SSAPMg-02

SUBJECT: Medical Gastroenterology

Paper Code: 23

INSTRUCTIONS FOR CANDIDATES

1. Answer all questions.
2. All questions carry equal marks.
3. Only one answer is to be given for each question.
4. If more than one answers are marked, it would be treated as wrong answer.
5. Each question has four alternative responses marked serially as 1, 2, 3, 4. You have to darken only one circle or bubble indicating the correct answer on the Answer Sheet using BLUE BALL POINT PEN.
6. The OMR Answer Sheet is inside this Test Booklet. When you are directed to open the Test Booklet, take out the Answer Sheet and fill in the particulars carefully with blue ball point pen only.
7. 1/3 part of the mark(s) of each question will be deducted for each wrong answer. A wrong answer means an incorrect answer or more than one answers for any question. Leaving all the relevant circles or bubbles of any question blank will not be considered as wrong answer.
8. Mobile Phone or any other electronic gadget in the examination hall is strictly prohibited. A candidate found with any of such objectionable material with him/her will be strictly dealt with as per rules.
9. Please correctly fill your Roll Number in O.M.R. Sheet. 5 Marks can be deducted for filling wrong or incomplete Roll Number.

Warning: If a candidate is found copying or if any unauthorized material is found in his/her possession, F.I.R. would be lodged against him/her in the Police Station and he/she would liable to be prosecuted. Department may also debar him/her permanently from all future examinations.

Do not open this Test Booklet until you are asked to do so.
1. In G-POEM Submucosal tunnel formation started at
   (1) 2.5 cm proximal to pylorus
   (2) 5 cm proximal to pylorus
   (3) 7.5 cm proximal to pylorus
   (4) 10 cm proximal to pylorus

2. In Narrow Band Imaging (NBI) which light has highest penetration?
   (1) Red
   (2) Blue
   (3) Green
   (4) Violet

3. In congenital hypertrophic pyloric stenosis which of following is seen?
   (1) Non-bilious vomiting
   (2) Metabolic alkalosis
   (3) Aciduria
   (4) All of the above

4. Hampton’s line is a feature of
   (1) Benign gastric ulcer
   (2) Malignant gastric ulcer
   (3) Benign polyp
   (4) Malignant polyp

5. Duodenal ulcers are labelled refractory after treatment for a minimum of
   (1) 4 weeks
   (2) 6 weeks
   (3) 8 weeks
   (4) 14 weeks

6. Infectious causes of peptic ulcer includes all except
   (1) HSV I
   (2) HSV 6
   (3) H pylori
   (4) CMV

7. Which one is Potassium competitive acid pump antagonist?
   (1) Vilazodone
   (2) Vonoprazan
   (3) Pantaprazole
   (4) Deloprazan

8. Which of the following cytochrome P₄₅₀ is involved in the interaction of PPI and Clopidogrel?
   (1) CYP₂B₆
   (2) CYP₂C₁₉
   (3) CYP₂D₆
   (4) CYP₃A₆

9. PH gated urea channel in H. pylori bacterium is called
   (1) Urea I
   (2) Urea J
   (3) Urea K
   (4) Urea L
10. Which of the following is a Neurokinin (NK1) antagonist?
(1) Aprepitant
(2) Sumatriptan
(3) Ketorolacacetam
(4) Cyproheptadine

11. Not true about intestinal type of gastric cancer
(1) Glandular structure
(2) Worse prognosis
(3) H. pylori is a risk factor
(4) Occur in endemic gastric cancer zone

12. Verioliform gastritis best refers to
(1) Lymphocytes gastritis
(2) Neutrophilic gastritis
(3) Eosinophilic gastritis
(4) Sarcoidealosis gastritis

13. Genetic defect in MEN1 is
(1) Short arm of chromosome 11
(2) Long arm of chromosome 11
(3) Short arm of chromosome 12
(4) Long arm of chromosome 12

14. Curling’s ulcer
(1) Stress ulceration after burn
(2) Stress ulceration after head trauma
(3) Stress ulceration after sepsis
(4) Stress ulceration after mechanical ventilation

15. Not true for Submucosal Tunneling Endoscopic Resection (STER) is
(1) Used for esophageal and gastric submucosal tumors.
(2) Used for tumors (< 3 cm) arising from muscularis propria.
(3) Technically more easy in cardia of stomach then distal stomach.
(4) Mucosal integrity is maintained.

16. D2 Lymph nodal dissection in gastric cancer includes
(1) Lymphadenectomy from station No. 1 to 7.
(2) Lymphadenectomy from station No. 1 to 9.
(3) Lymphadenectomy from station No. 1 to 12.
(4) Nodes in hepatico duodenal ligament.

