 - D. Focal cortical dysplasia
34. The commonest location of the artery of Adamkiewicz is
- A. Left, D 6-8
 - B. Right, D9-11
 - C. Left, D9-11
 - D. Right, D6-8
35. Spastic paraplegia is caused by all except
- A. Vit B12 deficiency
 - B. Lead poisoning
 - C. Motor neuron disease
 - D. Cervical myelopathy
36. The lowest line of the Snellens chart when read at a distance of 6 meters indicates 6/6 vision. What is angle subtended by one letter in this line at the focal point of the eye.
- A. 1 Degree.
 - B. 5 degrees.
 - C. One minute.
 - D. 5 minutes.
37. The following statements are true about the Para nasal sinuses except.
- A. The maxillary sinuses as well as ethmoidal sinuses are present at birth.
 - B. The sphenoid sinus is well formed by the age of 18 to 24 months.

- C. The frontal sinus is the last sinus to pneumatise.
 - D. The antrum is the first air cell in the mastoid and is seen at birth.
38. A 4- year old child has a focal cystic brain stem glioma and on neurological examination is noted to have a left “one-and-half syndrome”. The lesion is presumed to have involved,
- A. Right Medial longitudinal fasciculus and left parapontine reticular formation
 - B. Right Medial longitudinal fasciculus and posterior commissure
 - C. Left Medial longitudinal fasciculus and left parapontine reticular formation
 - D. Left Medial longitudinal fasciculus and right parapontine reticular formation
39. Which among the following muscle relaxants can be used as an alternative to Succinyl choline for rapid sequence intubation?
- A. Rocuronium
 - B. Vecuronium
 - C. Atracurium
 - D. Cisatracurium
40. A palliative surgical option for primary generalized epilepsy would be,
- A. Selective amygdalohippocampectomy
 - B. Multilobar resection
 - C. Posterior quadrant disconnection
 - D. Vagus nerve stimulation
41. The artery of Bernasconi and Cassanari is a branch of,
- A. Internal carotid artery
 - B. Thalamoperforators
 - C. Basilar artery
 - D. Medial posterior choroid artery
42. Which of the following is not a part of the limbic system,
- A. Fimbria of fornix.
 - B. Thalamic fasciculus.
 - C. Diagonal band of Broca.

D. Mammillothalamic tract.

43. An excess of which of the following amino acids is most likely to be important in the pathogenesis of hepatic encephalopathy?

- A. Aspartate
- B. Glutamine
- C. Methionine
- D. Phenylalanine

44. The Dorello's canal is traversed or crossed by the:

- A. Third nerve.
- B. The 6th nerve.
- C. The inferior petrosal sinus.
- D. Both the 6th nerve and the inferior petrosal sinus.

45. First order neurons subserving vision are

- A. The ganglion cells.
- B. Rods and Cons.
- C. Bipolar cells.
- D. Present in the lateral geniculate body.

46. Which of the following statements about deep tendon reflex is true?

- A. it is a monosynaptic reflex which is not subject to any control from higher centres.
- B. It is suppressed immediately following cord transection and the pyramidal tract is the efferent arm of the reflex.
- C. The golgi tendon organ acts as the sensory receptor and the alpha motor neuron is the effector neuron.
- D. Gamma motor neuron supplies the intrafusal fibres but does not participate in the reflex arc.

47. At approximately what days of gestation do the cranial and caudal neuropore close?

- A. 30 and 32 days.
- B. 35 and 38 days.

