



श्री चित्रा तिरुनाल आयुर्विज्ञान और प्रौद्योगिकी संस्थान, तिरुवनंतपुरम् -

11

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

**ENTRANCE EXAMINATION : ACADEMIC SESSION JANUARY 2019**

**M.Ch Neurosurgery Post M.S (3year course)**

**Time: 90 min**

**Max.Marks: 100**

**(Select the most appropriate answer)**

**(There are no negative marks for wrong answers)**

1. The following statements regarding Carcinoid tumours of the gastrointestinal tract are true except:
  - a. They are neuroendocrine tumours occurring throughout the gastrointestinal tract.
  - b. The commonest site is the appendix and are 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.
2. The following are approved examples of chemo prevention of malignancies:
  - a. Tamoxifen for patients under risk of breast malignancy.
  - b. Steroid treatment in ulcerative colitis.
  - c. Celecoxib for Familial polyposis syndrome.
  - d. 13 cis retinoid acid for oral leukoplakia.
3. All are true of syringomyelia except:
  - a. Bilateral loss of pain and temperature in the affected dermatomes.
  - b. Destruction of the crossing fibres of the ventral spinothalamic tracts.
  - c. Bilateral loss of touch sensation in the affected dermatomes.
  - d. Destruction of crossing fibres of the lateral spiothalamic tracts.
4. MALT is approached as a significant premalignant condition and the treatment of the same is,
  - a. Control H pylori and endoscopic followup
  - b. Total gastrectomy alone.
  - c. Total gastrectomy with chemotherapy.
  - d. Gastric antrectomy is sufficient treatment.

5. Lesions in the midbrain dorsum results in all of the following except.

- a. Impaired upgaze.
- b. Dilated pupils with near light dissociation.
- c. Collier's sign.
- d. Loss of vestibuloocular reflex.

6. The third ventricle is the cavity of the

- a. Metencephalon.
- b. Mesencephalon.
- c. Diencephalon.
- d. Telecephalon.

7. Which vessel is commonly implicated in hemifacial spasm?

- a. Vertebral artery.
- b. AICA.
- c. PICA
- d. Superior cerebellar artery.

8. Cricothyroid palsy results in the following changes except:

- a. Loss of tone of the vocal cords.
- b. Voice fatigue.
- c. Failure of abduction of cord.
- d. Hoarse, deep voice.

9. A female neonate is born with severe respiratory distress as a result of a congenital diaphragmatic hernia. This was diagnosed antinatally. 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.

10. Which of the following statements about the Hypoglossal nerve and innervation of the tongue is false?

- a. It is a pure motor nerve.
- b. The hypoglossal nerve sends branches to the inferior vagal ganglion and the pharyngeal plexus.
- c. The supra nuclear pathway of the hypoglossal nerve is predominantly uncrossed and bilateral and originated in the depth of the sylvan fissure.
- d. The hypoglossal nerve gathers into 2 bundles perforates the dura passes through the hypoglossal canal and unites into a single bundle.

11. Which of the following statements about dumping syndrome is true:

- a. Early dumping occurs within seconds of a meal and the patients have cramps and vomiting.
- b. Reduced dietary fibre can relieve the symptoms to a certain degree.
- c. Octreotide and its sustained release preparations are the mainstay in the management of the condition.
- d. Once established late dumping syndrome will require surgical correction.

12. Vonhippel Lindau disease is associated with

- a. Haemangioblastoma.
- b. Vestibular schwannoma.
- c. Subependymal giant cell astrocytoma.
- d. None of the above.

13. Which of the following is not part of the limbic system?

- a. Fornix.
- b. Thalamic fasciculus.
- c. Hippocampus.
- d. Mamillothalamic tract.

14. The following statement about Heparin induced thrombocytopenia are true except;

- a. It is an immune mediated activation of circulating platelets.
- b. It is exclusively seen when unfractionated heparin is used.
- c. It may present with acute thrombotic complications.
- d. Warfarin is contraindicated in the management of this condition.