17. Incubation period of bacillus Cereus is
(1) 4-6 hours
(2) 8-12 hours
(3) 14-16 Hours
(4) 18-20 hours

18. What indicate lactose Malabsorption after injection of 25 gram of lactose?
(1) Rise in breath hydrogen by 20 PPM at 180 minute
(2) Rise in breath hydrogen by 10 PPM at 180 minute
(3) Rise in breath hydrogen by 30 PPM at 180 minute
(4) Rise in breath hydrogen by 40 PPM at 180 minute
19. Maternal antibodies in newborn are maximally absorbed form
(1) Duodenum
(2) Jejunum
(3) Ileum
(4) Colon

20. Iron is actively absorbed mainly in
(1) Stomach
(2) Duodenum
(3) Jejunum
(4) Ileum

21. Highest frequency of BER (Basal Electrical Rhythm) is seen in which of the following?
(1) Stomach
(2) Duodenum
(3) Jejunum
(4) Ileum

22. Short bowel defined as
(1) Length of small bowel < 1000 cm
(2) Length of small bowel < 500 cm
(3) Length of small bowel < 200 cm
(4) Length of small bowel < 100 cm

23. Eggs with lateral spine are seen in
(1) S. Mansoni
(2) S. Japonicum
(3) S. Hematobium
(4) S. Intercalatus

24. All can cause secretory diarrhoea except
(1) Zollinger Ellisson syndrome
(2) Carcinoid syndrome
(3) Pancreatic insufficiency
(4) Vipomas

25. Which isotope is used in schilling test?
(1) Co$^{58}$ labelled cobalamine
(2) Co$^{68}$ labelled cobalamine
(3) Co$^{78}$ labelled cobalamine
(4) Co$^{88}$ labelled cobalamine

26. Which of the following statement about tropheryma whipplei is false?
(1) Gram positive
(2) Acino bacterium
(3) Low virulence and low infectivity
(4) PAS positive macrophages in small intestine

27. Adherence to colonic Mucin by E. Histolytica trophozoite is mediated by
(1) Galactose – acetylgalactosamine – Specific lectin.
(2) Galactose – acetylgalactosamine – Specific pectin
(3) Galactose – acetylgalactosamine – Specific trypsin
(4) Galactose – acetylgalactosamine – Specific capsin
28. Which of the following hormone has role in the treatment of short bowel syndrome?
   (1) GLP-2
   (2) VIP
   (3) Cholecystokinin
   (4) TSH

29. Soap bubble appearance on abdominal radiograph is associated with
   (1) Achlasia cardia
   (2) Melonium ileus
   (3) Duodenal atresia
   (4) Congenital hypertrophic pyloric stenosis

30. Which of the following statement is False for refractory celiac disease type 2?
   (1) Abnormal intraepithelial lymphocyte.
   (2) Clonal intraepithelial lymphocyte without CD3
   (3) Clonal intraepithelial lymphocyte with CD8
   (4) Higher risk of ulcerative jejunoileitis.

31. Diagnostic criteria for PRIMARY GI LYMPHOMA are all except
   (1) Absence of palpable peripheral lymphadenopathy
   (2) No mediastinal adenopathy on chest imaging
   (3) Abnormal peripheral smear
   (4) At laparotomy only involvement of GI tract or only the regional lymph node

32. Which of the following statement is False for LUBIPROSTATE?
   (1) Bicyclic fatty acid.
   (2) Chloride channel activator
   (3) Oral administration
   (4) Guanylate cyclase - agonist.

33. Relapse rate of Chron’s disease after 5 year of remission is
   (1) 25-30%
   (2) 40-50%
   (3) 70-80%
   (4) 85-95%

34. Germline mutation in one of the DNA mismatch repair (MMR) gene can lead to which of the following familial cancer syndrome:
   (1) Peutz-jeghers syndrome
   (2) Lynch syndrome
   (3) Familial adenomatous polyposis
   (4) Gardner’s syndrome
35. Adalimumab is a
(1) IgG4 Chimeric monoclonal Ab against TNF
(2) IgG4 recombinant human monoclonal Ab against TNF
(3) IgG4 Chimeric monoclonal Ab against TNF
(4) P75 TNF receptor fusion protein

36. Gene associated with innate immunity and autophagy are all except
(1) NOD2
(2) ATG16 LI
(3) IRGP
(4) NCF2

37. NOD2 gene is also known as
(1) CARD 11
(2) CARD 13
(3) CARD 15
(4) CARD 18

38. What percentage of ulcerative colitis patients have diffuse involvement?
(1) 10%
(2) 20%
(3) 30%
(4) 40%

39. Inherited polyposis syndrome are all except
(1) Gardner syndrome
(2) Turcot's syndrome
(3) Peutz-jeghers syndrome
(4) Cronkhite-Canada syndrome