C. 20 and 22 days.

D. 24 and 26 days.

48. Onion peel distribution of sensory impairment is seen or associated in the following situation.

A. Trigeminal root involvement due to progressive compression of an extrinsic tumour.

B. Involvement of the mesencephalic nucleus of the trigeminal nerve.

C. Trigeminal neuralgia can distributed in such a pattern and is due to vascular compression.

D. Due to selective involvement within a rostro- caudally distributed spinal ganglion.

49. What toxin inhibits RNA translation?

A. Botulinum toxin

B. Tetanus toxin

C. Diphtheria toxin

D. Alpha bungarotoxin

50. Treatment of choice for Type 1 Mirizzi's syndrome is,

A. Cholecystectomy.

B. Hepaticojejunostomy.

C. Common bile duct exploration and bilio-enteric anastomosis.

D. Roux-en-Y anastomosis.

51. Uptake of a skin graft involves alignment of capillaries of the graft with capillaries in the recipient bed. This process is called

A. Inosculation

B. Imbibition

C. Re-anastomosis

D. Vascular realignment

52. Adequate recommended pressure to be maintained in the endotracheal tube cuff is,

A. 20-30cms of water

B. 35-45cms of water

- C. 40-50cms of water
- D. 5-10cms of water

53. Regarding classification of chronic liver disease the following statements are true except:

- A. The CTP classification to assess perioperative risk gives points for different parameters to classify patients into A, B and C the minimum score for Child C is 7.
- B. The original Child classification was developed to predict mortality following shunt surgery in cirrhotic patients.
- C. The MELD score is now commonly used to prioritize patients awaiting liver transplantation.
- D. The MELD score utilizes INR serum bilirubin and serum creatinine and does not consider encephalopathy in the score.

54. The following statements regarding Carcinoid tumors gastrointestinal tract are true except:

- A. They are neuroendocrine tumours occurring throughout the gastrointestinal tract.
- B. The commonest site is the appendix and often seen as an incidental finding following appendicectomy.
- C. Tumours can be multiple with hepatic spread, however lymphnodular involvement is seldom seen.
- D. They arise from Kulchitsky cells of the intestinal crypts and can secrete vasoactive peptides.

55. A 49 year old woman presents for unilateral mastectomy for an isolated carcinoma of the breast. Which of the following is the primary contributor to the arterial supply of the female breast?

- A. Dorsal scapular artery
- B. Internal thoracic artery
- C. Suprascapular artery
- D. Thoracodorsal artery

56. A female neonate is born with severe respiratory distress as a result of a congenital diaphragmatic hernia. This was diagnosed antenatally. Through which one of the following

foramina in the diaphragm has the hernia occurred?

- A. Aortic hiatus
- B. Bochdalek's foramen
- C. Inferior vena cava hiatus
- D. Morgagni foramen.

57. A 50-year-old man complains of symptoms of heartburn and acid reflux. He is due to have an oesphagogastroduodenoscopy (OGD). At what level will the normal gastro-oesophageal junction be found from the incisors?

- A. 36 cm
- B. 38 cm
- C. 40 cm
- D. 42 cm

58. A 55 year chronic alcoholic man presents to the outpatient clinic complaining of upper abdominal discomfort and swelling. He recovered from an attack of recurrent acute pancreatitis 6 weeks ago. On examination he has a smooth fixed lump in his epigastrium, confirmed on ultrasonography to be a fluid filled cyst of 6 cm in diameter. In which one of the anatomical spaces is this fluid collection most likely to be situated in?

- A. Left anterior subphrenic space
- B. Left posterior subphrenic space
- C. Left sub hepatic space
- D. Right anterior subphrenic space

59. A 35 year old woman presents with shortness of breath and is diagnosed with mitral stenosis. On auscultation she has an opening snap with middiastolic murmur with presystolic accentuation. At which one of the following anatomical sites will these auscultatory findings be best heard?

