1. Which of the following structures is not a content of free margin of lesser omentum?
   a) Hepatic Artery
   b) Portal Vein
   c) Bile duct
   d) Inferior vena cava.

D

2. Which of the following coronary arteries does not supply interventricular septum in codominant circulation?
   a) Right
   b) Left
   c) Both A and B
   d) None of the above

D

3. The radius (r) of an arteriole is reduced to ½ of its original value by an atherosclerotic plaque. Assuming all other factors are unchanged, what will flow (Q) be under this condition?
   a) Increased by 1/16 of original flow
   b) Decreased by ½ of original flow
   c) Unchanged
   d) Increased to ½ of original flow
   e) Decreased to 1/16 of original flow

E

4. Obstruction of blood flow through the liver (from cirrhosis or hepatitis) will:
   a) have no effect on gastrointestinal digestion or absorption.
   b) have no effect on bile secretion.
   c) increase bile secretion.
   d) increase portal vein pressure.
   e) Reduce hepatic blood content

D

5. Researchers are studying the drug for the treatment of heart failure. The drug under study is metabolized in the liver. It also appears to attenuate oxygen free radical initiated lipid peroxidation and also inhibit vascular smooth muscle mitogenesis. Which of the following drug is under study?
   a) Metoprolol
   b) Labetalol
   c) Carvedilol
   d) Captopril
   e) Losartan

C

6. Blood Brain Barrier is composed of following cell type.
   a) Microglia
   b) Oligodendrocytes
   c) Astrocytes
   d) Schwann cell
   e) Ependymal cell

C

7. A patient comes with head trauma and CT scan shows damage to hypoglossal canal. This patient will most likely have?
   a) Atrophy of tongue on contralateral side
   b) Fasciculation on ipsilateral side
   c) Loss of taste on anterior 2/3rd of tongue
   d) Loss of pain on posterior 1/3rd of tongue
   e) Tongue deviation to contralateral side on protrusion

   B

8. In the suspected case of air embolism, search for embolism is to be done in:
   a) Circle of wills.
   b) Meningeal vessels.
   c) Abdominal aorta.
   d) Right ventricle of heart.

   D

9. Last organ to be dissected during autopsy in asphyxial death:
   a) Neck.
   b) Head.
   c) Abdomen.
   d) Thorax.

   A

10. The positive finding of burial of a living person is:
   a) Marked pulmonary oedema.
   b) Presence of moulds on the body.
   c) Congestion of liver and spleen.
   d) Earth or sand in trachea and bronchi.

   D

11. Of the following bacterial components, which one exhibits the most antigenic variation?
   a) Capsule
   b) Lipid A of endotoxin
   c) Peptidoglycan
   d) Ribosome

   C

12. Thirty eight children consumed eatables procured from a single source at a picnic party. Twenty children developed abdominal cramps followed by vomiting and watery diarrhea 6–10 hours after the party. The most likely etiology for the outbreak is
   a. Rotavirus infection
   b. Entero toxigenic E. coli infection
   c. Staphylococcal toxin
   d. Clostridium perfringens infection

   C

13. Corynebacterium diphtheriae causes the disease diphtheria by producing diphtheria toxin. The gene encoding the toxin is integrated into bacterial genome during lysogenic conversion. The toxin gene was acquired by which process?
    a) Conjugation
    b) Transduction
    c) Transformation
    d) Transposition

C

14. A 45-year-old woman reports constant daytime anxiety about work and family problems. This is causing difficulties functioning and participating in necessary daily activities. Which of the following agents has a rapid anxiolytic effect and is best for the acute management of her anxiety?
    a) Buspirone
    b) Venlafaxine
    c) Lorazepam
    d) Escitalopram

C

15. A 55-year-old obese female has had type 2 diabetes for 10 years. She is currently being treated with metformin but her HbA1c is above goal. She has a history of heart failure and chronic obstructive pulmonary disorder. Her physician would like to add a medication that will not cause any weight gain. Which of the following would be most appropriate to control her diabetes?
    a) Albiglutide
    b) Glimepiride
    c) Pioglitazone
    d) Inhaled insulin

