

1. Which of the following most accurately describes the transmembrane signalling process involved in steroid hormone action ?
  - (1) Action of a membrane spanning tyrosine kinase
  - (2) Activation of a G-protein which activates or inhibits adenylyl cyclase ✓
  - (3) Diffuses across the membrane and binding to an intracellular receptor
  - (4) Opening of transmembrane ion channels
  
2. Which of the following drugs when given alone can produce hypertension after intravenous administration ?
  - (1) ✓ Acetylcholine
  - (2) Pilocarpine
  - (3) Carbachol
  - (4) Bethanechol
  
3. Chloroquine is the drug of choice in the treatment of
  - (1) non-falciparum and sensitive falciparum malaria ✓
  - (2) amoebic liver abcess
  - (3) rheumatoid arthritis
  - (4) All of the above?
  
4. The oral dose of Metronidazole in the treatment of Trichomonas vaginitis is
  - (1) 400 mg twice daily for 1 week
  - (2) 750 mg once daily for 1 week
  - (3) 250 mg thrice daily for 10 days
  - (4) 2 g as a single dose ✓
  
5. Aspirin overdose is characterised by a syndrome of
  - (1) bone marrow suppression and aplastic anaemia
  - (2) fever hepatic dysfunction and encephalopathy
  - (3) hyperthermia, metabolic acidosis and coma
  - (4) rash, interstitial nephritis and acute renal failure ✓
  
6. Which of the following NSAIDs is under clinical evaluation for the preventive management of Alzheimer's disease ?
  - (1) Aspirin
  - (2) Ibuprofen
  - (3) Diclofenac sodium
  - (4) Piroxicam ✓
  
7. The mechanism of action of Diazepam is
  - (1) binding to GABA receptors and directly enhance the chloride conductance
  - (2) ✓ binding to GABA receptors and increase their affinity towards GABA
  - (3) binding to GABA receptors and directly inhibit chloride conductance
  - (4) binding to GABA receptors and decrease their affinity towards GABA
  
8. Which of the following statements about Doxycycline is not true ?
  - (1) It is bacteriostatic
  - (2) It is excreted mainly in faeces ✓
  - (3) It is used in Lyme's disease
  - (4) It is more active than Tetracycline against *H. pylori*

9. A bone marrow suppression induced by Chloramphenicol is
- (1) a dose related reversible phenomenon
  - (2) a non-dose related irreversible phenomenon ✓
  - (3) Both the above
  - (4) None of the above
10. Which of the following antimycobacterial agents can interfere with the action of oral contraceptives ?
- (1) Ethambutol
  - (2) Isoniazid
  - (3) Rifampicin ✓
  - (4) Pyrazinamide
11. A cell cycle specific anti-cancer drug that acts mainly in the 'M' phase is
- (1) Bleomycin
  - (2) Cisplatin
  - (3) Vincristine ?
  - (4) Etoposide
12. Methotrexate is used in the treatment of the following *except*
- (1) Choriocarcinoma
  - (2) Ectopic pregnancy
  - (3) Myasthenia gravis ✓
  - (4) Psoriasis
13. Which of the following agents is associated with a high incidence of disorientation, sensory and perceptual illness and vivid dreams during recovery from anaesthesia ?
- (1) Diazepam
  - (2) Ketamine ✓
  - (3) Thiopental
  - (4) Sevoflurane
14. Which one of the following hypnotic drugs facilitates the inhibition of GABA, but lacks anticonvulsant or muscle relaxing properties and has minimal effect on sleep architecture ?
- (1) Buspirone ✓
  - (2) Diazepam
  - (3) Phenobarbitol
  - (4) Zaleplon
15. Opioid analgesics are contraindicated in several clinical situations. For morphine such situations do *not* include
- (1) Biliary tract surgery
  - (2) Pulmonary edema ✓
  - (3) Late stage of labour
  - (4) Hypothyroidism
16. In acute inflammation the tissue response consists of all *except*
- (1) Vasodilatation
  - (2) Neutrophilic response
  - (3) Exudation
  - (4) Macrophage accumulation ✓

