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Test Booklet Series

T. B. C. : AP - 17 - 17/18



## TEST BOOKLET

ASSISTANT PROFESSOR IN O.M.E.S. Sl. No. 1888

(SURGERY)

Time Allowed : 3 Hours

Maximum Marks : 200

### : INSTRUCTIONS TO CANDIDATES :

1. IMMEDIATELY AFTER THE COMMENCEMENT OF THE EXAMINATION, YOU SHOULD CHECK THAT THIS TEST BOOKLET DOES NOT HAVE ANY UNPRINTED OR TORN OR MISSING PAGES OR ITEMS ETC. IF SO, GET IT REPLACED BY A COMPLETE TEST BOOKLET OF THE SAME SERIES ISSUED TO YOU.
2. ENCODE CLEARLY THE TEST BOOKLET SERIES A, B, C OR D, AS THE CASE MAY BE, IN THE APPROPRIATE PLACE IN THE ANSWER SHEET USING BALL POINT PEN (BLUE OR BLACK).
3. You have to enter your Roll No. on the Test Booklet in the Box provided alongside. DO NOT write anything else on the Test Booklet.
4. YOU ARE REQUIRED TO FILL UP & DARKEN ROLL NO., TEST BOOKLET / QUESTION BOOKLET SERIES IN THE ANSWER SHEET AS WELL AS FILL UP TEST BOOKLET / QUESTION BOOKLET SERIES AND SERIAL NO. AND ANSWER SHEET SERIAL NO. IN THE ATTENDANCE SHEET CAREFULLY. WRONGLY FILLED UP ANSWER SHEETS ARE LIABLE FOR REJECTION AT THE RISK OF THE CANDIDATE.
5. This Test Booklet contains 200 items (questions). Each item (question) comprises four responses (answers). You have to select the correct response (answer) which you want to mark (darken) on the Answer Sheet. In case, you feel that there is more than one correct response (answer), you should mark (darken) the response (answer) which you consider the best. In any case, choose **ONLY ONE** response (answer) for each item (question).
6. You have to mark (darken) all your responses (answers) **ONLY** on the separate Answer Sheet provided by using **BALL POINT PEN (BLUE OR BLACK)**. See instructions in the Answer Sheet.
7. All items (questions) carry equal marks. All items (questions) are compulsory. Your total marks will depend only on the number of correct responses (answers) marked by you in the Answer Sheet. **There will be no negative markings for wrong answers.**
8. Before you proceed to mark (darken) in the Answer Sheet the responses to various items (questions) in the Test Booklet, you have to fill in some particulars in the Answer Sheet as per the instructions sent to you with your **Admission Certificate**.
9. After you have completed filling in all your responses (answers) on the Answer Sheet and after conclusion of the examination, you should hand over to the Invigilator the Answer Sheet issued to you. You are allowed to take with you the candidate's copy / second page of the Answer Sheet along with the Test Booklet, after completion of the examination, for your reference.
10. Sheets for rough work are appended in the Test Booklet at the end.

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SEAL

1. An 24yr female a k/c/o steroid resistant ITP underwent a laparoscopic splenectomy. She developed fever on POD3 associated with chills and rigors. The most common finding on investigation would be.
  - (A) Intrabdominal collection on USG
  - (B) Pus cells on urine R/M
  - (C) Left lower zone consolidation on CXR
  - (D) Port site infection
2. A 60yr old male developed progressively increasing jaundice associated with pruritus and clay coloured stools for the last 2 months. There was also h/o malena and waxing and waning of the jaundice. A CECT abdomen showed a dilation of both CBD and MPD the most probable diagnosis would be :
  - (A) Chronic pancreatitis
  - (B) Ca Head of Pancreas
  - (C) Cholangiocarcinoma
  - (D) Ampullary Ca
3. A 30yr old female presented to the surgical OPD with a STM. The FNAC revealed a follicular variant of papillary carcinoma in the right lobe of Thyroid. The best treatment option is :
  - (A) Hemithyroidectomy + Radioiodine thyroid ablation
  - (B) Subtotal thyroidectomy + Radioiodine thyroid ablation
  - (C) Total thyroidectomy followed by full body radionuclide scan after 4 weeks and ablation of any residual thyroid tissue
  - (D) Radioiodine ablation of thyroid
4. A 35 years old nulliparous female was found to have a 1 x 1cm lump in the UOQ of right breast with single enlarged mobile ipsilateral axillary lymph node. FNAC showed ductal carcinoma. On mammography a BIRADS 5 lesion was seen in UOQ of right breast with multiple areas of microcalcifications in the right breast. The best treatment option for this patient would be :
  - (A) Neoadjuvant chemotherapy with radiotherapy
  - (B) Hormonal therapy
  - (C) WLE with axillary clearance and brachytherapy followed by adjuvant chemo-radiotherapy
  - (D) MRM followed by adjuvant chemo-radiotherapy
5. A 50 year old female underwent laparoscopic cholecystectomy for gall stone disease and on final histopath was incidentally detected to have adenocarcinoma gall bladder T1a. The best further management option would be :
  - (A) Close follow up
  - (B) Completion radical cholecystectomy
  - (C) Right hepatectomy
  - (D) Adjuvant chemo-radiotherapy

6. A 20 year old woman at 32 weeks of gestation is stabbed in the right chest. In the ED her BP is 80/60 mm of Hg. She is gasping for breath, extremely anxious and yelling for help. Breath sounds are diminished on right side. The most appropriate first step would be :
  - (A) Perform tracheal intubation
  - (B) Insert a oropharyngeal airway
  - (C) Perform needle decompression of right chest
  - (D) Initiate 2 large calibre peripheral lines and crystalloid solution
7. A 55 years old male ,a chronic smoker, presented to the surgical OPD with progressively increasing weakness and altered bowel habits. He was found to have aHb of 8.2mg/dl and his stools was positive for occult blood. He underwent a colonoscopy and was found to have aulceroproliferative growth in caecum biopsy from which was moderately differentiated adenocarcinoma. He underwent a right hemicolectomy. On final histopath the tumor was found to be poorly differentiated adenocarcinoma with trans mural infiltration. 2 out of 12 lymph nodes showed tumor deposits. The nest step in management would be :
  - (A) Close follow up
  - (B) Adjuvant radiotherapy
  - (C) Adjuvant chemotherapy with FOLFOX regimen
  - (D) Adjuvant chemotherapy with FOLFRI and bevacizumab
8. During TEP repair of right inguinal hernia a tackler was accidentally placed below the illiopubic tract laterally. Post opearatively the patient complained of pain and paraesthesia over the right thigh. The nerve most probably involved is :
  - (A) Obturator nerve
  - (B) Illioinguinal nerve
  - (C) Lateral cutaneous nerve of thigh
  - (D) Genitofemoral nerve
9. Following open cholecystectomy a 40 years old female developes-progressively increasing jaundice. On MRCP she was found to have a Bismuth Type II billiary stricture. The best treatment option will be :
  - (A) ERCP and stenting
  - (B) PTBD
  - (C) Rou en y hepaticojejunostomy
  - (D) Choledochodeudonostomy
10. Following a uneventful laparoscopic cholecystectomy, a 35 year old female had persistent pain in the post op period not responding to analegesic. Her pulse was 112 /min. abdominal examination revealed tenderness in the right hypo-chondrium. The epigastric port was opened and a drain placed which drained bile. The best management option would be :
  - (A) Masterly inactivity
  - (B) HIDA
  - (C) ERCP and papilotomy
  - (D) Re-laparoscopy