15. First order neurons subserving vision are:

- a. Ganglion cells.
- b. Rods and cons.
- c. Bipolar cells.
- d. Cells of the geniculate body.

16. Abulia is due to obstruction of

- a. M1 segment of MCA
- b. A2 segment of ACA
- c. M2 segment of MCA
- d. A1 segment of ACA

17. Which of the following terms is a misnomer?

- a. Acoustic neurinoma.
- b. Ependymoma.
- c. Ganglioneuroma.
- d. Ganglioglioma.

18. The conduction velocity of Type C fibres is,
- 0.5 - 4 m /sec
  - 4- 30 m/sec
  - 30 -120 m/ sec
  - 6- 12 m/ sec
19. The Dorellos canal is traversed by which of the following structures?
- Third Nerve.
  - The Mandibular division of the Vth nerve.
  - The 6th nerve.
  - The accessory nerve.
20. Which of the following statements is false regarding parasympathetic actions in the eye?
- The effectors are the pupillary constrictor smooth muscle and the ciliary smooth muscle.
  - The preganglionic fibres consisting of the visceral efferent pathway that runs in the oculomotor nerve.
  - The ganglion involved is the ciliary ganglion.
  - The long ciliary nerves are the post ganglionic nerves.
21. Which intracranial tumour is more likely to be encountered in a middle aged man with Acquired immune deficiency Syndrome (AIDS)?
- Glioblastoma.
  - Lymphoma.
  - Oligodendroglioma.
  - Glomus jugulare tumour
22. With regards orbital anatomy the following statements are true except,
- The superior inferior branches of the IIIrd nerve the trochlear and abducent nerves and the nasociliary branch of the V1 division passes through the common tendinous ring of the extraocular muscles.
  - The floor of the orbit is mainly made of the maxillary bone.
  - The medial orbital floor is formed from the components of the maxilla, ethmoid, lacrimal, palatine, and sphenoidal bones.
  - The supra orbital, infratrochlear, supra trochlear and lacrimal nerves are branches of the V1 division of the Trigeminal nerve.
23. Causes of an increase in end tidal carbon dioxide include
- Air embolism.
  - Reduced minute ventilation.
  - Massive pulmonary embolism.
  - Reduced cardiac output.

24. When performing a Nissens fundoplication pneumothorax is formed by penetration of the mediastinal pleura with insufflated carbon dioxide. Which of the following methods are ideal?
- Immediate cessation of surgery and placement of a tube thoracotomy.
  - This is of no consequence and surgery may be continued as usual.
  - Placement of a catheter through the same defect and placing it under water seal.
  - Aspiration through a needle placed in the second intercostal space.
25. Which of the following statements about salivary gland neoplasms is not correct?
- 85% of all salivary neoplasms arise from the parotid gland.
  - 75% of all minor salivary gland tumours are malignant.
  - Papillary cystadenoma lymphamatosum is a benign tumor most often seen in the parotid gland.
  - 25% of all submandibular and sublingual salivary gland tumours are malignant.
26. The onion peel appearance on a radiograph indicating periosteum at different levels is characteristic of
- Osteosarcoma.
  - Osteoclastoma.
  - Ewings sarcoma
  - Plasmacytoma.
27. Most important factor that decides operative outcome in a child with VSD is
- Size of the lesion.
  - Location and thickness of the wall.
  - Age of the child.
  - Pulmonary outflow resistance.
28. Papilledema is due to the following except
- Prostaglandins released by brain tumors
  - Increase in tissue volume.
  - Increased CSF formation
  - Compromised cerebral venous outflow
29. In the epidemiology of Sub Arachnoid Haemorrhage (SAH) the following is true except
- Aneurysmal rupture is a cause of SAH
  - Females are less affected by aneurysmal SAH as they smoke less than their male counterparts
  - Trauma is outscored all other causes of SAH
  - Up to 5% of the population may harbour aneurysms in their brain circulation
30. What is the mechanism of action for temozolomide?
- DNA cross-linking
  - Anti-VEGF antibody