17. Ethyl alcohol is used for fixation of
- (1) Pap smear ✓
  - (2) Kidney biopsy
  - (3) Testicular biopsy
  - (4) Bone biopsy
18. Epithelioid cells are seen in all of the following *except*
- (1) Tuberculosis
  - (2) Leprosy
  - (3) Xanthogranuloma ✓
  - (4) Sarcoidosis
19. Rosette formation is the characteristic feature in
- (1) Squamous cell carcinoma
  - (2) Osteosarcoma ✓
  - (3) Adenocarcinoma
  - (4) Neuroblastoma
20. Neuroendocrine secretory granules are demonstrable in
- (1) Papillary carcinoma thyroid
  - (2) Carcinoid tumour ✓
  - (3) Granulosa theca cell tumour
  - (4) Dysgerminoma
21. Absence of ganglionic cells in myenteric plexus is observed in
- (1) Hirschsprung's disease ✓
  - (2) Achalasia cardia
  - (3) Mucoviscidosis
  - (4) Meckel's diverticulum
22. Ghon's focus is present in
- (1) progressive tuberculosis
  - (2) secondary tuberculosis
  - (3) miliary tuberculosis
  - (4) primary tuberculosis ✓
23. Pseudopolyposis is observed in
- (1) Crohn's disease
  - (2) Ulcerative colitis ✓
  - (3) Tuberculosis of ileocaecal region
  - (4) Pseudo membranous colitis
24. Isoenzyme CPK-MB is raised in
- (1) Rheumatic fever ✓
  - (2) Myocardial infarction ✓
  - (3) Viral myocarditis
  - (4) Viral hepatitis ?
25. Patients are designated as pink puffers in
- (1) Chronic bronchitis
  - (2) Bronchiectasis
  - (3) Emphysema ✓
  - (4) Pneumoconiosis

26. The following organisms are gram negative cocci :
- (1) Staphylococci
  - (2) Streptococci
  - (3) Meningococci ✓
  - (4) Pneumococci
27. The following is asexually transmitted pathogen :
- (1) Mycobacteria
  - (2) N. Gonorrhoeae
  - (3) Brucella
  - (4) Nocardia ✓
28. Liquid paraffin is sterilized by
- (1) Hot air oven
  - (2) Autoclaving
  - (3) Filtration
  - (4) Radiation ✓
29. Rheumatoid factor is detected by
- (1) Rose-Waaler test ✓
  - (2) ASO test
  - (3) Widal test
  - (4) VDRL test
30. Following organism has metachromatic granules :
- (1) Mycobacteria
  - (2) C. Diphtheriae ✓
  - (3) Staphylococci
  - (4) Streptococci
31. Pancreaticoduodenectomy is the treatment of choice for
- (1) Duodenal carcinoma
  - (2) Pancreatic carcinoma ✓
  - (3) Gall bladder carcinoma
  - (4) Gastric carcinoma
32. In a post cholecystectomy patient, who develops bile leakage due to CBD tear - 5 days post operative, with no "T" tube inserted at the time of surgery, ideal treatment is
- (1) ERCP procedure with stent
  - (2) hepaticojejunostomy
  - (3) primary repair after reopening abdomen ✓
  - (4) ultrasound guided insertion of drain
33. Inguinal and femoral hernia are differentiated by relation with
- (1) Pubic tubercle
  - (2) Femoral artery
  - (3) Inferior epigastric artery ✓
  - (4) Pectineal line
34. A.V. fistula leads to all *except*
- (1) Sinus tachycardia
  - (2) Increased pre load
  - (3) Cardiac arrhythmias ✓
  - (4) Increased cardiac output ✓