11. Which of the following is a scoring system for severity of wound infection and its particularly useful for surveillance and research ?
  - (A) AFGAR score
  - (B) Glasgow scoring system
  - (C) Southampton grading system
  - (D) ASA classification
12. Lymph node metastasis is a common feature with which variant of soft tissue sarcoma ?
  - (A) Fibrosarcoma
  - (B) Angiosarcoma
  - (C) Liposarcoma
  - (D) Neurofibrosarcoma
13. Which of the following is a muscle splitting incision ?
  - (A) Kochers
  - (B) Rutherford – Morris
  - (C) Pfannenstiel
  - (D) Lanz
14. Circulatory collapse occurs after what percent of burns of total body surface area :
  - (A) 5%
  - (B) 10%
  - (C) 15%
  - (D) 20%
15. The National Triage scale is an agreed method of triage for emergency department patients. A Pt categorised as NTS 4 should be seen by a medical officer :
  - (A) Within 30 mins
  - (B) Within 45 mins
  - (C) Within 60 mins.
  - (D) Within 80 mins
16. During Laparoscopic surgery, pneumoperitoneum usually results in a fall in the systemic blood pressure when intra abdominal pressure exceeds :
  - (A) 5 mm hg
  - (B) 10 mm hg
  - (C) 20 mm hg
  - (D) 30 mm hg
17. 30 years old man presented to the Emergency Department following a high speed motor vehicle accident. His blood pressure is 70/50, with a strongly positive eFAST . His chest X-ray shows a widened mediastinum. The most appropriate method to assess widened mediastinum in this pt is :
  - (A) Aortogram
  - (B) CT angiogram of the chest.
  - (C) Repeat chest X-ray
  - (D) Intraoperative trans esophageal echocardiography
18. Prolonged Trendelenburg positioning causes :
  - (A) No change in the intra cranial pressure
  - (B) No change in pulmonary venous pressure
  - (C) Increased myocardial work
  - (D) Increased pulmonary compliance

19. All of the following are true about neurogenic shock except :
- (A) There is a decrease in systemic vascular resistance and an increase in venous capacitance
  - (B) Tachycardia or bradycardia may be observed , along with hypotension
  - (C) The use of an alpha agonist such as phenylephrine is the mainstay of treatment
  - (D) Severe head injury, spinal cord injury, and high spinal anesthesia may all cause neurogenic shock
20. Which of the following are not determinants of post-operative cardiac complications ?
- (A) Myocardial infarct 4 months previously
  - (B) Clinical evidence of congestive heart failure in a patient with 8.5gm/dl haemoglobin
  - (C) Premature atrial or ventricular contractions on electrocardiogram
  - (D) Age over 70 years
21. The definition of Chronic Kidney Disease (CKD) stage V is :
- (A) GFR >90 ml/min
  - (B) GFR 60-90 ml/min
  - (C) GFR 15-29 ml/min
  - (D) GFR <15 ml/min
22. All are absolute indication to begin dialysis except :
- (A) Pulmonary edema resistant to diuretics
  - (B) Hyperkalemaia
  - (C) Severe uremic symptoms
  - (D) Sever metabolic alkalosis
23. The most common vascular access technique in patients with Chronic Kidney Disease (CKD) stage V is :
- (A) Brachiocephalic AV fistula
  - (B) Dominant hand radiocephalic AV fistula
  - (C) Non-dominant hand radiocephalic AV fistula
  - (D) Basilic vein Transposition
24. The minimum blood flow rate in a matured Radio-cephalic AV fistula to be used for haemodialysis is ?
- (A) 100 ml/min
  - (B) 200 ml/min
  - (C) 50 ml/min
  - (D) 300 ml/min
25. University of Wisconsin perfusion fluid contains all except :
- (A) Lactobionate and raffinose
  - (B)  $\text{KH}_2\text{PO}_4$
  - (C) Sodium and potassium
  - (D) Tryptophan
26. HLA is encoded on which chromosome :
- (A) Short arm chromosome 6
  - (B) Long arm chromosome 6
  - (C) Short arm chromosome 9
  - (D) Long arm chromosome 9

27. Major histocompatibility complex (MHC) includes genes that encode all of the following except :
- (A) HLA - A
  - (B) HLA - L
  - (C) HLA - DR
  - (D) TAP - 1
28. The correct terminology for a graft between genetically non identical members of the same species is :
- (A) Allogenic
  - (B) Autogeneic
  - (C) Isogeneic
  - (D) Xenogenic
29. Which of the following conditions would NOT fulfil the criteria for brain death ?
- (A) Absence of brain - stem reflexes
  - (B) No response to painful stimuli in all four extremities
  - (C) Absence of electroencephalographic activity in a sedated patient
  - (D) Absence of blood flow on brain scan
30. Which of the following characteristics is NOT a component of the current definition of an expanded criteria donor ?
- (A) History of hypertension
  - (B) History of diabetes mellitus
  - (C) Cerebrovascular accident as the cause of death
  - (D) Age >60 years
31. The correct sequence of organ harvesting in multiorgan retrieval from a brain dead donor is :
- (A) Liver > kidney > heart > cornea
  - (B) Cornea > liver > kidney > heart
  - (C) Heart > liver > kidney > cornea
  - (D) Kidney > heart > liver > cornea
32. During a recipient procedure the right external iliac artery is found to be of a poor calibre. The next best option for arterial anastomosis will be :
- (A) Right common iliac artery
  - (B) Right internal iliac artery
  - (C) Abdominal aorta
  - (D) Abandon procedure and place kidney on left side
33. Which of the following statements about allograft rejection are true ?
- (A) In the absence of immuno-suppression, the time and intensity of rejection of transplants between unrelated donors and recipients is highly variable
  - (B) Allograft rejection may be mediated by antibodies or by cells
  - (C) Allograft rejection is thought to be caused by Th2 cells.
  - (D) An individual with "tolerance" is unable to reject an allograft

34. One week after receiving a cadaver renal allograft, the recipient remains oliguric and dialysis dependent. Ultrasonography reveals a larger perigraft fluid collection. Your next step in management includes :
- (A) No further investigations (since perigraft collections are fairly common after renal transplantation)
  - (B) Aspiration of the perigraft fluid collection and instillation of a fibrosis-inducing agent to obliterate the dead space
  - (C) Angiography for localization of a bleeding site in the renal allograft
  - (D) Aspiration of the perigraft fluid collection for chemical analysis
35. Hypothermia (0 to 4 deg Celsius) is a critical component of successful organ cold storage because :
- (A) Oxygen is more soluble in cold solutions and provides a continual supply for energy metabolism
  - (B) There is no way to suppress microbial growth except by cooling and slowing the growth rate
  - (C) Hypothermia diminishes energy requirements and allows the limited energy reserve to keep the organ alive
  - (D) It slows metabolism and the enzymic processes that would destroy the cell
36. The preferred method of ureteric implantation in a renal recipient is :
- (A) Merrill's transvesical-ureteroneocystostomy
  - (B) Ureteroureterostomy with native ureter
  - (C) Lich gregoirextravesicalureteroneocystostomy
  - (D) Oreganextravesicalureteroneocystostomy
37. Technical consideration in paediatric renal transplant include all of the following except :
- (A) The native vessels are smaller in calibre as compared to adults hence higher risk of vascular thrombosis
  - (B) Intra-operative hypotension can occur after declamping
  - (C) Higher incidence of acute rejection as compared to adult renal transplant
  - (D) Most common indication for renal transplant in paediatric population is urological diseases such as posterior urethral valve and reflux nephropathy
38. Hyperkalemia associated with which of the following immuno-suppressants :
- (A) Anti thymocyte globulin
  - (B) MMF
  - (C) Tacrolimus
  - (D) Sirolimus