40. Most common benign colorectal polyps are
(1) Tubular adenoma
(2) Tubulovillous
(3) Villous
(4) None of the above

41. NICE Classification for colon polyps is based on all of the following except:
(1) Color
(2) Vessel
(3) Surface pattern
(4) Size

42. Short chain fatty acids produced by bacteria are maximally absorbed in
(1) Duodenum
(2) Jejunum
(3) Ileum
(4) Colon
43. Collagenous sprue is defined as
   (1) Subepithelial collagen band thickness > 6 micromm
   (2) Subepithelial collagen band thickness > 8 micromm
   (3) Subepithelial collagen band thickness > 10 micromm
   (4) Subepithelial collagen band thickness > 16 micromm

44. Gold standard for confirmation of acute mesenteric artery occlusion is
   (1) Mesenteric angiography
   (2) Duplex ultrasound
   (3) MRI
   (4) CECT abdomen

45. Following probiotics have level 1 evidence in prevention of postoperative sepsis are except:
   (1) L. Acidophilus
   (2) L. Planatarum
   (3) Bifidobacterium longum 88
   (4) L. Rhamnosus GG

46. Collipase acts with
   (1) Lipoprotein lipase
   (2) Pancreatic lipase
   (3) Gastric lipase
   (4) Salivary lipase

47. What is the risk of pancreatic cancer in patient of chronic pancreatitis after 20 years?
   (1) 4-5%
   (2) 8-10%
   (3) 2-3%
   (4) 10-15%

48. Highest score of necrosis in CT severity index is
   (1) 1
   (2) 2
   (3) 6
   (4) 8

49. Which of the following abnormality is not included in the EUS criteria for chronic pancreatitis?
   (1) Main duct irregular
   (2) Visible side branches
   (3) Main duct dilation
   (4) Main duct not visible

50. In pancreatic exocrine insufficiency definite level of Fecal elastase activity is
   (1) <100 microgram per gram of stool
   (2) <200 microgram per gram of stool
   (3) <300 microgram per gram of stool
   (4) <400 microgram per gram of stool
51. Which of the following can decrease the incidence of ERCP induced pancreatitis?
(1) Glucose-insulin
(2) Steroids
(3) Octreotide
(4) Rectal indomethacin

52. SPINK1 inactivates how much trypsin activity?
(1) 10%
(2) 20%
(3) 30%
(4) 40%

53. Which bond is cleaved to form trypsin from trypsinogen?
(1) Lysine-Isoleucin bond
(2) Arginine-Threonine bond
(3) Arginine-Lysine bond
(4) Threonine-Lysine bond

54. BISAP Score for acute pancreatitis incorporates how many clinical and laboratory parameters?
(1) 3
(2) 5
(3) 7
(4) 9

55. Necrosis is present in what percentage of acute pancreatitis patients?
(1) 5-10
(2) 10-20
(3) 30-40
(4) 50-70

56. Which of the following mutation increases the risk of chronic pancreatitis?
(1) N 32 S SPINK-1
(2) N 33 S SPINK-1
(3) N 34 S SPINK-1
(4) N 35 S SPINK-1

57. Severe chronic pancreatitis according to Cambridge classification includes all except
(1) Large cavity >10 millimetre
(2) Duct obstruction
(3) Gross irregularity of main PD
(4) < 3 side branches abnormal

58. Purtschers retinopathy is due to occlusion of
(1) Anterior retinal vein
(2) Central retinal vein
(3) Posterior retinal artery
(4) Anterior retinal artery
59. Fusion of dorsal and ventral pancreatic duct begin in vitro by
   (1) 4 weeks
   (2) 7 weeks
   (3) 9 weeks
   (4) 12 weeks

60. Least common site for pancreatic rest
   (1) Ileum
   (2) Jejunum
   (3) Duodenum
   (4) Stomach

61. Most Common congenital anatomical variant of human pancreas is
   (1) Annular pancreas
   (2) Pancreatic divisum
   (3) Sphincter of Oddi disorder
   (4) Pancreatic duct stenosis

62. All are true about hereditary pancreatitis except
   (1) Autosomal recessive
   (2) 50-70 fold increased risk of pancreatic cancer
   (3) Pancreatic cancer in 4th decade
   (4) Autosomal dominant

63. Incidence of SPINK1 mutation in adult with idiopathic chronic pancreatitis are
   (1) 1-2%
   (2) 5-10%
   (3) 15-25%
   (4) 25-30%