- c. DNA alkylation
  - d. Topoisomerase inhibitor
31. What is the hourly rate of production of cerebrospinal fluid in the adult brain?
- a. 10 mL/h
  - b. 14 mL/h
  - c. 18 mL/h
  - d. 26 mL/h
32. Which one of the following genetic mutations are associated with improved brain tumor prognosis?
- a. Loss of 1p/19q
  - b. Loss of 1p/22q
  - c. Loss of 1p/10q
  - d. Loss of 1p/9q
33. Which structure runs through the petrotympanic fissure?
- a. Pterygoid artery
  - b. Posterior deep temporal artery
  - c. Chorda tympani
  - d. Lingual nerve
34. What nerve innervates the skin between the hallux and the second toe?
- a. Superficial peroneal nerve
  - b. Intermediate dorsal cutaneous nerve
  - c. Deep peroneal nerve
  - d. Tibial nerve
35. While reviewing pathology of a recent laparoscopic appendectomy, you note that in addition to acute appendicitis, the patient had a 1.5-cm carcinoid tumour located at the base of the appendix. The patient is otherwise healthy and recovering well from surgery. What would you recommend?
- a. No additional therapy necessary.
  - b. Right hemicolectomy.
  - c. Radical appendectomy.
  - d. Adjuvant chemotherapy.
36. The technique of hernia repair with the least chance of recurrence is,
- a. Open tissue based repair.
  - b. Lichtenstein tension free repair.
  - c. Bassini technique.

- d. Shouldice repair.
37. Chest wall lesions may arise from the bone, pleura or muscle. The overall risk of malignancy in a chest wall mass is
- 10- 20 %
  - 20- 30%
  - 40- 50%
  - 50 -80%.
38. The commonest location of coarctation of Aorta is at,
- Level of left renal artery.
  - Distal to the left subclavian artery.
  - Proximal to the innominate artery.
  - Just above the diaphragm
39. Which of the following autoimmune diseases is associated with the presence of autoantibody to the thyroid-stimulating hormone receptor?
- Pernicious anemia
  - Congenital agammaglobulinemia
  - Wiskott-Aldrich syndrome
  - Graves' disease
40. Raised PTH is found in:
- Pseudohypoparathyroidism
  - Renal osteodystrophy
  - Hypercalcaemia
  - Osteogenesis imperfecta
41. How is mechanical back pain associated with activity?
- Improves with activity
  - Worsens with activity
  - Relieved by standing
  - Worsens with axial unloading
42. A positive Romberg sign indicates a disturbance of what structure(s)?
- Posterior columns
  - Cerebellar vermis
  - Cerebellar hemisphere
  - Corticospinal tract
43. What involuntary movement disorder typically persists during sleep?
- Hemifacial spasm
  - Blepharospasm

- c. Athetosis
- d. Facial myokymia

44. When patent ductus arteriosus is ligated the most like haemodynamic change will be.

- a. Rise in systolic blood pressure.
- b. Increase in pulmonary perfusion.
- c. Rise in diastolic blood pressure.
- d. Fall in systolic blood pressure due to better systemic perfusion.

45. The investigation of choice in thoracic aortic aneurysms is

- a. MR angiogram.
- b. DSA
- c. CT angiogram
- d. Echocardiogram.

46. The treatment choice for mesenteric artery occlusion of embolic origin is

- a. Observation, bowel decompression and antibiotics.
- b. Anti coagulation and maintain of blood pressure.
- c. Thrombolysis and follow-up angiograms.
- d. Open embolectomy with second look laparotomy.

47. Which of the following medications is a direct thrombin inhibitor, independent from the action of antithrombin, and can be considered for patients having heparin induced thrombocytopenia?

- a. Warfarin.
- b. Fondaparinux.
- c. Argatroban.
- d. Dalteparin.

48. Which of the following statements is true about the pacinian corpuscle a somatic sensory receptor?

- a. It is an unencapsulated receptor.
- b. It is distributed in the dermis, ligaments, peritoneum, external genitalia, joint capsules.
- c. Their information is propagated through a alpha fibres.
- d. They sense muscle and tendinous tension

49. Fentanyl is extensively used in the anaesthetic management of surgical patients. Which of the following statements is not true regarding fentanyl?