39. All of the following are characteristic of recipients of kidney transplants from non-heart-beating deceased donors (DCDs), EXCEPT :
- (A) Delayed graft function rate is higher than in standard criteria donor recipients
  - (B) 1-year graft survival is inferior to expanded criteria donor recipients
  - (C) Similar rate of acute rejections
  - (D) Similar rate of vascular complications
40. Which of the following diseases recurs least commonly after kidney transplantation ?
- (A) Primary oxalosis
  - (B) Lupus nephritis
  - (C) Focal and segmental glomerulosclerosis
  - (D) Membranoproliferative-glomerulonephritis
41. When a patient is positioned in head-up and right-up position during laparoscopic cholecystectomy, which of the hemodynamic changes are expected ?
- (A) Hypertension, tachycardia
  - (B) Hypotension, tachycardia
  - (C) Hypertension, bradycardia
  - (D) Hypotension, bradycardia
42. Which of the following events cannot be attributed to inflation of abdomen for laparoscopic surgery ?
- (A) Tachycardia
  - (B) Bradycardia
  - (C) Air embolism
  - (D) Decrease in central venous pressure
43. A 39 year male is rescued from a burning building. His temperature is 98.6 F, blood pressure is 92/60 mm of Hg and his pulse is 100/min with a respiratory rate of 27/min. Examination shows second to third degree burn over 17% of his body. His oropharynx is erythematous and has scattered blisters. His lungs are clear on auscultation and his abdomen is non-distended/soft. Which of the following is the best step in his initial management ?
- (A) Broad spectrum antibiotics
  - (B) High dose steroids
  - (C) Endotracheal intubation
  - (D) Fluid challenge test
44. During the resection of a very vascular chest wall tumor, the surgeon realizes that there is too much of blood ooze. Which of the following modifiable factors can lower the blood loss ?
- (A) Induce hypothermia
  - (B) Decrease blood CO<sub>2</sub> by increasing ventilation
  - (C) Increasing central venous pressure by fluid boluses
  - (D) Increase the muscle relaxation



45. Which of the following preoperative during the fasting phase prior to major abdominal surgery is recommended by the ERAS protocols and has shown to expedite postoperative recovery ?
- (A) Fat rich infusions
  - (B) Protein rich infusions
  - (C) Carbohydrate rich infusions
  - (D) Mixture of Fat, protein and carbohydrate rich infusions
46. A 50 years old gentle man, chronic smoker for the last 25 years complains of rest pain in his left calf with non-healing ulcer over the left great toe. His MR angiography image shows 3cm long segmental occlusion of left femoral artery with distal reformation of popliteal artery and trifurcation. The best line of treatment would be :
- (A) Percutaneous angioplasty
  - (B) Lumbar sympathectomy
  - (C) Omentopexy
  - (D) Left femoro popliteal bypass
47. A 30 years old male underwent an uneventful LRRT. The initial urine output was 800-100 ml/hour. However by the evening the urine output decreased to 200 ml/hr. his CVP was 12 cm of water and BP- 140/90 mm Hg. The next best line of management will be :
- (A) Consider hyper acute rejection and plan for graft nephrectomy
  - (B) Consider acute rejection and start patient on anti-rejection therapy
  - (C) Get USG Doppler of graft kidney for vascular status and meticulous fluid replacement
  - (D) Immediate exploration for graft vessel thrombosis
48. A 55 years old female complains of lump in her right breast for the last 3 months. Her mammography image shows a BIRADS V lesion in UOQ of right breast. The next step in management will be :
- (A) No further treatment required
  - (B) Ultrasonography co-relation to rule out a cyst
  - (C) FNAC/Tru cut biopsy
  - (D) Modified radical mastectomy
49. Which among the following statements is True ?
- (A) Follicular carcinoma of thyroid primarily spreads through lymphatics
  - (B) Huerthle cell carcinoma is a variant of papillary carcinoma of the thyroid
  - (C) Pheochromocytoma is detected by measuring urinary 5-HIAA levels
  - (D) Superior laryngeal nerve supplies cricothyroid muscle
50. Mr X following an open appendectomy develops a direct inguinal hernia on the right side. The most probable reason for this is :
- (A) Weakness of internal oblique
  - (B) Weakness of external oblique
  - (C) Weakness of rectus abdominus
  - (D) Weakness of conjoint tendon

51. Which of the following is not an indication for cholecystectomy ?
- (A) Incidentally detected GB polyp > 1 cm
  - (B) Adenomyomatosis GB with stone
  - (C) Multiple GB polyps
  - (D) GB polyp with stone
52. First video-laparoscopic cholecystectomy using camera attached with laparoscope was performed by :
- (A) Kurt Semm
  - (B) Eric Muhe
  - (C) Phillippe Mouret
  - (D) Wolfe
53. Which one of the following is NOT a scarless surgery ?
- (A) NOTES
  - (B) POEM
  - (C) TEMS
  - (D) VATS
54. Regarding port positions in laparoscopic surgery, in the "baseball-diamond" configuration the surgical target occupies the :
- (A) "Home-plate" position
  - (B) "First-base" position
  - (C) "Second-base" position
  - (D) "Third-base" position
55. Which of the following statements regarding bariatric operations is not correct ?
- (A) Laparoscopic adjustable gastric banding (LAGB) is a restrictive procedure
  - (B) Biliopancreatic diversion (BPD) is mainly a malabsorptive procedure
  - (C) The Roux-en-Y gastric bypass is mainly a restrictive procedure with a malabsorptive component
  - (D) Vertical sleeve gastrectomy is a malabsorptive procedure
56. During TEP repair of right inguinal hernia a tacker was accidentally placed below the iliopectic tract laterally. Post-operatively the patient complained of pain and paraesthesia over the right thigh. The nerve most probably involved is :
- (A) Obturator nerve
  - (B) Ilioinguinal nerve
  - (C) Lateral cutaneous nerve of thigh
  - (D) Genitofemoral nerve
57. Following a uneventful laparoscopic cholecystectomy, a 35 years old female had persistent pain in the post-op. period not responding to analgesic. Her pulse was 112 /min. abdominal examinal revealed tenderness in the right hypochondrium. The epigastric port was opened and a drain placed which drained bile. The best management option would be :
- (A) Masterly inactivity
  - (B) HIDA
  - (C) ERCP and papilotomy
  - (D) Re-laparoscopy

58. Which of the following is TRUE regarding laparoscopic cholecystectomy ?
- (A) Usually done under spinal anesthesia
  - (B) Cystic duct should be clipped after dissection of Calot's triangle
  - (C) Most of the series report conversion rates of over 20%
  - (D) Should never be performed in a patient with abdominal scars
59. The disadvantage of Minimal access surgery as compared to open surgery is :
- (A) Hemostasis is difficult
  - (B) Incidence of incisional hernia is more
  - (C) There is more heat loss from the patient during surgery
  - (D) Cannot be utilized for obese patients
60. The following statement is TRUE regarding laparoscopic surgery in a pregnant patient :
- (A) It is contraindicated during second trimester of pregnancy
  - (B) Open technique of creating pneumoperitoneum should be preferred
  - (C) The patient should be placed slightly to the right side on the operating table
  - (D) The intra abdominal pressure should not exceed more than 10 mm Hg
61. The following statement is TRUE regarding laparoscopic surgery in a pediatric patient :
- (A) DVT prophylaxis is unnecessary
  - (B) A 10mm telescope is necessary for sufficient illumination
  - (C) The intraperitoneal pressure required is same as that in adults
  - (D) Narrow instruments cannot be used
62. In laproscopic thoracic surgery :
- (A) Insufflation for a positive intra-thoracic pressure can be avoided
  - (B) Standard instruments that are used in open surgery cannot be used
  - (C) Energy sources used are different than abdominal laparoscopic surgery
  - (D) Use of suction is mandatory for inter-coastal drainage post-operatively
63. In robotic surgery :
- (A) Only a small part of the surgical procedure is performed by the robot independently
  - (B) Majority of the surgical procedure is performed by the robot independently
  - (C) The robot does not perform independent of the surgeon
  - (D) Surgeon does not require assistance of other manpower