- A. Sternal end of the 2nd left intercostals space
- B. 5th left intercostals space in the mid-clavicular line
- C. Sternal end of 2nd right intercostals space
- D. Left lower sternal border at the 5th intercostals space

60. What antipsychotic medication can lead to agranulocytosis?
- A. Clozapine
 - B. Thioridazine
 - C. Chlorpromazine
 - D. Quetiapine
61. With reference to organ transplantation, acceptable limits of cold ischemia time are:
- A. Heart-2 hours,Liver-3 hours,Kidney-6 hours
 - B. Heart-4 hours,Liver-6 hours,Kidney-24 hours
 - C. Heart-8 hours,Liver-6 hours,Kidney-10 hours
 - D. Heart-1 hour,Liver-2 hours,Kidney-4hours
62. The preferred operation for initial management of a thyroid nodule that is considered suspicious for malignancy by FNAB is:
- A. Excision.
 - B. Partial lobectomy.
 - C. Total lobectomy and isthmusectomy.
 - D. Total thyroidectomy.
63. The most common hernia in females is:
- A. Femoral hernia.
 - B. Direct inguinal hernia.
 - C. Indirect inguinal hernia.
 - D. Obturatorhernia.
64. The 'Lengthening reaction' or the inverse stretch reflex is mediated by
- A. Nuclear bag fibers
 - B. Golgi tendon organ
 - C. Muscle spindle
 - D. Renshaw cells
65. Nervus Intermedius is the:
- A. Motor division of the trigeminal nerve

- B. Sensory division of the facial nerve
 - C. Intermediate division of the vagus nerve
 - D. Motor division of the spinal accessory nerve
66. Which of these statements regarding moya moya disease is false?
- A. stage 1 stenosis of suprasellar ICA, usually bilateral
 - B. stage 2 Development of moya moya vessels at base of brain; ACA MCA & PCA dilated
 - C. stage 3 increasing ICA stenosis & prominence of moya-moya vessels
 - D. None of the above.
67. A neurosurgical resident wants to compare the mean operative time for three groups of 50 temporal lobectomy operations, each performed by a different surgical team. Assuming that the data are normally distributed, a suitable statistical test to compare the operative time mean of the 3 groups would be,
- A. t-test
 - B. Wilcoxon test
 - C. ANOVA
 - D. Mann-Whitney U test
68. Melanocytes in the nervous system are concentrated in.
- A. Ventral medulla
 - B. Amygdala
 - C. Red nuclei
 - D. Septum pellucidum
69. Which of the following requires the highest dose of radiation in gamma knife stereotactic radiosurgery for control/cure?
- A. Trigeminal neuralgia
 - B. Metastases
 - C. Meningioma
 - D. Vestibular Schwannoma

70. Each of the following statements regarding vasospasm occurring after SAH is true except:
- A. Hypertension is a mainstay for prevention and treatment
 - B. The peak incidence is 7-10 days after the SAHs
 - C. Sequential TC Doppler measurement may detect those patients at risk
 - D. None of the above
71. Which artery is commonly involved in hemi facial spasm
- A. Superior cerebellar artery
 - B. PICA
 - C. AICA
 - D. Labyrinthine artery
72. Thrombosis of which artery produces the unique syndrome of ipsilateral hypoglossal palsy and crossed hemiplegia?
- A. PICA
 - B. Lateral medullary artery
 - C. Anterior spinal artery
 - D. AICA
73. A 25-year-old male develops diarrhoea and colicky abdominal pain. Ulcerative colitis is diagnosed on colonoscopy. Which of the following findings is consistent with the diagnosis?
- A. The rectum is not involved.
 - B. The disease is confluent, there are no skip areas in the colon and the rectum is involved.
 - C. The full thickness of the bowel wall is involved.
 - D. The incidence of colorectal cancer is equal to that of the general population.
74. Which is a correct statement regarding Smiths fracture?
- A. It is a fracture involving the distal radius and the distal fragment is displaced dorsally.
 - B. It is a fracture involving the proximal radius and the annular ligament is not involved.
 - C. It occurs due to a blow on the flexed wrist and most commonly does not involve the articular surface.