64. A single fluid collection with gas in the pancreas is graded on CECT abdomen as
   (1) Grade B
   (2) Grade C
   (3) Grade D
   (4) Grade E

65. Following features are more common in IgG 4 associated cholangitis than primary sclerosing cholangitis except:
   (1) Segmental and long stricture with prestenotic dilatation
   (2) Steroid responsive
   (3) Stricture of distal common bile duct
   (4) Prunmed tree appearance

66. In spontaneous bacterial peritonitis Ascitic fluid PMN count is
   (1) >150 cells/mm³
   (2) >250 cells/mm³
   (3) >500 cells/mm³
   (4) >100 cells/mm³
67. University of Wisconsin solution is rich in
   (1) Lactobiotin
   (2) Raffinose
   (3) Sorbinose
   (4) Parabionate

68. How many Genotypes of Hepatitis b demonstrated till date?
   (1) 4
   (2) 6
   (3) 8
   (4) 10

69. All are derived from mesoderm except
   (1) Cholangiocytes
   (2) Sinusoids
   (3) Kupffer’s cell
   (4) Liver capsule

70. Which of the following cells are most responsible for host defence of pathogens?
   (1) Hepatocytes
   (2) Kupffer cells
   (3) Hepatic stellate cell with hepatocyte
   (4) Kupffer cells and sinusoidal endothelial cell

71. A patient develops hepatic artery thrombosis following liver transplantation which of the following structure is most likely to be damaged as a result of the thrombus?
   (1) Hepatocyte in zone 3
   (2) Central vein
   (3) Bile duct
   (4) Sinusoidal endothelial cell

72. Which of the following causes microsteatosis except?
   (1) Acute fatty liver of pregnancy
   (2) Reye’s syndrome
   (3) Alcohol
   (4) Valproic acid

73. Which of the following variable correlates least with patients risk of hemorrhage from esophageal varices?
   (1) Size of varices
   (2) Number of varices
   (3) HVPG >12 mmHg
   (4) Child C decomp cirrhosis

74. All are true about acute fatty liver of pregnancy except
   (1) Occurs in second half of pregnancy
   (2) Defect in mitochondrial oxidation
   (3) Hyperammonemia
   (4) Hyperglycemia
75. True about obeticholic acid is except
   (1) Derivative of chenodeoxycholic acid
   (2) Ligand for the farsenoid X receptors
   (3) Potency is 10 times than CDC
   (4) Pruritus is common side effect

76. UDP glucoronosyl transferase (UGT) that conjugate bilirubin belongs to which UGT family?
   (1) UGT
   (2) UGT
   (3) UGT
   (4) UGT

77. Lucey-Driscoll syndrome is related to
   (1) UGT, A inhibitor in breast milk
   (2) UGT, A inhibitor in maternal serum
   (3) Low UGT, A at birth
   (4) All of the above

78. Mutation in which of following gene produce the benign recurrent intrahepatic cholestasis of pregnancy?
   (1) FIC
   (2) MRP
   (3) NTCP
   (4) ABC

79. Smallest viral genome is of hepatitis
   (1) A
   (2) B
   (3) C
   (4) E

80. Which of the following is not a major Serotype of HBV?
   (1) add
   (2) adw
   (3) ayr
   (4) ayw

81. SOFOSBUVIR is best related to which of the following?
   (1) NS, Protease inhibitor
   (2) NS5A Inhibitor
   (3) NS5B Nucleotide inhibitor
   (4) NS5B Non-nucleotide inhibitor

82. Drugs safe with any degree of renal failure with HCV infection
   (1) Glecaprevir
   (2) Sofosbuvir
   (3) Boceprevir
   (4) Simeprevir

83. All of the following drugs are NS5A inhibitor except:
   (1) Daclatasvir
   (2) Ledipasvir
   (3) Pibrentavir
   (4) Glecaprevir
84. Acetaminophen hepatotoxicity is due to
(1) Electrophilic arene oxide
(2) Nitrous oxide
(3) NAPOI
(4) Arachidonic acid

85. Type 2 autoimmune hepatitis is associated with which HLA haplotype?
(1) HLA-DRB1
(2) HLA-DRB2
(3) HLA-DRB3
(4) HLA-DRB4

86. In METAVIR fibrosis score portal Fibrosis with few Septa are seen in
(1) F0
(2) F1
(3) F2
(4) F3

87. Total score in NAZER prognostic index for Wilson’s disease is
(1) 4
(2) 8
(3) 12
(4) 18

88. King’s college criteria of liver failure for Non Paracetamol etiology are all except
(1) Age > 40 years
(2) Bilirubin > 17.6 mg/dl
(3) pH < 7.5
(4) PT > 50 seconds