35. Varicocele of pampiniform plexus of veins has all the following characters *except*
- (1) negative transillumination test
  - (2) reducible
  - (3) cough impulse present
  - (4) frequent on right side
36. Initial treatment of management of polytrauma is
- (1) airway
  - (2) IV fluids
  - (3) fracture stabilisation
  - (4) do not shift
37. The commonest cause of haematemesis and melena is
- (1) Oesophageal varices
  - (2) Chronic peptic ulcer
  - (3) Acute peptic ulcer
  - (4) Carcinoma of stomach
38. Lymphovenous anastomosis is done in
- (1) Filariasis
  - (2) Malignant lymphoma
  - (3) Post radiotherapy lymphoedema
  - (4) All of the above
39. While operating for obstructed inguinal hernia the sac is opened at
- (1) fundus
  - (2) neck
  - (3) body
  - (4) base
40. During parotid surgery injury to which nerve results in Frey's syndrome ?
- (1) Auriculotemporal nerve
  - (2) Great auricular nerve
  - (3) Mandibular nerve
  - (4) Buccal nerve
41. Disc prolapse is recognised by
- (1) C.T.
  - (2) M.R.I.
  - (3) Myelography
  - (4) All of the above
42. Lymphatic metastasis of buccal carcinoma first involves
- (1) Submandibular
  - (2) Submental
  - (3) Jugulo digastric
  - (4) Jugulo omohyoid
43. Treatment of choice of acute obstruction due to left sided colonic carcinoma in a 70-year-old male is
- (1) Left side colectomy
  - (2) Total colectomy
  - (3) Hartmann's procedure
  - (4) Defunctioning colostomy

44. Acute appendicitis is best diagnosed by

- (1) History
- (2) Physical examination
- (3) X-ray of abdomen
- (4) Barium meal

45. Hyperparathyroidism is characterised by the following *except*

- (1) Generalised osteoporosis
- (2) Renal calculi
- (3) Hypercalcemia
- (4) Osteosclerosis

46. Components of normal vaginal secretion are the following *except*

- (1) secretion from Bartholin's gland
- (2) mucus secretion from endocervical glands
- (3) mucus secretion from vaginal epithelium
- (4) secretion from endometrial glands

47. Ayre's spatula is used in the following procedure :

- (1) Endocervical biopsy
- (2) Endometrial biopsy
- (3) Pap smear
- (4) Dilatation and curettage

48. Following are complications of carcinoma cervix *except*

- (1) Pyometra
- (2) Vesicovaginal fistula
- (3) Uterine prolapse
- (4) Hydronephrosis

49. Chiari-Frommel syndrome is characterised by following features *except*

- (1) Menorrhagia
- (2) Lactation
- (3) Hyperprolactinemia
- (4) Atrophic uterus

50. A poor source of iron in the following food items is

- (1) dry fruit
- (2) meat
- (3) milk
- (4) unrefined jaggery

51. Features of HELLP syndrome include

- (1) Hemolysis
- (2) Low platelet count
- (3) Elevated liver enzymes
- (4) All of the above

52. One of the following agents is *not* used for inducing medical abortion :
- (1) Misoprostol
  - (2) Methotrexate
  - (3) Mifepristone
  - (4) Oxytocin
53. Signs of early pregnancy are the following *except*
- (1) Hegar's sign
  - (2) Beck's sign
  - (3) Goodell's sign
  - (4) Jacquemier's sign
54. Placenta develops from fusion of Chorion frondosum and
- (1) Decidua capsularis
  - (2) Decidua basalis
  - (3) Decidua vera
  - (4) All of the above
55. Antenatal screening of maternal serum alpha fetoprotein shows increased values in the following fetal malformations *except*
- (1) Neural tube defects
  - (2) Down's syndrome
  - (3) Omphalocele
  - (4) Duodenal atresia
56. One among following facts is *not* true about premature baby :
- (1) Retinopathy is more common
  - (2) Risk of kernicterus is greater
  - (3) Greater heat loss from body
  - (4) Hyperglycemia is common
57. All the following methods of contraception may be used by a lactating woman *except*
- (1) I.U.C.D.
  - (2) Barrier contraception
  - (3) Combined oral pills
  - (4) Injectable progesterones
58. Pap smear should *not* be taken in the following circumstances *except*
- (1) within 48 hours after intercourse
  - (2) within 24 hours of last pelvic examination
  - (3) on the 12<sup>th</sup> day of menstrual cycle
  - (4) in the presence of infection
59. Non-puerperal tubal sterilisation can be done by
- (1) Laparoscopy
  - (2) Mini-laparotomy
  - (3) Colpotomy
  - (4) All of the above
60. Following complication is *not* seen after vasectomy :
- (1) Recanalisation of vas
  - (2) Spermatocele formation
  - (3) Testicular carcinoma
  - (4) Development of antisperm antibodies