A

16. A 33-year-old man has experienced occasional headaches for the past 3 months. He suddenly has a generalized seizure. CT scan of the head shows a periventricular 3-cm mass in the region of the right thalamus. A stereotactic biopsy of the mass yields large lymphoid cells positive for B cell markers. Which of the following underlying diseases is most likely to be found in this patient?
    a) Diabetes mellitus
    b) HIV infection
    c) Hypertension
    d) Multiple sclerosis

B

17. A superficial puncture wound from a needlestick injury leads to a small amount of bleeding in a healthy person. Seconds after this injury occurs, the bleeding stops. Which of the following mechanisms is most likely to stop small arteriolar blood loss from this injury?
    a) Fibrin polymerization
    b) Neutrophil chemotaxis
    c) Platelet aggregation
    d) Protein C activation

C

18. A 22-year-old man has a sudden loss of vision in the right eye. On physical examination, there is a subluxation of the right crystalline lens. On auscultation of the chest, a mid systolic click is audible. An echocardiogram shows a floppy mitral valve and dilated aortic arch. The patient's brother and his cousin are similarly affected. He is prescribed a beta-blocker. A genetic defect involving which of the following substances is most likely to be present in this patient?
    a) Collagen
    b) Dystrophin
    c) Fibrillin-1
    d) Spectrin

C

19. Highest LAP score is seen in
    a) Pregnancy
    b) CML
    c) Polycythemia Vera
    d) PNH

C

20. The most frequent form of congenital adrenal hyperplasia is due to deficient activity of:
    a) 21-Hydroxylase
    b) 11-Beta-hydroxylase
    c) 3-Beta-hydroxysteroid dehydrogenase
    d) 17-Alpha-hydroxylase

A

21. A newborn is found to have multiple, dark blue, non-blanching papules in a generalized distribution. Each of the following diagnoses could be a causative etiology, EXCEPT
    a) CMV infection
    b) Rubella
    c) Hemolytic disease of the newborn
    d) Tuberous sclerosis

D

22. A 22-year-old male with HIV has numerous umbilicated lesions of various sizes on his face. The lesions are not itchy but are shiny to dark red in color. Biopsy of the lesions reveals intracytoplasmic inclusion bodies that the pathologist calls the 'Henderson-Paterson' bodies. What is the most likely diagnosis
    a) H1NI flu infection
    b) Molluscum contagiosum
    c) Ebola infection
    d) COVID-19 (2019-nCoV) infection

B

23. A boy of class 11 is stressed. He is angry with his neighbours and complains that a neighbourhood engineering student performs various scientific experiments at home to direct radio waves to his skull which makes a painful electrical sensation in his head. The above described psychopathology most closely describes
    a) Delusions of persecution
    b) Schizophrenia
    c) Acute Psychosis
    d) Somatic passivity

D

24. An 83-year-old man was becoming increasingly frail and losing physical function. In which hierarchial order is he most likely to lose physical function?
    a) Bathing, dressing, transferring, toileting, feeding
    b) Dressing, bathing, toileting, transferring, feeding
    c) Toileting, bathing, dressing, transferring, feeding
    d) Bathing, dressing, toileting, transferring, feeding

    D

25. A 34 female admitted in emergency with complains of acute gastroenteritis since last 2 days 3 to 4 episodes. On examination her blood pressure was 80/50 mmHg PR rate 56 per minute, patient slightly drowse responding painful stimulus, cardiovascular examination her heart sound was muffled. On past history he has amenorrhea since 2 years and lactation failure. which of the following is the MOST COMMON cause of her low blood pressure?
    a) Acute gastroenteritis leading to hypovolemic shock
    b) Cardiogenic shock
    c) Adrenal crisis
    d) Hypothyroidism leading to cardiac tamponade

    C

26. Features of Hemolytic Uremic Syndrome include all except?
    a) Chronic renal failure
    b) Microangiopathic hemolytic anemia
    c) Thrombocytopenia
    d) Frequently preceded by an episode of diarrhea

    A

27. A 18 years old child is being evaluated for persistent metabolic acidosis. Blood test show Na +140mEq/l, K + 3 mEq/l, Ca 2+ 8mg/l, Mg +2 2meq/l, phosphate 3mEq/l, Ph 7.2, bicarbonate 16 mEq/l and chloride 112mEq/l. The plasma anion gap is?
    a) 9
    b) 15
    c) 22
    d) 25

    B

28. A 20-year-oldpatient having verruca vulgaris due to HPV infection developed similar lesions arranged linearly. This clinical phenomenon is called
    a) Koebner (category I)
    b) Pseudo-Koebner (category II)
    c) Inverse-Koebner (category III)
    d) Iso-Koebner (category IV)

    B

29. Screening is not used for which of the following cancers.
    a) Breast cancer
    b) Pancreatic carcinoma
    c) Prostatic carcinoma
    d) Cervical cancer.