89. All are features of SCHISTOSOMIASIS except
(1) Pipe stem fibrosis
(2) Presinusoidal hypertension
(3) Early Encephalopathy
(4) No ascitis

90. Advantage of Plug Assisted Retrograde Transvenous Obliteration (PARTO) over Ballon Retrograde Transvenous Obliteration (BRTO) are all except
(1) Less procedural complication
(2) Increase procedure time
(3) Obliteration of large diameter shunts
(4) None of the above

91. Von Meyenburg complex is
(1) Carolis disease
(2) Bile duct hamartomas
(3) Liver metastasis
(4) Extrahepatic biliary atresia
92. Total bile acid pool in normal healthy person is
   (1) 1-2 grams
   (2) 2-4 grams
   (3) 5-7 grams
   (4) 8-10 grams

93. Secondary bile acids are produced in the
   (1) Liver
   (2) Bile duct
   (3) Small intestine
   (4) Portal vein

94. Cholangiopancreatography used for
   (1) Managing difficult stone, strictures
   (2) Drainage of peripancreatic fluids
   (3) Evaluation of pancreatic cysts
   (4) All of the above

95. Which is not lumen opposing metal stent (LAMS)?
   (1) Axios
   (2) Nagi
   (3) Spaxus, Hanaro
   (4) Polystyx

96. Brown gall stones are associated with
   (1) Chronic haemolysis
   (2) Cirrhosis
   (3) Chronic bacterial infection
   (4) Gilbert syndrome

97. In the lithogenic state, the cholesterol level in bile can be
   (1) 8-10%
   (2) 4-5%
   (3) 10-15%
   (4) 15-20%

98. All of them shows false positive HIDA scan except
   (1) Severe Hyperbilirubinemia
   (2) Incomplete cystic duct obstruction
   (3) TPN
   (4) Prior biliary sphincterotomy

99. All of the following are indication for cholecystectomy except:
   (1) Calcification in the gallbladder
   (2) Prolonged TPN
   (3) Asymptomatic gallstone in a native American
   (4) Asymptomatic 8 mm stone in the bile duct

100. Bile flow in the duodenum occurs during which phase of the MMC?
    (1) Phase I
    (2) Phase II
    (3) Phase III
    (4) In all phases
101. Parasite causing intraductal biliary obstruction
   (1) Ascaris Lumbricoides
   (2) Clonorchis Sinensis
   (3) Opisthorchis
   (4) All of the above

102. Nucleating factor for Cholesterol monohydrate crystals is
   (1) Mucin
   (2) Apolipoprotein A1
   (3) Apolipoprotein A11
   (4) All of the above

103. Which one is phospholipid export pump in bile canalculus?
   (1) Multidrug Resistant 1 (MDR1)
   (2) Multidrug Resistant 2 (MDR2)
   (3) Multidrug Resistant 3 (MDR3)
   (4) Multidrug Resistance 4 (MDR4)

104. During pregnancy gallbladder sludge develops in what proportion of women?
   (1) 2-3%
   (2) 5-6%
   (3) 10-20%
   (4) 20-30%

105. Most common site of gallbladder cancer is
   (1) Fundus
   (2) Body
   (3) Neck
   (4) Diffuse

106. Most common HLA association of primary sclerosing cholangitis patients with elevated IGG4 is
   (1) HLA B08
   (2) HLA DRB11:02
   (3) HLA B07
   (4) HLA DRB13:01

107. Basal Metabolic Rate (BMR) represents what percentage of Total Energy Expenditure (TEE)?
   (1) 20
   (2) 50
   (3) 70
   (4) 90

108. Half-Life of Transferrin is
   (1) 2 days
   (2) 5 days
   (3) 7 days
   (4) 9 days
109. One gram of urinary nitrogen represents the catabolism of how much lean mass?
(1) 10 gram
(2) 20 gram
(3) 30 gram
(4) 40 gram

110. Which one is not a metabolic complications of TPN (Total Parenteral Nutrition)?
(1) Hypoglycemia
(2) Hyper ammonemia
(3) Hypercalcemia
(4) Hypokalemia

111. Quetlet’s index is used to calculate
(1) BMR (Basal Metabolic Rate)
(2) BMI (Body Mass Index)
(3) TEE (Total Energy Expenditure)
(4) Thermic effect of feeding

112. Delayed Centripetal Contrast Enhancement on CECT abdomen is seen with
(1) Hemangioma liver
(2) HCC
(3) Metastasis
(4) Hepatic cyst

113. Linear filling defects on ERCP is characteristic of
(1) Bile duct stone
(2) Pancreatic- duct stone
(3) Worm in biliary tree
(4) Stricture