64. The first general laparoscopic surgery performed was :  
 (A) Laparoscopic cholecystectomy  
 (B) Laparoscopic appendectomy  
 (C) Laparoscopic hernia repair  
 (D) Laparoscopic nephrectomy
65. In NOTES the following has not been reported :  
 (A) Transgastric removal of gall bladder  
 (B) Transvaginal removal of gall bladder  
 (C) Transgastric removal of appendix  
 (D) Transvaginal removal of ovary
66. Physiological effects of Laparoscopy include all except :  
 (A) Decrease in functional residual capacity  
 (B) Increased intracranial pressure  
 (C) Increase peak airway pressure  
 (D) Increase pH
67. Which of the following skills is not essential for safe performance of laparoscopic surgery ?  
 (A) Bimanual dexterity  
 (B) Depth perception  
 (C) Hand eye co-ordination  
 (D) Co-ordination of various electro-surgical devices
68. Technique of Laparoscopic cholecystectomy was first described by :  
 (A) Med Erich Muhe  
 (B) Philipp Mouret  
 (C) Lagenbach  
 (D) Eddie Reddick
69. Which of the following is not an important landmark in laparoscopic inguinal hernia repair ?  
 (A) Cooper's Ligament  
 (B) Triangle of Doom  
 (C) Hasselbeck's triangle  
 (D) Vas deferens
70. For fixation of mesh in laparoscopic inguinal hernia repair what should be avoided :  
 (A) Cooper's ligament  
 (B) Lateral abdominal wall muscles  
 (C) Area below the ilio-pubic tract  
 (D) Pubic symphysis
71. During laparoscopic CBD exploration which of the following methods is not good for ensuring CBD clearance ?  
 (A) Choledochoscopy  
 (B) Intra-operative ultra sound  
 (C) Intra-operative ERCP  
 (D) Intra-operative percutaneous ultrasonography
72. 26 years old lady presents to the Surgery Emergency 48 hours after an uneventful laparoscopic cholecystectomy with history of fever with chills and rigors and abdominal pain, what is the appropriate management in such a case :  
 (A) Examine her, prescribe antibiotics and discharge  
 (B) Examination, USG abdomen, antibiotics and discharge  
 (C) CECT abdomen  
 (D) Admit her

73. Which of the following is the most commonly used method for mesh fixation in laparoscopic hernia surgery ?
- (A) Fibrin Glue
  - (B) Non-absorbable Tacker
  - (C) Intra-Corporeal suturing
  - (D) No fixation is required
74. Which of the following is most commonly used approach for laparoscopic adrenal surgery ?
- (A) Trans-abdominal approach
  - (B) Retroperitoneal approach
  - (C) Posterior approach
  - (D) Patient in lateral position and trans-abdominal approach
75. During laparoscopic repair of right inguinal hernia a tacker was accidentally placed below the iliohypogastric tract laterally. Post operatively the patient complained of pain and paresthesia over the right thigh. The nerve most probably involved is :
- (A) Obturator nerve
  - (B) Ilioinguinal nerve
  - (C) Lateral cutaneous nerve of thigh
  - (D) Genitofemoral nerve
76. The intra-abdominal pressure and flow rate recommended for routine laparoscopic procedures is :
- (A) 8-10 mm Hg and 10 L/min
  - (B) 16-18 mmHg and 20L/min
  - (C) 12-14 mm Hg and 4-6 L/min
  - (D) 12-14 mm Hg and 10-12 L/min
77. For best ergonomics in laparoscopic surgery :
- (A) Surgeon always stands on the right side of the patient
  - (B) Surgeon stands directly opposite the target organ and directly facing the monitor
  - (C) Surgeon always stands in the French position
  - (D) Patient should be placed in Lloyd David position
78. During laparoscopic cholecystectomy a surgeon finds that the intra-abdominal pressure is suddenly showing high readings with loss of intra-abdominal space. The most probable cause is :
- (A) Excessive use of cautery
  - (B) Iatrogenic injury to hollow viscus
  - (C) An "awake" patient
  - (D) Intra-abdominal bleed
79. Which of the following change is induced by the positive pressure pneumoperitoneum during laparoscopic surgery ?
- (A) Four-fold elevation of the release of renin and aldosterone
  - (B) Increase in cerebral perfusion pressure
  - (C) Diminished sympathomimetic response
  - (D) Renal vasodilation
80. Laparoscopic cholecystectomy has a conversion rate of :
- (A) Below 1%
  - (B) 3-5%
  - (C) 7-10%
  - (D) Above 10%

81. Incidence of bile duct injury following laparoscopic cholecystectomy is :  
 (A) 0.1 – 0.3%  
 (B) 0.5 – 0.8%  
 (C) 1 – 2%  
 (D) 3 – 5%
82. Surgical procedure not indicated in patients with morbid obesity is :  
 (A) Sleeve gastrectomy  
 (B) Gastric bypass  
 (C) Biliopancreatic bypass  
 (D) Ileal Transposition
83. Ultrasound imaging demonstrates a 15-mm polypoid lesion in the gall bladder of an asymptomatic 60-years-old patient. Which of the following best describes the recommended treatment ?  
 (A) Observation with repeated ultrasound studies in 6 months  
 (B) Cholecystectomy  
 (C) Cholecystectomy if the patient is female  
 (D) Cholecystectomy only if symptoms develop
84. Which of the following is not a good model for training in laparoscopic surgery ?  
 (A) Virtual reality simulators  
 (B) Human Cadavers  
 (C) Live Animals  
 (D) Inanimate box trainers
85. Which is not included in Saint's Triad ?  
 (A) Hiatus hernia  
 (B) Diverticulosis  
 (C) GERD  
 (D) Gall stone
86. According to Couinaud's Surgical Anatomy of liver, Right posterior segment comprises of :  
 (A) VI, VII  
 (B) V, VIII  
 (C) II, III  
 (D) IVA, IVB
87. About Antireflux surgeries which is incorrect :  
 (A) Belsey Mark 4 operation is the plication of esophagus to diaphragm through thoracic approach with 270 degree gastric fundoplication  
 (B) Toupet's fundoplication is partial 120 degree antero-lateral fundal wrap  
 (C) Dor's operation is an anterior fundoplication  
 (D) Thal's patch done for esophageal stricture due to reflux esophagitis
88. Schatzki's ring is :  
 (A) Associated with iron deficiency anemia  
 (B) Symmetrical mucosal thickening at the squamocolumnar junction  
 (C) It is seen above the diaphragmatic indentation in the endoscopy  
 (D) Associated with diffuse esophageal spasm

89. According to Bismuth Strasberg classification, cystic duct stump blow out is :  
 (A) Type A  
 (B) Type B  
 (C) Type C  
 (D) Type D
90. Which is incorrect about Achalasia cardia ?  
 (A) Most common primary esophageal motility disorder  
 (B) Both sexes are equally affected  
 (C) Hypertensive LEs is the prerequisite for diagnosis  
 (D) Barium swallow shows dilated esophagus with tapering 'beak like' narrowing and manometry is the investigation of choice
91. Regarding the bariatric surgery which of the following statements is wrong :  
 (A) Biliopancreatic diversion is done in patients with BMI 35-40  
 (B) Roux en Y Gastric bypass prevents progression of NIDDM and prevents mortality from DM  
 (C) Prolapse is the most emergent complication of lap adjusted gastric banding (LAGB) that requires reoperation  
 (D) Adding switch decreases the incidence of marginal ulcer following Biliopancreatic diversion (BPD)
92. Hernia through Lacunar ligament is called :  
 (A) Laugier's hernia  
 (B) Cloquet's hernia  
 (C) Holthouse hernia  
 (D) Velpeau hernia
93. Richter's hernia is commonly associated with :  
 (A) Obturator hernia  
 (B) Indirect hernia  
 (C) Femoral hernia  
 (D) Direct inguinal hernia
94. Tackers may safely be placed during lap repair of inguinal hernia in each of the following structures except :  
 (A) Cooper's ligament  
 (B) Tissues superior to lateral iliopubic tract  
 (C) The transversus abdominis aponeurotic arch  
 (D) Tissues inferior to lateral iliopubic tract
95. TIPS is indicated in all except :  
 (A) Resistant ascitis  
 (B) Acute variceal bleed  
 (C) Bridge to liver transplant  
 (D) EHPVO
96. Bouveret syndrome is :  
 (A) Gall stone causing small intestinal obstruction  
 (B) Gall stone causing pancreatic duct obstruction  
 (C) Gall stone causing colonic obstruction  
 (D) Gall stone causing gastric outlet obstruction