HCG ↑  
 MAFP ↓  
 Down

61. The following is the cell wall free organism :
- (1) H. Ducreyi
  - (2) Mycoplasma ✓
  - (3) Candida
  - (4) Mycobacterium
62. Infectious mononucleosis is caused by
- (1) Adenovirus
  - (2) Epstein-Barr virus ✓
  - (3) Rubella virus
  - (4) Cytomegalovirus
63. Non-gonococcal urethritis is caused by
- (1) Chlamydia trachomatis ✓
  - (2) Mycoplasma hominis
  - (3) N. gonorrhoeae
  - (4) H. Ducreyi ?
64. Tuberculous bacillus was discovered by
- (1) Alexander Fleming
  - (2) Robert Koch
  - (3) Louis Pasteur ✓
  - (4) Lord Lister ?
65. A positive Schick test indicates
- (1) susceptibility to diphtheria
  - (2) immunity to diphtheria ? ✓
  - (3) hypersensitivity to C. diphtheriae
  - (4) allergy to C. diphtheriae toxin ✓
66. Which of the following anti-epileptic drugs is safest in pregnancy at present ?
- (1) Carbamazepine ✓
  - (2) Sodium valproate
  - (3) Topiramate
  - (4) Lamotrigine
67. Ace-inhibitors are contraindicated in all the following *except*
- (1) pregnancy
  - (2) bilateral renal artery stenosis
  - (3) severe cough and angio-edema
  - (4) heart failure ✓
68. Successful thrombolysis after acute myocardial infarction is associated with
- (1) rapid rise of creatine kinase levels
  - (2) rapid fall of CK-MB ✓
  - (3) rapid fall of cardiac troponin-I
  - (4) rapid fall of LDH
69. Differential cyanosis and clubbing is characteristic of
- (1) VSD with reversal of shunt
  - (2) PDA with reversal of shunt ✓
  - (3) Fallot's tetralogy ✓
  - (4) Ebstein's anomaly
70. Best single test to confirm iron deficiency anaemia is
- (1) Plasma iron
  - (2) TIBC
  - (3) Plasma transferrin ✓
  - (4) Plasma ferritin ✓



71. Which BMI range in adult is called obesity ?
- (1) 25.0 - 29.9
  - (2) 30.0 - 39.9
  - (3) Above 40
  - (4) 18.5 - 24.9
72. Casal's necklace is characteristic of
- (1) Niacin deficiency
  - (2) Thiamine deficiency
  - (3) Biotin deficiency
  - (4) Riboflavin deficiency
73. Haemorrhagic skin rashes are present in all the following infections *except*
- (1) Yellow fever
  - (2) Dengue fever
  - (3) Rocky Mountain spotted fever
  - (4) Q-fever
74. Persons with sickle cell hemoglobin are protected against
- (1) severe *Plasmodium falciparum* infection
  - (2) *Plasmodium vivax* infection
  - (3) *Varicella zoster*
  - (4) *Plasmodium ovale* infection
75. In HIV disease for 'sero-conversion and vertical transmission' the following laboratory test is diagnostic :
- (1) Elisa antibody tests
  - (2) Immuno blot test (Western-blot)
  - (3) CD4 cell count
  - (4) HIV viral load
76. Tuberculin skin test as a diagnosis of tuberculosis infection
- (1) has high specificity/sensitivity
  - (2) is useful only in primary or deep seated infection
  - (3) is very useful for diagnosis of reinfection in adults
  - (4) is very useful in meningeal tuberculosis
77. In nephrotic syndrome the prognosis is bad with
- (1) focal segmental glomerulosclerosis
  - (2) minimal change disease
  - (3) membranous glomerulonephropathy
  - (4) post-infectious glomerulonephritis
78. Urea breath test is used in the diagnosis of
- (1) *H. pylori* infection
  - (2) *E. coli* infection
  - (3) Ulcerative colitis
  - (4) Crohn's disease
79. Leucotriene receptor antagonists are used in
- (1) Bronchial asthma
  - (2) Interstitial lung disease
  - (3) Congestive heart failure
  - (4) Acute pulmonary embolism
80. Rhombencephalitis and meningitis is characteristic of infection with the following organisms :
- (1) Pyogenic bacteria
  - (2) Mycobacterial infection
  - (3) *Listeria monocytogenes*
  - (4) *Cryptococcus*