D. Called reverse colles fracture, and the arm needs to be immobilized with hand prone and wrist flexed.

75. Which of the following statements about fractures of the tibia is false?

- A. High-energy collisions are the common cause of tibial fractures.
- B. External fixators are commonly used in open comminuted fractures of the tibia.
- C. In children displaced fractures of the tibia are most often associated with fibular fractures, which make closed reduction more difficult to achieve and maintain.
- D. Towards the distal third, tibia fractures carry a greater risk of non-union.

76. All statements about SIADH are true except.

- A. Euvolemic hyponatremia
- B. Urine sodium is below normal levels
- C. Combined V2/V1a antagonist is used for treatment
- D. Low plasma rennin activity

77. All are true about Linea Splendens except

- A. It lies along the anterior median fissure of the spinal cord
- B. Is a band of longitudinal fibers formed by arachnoid condensation
- C. Forms a sheath for the anterior spinal artery
- D. Gets displaced in tumors like hemangioblastoma

78. All the following statements are correct except:

- A. Lesion in the premotor area 6 causes apraxia
- B. Lesion in area 22 causes receptive aphasia
- C. Lesion in area 8 causes contralateral conjugate deviation of both eyes
- D. Irritative lesion in the uncus causes olfactory hallucination

79. Nucleus ambiguus supplies all of the following muscles except -

- A. Stylopharyngeus muscle
- B. Constrictor muscles of the pharynx
- C. Palatoglossus muscle
- D. Tensor palati:

80. Which of the following conditions is associated with increased risk of breast cancer?
- A. Fibrocystic mastopathy.
 - B. Severe hyperplasia.
 - C. Atypical hyperplasia.
 - D. Papillomatosis.
81. Which of the following statements about the anatomic course of the esophagus is correct?
- A. The cervical esophagus passes behind and to the right of the trachea.
 - B. The thoracic esophagus enters the posterior mediastinum anterior to the aortic arch.
 - C. The esophagus enters the diaphragmatic hiatus at the level of T8.
 - D. The esophagus deviates anteriorly and to the left as it enters the abdomen.
82. Hodgkin's disease is a malignant lymphoma with four histological subtypes. Which of the following is not one of the subtypes?
- A. Mixed cellularity.
 - B. Nodularsclerosis.
 - C. Lymphocyte depletion.
 - D. Leukocyte-lymphocyte dominance.
83. In a patient who had a motorcycle crash, a CT of the abdomen revealed a peripancreatic hematoma and indistinct pancreatic border. The most definitive test for a pancreatic injury requiring operative intervention is:
- A. ERCP
 - B. CT scanning
 - C. Operative exploration
 - D. Amylase test of lavage fluid
84. A 1-week-old infant is brought to the hospital because of vomiting. An upper gastrointestinal (GI) series reveals duodenal obstruction. On laparotomy, annular pancreas is found. Which of the following statements about annular pancreas is TRUE?
- A. Resection is the treatment of choice.
 - B. It is associated with Down's syndrome.
 - C. Symptoms usually begin with back pain.

D. It is most likely due to abnormal rotation encircling the third part of the duodenum.

85. Best way to reduce the chance of auto PEEP occurring is to increase

- A. Expiratory time
- B. Inspiratory time
- C. Respiratory rate
- D. Amount of positive pressure ventilation

86. Neurosurgery in sitting position has increased risk of venous air embolism. Which is the most sensitive monitor to detect venous air embolism

- A. Precordial Doppler
- B. Pulmonary artery catheter
- C. Transoesophageal ECHO
- D. ETCO₂

87. Which statement about FFP is most likely true?

- A. Each unit is typically pooled from multiple donor units of whole blood.
- B. Collection techniques eliminate the risk of infection.
- C. Units should be administered within 2hrs of thawing
- D. ABO compatibility should be confirmed prior to transfusion

88. The parahippocampal gyrus continues by a small isthmus into the following,

- A. Cingulate gyrus
- B. Lateraloccipito temporal gyrus
- C. Dentate gyrus
- D. Parietooccipital gyrus