97. Bile excretion from liver is :  
 (A) 10 ml/hr  
 (B) 20 ml/hr  
 (C) 30 ml/hr  
 (D) 40 ml/hr
98. All are true about porcelain gall bladder except :  
 (A) Calcified GB wall  
 (B) Premalignant  
 (C) Seen more commonly in diabetics  
 (D) Present in chronic cholecystitis
99. 40 year male patient presented with polyuria, pain abdomen, nausea, vomiting, altered sensorium was found to have bronchogenic carcinoma. Electrolyte abnormality will be :  
 (A) Hyperkalemia  
 (B) Hypocalcemia  
 (C) Hypokalemia  
 (D) Hypercalcemia
100. Refeeding syndrome is most commonly related to :  
 (A) Hyponatremia  
 (B) Hypokalemia  
 (C) Hypophosphatemia  
 (D) Hypomagnesimias
101. 30 year male footballer brought for medical attention for light headedness, disorientation. His weight is 60 kg. On examination temperature 38.3 degree Celsius, BP- 85/60, HR- 125/min, neck vein flat, serum sodium 175 mEq/L. Estimated free water deficit :  
 (A) 2.5 L  
 (B) 15 L  
 (C) 12.5 L  
 (D) 9 L
102. C cells of thyroid developed from :  
 (A) 1<sup>st</sup> branchial arch  
 (B) 2<sup>nd</sup> branchial arch  
 (C) 3<sup>rd</sup> branchial arch  
 (D) Ultimobranchial body
103. Dorsal pancreatic bud does not form one of the following :  
 (A) Upper part of head  
 (B) Lower part of head  
 (C) Neck of pancreas  
 (D) Body of pancreas
104. Which one of the following statements regarding audit is true ?  
 (A) It addresses clearly defined questions, aims and objectives  
 (B) It measures against a standard  
 (C) It may involve randomization  
 (D) Re-audit is not necessary
105. All are true except :  
 (A) A cross-sectional study is one where a series of patients with a particular disease or condition are compared with matched control patients  
 (B) Type 1 error is when benefit is perceived when really there is none (false positive)  
 (C) Randomized trials are essential for testing new drug  
 (D) It is a common practice to set the level of power for the study at 80% with a 5% significance level



106. Which of the following questions should be answered before undertaking research ?
- (A) Why do the study ?
  - (B) Will it answer a useful question ?
  - (C) Will there be any financial incentives ?
  - (D) Is it practical ?
107. Best vein for TPN infusion is :
- (A) Subclavian
  - (B) Femoral
  - (C) Brachial
  - (D) Saphenous
108. Highest concentration of Potassium is seen in :
- (A) Jejunum
  - (B) Ileum
  - (C) Duodenum
  - (D) Colon
109. Minimum amount of protein needed for positive nitrogen balance is :
- (A) 20-30 gm/day
  - (B) 35-40 gm/day
  - (C) 55-60 gm/day
  - (D) 75-80 gm/day
110. True about thermal burn injury :
- (A) Zone of hyperemia is the middle zone
  - (B) Zone of stasis is the innermost zone
  - (C) Zone of coagulation is the outermost layer
  - (D) Zone of stasis is associated with vascular damage.
111. Correct statement regarding Ringer's solution :
- (A) Higher concentration of Sodium ion than plasma
  - (B) Most appropriate for replacement for nasogastric losses
  - (C) Iso-osmotic with plasma
  - (D) It has pH less than 7
112. Not a criterion in Child Pugh's classification :
- (A) Serum albumin
  - (B) SGOT/SGPT ratio
  - (C) Ascites
  - (D) Prothrombin time
113. All are true regarding Hydatid disease of liver except :
- (A) Malignant hydatid disease is caused by Echinococcus multilocularis
  - (B) Man is an accidental host
  - (C) CT scan is the investigation of choice
  - (D) Heterogenous echo pattern is seen Ghabri Type I
114. Shunt of choice in portal hypertension due to NCPF is :
- (A) Darren shunt
  - (B) Warren Shunt
  - (C) Rex shunt
  - (D) Inokuchi shunt

115. Two weeks following hepatico-jejunostomy for a benign bile duct stricture, a patient has a serum bilirubin level of 6 mg/dl. The patient was jaundiced for 2 months before surgery and had a preoperative bilirubin level of 12 mg/dl. Which is the most likely to explain the current bilirubin levels ?
- (A) Anastamotic stricture
  - (B) Persistent delta bilirubin
  - (C) Normal expected decline after relief of any obstructive jaundice
  - (D) Renal failure
116. What is the most likely explanation for a serum bilirubin level of 40 mg/dl in a patient with obstructive jaundice ?
- (A) Malignant biliary obstruction
  - (B) Associated renal dysfunction
  - (C) Duration of jaundice > 2 weeks
  - (D) Complete biliary obstruction
117. Genetic disorder with highest risk for carcinoma pancreas is :
- (A) Hereditary pancreatitis
  - (B) FAP
  - (C) Peutz-Jeghers syndrome
  - (D) Familial atypical mole melanoma syndrome
118. Primary repair of oesophageal perforation is contraindicated in all except :
- (A) Resectable carcinoma
  - (B) Achalasia with sigmoid esophagus
  - (C) History of corrosive ingestion
  - (D) Traumatic perforation
119. Fistula unlikely to close includes :
- (A) Jejuna
  - (B) Ileal
  - (C) Tract >1cm
  - (D) Esophageal
120. Neck exploration is mandatory in injuries to :
- (A) Zone I
  - (B) Zone II
  - (C) Zone III
  - (D) None of the above
121. Abdominal compartment syndrome :
- (A) Primary is when it is due to conditions that do not originate from abdomino pelvic region
  - (B) Normal intra-abdominal pressure is 5-7 mm hg in critically ill patients
  - (C) Grade IV intra abdominal pressure is >22 mm Hg
  - (D) Intra abdominal hypertension is defined by sustained rise in intra-abdominal pressure >16 mm Hg
122. A 32 year old woman who is 9 weeks pregnant has a palpable mass 2.5 cm in size in the OUQ of her right breast. Mass is not visualized on USG. What is the appropriate management ?
- (A) Re-examination 1 month after delivery
  - (B) Cyst aspiration and if no fluid obtained reassurance of the patient
  - (C) Palpation guided core biopsy
  - (D) Reassurance of the patient that the lesion is benign

123. Which is the true diverticulum of esophagus :
- (A) Zenker's
  - (B) Parabronchial
  - (C) Meckel's
  - (D) Epiphrenic
124. Primary patency rate of Brescia-Cimino radiocephalic fistula is :
- (A) 75% at 2 years
  - (B) 80% at 2 years
  - (C) 90% at 2 years
  - (D) 100% at 2 years
125. A 30 years old male underwent an uneventful LRRRT. The initial urine output was 800-100 ml/hour. However by the evening the urine output decreased to 200 ml/hr. his CVP was 12 cm pf water and BP-140/90 mm Hg. The next best line of management will be :
- (A) Consider hyper acute rejection and plan for graft nephrectomy
  - (B) Consider acute rejection and start patient on anti rejection therapy
  - (C) Get USG Doppler of graft kidney for vascular status and start patient on lasix infusion and meticulous fluid replacement
  - (D) Immediate exploration for graft vessel thrombosis
126. A 50 year old male patient CKD-5 underwent an uneventful LRRAT. His U/O on POD1, POD2, and POD3 was 16/13/10 litres respectively. The initial S.creatinine was 3.7 mg/dl and decreased gradually to 1.2 mg/dl. His tacrolimus levels were 14.6 and his tacrolimus dosage was adjusted accordingly. However on POD7 his U/O decreased to 1.5 litres and S. creatinine rose to 2.5 mg/dl. The patient also complained of pain at graft site. The next appropriate step in management would be :
- (A) Further decrease tacrolimus dose and repeat tac levels
  - (B) Do a renal Bx and start patient on anti-rejection treatment
  - (C) Consider patient as having DGF and consider for haemodialysis
  - (D) Continue same treatment and wait for creatinine to fall
127. The primary and secondary patency rate of in-situ saphenous vein graft is :
- (A) 20-30% and 40-50%
  - (B) 10-20% and 40-50%
  - (C) 55-60% and 70-75%
  - (D) 80-90% and 60-70%
128. A 50 year old male, chronic smoker presents with rest pain in right lower limb. On MRA there are two blocks-one in the right external iliac artery and another 3 cm block in right SFA. The distal SFA, popliteal and trifurcation are patent. The best treatment option for him would be :
- (A) Consider for aorto-bifemoral bypass
  - (B) Consider for femoro-popliteal bypass
  - (C) Percutaneous angioplasty with stenting of EIA followed by a femoro-politeal bypass
  - (D) Consider AK amputation