- a. Unlike morphine it has little propensity to release histamine.
- b. It is safer than morphine as it causes very little respiratory depression.
- c. It is 80 to 100 times more potent analgesic than morphine.
- d. Due to high lipid solubility it rapidly induces analgesia with effects peaking in 5 mins.



50. Subependymal giant cell astrocytoma is associated with
- Tuberous sclerosis
  - Neurofibromatosis
  - Sturge Weber syndrome
  - Von Hippel Lindau syndrome
51. In all the following conditions, patients usually present with cough headaches except:
- Chiari malformation
  - Arachnoid cysts
  - Craniostenosis
  - Pseudotumor cerebri
52. Post-traumatic evaluation of a patient showed that did not open his eyes to call, neither did he obey verbal commands and was mumbling incomprehensibly. On applying sternal pressure, the patient was noted to open his eyes and lifted his limbs to command and stated his name and address. The GCS recorded was.
- E1 M1 V2
  - E2 M6 V5
  - E2 M1 V2
  - E2 M1 V1
53. Which of the following statements about Trihexyphenidyl is false?
- It is an anticholinergic drug with a higher central: peripheral action ratio than atropine.
  - It is less effective than than levodopa in drug induced Parkinsonism.
  - When used in Parkinsonism tremor is benefited more than rigidity and hypokinesia is affected the least.
  - It can be used in conjunction with levodopa to reduce the dose of the latter.
54. The following statements about D dimer estimation in blood is correct except.
- The test has a high specificity but poor sensitivity.
  - Pregnancy is associated with elevated D dimer levels.
  - Trauma, mayo cardiac infarction and some cancers can elevate the level of D dimer.
  - D dimer is a degradation product of factor XIII, fibrin.
55. The histological feature characteristic of Barrett's oesophagitis is
- Columnar epithelium.
  - Pseudostratified ciliated columnar epithelium.
  - Parietal cells.
  - Goblet cells.
56. Characteristic features in the pathophysiology and management of Mallory Weiss syndrome includes all of the following except:
- In majority of patients bleeding will stop spontaneously.
  - Laparotomy and high gastrostomy is the ideal method to approach the bleeding.

- c. Sengstaken and Blakemore tube will be effective in controlling bleeding that does not stop spontaneously.
- d. Endoscopic injection of epinephrine can be therapeutic.

57. Which of the following is not a true difference between omphalocele and gastroschisis?

- a. In an omphalocele there is an overlying sac while in a case of gastroschisis there is no overlying sac.
- b. In omphalocele the umbilical cord attaches to the apex of the sac while a gastroschisis is almost always on the right side of the umbilicus..
- c. In gastroschisis the intestine is most often thick and oedematous with exudate seen on the surface while in an omphalocele the bowel surface is normal in appearance.
- d. Omphalocele is less likely to be associated congenital anomalies that influence prognosis of the infant than gastroschisis.

58. In a patient who had a motor-cycle 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

59. Staples may safely be placed during laparoscopic hernia repair in each of the following structures except:

- a. Tissues superior to the lateral iliopubic tract.
- b. The transversus abdominis aponeurotic arch.
- c. Tissues inferior to the lateral iliopubic tract.
- d. The iliopubic tract at its insertion onto Cooper's ligament.

60. Which of the following is not associated with neuronal migration disorder?

- a. Schizencephaly
- b. Lissencephaly
- c. Polymicrogyria
- d. Focal cortical dysplasia

61. 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. Reanastomosis
- d. Vascular realignment

62. Which of the following is not usually a sign of optic neuropathy?

- a. Junctional scotoma.
- b. Pain on movement of the eyes.