    B

30. Which non-musculoskeletal pain can be referred to the angle of the scapula?
Select the one best answer
A. Pain arising from diaphragm
B. Pain arising from gallbladder
C. Pain arising from foregut structures
D. Pain arising from midgut structures

B

31. A patient has pituitary tumour and pheochromocytoma and a thyroid nodule. Which carcinoma is most likely to occur?
A. Follicular carcinoma
B. Medullary carcinoma
C. Papillary carcinoma
D. Anaplastic carcinoma

B

32. Which is not a sign in fracture of base of skull
A. Battle's sign
B. Racoon's eyes or Panda eyes
C. CSF otorrhoea
D. Subconjunctival haemorrhage

D

33. A 55-years old post menopausal woman, on hormone replacement therapy (HRT), presents with heaviness in both breasts. A screening mammogram reveals a high density speculated mass with cluster of pleomorphic microcalcification and ipsilateral large axillary lymph nodes. The mass described here most likely represents:
A. Cystosarcoma phyllodes
B. Lymphoma
C. Fibroadenoma
D. Carcinoma

D

34. Which is not true about thoracic outlet syndrome?
A. Radial nerve is commonly affected
B. Neurological features are most common
C. Resection of 1st rib relieves symptom
D. Positive Adson's test

A

35. True about Brainstem Glioma are all except:
A. Lower grade tumors tend to occur in the upper brainstem, and higher grade tumors in the lower brainstem/medulla
B. Presents with multiple cranial nerve palsies and long tract findings
C. Most are malignant, have poor prognosis
D. Most patients are surgical candidates

D

36. Duval procedure in case of chronic pancreatitis involves:
A. Distal resection of tail of pancreas with end to end pancreaticojejunostomy
B. Distal resection of tail of pancreas with longitudinal opening of duct and pancreaticojejunostomy
C. Duodenum preserving pancreatic head resection
D. Local section of pancreatic head with longitudinal pancreaticojejunostomy

A

37. In growth at hepatic flexure of the colon, which structure is not ligated during surgery?
    A. Right colic artery
    B. Ileocolic artery
    C. Middle colic artery
    D. Left colic artery

D

38. Continuous spinal anaesthesia with a small caliber subarachnoid Catheter is no longer a recommended anaesthesia technique because of :-
    a) High incidence of PDPH.
    b) High risk of arachnoiditis.
    c) Occurrence of cauda equine syndrome.
    d) Occurrence of catheter tearing during removal.

C

39. Which of the following is the likely mechanism of action of local anaesthetics:-
    a) Alteration of R.M.P.
    b) Prevention of Potassium efflux.
    c) Prevention of Potassium influx.
    d) Inhibition of sodium influx.

D

40. "Hat sign" on double contrast barium enema is seen in:
    a) Ulcer
    b) Polyp
    c) Carcinoma
    d) Diverticulum

B

41. All of the following are recognized indications for foetal MRI, except
    a) Congenital anomalies of the brain and spine
    b) Masses in the face or neck
    c) Thoracic masses including CCAM, CDH
    d) Assessment of polyhydramnios

D

42. Which part of the cochlea is damaged by noise induced hearing loss?
    a) Basal turn
    b) Stria vascularis
    c) Apex
    d) Basilar membrane
    e) Inner hair cell

A

43. A 35-year-old woman has been complaining over the last 10 years of attacks of incapacitating vertigo, tinnitus and decreased hearing. During the attack there was a sense of aural fullness, the patient described it as if his ear is about to explode. In between the attacks that usually occur once or twice a week the patient feels fine or may have a minor sense of imbalance. The patient also reported that her hearing ability has decreased over the years. Examination of the ears showed bilateral normal tympanic membranes and some non-occluding earwax. What is the most likely diagnosis?
a.Benign Paroxysmal Positional vertigo
b.Idiopathic Endolymphatic hydrops
c.Acoustic neuroma
d.Vertebrobasilar insufficiency