129. The most common symptom of aorto iliac occlusive arterial disease is :
- (A) Symptomless
  - (B) Impotence
  - (C) Calf claudication
  - (D) Gluteal claudication
130. Which of the following mu-receptor antagonist is found to be useful in treating postoperative ileus ?
- (A) Naloxone
  - (B) Naltrexone
  - (C) Methylnaltrexone
  - (D) Altrexone
131. Regarding port positions in laparoscopic surgery, in the "baseball-diamond" configuration the surgical target occupies the :
- (A) "Home-plate" position
  - (B) "First- base" position
  - (C) "Second- base" position
  - (D) "Third- base" position
132. All of the following gases can be used to create pneumoperitoneum during laparoscopic cholecystectomy except :
- (A) Carbon dioxide
  - (B) Nitrous oxide
  - (C) Helium
  - (D) Air
133. The ideal OT Table height for performing Laparoscopic Surgery should be :
- (A) Surgeon height  $\times 0.49$  & at the level of Surgeon thighs
  - (B) Surgeon height  $\times 0.69$  & at the level of Surgeons Height
  - (C) Surgeon height  $\times 0.39$  & at the level of Surgeons knee
  - (D) Surgeon height  $\times 0.79$  & at the level of Surgeons elbow
134. The optimum distance between the monitor and the Surgeon's eye during Laparoscopic Surgery should be :
- (A) 10 times the diagonal of the monitor
  - (B) 5 times the diagonal of the monitor
  - (C) 3 times the diagonal of the monitor
  - (D) 2 times the diagonal of the monitor
135. The ideal "Manipulation Angle" during Laparoscopy is :
- (A)  $30^\circ$
  - (B)  $40^\circ$
  - (C)  $60^\circ$
  - (D)  $90^\circ$
136. Azimuth angle is defined as :
- (A) Angle between two working ports
  - (B) Angle between instrument and target lines
  - (C) Angle between the port and the skin
  - (D) Angle between Laparoscopic instrument and telescope

137. All are important landmarks during laparoscopic cholecystectomy except :
- Rouviere's sulcus
  - Calot's triangle
  - Strasburg's Critical view of safety
  - Riclan's view
138. 39 years female 2 months following an "uneventful" Laparoscopic cholecystectomy, presents with slowly progressive jaundice. Her MRCP shows a Bismuth type II stricture. The most appropriate management option would be :
- ERCP and stenting
  - End to end repair over T Tube
  - Percutaneous biliary drainage
  - Roux en Y hepaticojejunostomy
139. All of the following are indication for Laparoscopic Transcystic CBD exploration for CBD Stones except :
- Stones < 6 mm diameter
  - Diameter of cystic duct
  - Diameter of CBD > 6 MM
  - Intrahepatic stones
140. A 40 years old female with h/o dysphagia (liquid > solids) underwent a Laparoscopic procedure. The components of this procedure are :
- Heller's cardiomyotomy + Nissen's fundoplication
  - Ramstedt's pyloromyotomy with pyloroplasty
  - Heller's cardiomyotomy + Dor's fundoplication
  - Heller's cardiomyotomy + Toupet's fundoplication
141. The boundaries of triangle of doom include all of the following except :
- Vas deferens
  - Chord structures
  - Ilio pubic tract
  - Peritoneum.
142. The myopectineal orifice of Fouchard includes all of the following except :
- Direct inguinal hernia
  - Indirect inguinal hernia
  - Femoral hernia
  - Obturator hernia
143. The embryologic ventral pancreas forms which area of the fully developed gland ?
- Superior head
  - Uncinate process
  - Neck
  - Body
144. The diagnosis of pancreas divisum is usually made by which of the following ?
- Laparoscopic exploration
  - Endoscopic ultrasound (EUS)
  - Computed tomography (CT)
  - Endoscopic retrograde cholangiopancreatography (ERCP)
145. Which of the following is not characteristic of pancreatic acinar cells ?
- Zymogen granules
  - Carbonic anhydrase
  - Golgi apparatus
  - Rough endoplasmic reticulum

146. A 32-years-old woman comes to the emergency department complaining of pain in her foot and calf. She reports that her left leg has been swollen for the last 15 years. She has a temperature of 101.5° F and reports that she had a splinter removed from her leg 1 week earlier. Her left lower extremity is swollen from the foot to the inguinal ligament, and she has erythema of the foot and calf. In addition to cellulitis, what is the most likely underlying diagnosis ?
- (A) Chronic venous insufficiency
  - (B) Deep venous thrombosis
  - (C) Lymphedema praecox
  - (D) Meige's disease
147. Physiological effects of Laparoscopy include all except :
- (A) Decrease in functional residual capacity
  - (B) Increased intracranial pressure
  - (C) Increase peak airway pressure
  - (D) Increase pH
148. Which of the following statements is correct regarding endovascular repair of infrarenal AAA ?
- (A) The most common complication with this technique is graft thrombosis
  - (B) Tube grafts are preferable to bifurcated grafts for endovascular repair of infrarenal AAAs
  - (C) Anatomic limitations prohibiting endovascular repair include a short neck and large angulation of the aneurysm
  - (D) Iliac stenosis is an absolute contraindication to endoluminal repair
149. Select the true statement regarding splenectomy in HIV-infected patients :
- (A) The laparoscopic approach is contraindicated.
  - (B) HIV-associated thrombocytopenia is the primary indication
  - (C) It is associated with a 30% risk for overwhelming post-splenectomy infection
  - (D) Splenectomy may accelerate progression to AIDS
150. All of the following are true about stoma except ?
- (A) Ileostomy effluent is poor in sodium
  - (B) Clostridium difficile enteritis is a cause ileostomy diarrhea
  - (C) Cholestyramine and proton pump inhibitors have role in ileostomy diarrhea
  - (D) Patients with residual Crohn's disease are more prone for ileostomy diarrhea
151. All are risk factors for malignancy in ulcerative colitis except :
- (A) Duration of colitis
  - (B) Extent of colonic involvement
  - (C) Associated primary sclerosing cholangitis
  - (D) Younger age at onset of disease

152. J pouch for ulcerative colitis was first introduced by :
- (A) Utsunomiya
  - (B) Fazio
  - (C) Park
  - (D) Hahnloser
153. According to Csendes' Classification, Type II Mirizzi's syndrome is :
- (A) Obstruction of common bile duct by external compression only (no erosion)
  - (B) Erosion of one-third circumference of common bile duct
  - (C) Erosion of two-third circumference of common bile duct
  - (D) Total/near total circumferential-destruction of common bile duct
154. A 55 years old man underwent laparoscopic Whipple's procedure for periampullary carcinoma. On 7<sup>th</sup> post-operative day he had massive upper GI bleed. CT angiogram revealed pseudoaneurysm of an artery. The most common artery involved is :
- (A) Right hepatic artery
  - (B) Left gastric artery
  - (C) Gastroduodenal artery
  - (D) Splenic artery
155. Which of the following statements is false regarding the iliopubic tract ?
- (A) Extends from the anterior superior iliac spine to the pubis
  - (B) Is a condensation of the transversalis fascia
  - (C) Is of anatomic interest but has little clinical significance
  - (D) Runs underneath the shelving portion of the Poupart ligament
156. According to the Nyhus classification of groin hernias, which of the following statements is true ?
- (A) A type II indirect hernia has a dilated internal ring and extends into the scrotum
  - (B) A type IIIa hernia is a classically described indirect hernia
  - (C) A femoral hernia is classified as type IIIc
  - (D) Type IV hernias are pantaloon-type hernias
157. Which of the following developments has not led to a decrease in recurrence rates after groin hernia repair ?
- (A) Modifications of the Bassini repair
  - (B) Routine use of prosthetic material
  - (C) Widespread acceptance of the "tension-free" concept
  - (D) Use of the preperitoneal space for hernia repair