114. Best investigation to diagnose hydatid cyst in liver is
(1) USG Whole abdomen
(2) CECT whole abdomen
(3) MRI
(4) MRCP

115. ‘Chain of lake appearance’ is seen in
(1) Acute pancreatitis
(2) Chronic pancreatitis
(3) Ca head of pancreas
(4) Traumatic pancreatitis

116. ‘Sunburst’ appearance on CECT of pancreas is seen in
(1) Acute pancreatitis
(2) Chronic pancreatitis
(3) Serous cystadenoma of pancreas
(4) Pancreatic adenocarcinoma
117. Reversal of Superior Mesenteric Artery & Superior Mesenteric Vein relationship seen in
(1) Mid gut volvulus
(2) Duodenal atresia
(3) Annular pancreas
(4) Ileal atresia

118. Contraindication for TIPS are all except
(1) Pulmonary artery hypertension
(2) Polycystic liver
(3) Recurrent hepatic encephalopathy
(4) MELD score > 12

119. Which embolic material should be avoided in trans catheter embolization?
(1) Stainless steel coils
(2) Gelfoam powder
(3) Polyvinyl alcohol particle
(4) Trisacryl gelatin micro sphere

120. On Arteriogram how much bleeding rate can be detected?
(1) 0.2 ml per minute
(2) 0.5 ml per minute
(3) 0.7 ml per minute
(4) 0.9 ml per minute

121. In photodynamic therapy photosensitizer can be activated by which light?
(1) Blue
(2) Green
(3) Red
(4) Yellow

122. In Gastric Antral Vascular Ectasia (GAVE) lesions are ablated at argon gas flow rate of
(1) 1-2 litre per minute
(2) 2-3 litre per minute
(3) 3-4 litre per minute
(4) 4-5 litre per minute

123. True about 2 octyl cyano acrylate are all except
(1) Has longer ester chain linked to the main compound
(2) Injected undiluted
(3) Less volume required in comparison n butyl 2 cyano acrylate
(4) Injection catheter is primed with normal saline

124. For diagnosis of IPMN (Intra Papillary Mucinous Neoplasm) which investigation is better?
(1) USG whole abdomen
(2) CECT
(3) ERCP
(4) MRCP

125. Accuracy of MRCP in diagnosis of pancreatic divisum is
(1) 75%
(2) 85%
(3) 95%
(4) 100%
126. Indication of capsule endoscopy are all except
(1) Crohn’s disease
(2) Recurrent iron deficiency anaemia
(3) Recurrent abdominal pain with diarrhea
(4) Small intestine obstruction

127. Length of Sonde enteroscope is
(1) 160 Centimetres
(2) 200 Centimetres
(3) 270 Centimetres
(4) 300 Centimetres

128. Advantage of single balloon enteroscope over double balloon enteroscope is
(1) High image resolution
(2) Improve insertability
(3) Support for NBI
(4) All of the above

129. For subepethelial lesions by EUS which statement is false?
(1) Leiomyoma 2nd or 4th layer, hypoechoic
(2) Lipoma-hypochoic
(3) GIST from 4th layer and hypoechoic
(4) Anechoic, round or oval (3 or 5 layers walls suggest duplication cyst)

130. Not true about pancreas EUS features is
(1) Metastatic lymph nodes will usually be round, well defined, hypoechoic.
(2) Metastatic lymphnodes are at least 5 mm in diameter
(3) Most common metastasis in pancreas from RCC.
(4) In Elastography, malignant lesions are red in color then normal adjacent tissue.

131. False for CE-EUS features is
(1) Ductal adenocarcinoma is hypoenhancing in all phases.
(2) Neuroendocrine tumors are hyperenhancing masses.
(3) Focal mass-forming pancreatitis and autoimmune pancreatitis have stronger enhancement.
(4) Septal enhancement is not helpful in diagnosis of mucinous neoplasm.

132. In EUS guided hepaticogastostomy which liver segment ducts are punctured?
(1) Segment 3
(2) Segment 4
(3) Segment 5
(4) Segment 8
133. The most common complication of celiac ganglia neurolysis is
(1) Hypotension
(2) Diarrhoea
(3) Abdomen pain
(4) Injury to left adrenal artery

134. True about celiac ganglia injection is
(1) Bupivacaine is injected first, followed by alcohol for neurolysis
(2) Bupivacaine is injected first, followed by triamcinolone for block.
(3) Both (1) & (2)
(4) 25 g EUS needle is usually used

135. Features of IPMN (Intra Ductal Pappillary Mucinous Neoplasm) on EUS are all except
(1) Dilated MPD or side branches
(2) Mural nodules
(3) High viscosity fluid
(4) Bland glycogen positive cuboidal cells

136. Difference between Serous (SCA) and Mucinous Cystic Neoplasm (MCN) are all except.
(1) MCN less common in body and tail
(2) Multiple small cysts in SCA and septations, papillary projections in MCN.
(3) High CEA in MCN and low CEA in SCA.
(4) Cyst fluid glucose may be high in MCN.