89. Which of the following is most likely to result in increased affinity of hemoglobin for oxygen?

- A. Acidosis
- B. Increased 2,3 DPG
- C. Fetal Hb
- D. Isoflurane

90. Which of the following muscle relaxants causes an increase in intracranial pressure?
- A. Atracurium
 - B. Pancuronium
 - C. Vecuronium
 - D. Succinyl Choline
91. The band of Giacomini is located in
- A. Temporal lobe
 - B. Occipital lobe
 - C. Insula
 - D. Orbitofrontal cortex
92. Which of the following is false regarding pin index safety system?
- A. It is a safety mechanism so that one cylinder cannot be fitted on other's position
 - B. The pins are on the yoke of the anaesthesia machine
 - C. Pin index for oxygen is 2,5
 - D. The pin index safety system can never be bypassed
93. Which of the following statements is true regarding gastritis?
- A. Type A gastritis is associated with achlorhydria however pernicious anaemia is uncommon.
 - B. Patients with Type A gastritis are prone for malignancy and the main cause of the same is hypertrophy of the gastrin producing endocrine cells.
 - C. Pan gastritis with or without antral sparing is a feature of helicobacter infection.
 - D. Granulomatous gastritis can occur in crohns disease but may also be seen in tuberculosis.
94. The following statements are true regarding gastric carcinoma except-
- A. In the UICC T1 b refers to invasion of the submucosa.
 - B. In the Japanese classification of early gastric cancers the types I, II and III, refers to protruding, superficial and excavated respectively.
 - C. In Japan more than half of gastric cancers are identified as early gastric cancers however only 1/3rd of British patients have early gastric cancer.

D. In the UICC classification N3A refers to 7- 15 regional nodes involved in the malignancy however no node outside the region will be involved.

95. The following statements regarding liver anatomy is true except.

- A. The liver is divided into a functional right and left segment by the Cantle's line which a line between the gall bladder fossa and the middle hepatic vein.
- B. Couinauds Liver segments V to VIII are to the right of this line while segments I - IV are on the left of this line.
- C. The functional unit is the hepatic lobules organized around a central vein, which is the ultimate tributary of the portal vein.
- D. Each of the liver segments have their own their own separate branch of the hepatic artery, portal vein and bile duct and are also drained by an individual branch of the hepatic vein.

96. 40-year-old man is evaluated for subarachnoid hemorrhage. He has history of painful peripheral neuropathy, orthostatic hypotension, and severe constipation. His father and brother also have peripheral neuropathy and severe orthostatic hypotension. A paternal uncle suffered an intracerebral hemorrhage. Mutation of which of the following genes is most likely to account for the neurologic manifestations in this family?

- A. COLQ4A1
- B. Cystatin C
- C. Galactosidase
- D. Transthyretin

97. Characteristic MR Imaging finding in moderately advanced Alzheimer's disease is

- A. Ventriculomegally with periventricular lucency.
- B. Bifrontal atrophy.
- C. Atrophy of the mesial temporal lobes.
- D. White matter hyper intensities.

98. Vertical gaze movements are not mediated by which of the following centres?

- A. Posterior commissure
- B. Rostral interstitial nucleus of Cajal

- C. Nucleus of Darkschewitsch
- D. Parapontine reticular formation

99. A 30-year-old man has insidious onset up-gaze paresis, convergence retraction nystagmus, light near dissociation and retracted eyelids. The most likely pathological lesion is,

- A. Pineocytoma
- B. Pontine glioma
- C. Pulvinar tuberculoma
- D. 4th ventricular ependymoma

100. Vein of Labbé connects,

- A. Deep middle cerebral vein and transverse sinus
- B. Superficial sylvian vein and transverse sinus
- C. Superficial middle cerebral vein and superior petrosal sinus
- D. Superficial middle cerebral vein and sphenoparietal sinus