- c. Positive photopsias.
  - d. Decrease in colour vision.
63. Which of the following structures are least likely to be involved in language function on the dominant hemisphere?
- a. Pars triangular.
  - b. Arcuate fascicles.
  - c. Angular gyrus.
  - d. Cingulate gyrus.
64. TURP syndrome, a complication of transurethral resection of prostate is usually associated with all except,
- a. Hyponatremia
  - b. Hyperkalemia
  - c. Cerebral edema
  - d. Hypertension
65. Which of the following corticoids does not have mineralocorticoid potency?
- a. Hydrocortisone.
  - b. Prednisone.
  - c. Dexamethasone.
  - d. Cortisone acetate.
66. A 45 year old man is due to undergo a Heller's operation of cardiomyotomy for achalasia of the cardia through the left chest. Which one of the following structure is in danger of being damaged?
- a. Hemiazygous vein
  - b. Phrenic nerve
  - c. Sympathetic trunk
  - d. Vagus nerve.
67. A 6 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
68. In patients with impaired wound healing with no micronutrient deficiency, supplementation of which of the following nutrients results in better wound healing?
- a. Vitamin C
  - b. Vitamin A.
  - c. Zinc
  - d. Selenium.

69. Recombinant growth factors have been used in the treatment of non healing wounds, which of the below mentioned factors have been approved for this purpose?

- a. PDGF.
- b. IGF I
- c. Laminin -5
- d. All of the above.

70. Which of the following statements about endometrial cancer is false?

- a. It occurs most frequently in post menopausal women.
- b. Obesity and use of oestrogen are risk factors.
- c. In the developed world it is the most common gynecological malignancy.
- d. The risk can be increased in prolonged use of tamoxifen.

71. Among dividing cells which are the stages when the cells are more sensitive to radiation?

- a. G1 phase and early S phase.
- b. G2 phase and M phase.
- c. Both A and B.
- d. Late S phase and G1 phase.

72. In a patient with pupillary asymmetry, on examination, the right pupil was larger than the left and did not react to light, directly or consensually. On convergence, the right pupil reacted very slowly, but eventually became smaller than the left pupil. What type of pupillary abnormality does this patient have?

- a. Adie's tonic pupil
- b. Afferent pupillary defect
- c. Argyll Robertson pupil
- d. Horner's syndrome

73. 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

74. The cause of hearing loss in vestibular schwannoma is

- a. Tumour pressure effect
- b. Disruption of arterial supply to inner ear
- c. Changes in biochemistry of inner ear
- d. All of the above

75. Root of mesentery is crossed by

- a. Inferior mesenteric artery
- b. Left ureter

- c. Horizontal part of duodenum
- d. Left gonadal vessel

76. Which of the following statements is false regarding follicular carcinoma of the thyroid:

- a. Follicular carcinoma is the second most common carcinoma of the thyroid gland, and is the commonest cause of micro carcinomas of the thyroid.
- b. 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 predominance have a poorer prognosis with a risk of hematogenous spread.

77. Which of the following is not a cause of objective tinnitus?

- a. Arteriovenous malformations
- b. Palatal myoclonus
- c. Meniere's disease
- d. Patent eustachian tube

78. The commonest cause of renal artery stenosis is:

- a. Atherosclerosis.
- b. Fibromuscular dysplasia.
- c. Takayasu arteritis.
- d. Renal artery dissection.

79. Virchow's triad regarding contributing factors for venous thromboembolism

- a. Stasis, age, obesity.
- b. Endothelial damage, hyper coagulability, stasis.
- c. Endothelial damage, stasis and valvular incompetence.
- d. None of the above.

80. The following statements are true about IVC filters except:

- a. Used in severe pulmonary hypertension.
- b. There are both retrievable and non retrievable venacaval filters.
- c. Can result in IVC thrombosis.
- d. Not contraindicated in septic thromboembolism.

81. The cranial nerve most commonly affected in sarcoidosis is:

- a. CN VII
- b. CN II
- c. CN V
- d. CN I

82. Each of the following is characteristic of a diabetic third nerve palsy except

- a. It develops over a few hours
- b. It spares the pupil
- c. It is usually painless
- d. The lesion involves the center of the nerve.