137. Which of the following is type 2(a) small bowel vascular lesion according to yano-yomamoto endoscopic classification?
(1) Punctate erythema < 1 mm with or without oozing.
(2) Patchy erythema few mm with or without oozing.
(3) Punctate lesion < 1 mm with pulsatile bleeding.
(4) Pulsatile red protusion with surrounding venous dilatation

138. In PILICAM oesophagus images are captured at the rate of
(1) 4 frames per second
(2) 14 frames per second
(3) 20 frames per second
(4) 24 frames per second

139. In EUS guided FNAC, advancement of needle dependent on
(1) Wall parameter
(2) Lesion parameter
(3) Vessel parameter
(4) All of the above

140. Radial Echoendoscope have the ability to switch frequency from
(1) 5-20 megahertz
(2) 20-30 megahertz
(3) 30-40 megahertz
(4) more than 40 megahertz
141. SIBO (Small Intestinal Bacterial Overgrowth) diagnosis is established by jejunal culture of bacteria more than
   (1) $> 10^3 \text{ CFU/ml}$
   (2) $> 10^5 \text{ CFU/ml}$
   (3) $> 10^7 \text{ CFU/ml}$
   (4) $> 10^9 \text{ CFU/ml}$

142. What is symbiont?
   (1) Any pathological organism
   (2) Live microorganism provides health benefits
   (3) Non-digestible compound
   (4) Any organism participating in mutually beneficial relationship

143. Recurrence rate after intestinal microbial transplant in refractory Clostridium difficile infection is
   (1) 5-6%
   (2) 8-10%
   (3) 12-15%
   (4) 15-20%

144. Response rate of Intestinal Microbial Transplant (IMT) in refractory Clostridium difficile infection is
   (1) 30-40%
   (2) 50-60%
   (3) 60-75%
   (4) 80-95%

145. What is true about metagenomics?
   (1) Whole genomic sequencing
   (2) Short genomic sequencing
   (3) Allows characterization of all gene in a microbial community
   (4) Provide the specific functionality under a given set of conditions

146. Clinical features of Prader will syndrome are all except
   (1) Obesity
   (2) Mental retardation
   (3) Genital hypoplasia
   (4) Retinitis pigmentosa

147. In which endoscopic balloon for treatment of obesity gas is filled
   (1) Orbera gastric balloon
   (2) Reshape duo
   (3) Spatz balloon
   (4) Obalon balloon

148. Endoscopic sleeve gastrectomy started from which area of stomach?
   (1) Anterior wall of distal stomach
   (2) Posterior wall of distal stomach
   (3) Anterior wall of proximal stomach
   (4) Posterior wall of distal stomach
149. In Reshape duo intragastric balloon sealing after inflation is complete, is done with how much Mineral oil?
   (1) 2 ml
   (2) 4 ml
   (3) 6 ml
   (4) 8 ml

150. Name of endoscopic aspiration therapy device for obesity is
   (1) King’s Assist
   (2) Aspire Assist
   (3) Austin Assist
   (4) Appolo Assist

151. Inhibitors of food intake are all except
   (1) GLP-I
   (2) Peptide YY
   (3) Panc. Polypeptide
   (4) Neuropeptide Y

152. Lorcanerin is
   (1) Serotonin 2c receptor agonist
   (2) GLP analogue
   (3) Dopamine reuptake inhibitor
   (4) Nor epinephrine reuptake inhibitor

153. Which of the following bariatric procedure induce weight loss by malabsorption and restriction of food?
   (1) Adjustable gastric band
   (2) Sleeve gastrectomy
   (3) Roux and Y gastric by pass
   (4) Duodenal switch

154. POEM treatment of achalasia cardia false is
   (1) Abnormal esophageal acid exposure occurs at equal rates after either anterior or posterior approach.
   (2) Post-POEM GER related to gastric myotomy.
   (3) Theoretically decreased risk of bleeding in posterior approach.
   (4) Anterior approach is less effective.