B

44. Foul smelling ear discharge with presence of pale granulation tissue in ear in an adolescent boy is suggestive of?
a) Cholesteatoma
b) Tuberculosis
c) Otomycosis
d) Malignant otitis externa

A

45. Posterior glenohumeral dislocations occur more found in which group of patients
a) Rugby players.
b) Ehlers–Danlos patients.
c) Hypermobile patients.
d) Epileptics.

D

46. Which of the following findings is NOT helpful in distinguishing optic disc drusen from true papilledema?
a) Disc elevation
b) Capillary dilation
c) Normal peripapillary nerve fiber layer
d) Early hyperfluorescence on fluorescein angiography

A

47. The parents of a 7-month-old child complain of intermittent tearing only, beginning 3 months ago. Their pediatrician prescribed lacrimal sac massage but noticed a decreased red reflex on a follow-up visit. The most likely diagnosis is
a) Congenital glaucoma
b) Infantile cataract
c) Chlamydial conjunctivitis with corneal scarring
d) Retinoblastoma

A

48. The most important determinant in selecting a corrective procedure for any type of ptosis is
a) Vertical height of the palpebral fissure
b) Amount of levator function
c) Duration of the ptosis
d) Position of the upper eyelid margin relative to the corneal limbus

B

49. A wide pulse pressure as an indicator of large left to right shunt is seen in?
    a. Atrial septal defect
    b. Ventricular septal defect
    c. Patent ductus arteriosus
    d. Partial anomalous pulmonary venous drainage

C

50. A three year old child can do which of the following except
    a. Ride a tricycle
    b. Build a tower of ten cubes
    c. Knows his gender and age
    d. Use scissors to cut out pictures

D

51. The most common manifestation of cerebral edema from an overly rapid decrease of serum sodium concentration during correction of hypernatremic dehydration is
    a. Irritability
    b. Hyperreflexia
    c. Spasticity
    d. Seizure

D

52. Absence of fructose content in the semen indicates
    a) Absence of one testis
    b) Congenital absence of prostate gland
    c) Absence of testosterone hormone
    d) Congenital absence of seminal vesicle

D

53. Following are the indications of intrauterine insemination except
    a) Cervical stenosis
    b) Hypospadias
    c) Asthenospermia
    d) Recurrent abortions

D

54. Precocious puberty associated with bony dysplasia and café au lait spots in skin is seen in
    a) Frohlich's Syndrome
    b) Alport's Syndrome
    c) McCune Albright Syndrome
    d) Laurence Moon Biedl Syndrome

C

55. Which of the following is the non contraceptive benefit of OCPs
    a. Decreases incidence of Breast CA
    b. Decreases incidence of lung CA
    c. Decreases incidence of colorectal CA
    d. Decreases incidence of gallbladder CA

D

56. Most common site for extra pelvic endometriosis is
    a. Broad ligament
    b. Sigmoid colon
    c. Rectum
    d. Ovary

B

57. Power of a study is:
    a) Its ability to reject a true null hypothesis
    b) Its ability to reject a false null hypothesis
    c) Its ability to not reject a true null hypothesis
    d) Its ability to not reject a false null hypothesis

B

58. A researcher commits a Type 1 error if:
    a) The researcher fails to reject the null hypothesis when the null hypothesis is in fact false
    b) The researcher fails to reject the null hypothesis when the null hypothesis is in fact true
    c) The researcher rejects the null hypothesis when the null hypothesis is in fact false
    d) The researcher rejects the null hypothesis when the null hypothesis is in fact true.

D

59. An infected person is less likely to encounter a susceptible person when a large proportion of the members of the group are immune. This is attributed to
    a. Active immunity
    b. Passive immunity
    c. Herd immunity
    d. Specific immunity

C

60. If the researcher wants to evaluate the impact of a prevention program which is the appropriate measure to be considered
    a. Incidence
    b. Point Prevalence
    c. Period prevalence
    d. Case to death ratio

A