

परीक्षा तिथि - 13.08.2020

परीक्षा समय - 9:00 To 12:00

5203077

पुस्तिका में पृष्ठों की संख्या : 24
Number of Pages in Booklet : 24

पुस्तिका में प्रश्नों की संख्या : 180
No. of Questions in Booklet : 180

प्रश्न-पत्र पुस्तिका संख्या /
Question Paper Booklet No.

SSAPMg-02

Paper Code : 23

SUBJECT : Medical Gastroenterology

समय : 3.00 घण्टे
Time : 3.00 Hours

सहायक आचार्य (Sup. Spec) (Med. Edu.) स्वीका परीक्षा - 2020
अधिकतम अंक : 180
Maximum Marks : 180

प्रश्न-पत्र पुस्तिका एवं उत्तर पत्रक के पेपर सील/पोलिथीन बैग को खोलने के बाद परीक्षार्थी प्रश्न-पत्र पुस्तिका संख्या को उत्तर पत्रक पर सावधानीपूर्वक अंकित करें। इसमें किसी भी प्रकार की त्रुटि होने पर जिम्मेदारी अभ्यर्थी की होगी।
The candidate fill the Question Paper Booklet No. on Answer Sheet carefully after opening the Paper Seal / Polythene bag. Candidate himself shall be responsible for any error.

परीक्षार्थियों के लिए निर्देश

1. सभी प्रश्नों के उत्तर दीजिए।
2. सभी प्रश्नों के अंक समान हैं।
3. प्रत्येक प्रश्न का केवल एक ही उत्तर दीजिए।
4. एक से अधिक उत्तर देने की दशा में प्रश्न के उत्तर को गलत माना जाएगा।
5. प्रत्येक प्रश्न के चार वैकल्पिक उत्तर दिये गये हैं, जिन्हें क्रमशः 1, 2, 3, 4 अंकित किया गया है। अभ्यर्थी को सही उत्तर निर्दिष्ट करते हुए उनमें से केवल एक गोले अथवा बबल को उत्तर पत्रक पर नीले बॉल प्वाइंट पेन से गहरा करना है।
6. OMR उत्तर पत्रक इस परीक्षा पुस्तिका के अन्दर रखा है। जब आपको परीक्षा पुस्तिका खोलने को कहा जाए, तो उत्तर-पत्र निकाल कर ध्यान से केवल नीले बॉल प्वाइंट पेन से विवरण भरें।
7. प्रत्येक गलत उत्तर के लिए प्रश्न अंक का 1/3 भाग काटा जायेगा। गलत उत्तर से तात्पर्य अशुद्ध उत्तर अथवा किसी भी प्रश्न के एक से अधिक उत्तर से है। किसी भी प्रश्न से संबंधित गोले या बबल को खाली छोड़ना गलत उत्तर नहीं माना जायेगा।
8. मोबाइल फोन अथवा इलेक्ट्रॉनिक यंत्र का परीक्षा हॉल में प्रयोग पूर्णतया वर्जित है। यदि किसी अभ्यर्थी के पास ऐसी कोई वर्जित सामग्री मिलती है तो उसके विरुद्ध आयोग द्वारा नियमानुसार कार्यवाही की जायेगी।
9. कृपया अपना रोल नम्बर ओ.एम.आर. पत्रक पर सावधानीपूर्वक सही भरें। गलत अथवा अपूर्ण रोल नम्बर भरने पर 5 अंक कुल प्राप्तांकों में से काटे जा सकते हैं।

चेतावनी : अगर कोई अभ्यर्थी नकल करते पकड़ा जाता है या उसके पास से कोई अनधिकृत सामग्री पाई जाती है, तो उस अभ्यर्थी के विरुद्ध पुलिस में प्राथमिकी दर्ज कराते हुए विविध नियमों-प्रावधानों के तहत कार्यवाही की जाएगी। साथ ही विभाग ऐसे अभ्यर्थी को भविष्य में होने वाली विभाग की समस्त परीक्षाओं से विवर्जित कर सकता है।

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 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.

इस परीक्षा पुस्तिका को तब तक न खोलें जब तक कहा न जाए।
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) Vilazodome
 - (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) Kevetiracetam
 - (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. Verioliiform gastritis best refers to
- (1) Lymphocytes gastritis
 - (2) Neutrophilic gastritis
 - (3) Eosinophilic gastritis
 - (4) Sarcoidosis 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 than distal stomach.
 - (4) Mucosal integrity is maintained.
16. D2 Lymph node 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 hepaticoduodenal 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 from
- (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) Co⁵⁸ labelled cobalamine
 - (2) Co⁶⁸ labelled cobalamine
 - (3) Co⁷⁸ labelled cobalamine
 - (4) Co⁸⁸ 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) IgG₁ Chimeric monoclonal Ab against TNF
 - (2) IgG₁ 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) Octriotide
 - (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 heredity 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) Pruned tree appearance
66. In spontaneous bacterial peritonitis Ascitic fluid PMN count is
- (1) $>150 \text{ cells/mm}^3$
 - (2) $>250 \text{ cells/mm}^3$
 - (3) $>500 \text{ cells/mm}^3$
 - (4) $>100 \text{ cells/mm}^3$



67. University of Wisconsin solution is rich in
- (1) Lactobiotin
 - (2) Raffinose
 - (3) Sobrinose
 - (4) Parobionate
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) Kuppfer'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) Valproicacid
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 CDCA
 - (4) Pruritus is common side effect
76. UDP glucuronosyl transferase (UGT) that conjugate billirubin belongs to which UGT family ?
- (1) UGT₁
 - (2) UGT₂
 - (3) UGT₃
 - (4) UGT₄
77. Lucey-Driscoll syndrome is related to
- (1) UGT₁ A₁ inhibitor in breast milk
 - (2) UGT₁ A₁ inhibitor in maternal serum
 - (3) Low UGT₁ A₁ at birth
 - (4) All of the above
78. Mutation in which of following gene produce the benign recurrent intrahepatic cholestasis of pregnancy ?
- (1) FIC₁
 - (2) MRP₂
 - (3) NTCP
 - (4) ABCC₂

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) NS₃ 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 < 7.3
 - (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) Polyflex
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) Ascariasis 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 canaliculus ?
- (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 Mesentric Artery & Superior Mesentric 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 photo sensitizer 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 subepithelial lesions by EUS which statement is false ?

- (1) Leiomyoma 2nd or 4th layer, hypoechoic
- (2) Lipoma-hypoechoic
- (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) $> 10^3$ CFU/ml
- (2) $> 10^5$ CFU/ml
- (3) $> 10^7$ CFU/ml
- (4) $> 10^9$ CFU/ml

142. What is symbiont ?

- (1) Any pathological organism
- (2) Live micro organism 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. Lorcaserin 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 Colon cancer which genetic/epigenetic instability is present ?

- (1) Chromosomal instability
- (2) Micro satellite instability
- (3) CPG island methylator pheno type
- (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) Hemopoetic 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 (Gatro 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 (*gatro 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 – III 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 lesions, G1-2 tumors, L0 and V0 and size < 3 cm.

174. Which of the following is false about Zenkers 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 mmHg
- (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

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