158. Which of the following is not a characteristic of medullary breast cancer?
- (A) Lymphocytic infiltrate
  - (B) Benign appearance on ultrasound
  - (C) High rate of lymph node metastasis
  - (D) Statistically better than average prognosis
159. Which of the following is not an indication for post-mastectomy radiotherapy?
- (A) T3 tumors
  - (B) Multicentric DCIS larger than 6 cm
  - (C) Four or more positive axillary lymph nodes
  - (D) Inflammatory breast cancer
160. A 75 years-old woman has a 1.2 cm mass in her right breast on physical examination that is found to be an infiltrating ductal carcinoma, ER/progesterone receptor (PR) positive, on core biopsy. Her axilla is clinically negative, as is her review of systems. She has multiple medical problems and wants to have as little done as possible. Which factor is not significantly associated with lymph node metastasis in elderly patients?
- (A) Age
  - (B) Tumor location
  - (C) Tumor size
  - (D) Lymphovascular invasion
161. Which of the following is not true regarding magnetic resonance imaging (MRI) for evaluation of breast abnormalities?
- (A) It is useful for finding the primary breast lesion in patients with positive axillary nodes but no mammographic evidence of a breast tumor
  - (B) It is more accurate than mammography in diagnosing invasive lobular cancer
  - (C) It is more accurate than mammography in assessing tumor extent in older women
  - (D) Its sensitivity in detecting invasive cancer is greater than 90%
162. With regard to the recurrent laryngeal nerve (RLN), which of the following is true?
- (A) The left RLN loops around the subclavian vein and ascends medially into the neck
  - (B) The right RLN loops around the inferior thyroid artery, ascends laterally to medially, and enters the cricothyroid membrane
  - (C) The laryngeal nerve is non-recurrent in 0.5% of patients
  - (D) The RLNs innervate the true vocal cords and the cricothyroid muscles



163. Which of the antibodies is diagnostic of patients with Graves disease ?
- (A) Antithyroglobulin (anti-TGAb)
  - (B) Antithyroid peroxidase (anti-TPOAb)
  - (C) Anti-DNA antibodies (antinuclear)
  - (D) TSH receptor antibody (anti-TSAb)
164. A 42 years-old woman complains to her physician of symptoms associated with hyperthyroidism. On examination she has a palpable nodule but no evidence of exophthalmos. She does have pretibial myxedema. Her laboratory work-up reveals a suppressed TSH level with elevated free T3. What is the next step in the management of this patient ?
- (A) Radioactive 1231 uptake scan
  - (B) Neck ultrasound
  - (C) PTU
  - (D) FNA
165. A 41 years-old woman undergoes complex repair of a deep laceration in her hand. When removing the dressing on postoperative day 2, a large clot with mild surrounding erythema is encountered. Which of the following statements regarding the inflammatory phase of wound healing is true ?
- (A) It lasts up to 24 hours after the injury is incurred
  - (B) Initial vasodilation is followed by subsequent vasoconstriction
  - (C) Bradykinin causes vasoconstriction, which inhibits migration of neutrophils to the healing wound
  - (D) The complement component C5a and platelet factor attract neutrophils to the wound
166. A 25 year-old man is seen in the office with complaints of contracture of his left index finger after a burn injury. Which of the following statements is true about growth factors ?
- (A) Epidermal growth factor (EGF) stimulates the production of collagen
  - (B) Vascular endothelial growth factor (VEGF) and PDGF both stimulate angiogenesis by binding to a common receptor
  - (C) Fibroblast growth factor (FGF) stimulates wound contraction
  - (D) Transforming growth factor- $\beta$  (TGF- $\beta$ ) is stored in endothelial cells
167. With regard to evaluating bleeding in surgical patients, which of the following statements is true ?
- (A) Bleeding from a resected prostatic bed indicates poor local hemostasis
  - (B) The most common cause of surgical bleeding is incomplete mechanical hemostasis
  - (C) E-Aminocaproic acid is an excellent topical hemostatic agent for nonmucosal wounds
  - (D) Bleeding from a surgical wound along with bleeding from other sites implies poor local hemostasis

168. Which of the following pairing statements regarding daily fluid balance is incorrect ?
- (A) Daily water intake, 2000 to 2500 ml
  - (B) Average stool loss, 1000 ml
  - (C) Average insensible loss, 600 ml
  - (D) Average urine volume, 800 to 1500 ml
169. With regard to intraoperative management of fluids, which of the following statements is true ?
- (A) In a healthy person, upto 500 ml of blood loss may be well tolerated without the need for blood replacement
  - (B) During an operation, functional ECF volume is directly related to the volume lost to suction
  - (C) Functional ECF losses should be replaced with plasma
  - (D) Administration of albumin plays an important role in the replacement of functional ECF volume loss
170. A postoperative patient has a serum sodium concentration of 125 mEq/L and a blood glucose level of 500 mg/dL (normal level, 100 mg/dL). What would the patient's serum sodium concentration be (assuming normal renal function and appropriate intraoperative fluid therapy) if the blood glucose level were normal ?
- (A) 120 mEq/L
  - (B) 122 mEq/L
  - (C) 137 mEq/L
  - (D) 142 mEq/L
171. An elderly patient with adult-onset diabetes mellitus is admitted to the hospital with severe pneumonia. All of the following conditions can be associated with this patient condition except :
- (A) Hypokalemia
  - (B) Hyperkalemia
  - (C) Non-ketotic hyperosmolar coma
  - (D) Hypophosphatemia
172. Which one of the following is not associated with hypocalcemia ?
- (A) Shortening of the QT interval
  - (B) Painful muscle spasms
  - (C) Perioral or fingertip tingling
  - (D) Seizures in children
173. Apnea develops in a post-operative patient from narcotics. His  $P_{CO_2}$  is 60. With regard to acid-base buffering, which of the following is false ?
- (A) The major extracellular buffer is bicarbonate
  - (B) Intracellular pH and extracellular pH are usually the same
  - (C) The major intracellular buffer consists of proteins and phosphate salts
  - (D) Hydrogen ions cannot directly pass through the cell membrane
174. The initial recruitment of neutrophils to endothelial surfaces is mediated primarily by :
- (A) Immunoglobulins
  - (B) Integrins
  - (C) Selectins
  - (D) All of the above

175. Which of the following is considered an antiinflammatory cytokine ?

- (A) IL-1
- (B) IL-4
- (C) IL-6
- (D) IL-8

176. A patient in whom angioedema develops after the administration of penicillin is scheduled for a craniotomy to ablate a seizure focus. Which of the following choices is appropriate for antibiotic prophylaxis ?