81. Commonest type of cancer of the renal pelvis and upper ureter is
- (1) Transitional cell carcinoma
  - (2) Adenocarcinoma
  - (3) Squamous cell carcinoma ✓
  - (4) Nephroblastoma
82. Most malignant type of carcinoma breast is
- (1) Anaplastic carcinoma ✓
  - (2) Scirrhus carcinoma
  - (3) Atrophic scirrhus carcinoma
  - (4) Mastitis carcinomatosa
83. Estrogen receptor status in carcinoma breast is done on
- (1) blood
  - (2) urine
  - (3) tumour tissue ✓
  - (4) ovary
84. The most essential feature in reaching a diagnosis of hypertrophic pyloric stenosis is
- (1) visible peristalsis ✓
  - (2) projectile vomiting
  - (3) loss of weight and dehydration
  - (4) palpation of hypertrophic pylorus
85. Haemorrhage from a bleeding duodenal ulcer is due to erosion of
- (1) superior pancreatico-duodenal artery
  - (2) gastro-duodenal artery ✓
  - (3) right gastric artery
  - (4) left gastric artery
86. Commonest cause of hyperparathyroidism is
- (1) single adenoma ✓
  - (2) multiple adenomata
  - (3) single gland hyperplasia
  - (4) multiple gland hyperplasia
87. Splenic vein thrombosis is best treated by
- (1) Splenectomy
  - (2) Porta-caval shunt
  - (3) Spleno-renal shunt ✓
  - (4) Mesenterico-caval shunt
88. Gold standard diagnostic test in varicose veins is
- (1) Photoplethysmography ✓
  - (2) Duplex imaging ✓
  - (3) Ultrasonography
  - (4) Radio-labelled fibrinogen-study
89. Which of the following is an absolute indication for surgery in cases of benign prostatic hyperplasia ?
- (1) Bilateral hydro ureteronephrosis
  - (2) Nocturnal frequency
  - (3) Recurrent urinary tract infection
  - (4) Voiding bladder pressures - > 50 cm of water ✓
90. A 60-year-old man presents with an ulcer on lateral margin of tongue, also complains of ear pain. Most probable diagnosis is
- (1) Dental ulcer
  - (2) Carcinomatous ulcer ✓
  - (3) T.B. ulcer
  - (4) Syphilitic ulcer

91. If a substance appears in the renal artery but not in renal vein

- (1) its clearance is equal to  $GFR$
- (2) it must be reabsorbed by the kidney
- (3) the urinary concentration must be higher than its plasma concentration
- (4) its clearance is equal to renal plasma flow

92. Stroke volume can be increased by which of the following ?

- (1) Increasing venous compliance
- (2) Decreasing ventricular compliance
- (3) Increasing heart rate
- (4) Decreasing total peripheral resistance

*CO = SV x HR*

93. Which one of the following muscle proteins plays an important role in contraction of both smooth and striated muscles ?