83. The following are the branches of Ophthalmic artery except

- a. Anterior ethmoidal artery
- b. Posterior ethmoidal artery
- c. Recurrent ophthalmic artery
- d. Inferior hypophyseal artery

84. Which one of the following is not a glioneuronal tumor?

- a. Ganglioglioma
- b. Ependymoma
- c. Gangliocytoma
- d. Central Neurocytoma

85. Which of the following is not true in benign intracranial hypertension?

- a. Papilledema is invariably present
- b. Ventricles are enlarged with periventricular lucency
- c. Lumbar puncture is essential to confirm diagnosis
- d. Angiography may be indicated.

86. The most common presenting symptom of glomus tumours is

- a. Hearing loss
- b. Pulsatile tinnitus
- c. Aural discharge
- d. Vertigo

87. The resting potential of a neuron is approximately

- a. -90 mV
- b. -65mV
- c. +50mV
- d. +65mV

88. Subacute combined degeneration of the spinal cord is caused by a deficiency of:

- a. Cobalamine.
- b. Folic acid.
- c. Nicotinic acid.
- d. Thiamine.

89. Dugas sign and Hamilton's ruler test are clinical signs which are positive in:

- a. Luxation in erecta
- b. Anterior dislocation of the hip
- c. Posterior dislocation of elbow
- d. Anterior dislocation of the shoulder.

90. The following is a landmark for accessing the trigone of lateral ventricle

- a. Frazier's point.
- b. Kocher's point
- c. Dandy's point
- d. Keen's point

91. When resecting a crohn's disease stricture the following principles may be adhered to.

- a. 2cm margin may be given.
- b. At least 12cm margin is desirable.
- c. A better approach is to obtain a frozen section to ensure a negative margin.
- d. None of the above.

92. Clagett's window is a surgical procedure done for

- a. Large invasive thymomas
- b. Empyema thoracis
- c. Mediastinal biopsy
- d. Thoracic sympathectomy.

93. Double bubble sign in an infant is characteristic of:

- a. Duodenal atresia.
- b. Jejunal atresia.
- c. Meconium ileus.
- d. Pyloric stenosis.

94. A patient was undergoing laparoscopic colonic resection. The anaesthetic registrar has noticed a drastic reduction in urine output within towards the end of the procedure, however the urine remains clear, and haemoglobin stable, what is the most necessary intervention.

- a. Fall in pre load may be immediately compensated with rapid infusion of plasma expanders.
- b. Ureteric injury is to be suspected and the surgeon alerted.
- c. Frusemide infusion provided the blood pressure is stable.
- d. Watchful expectancy.

95. Basal cell carcinoma or rodent ulcer is treated with:

- a. Wide excision and block dissection.
- b. Dermatological lasers can be of great advantage.
- c. Excision with 3-4 mm margin with reconstruction.
- d. Excision followed by radiotherapy.

96. Occular melanomas can have extensive systemic involvement and can spread to the:

- a. Optic chiasm and the brain parenchyma.
- b. Involve the deep cervical nodes.
- c. Metastases mainly to the lung.
- d. Metastases to the liver.

97. The following statements are true with regards the left gastric artery except:

- a. It is usually the largest artery to the stomach.
- b. Not infrequently it supplies left lobe of liver and inadvertent ligation can occasionally cause ischemia to the liver.
- c. It arises directly from the coeliac trunk.
- d. It is usually the larger of the divisions of the coeliac trunk and runs along the lesser curvature of the stomach.

98. Which of the following procedures for morbid obesity is based only on malabsorption.

- a. Sleeve gastrectomy.
- b. Duodenal switch.
- c. Roux - en Y gastric bypass.
- d. None of the above.

99. Helicobacter pylori infection perpetuates duodenal ulcer through the following mechanism:

- a. Direct stimulation of gastrin release.
- b. Inflammation and autoimmune reaction.
- c. Urea splitting action that causes antral buffering with somatostatin mediated gastrin hypersecretion.
- d. All of the above.

100. Ideal and essential treatment for a patient with GIST of 3cm size would be.

- a. Wedge resection.
- b. Subtotal gastrectomy.
- c. Subtotal gastrectomy with imatinib.
- d. Endoscopic laser ablation with imatinib administration.