- (A) Cefazolin from the time of surgery and then for 7 days
- (B) No antibiotic prophylaxis
- (C) Vancomycin at the time of induction and then for 3 to 5 days
- (D) Vancomycin at the time of induction

177. Which of the following statements regarding diabetic foot infections is false ?

- (A) Acute diabetic foot infections are often caused by grampositive organisms
- (B) Chronic diabetic foot infections are polymicrobial
- (C) To diagnose an infection in a patient with a chronic wound, a foul odor and redness must be present
- (D) MRSA infections are associated with a worse outcome

178. Which of the following statements regarding secondary peritonitis is false ?

- (A) It usually occurs as a result of perforation of an intra-abdominal viscus
- (B) Carbapenems, aminoglycosides, and fourth-generation cephalosporins have equal efficacy in treatment studies
- (C) Increased age, cancer, cirrhosis, and systemic illness are factors that increase the mortality rate
- (D) Sequestration of bacteria within fibrin clots leads to intra-abdominal abscess formation

179. Which of the following statements about HIV-positive patients with gastrointestinal bleeding is incorrect ?

- (A) The most common cause of lower gastrointestinal bleeding is CMV colitis
- (B) Ganciclovir therapy prevents rebleeding in patients with documented CMV disease
- (C) Kaposi sarcoma is the most frequent AIDS-associated cause of upper gastrointestinal bleeding
- (D) Upper gastrointestinal bleeding is usually secondary to infection

180. Which of the following statements regarding CMV infection and solid organ transplantation is false ?
- (A) Symptomatic infection occurs 2 to 6 months after transplantation
  - (B) Patients being treated for acute rejection are at increased risk for the development of symptomatic CMV infection
  - (C) Transmission can occur through the donor organ
  - (D) Reactivation of latent infection is associated with the greatest risk for the development of severe disease
181. Which of the following markers is clinically useful for predicting progression to AIDS in persons infected with HIV-1 ?
- (A) CD4+ T-cell count greater than 600 cells/mm<sup>3</sup>
  - (B) p24 antigen level
  - (C) HIV-1 RNA plasma viral load
  - (D) Serum neopterin level
182. Which of the following is not considered standard precautions for reducing the spread of transmissible diseases ?
- (A) Hand washing before contact with a patient
  - (B) Hand washing after glove removal
  - (C) Wearing gloves during contact with a patient
  - (D) Negative pressure air flow
183. A 43 years-old woman undergoing dialysis for end-stage renal disease secondary to hypertension is placed on the transplantation waiting list. Allocation of cadaveric renal allografts is not dependent on which of the following :
- (A) Number of prior kidney transplants
  - (B) HLA compatibility
  - (C) Previous living kidney donor status
  - (D) PRA test results
184. Which of the following statements concerning preoperative management of patients with pheochromocytoma is true ?
- (A)  $\alpha$ -Adrenergic blockade with phenoxybenzamine requires a minimum of 4 to 6 weeks
  - (B) A  $\beta$ -blocker is indicated in patients with tachycardia
  - (C) Determination of 24-hours urine metanephrine levels confirms adequate  $\alpha$ -adrenergic blockade
  - (D) Morphine and phenothiazines should be avoided preoperatively
185. Which of the following agents is not a recommended treatment for the management of thyroid storm crisis ?
- (A)  $\beta$ -Blockers
  - (B) Thionamide
  - (C) Iodine solution
  - (D) Aspirin

186. Regarding urinary retention after ambulatory surgery, which of the following statements is not true ?

- (A) Urinary retention is most frequently associated with herniorrhaphy and anorectal procedures
- (B) Spinal anesthesia, but not general anesthesia, is a predisposing factor for post-operative urinary retention
- (C) Post-operative urinary retention can frequently be asymptomatic
- (D) Ambulatory surgery patients must void as a criterion for discharge

187. An 18 years-old man has a 12 hours history of vague, periumbilical abdominal pain, anorexia and nonbilious vomiting. The pain has now localized to the right lower quadrant. On examination he is found to have tenderness over the McBurney point along with involuntary muscle rigidity. Which of the following best explains the localization of pain ?

- (A) Inflammation of the visceral peritoneum produces localizing pain
- (B) Pain over the McBurney point is caused by distention of the appendiceal lumen
- (C) Unmyelinated fibers carry pain signals with the thoracic and lumbar spinal nerves
- (D) Movement of the inflamed parietal peritoneum induces rebound tenderness

188. A 44 years-old man suffers a gunshot wound to his abdomen. He is hemodynamically stable and taken to the operating room. On exploration, his injuries are found to be limited to two small bowel injuries 7 cm apart, each with destruction of 70% of the bowel wall, and a through-and-through injury to the ascending colon with destruction of 30% of the bowel wall. How should these injuries be managed ?

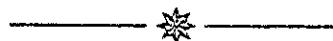
- (A) Resection and anastomosis of the small bowel injuries and primary repair of the colon injury
- (B) Primary repair of both the small bowel and colon injuries
- (C) Primary repair of the small bowel injuries, primary repair of the colon injury and creation of a diverting ileostomy
- (D) Resection of the small bowel injuries and exteriorization of the colon injury as a colostomy

189. A 27 years-old woman is brought to the emergency department awake and alert after sustaining a gunshot wound to her neck. The wound is anterior to the origin of the sternocleidomastoid muscle at the angle of the mandible. The patient is asymptomatic. All of the following are correct management choices except:

- (A) Cervical spine radiographic studies
- (B) Mandatory neck exploration
- (C) Four-vessel angiographic studies
- (D) Flexible esophagoscopy examination

190. Which of the following is not true regarding esophageal motility ?
- (A) Primary waveforms are initiated after swallowing and are peristaltic along the length of the esophagus
  - (B) Primary waveforms can generate pressures from 40 to 80 mm Hg
  - (C) Secondary waveforms are initiated by voluntary mechanisms and are peristaltic
  - (D) Tertiary waveforms are non-progressive and non-peristaltic
191. A 35 years-old woman has complaints of dysphagia, regurgitation, and weight loss. Esophagography shows narrowing of the distal end of the esophagus, and manometry studies show significant tertiary waveforms. The LES has high residual pressure on swallowing. Which of the following has not been implicated as a possible cause of her disease ?
- (A) *Helicobacter pylori* infection
  - (B) Severe emotional stress
  - (C) A parasitic infection
  - (D) Drastic weight reduction
192. Acid secretion is stimulated by the following parietal cell receptors except :
- (A) Acetylcholine
  - (B) Secretin
  - (C) Histamine
  - (D) Gastrin
193. Which of the following tests is best to document eradication of *H. pylori* infection in patients with peptic ulcer disease ?
- (A) Urea breath test
  - (B) Histologic examination of mucosa
  - (C) Rapid urease test
  - (D) Culture and sensitivity testing
194. Regarding the clinical manifestations of Crohn's disease, which of the following statements is true ?
- (A) Most patients are initially seen in an acute stage with pain, nausea, and diarrhea
  - (B) Bloody diarrhea is an infrequent symptom
  - (C) Bloody diarrhea almost always produces anemia
  - (D) Steatorrhea is present as a result of pancreatic involvement
195. With regard to the anatomy of the colon and rectum, which of the following statements is true ?
- (A) The colon has a complete outer longitudinal and an incomplete inner circular muscle layer
  - (B) The haustra are separated by plicae circulares
  - (C) The ascending colon and descending colon are usually fixed to the retroperitoneum
  - (D) The rectum is totally invested by three complete muscle layers

196. Common causes of colorectal anastomotic breakdown include all of the following except :
- (A) Poor blood supply to the bowel edges
  - (B) Short rectal stump
  - (C) Inadequate bowel mobilization
  - (D) Hand-sewn anastomosis
197. Which of the following is the best initial management for acute colonic pseudo-obstruction (Ogilvie's syndrome) ?
- (A) Colonoscopy
  - (B) Rectal tube decompression
  - (C) Nasogastric tube decompression and correction of electrolytes
  - (D) Neostigmine
198. Which of the following statements is correct ?
- (A) Backwash ileitis is associated with ulcerative colitis
  - (B) Diversion colitis is associated with ulcerative colitis and Crohn's colitis
  - (C) Microscopic colitis is associated with Yersinia infection
  - (D) Metronidazole is used to treat acute ileitis caused by Yersinia infection
199. Which of the following statements is true about the hepatic arterial supply ?
- (A) Aberrant hepatic arterial anatomy is present in less than 5% of all patients
  - (B) The cystic artery is usually a branch off the proper hepatic artery
  - (C) A "replaced" right hepatic artery arises from the superior mesenteric artery
  - (D) The hepatic artery provides 75% of blood flow to the liver
200. Thirty minutes into a laparoscopic procedure, visualization becomes inadequate to proceed. The insufflation monitor shows an intra-abdominal pressure of 20 mm Hg and no flow of CO<sub>2</sub>. What is the most likely explanation ?
- (A) An empty CO<sub>2</sub> canister
  - (B) CO<sub>2</sub> leak from the abdominal wall
  - (C) Inadequate muscle relaxation
  - (D) Improper insufflator settings



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