- (1) Troponin
- (2) Tropomyosin
- (3) Actin
- (4) Myosin light chains

94. An 18-year-old male is brought to hospital after eating poisonous mushrooms rich in alkaloid muscarine. Which one of the following signs is seen ?

- (1) Bradycardia
- (2) Dilatation of pupil
- (3) Skeletal muscle contraction
- (4) Hypertension

*Nicotinic*

*nicotinic: Hypotension, Brady*  
*Muscarinic*

95. Buffers are solutions having as composition

- (1) a pair of strong acid and strong base
- (2) a pair of weak acid and its salts with a strong base
- (3) a pair of weak acid and weak base
- (4) a pair of two weak bases

96. Vitamin K is directly involved with the following enzymatic action :

- (1) Synthesis of prothrombin
- (2) Activation of factor X
- (3) Conversion of fibrinogen to fibrin
- (4) Regulation of blood calcium

97. Which is the active form of vitamin D ?

- (1) Calcitonin
- (2) 1,25-dihydroxycholecalciferol
- (3) 7-dehydrocholesterol
- (4) Ergosterol

98. What is the vitamin synthesised from an amino acid, Tryptophan ?

- (1) Ascorbic acid
- (2) Pantothenic acid
- (3) Nicotinic acid
- (4) Folic acid

99. Which of the following is necessary for the emulsification of lipids ?

- (1) Cholesterol
- (2) Bile pigments
- (3) Bile salts
- (4) Steroids

100. McArdle's disease is caused due to deficiency of

- (1) Glycogen synthase
- (2) Branching enzyme
- (3) Debranching enzyme
- (4) Glycogen phosphorylase

101. The number of hydrogen bonds present between the pairs of guanosine nucleotide and cytosine nucleotide is/are

- (1) two
- (2) one
- (3) four
- (4) three

GEC

102. The end product of purine catabolism in other mammals except man is

- (1) Uric acid
- (2) Allantoin
- (3) Ammonia
- (4) Creatinine

103. Kidneys contribute to Acid - Base balance by

- (1) regulating  $p\text{CO}_2$
- (2) decreased carbon dioxide uptake
- (3) increased ketogenesis
- (4) secretion of ammonia

$\text{H}^+ + \text{HCO}_3^- \rightarrow \text{H}_2\text{O} + \text{CO}_2$   
 $\text{HCO}_3^- \rightarrow \text{kidneys}$   
 $\text{CO}_2 \rightarrow \text{lungs}$

104. Calcium is required for the activation of the enzyme

- (1) Isocitrate dehydrogenase
- (2) ATPase
- (3) Fumerase
- (4) Succinate thiokinase

105. The most prominent cause of dehydration is

- (1) excessive heat
- (2) low intake of water
- (3) frequent urination
- (4) diarrhoea and vomiting

106. Acid phosphatase levels are increased in

- (1) Brain tumour
- (2) Prostatic cancer
- (3) Lung cancer
- (4) Breast cancer

107. Infant death below 3 years occurs in following glycogen storage disorders :

- (1) Type I
- (2) Type II
- (3) Type V
- (4) Type VIII

108. The link between urea cycle and citric acid cycle is due to formation of
- (1) Arginine
  - (2) Ornithine
  - (3) Citrocillin
  - (4) Fumarate ✓
109. Most naturally occurring DNA molecules are
- (1) relaxed coiled
  - (2) not coiled
  - (3) positively super coiled
  - (4) negatively super coiled ✓
110. Negative nitrogen balance is produced in humans by elimination from the diet of all the following *except*
- (1) Leucine
  - (2) Serine ✓
  - (3) Lysine
  - (4) Threonine
111. Most important compensation mechanism in metabolic acidosis is
- (1) Hyperventilation
  - (2) Increased  $\text{NH}_3$  excretion by kidneys
  - (3) Increased urinary phosphates
  - (4) Increased  $\text{HCO}_3^-$  production ✓
112. During conversion of acetyl-CoA to ketone bodies, the intermediate compound is
- (1) phosphotidic acid
  - (2) phophotidylinositol
  - (3) 3-hydroxy 3-methyl glutaryl CoA ✓
  - (4) 2-monoglyceride
113. Chronic complication in diabetes mellitus is due to
- (1) enzyme protein glycation ✓
  - (2) decreased production of sorbitol
  - (3) decreased levels of myo-inositol
  - (4) increased levels of myo-inositol
114. The transport of glucose is facilitated by *GLUT* in the following organ :
- (1) Brain
  - (2) Heart
  - (3) Liver
  - (4) Intestine ✓
115. The conversion of cholecalciferol occurring in liver is by
- (1) 1-alpha hydroxylation
  - (2) 1,25-hydroxylation
  - (3) 4-hydroxylation
  - (4) 25-hydroxylation ✓
- Liver  
Kidney  
✓