155. G-POEM not true is
   (1) For refractory gastroparesis
   (2) Benefit patients with abdominal pain or bloating
   (3) Benefit patients with nausea and vomiting
   (4) Pylorus directed therapy
156. During the G1 phase of cell cycle which cyclin is most active?
   (1) A
   (2) B
   (3) C
   (4) D

157. In Colom cancer which genetic/epigenetic instability is present?
   (1) Chromosomal instability
   (2) Micro satellite instability
   (3) CPG island methylator phenotype
   (4) All of above

158. According to Catalog of Somatic Mutations in Cancer (COSMIC), approximate how many oncogenes are involved in cancer?
   (1) 60
   (2) 70
   (3) 80
   (4) 90

159. Highest Frequency of K-ras oncogene mutation is found in which malignancy?
   (1) Exocrine pancreas
   (2) Colon
   (3) Small intestine
   (4) Stomach

160. Daily production of IgA in humans
   (1) 1-2 gram per day
   (2) 3-5 grams per day
   (3) 6-8 grams per day
   (4) 9-10 grams per day

161. PANETH cell reside in which part of crypts in small intestine?
   (1) Upper part
   (2) Middle parts
   (3) Base
   (4) Diffuse

162. TUFT epithelial cell increased in which infection?
   (1) Bacterial
   (2) Fungal
   (3) Viral
   (4) Parasite

163. At what age of infant oral tolerance can be induced?
   (1) At Birth
   (2) 3 months
   (3) 6 months
   (4) 9 months

164. Example of multipotent stem cell is
   (1) Germ cell stem cell
   (2) Hemopoietic stem cell
   (3) First few cell division of zygote
   (4) None of the above
165. Tumor suppressor gene p53 only induces cell cycle arrest in 
   (1) G2-M 
   (2) S-G2 
   (3) G1-S 
   (4) G0 phase 

166. Drug used for treatment of refractory adenocarcinoma esophagus is 
   (1) Adalizumab 
   (2) Sertolizumab 
   (3) Pembrolizumab 
   (4) Pertolizumab 

167. Which biopsy protocol is used to take biopsy in barren’s oesophagus? 
   (1) Marsh 
   (2) Dawn 
   (3) Seattle 
   (4) Somoyo 

168. Endoscopic management of GERD (Gastro Esophageal Reflux Disease) includes all except 
   (1) Endoscopic Full Thickness Resection (EFTR) 
   (2) Antireflux Mucosectomy (ARMS) 
   (3) Trans Oral Incisionless Fundoplication (TIF) 
   (4) Medigus Ultrasonic Surgical Endostapler (MUSE) 

169. According to Los Angeles Classification of GERD (gastro esophageal reflux disease) presence of Barrett’s oesophagus will grade it as 
   (1) B 
   (2) C 
   (3) D 
   (4) None 

170. Esophageal Peristalsis is best studied in 
   (1) Recumbent 
   (2) Upright 
   (3) Lateral 
   (4) Head down 

171. LES pressure is decreased by 
   (1) Gastrin 
   (2) Motilin 
   (3) VIP 
   (4) Substance P 

172. BING criteria can be used to predict the presence or absence of dysplasia in 
   (1) Colon polyps 
   (2) Barret’s oesophagus 
   (3) Gastric polyps 
   (4) All of the above
173. For Endoscopic Mucosal Resection / Endoscopic Submucosal Dissection (EMR/ESD) false statement is
(1) Endoscopic resection is the standard treatment for m1 or m2 tumors.
(2) Paris type 0 – II lesion are ideal indication for endoscopic treatment.
(3) Types 0 – IIa, 0 – IIb, and 0 – IIc are suitable for endoscopic treatment.
(4) ESD can be done for sm1 lesion, GI-2 tumors, L0 and V0 and size <3 cm.

174. Which of the following is false about Zenker’s diverticulum?
(1) Cause halitosis
(2) Nasogastric intubation may cause perforation
(3) Occurs below the Killian’s triangle
(4) Treated by cricopharyngeal myotomy

175. Multiple esophageal mucosal rings are characteristic of
(1) Eosinophilic esophagitis
(2) Radiation esophagitis
(3) Corrosive esophagitis
(4) Candidial esophagitis

176. What is normal integrated relaxation pressure on esophageal manometry?
(1) < 5 mm Hg
(2) < 10 mm Hg
(3) < 15 mm Hg
(4) < 25 mm Hg

177. For diagnosis of Eosinophilic esophagitis, eosinophils per HPF should be
(1) 0-5
(2) 6-9
(3) 10-14
(4) 15 or more

178. Which one is alkali corrosive?
(1) Toilet cleaner
(2) Battery fluid
(3) Anti rust compound
(4) Drain openers

179. Which one is a contrast stain?
(1) Lugol’s Iodine
(2) Toluidine blue
(3) Methylene blue
(4) Indigo carmine

180. Which is the most common hiatus hernia type?
(1) Type 1
(2) Type 2
(3) Type 3
(4) Type 4