116. Actions of pilocarpine include all the following *except*
- (1) Sweating
  - (2) Salivation
  - (3) Miosis ✓
  - (4) Cycloplegia
117. All are true of nitrous oxide anesthesia *except*
- ✓ (1) rapid on set and rapid recovery
  - (2) chances of hypoxia
  - (3) very good analgesic
  - (4) very good muscle relaxant
118. Use of morphine is indicated in the following condition :
- (1) Head injury ✓
  - ✓ (2) Acute myocardial infarction
  - (3) Acute abdominal pain before diagnosis
  - (4) Bronchial asthma
119. One of the following is a non-benzodiazepine sedative hypnotic :
- (1) Clonazepam
  - (2) Oxazepam
  - (3) Nitrazepam
  - (4) Zolpidem ✓
120. Which of the following terms best describes a drug that blocks the actions of epinephrine at its receptors by occupying those receptors without activating them ?
- ✓ (1) Pharmacological antagonist
  - (2) Physiological antagonist
  - (3) Partial agonist
  - ✓ (4) Non-competitive antagonist
121. Umbilical cord has at birth
- ✓ (1) two arteries + one vein
  - (2) two arteries + two veins
  - (3) one artery + two veins
  - (4) all arteries only
122. Functional unit of kidney is
- (1) Osteon
  - ✓ (2) Nephron
  - (3) Neuron
  - (4) Tubule
123. Abduction at shoulder joint is produced by
- ✓ (1) Deltoid muscle
  - (2) Infra spinatus
  - (3) Teres major
  - (4) Teres minor
124. All of the following structures traverse the free margin of the lesser omentum *except*
- (1) Portal vein
  - ✓ (2) Inferior vena cava
  - (3) Hepatic artery
  - (4) Bile duct
125. The structure to be protected while ligating uterine arteries during hysterectomy, is
- (1) Inferior vesical artery ✓
  - (2) Middle rectal artery
  - (3) Ureter
  - (4) Pelvic splanchnic nerves

126. Maturation of the spermatozoa

- (1) occurs in the testes
- (2) involves changes in contents of DNA
- (3) involves the process of capacitation
- (4) requires prostaglandins

127. Collecting ducts of the nephron of the kidney develop from

- (1) Ureteric bud
- (2) Metanephric tubules
- (3) Mesonephric tubules
- (4) Paramesonephric duct

128. Normal position of uterus in pelvis is

- (1) ante version and ante flexion
- (2) retro version and retro flexion
- (3) mid position
- (4) ante version and retro flexion

129. Blood is brought to liver by

- (1) Hepatic vein
- (2) Portal vein
- (3) Phrenic veins
- (4) Azygos vein

130. Gastric motility is enhanced by stimulation of

- (1) Vagus nerve
- (2) Phrenic nerve
- (3) Sympathetic nerves
- (4) Trigeminal nerve

131. Enzyme renin is contained in

- (1) Lacis cells
- (2) Macula densa cells
- (3) Proximal convoluted tubular cells
- (4) Juxtaglomerular cells

132. Thromboxane A<sub>2</sub> is produced mainly by one of the following :

- (1) Damaged tissue
- (2) Liver
- (3) Platelets
- (4) Vascular endothelium

133. Fragmented red blood cells are *not* found in one of the following :

- (1) Vasculitis
- (2) Idiopathic thrombocytopenic purpura
- (3) Malignant hypertension
- (4) Disseminated intravascular clotting

134. Cheyne-Stokes breathing is seen in all of the following conditions *except*

- (1) High altitude
- (2) Left ventricular failure
- (3) Diabetes mellitus
- (4) Voluntary hyperventilation

135. All of the following parameters can be estimated by spirometer *except*.

- (1) forced expiratory volume
- (2) total lung capacity
- (3) vital capacity
- (4) peak expiratory flow rate

136. Which of the following sensations is most affected by cortical lesion ?
- (1) Temperature ✓
  - (2) Crude touch
  - (3) Proprioception
  - (4) Itch
137. Reabsorption of one of the following substances in renal tubules is *not* subjected to physiological regulation :
- (1) Glucose ✓
  - (2) Sodium
  - (3) Potassium
  - (4) Water ✓
138. Increasing the after load in the muscle has all but one of the following effects :
- (1) Decreases the velocity of shortening
  - (2) Increases the force generation during shortening
  - (3) Increases the amount of shortening
  - (4) Increases the interval between excitation and shortening ✓
139. Lysis of red blood cells to oxidant stress, a side-effect of many drugs, is most likely due to
- (1) deficiency of 2,3-DPG
  - (2) deficiency of reduced glutathione ✓
  - (3) deficiency of G-6PD (glucose 6-phosphate dehydrogenase)
  - (4) lack of hexokinase
140. If a patient is unable to hear high frequency sounds, the damage to the basilar membrane is closest to which of the following ?
- (1) Helicotrema
  - (2) Oval window
  - (3) Stria vascularis ✓
  - (4) Modiolus
141. A wave in Electroretinogram is caused by the activity of one of the following :
- (1) Ganglion cell layer
  - (2) Nerve fibre layer ✓
  - (3) Rods and cones
  - (4) Pigment epithelium
142. A patient with history of malnutrition presents with swelling of ankles and bloated abdomen. The bloated abdomen may be due to one of the following :
- (1) Decreased capillary colloidal osmotic pressure ✓
  - (2) Increased intestinal gas
  - (3) Slow and chronic abdominal haemorrhage
  - (4) Increased capillary hydrostatic pressure
143. Place theory is concerned with one of the following :
- (1) Mechanism of colour vision
  - (2) Mechanism of pitch discrimination
  - (3) Mechanism of image formation ✓
  - (4) Mechanism of perception of taste sensation
144. Which one of the following is *not* autoimmune disease ?
- (1) Multiple sclerosis
  - (2) Insulin dependent diabetes mellitus
  - (3) Rheumatoid arthritis
  - (4) Hypothyroidism ✓
145. All of the following except one increase gastric secretions :
- (1) Vagal stimulation
  - (2) Gastrin
  - (3) Stomatostatin ✓
  - (4) Histamine



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146. Respiratory distress syndrome in infants is caused by insufficient secretion of one of the following :

- (1) Phosphatidylinositol
- (2) Cholesterol
- (3) Sphingomyelin
- (4) Dipalmitylphosphatidylcholine ✓

147. Phasic blood flow occurs in which one of the following ?

- (1) Brain ✓
- (2) Liver
- (3) Heart
- (4) Kidney

148. Gastro intestinal hormones are the following *except* -

- (1) Glucagon
- (2) Serotonin ✓
- (3) Cholecystokinin-P2
- (4) Vasoactive intestinal peptide

149. In one of the following sensory receptors,  $K^+$  influx produces receptor potentials :

- (1) Olfaction
- (2) Audition ✓
- (3) Taste
- (4) Touch

150. The earliest manifestation of hypofunction of bone marrow is reflected in

- (1) Lower red cell count ✓
- (2) Leukopenia
- (3) Decline in reticulocyte count
- (4) Appearance of thrombocytopenia