सत्यमेव जयते

Government of Jammu and Kashmir
Government Medical College, Srinagar

Notification No. 02–EC of 2025
Dated: 05-03-2025

Today on **5th March, 2025**, the Government Medical College, Srinagar conducted written tests of the candidates for selection/engagement as **Senior Residents/Tutors** from **02.20 PM to 03.20 PM** in the following disciplines:-

S.No.	Name of the Discipline	S.No.	Name of the Discipline
01	Anatomy	02	Anesthesiology
03	Dermatology	04	Medicine
05	Pathology	06	Pediatrics
07	Physiology	08	Psychiatry
09	Radio Diagnosis & Imaging	10	Surgical Gastroenterology

The solved Question Papers of these tests as per respective Answer Keys framed by the paper-setters have been uploaded on the official website of GMC, Srinagar www.gmcs.ac.in for information of all concerned candidates.

If any candidate feels that the key to any question(s) is/are wrong, he/she can submit objection/representation on the prescribed format annexed as per **annexure-A** alongwith sufficient documentary proof/evidence and fee of Rs. 300/= per question(refundable in case of genuine/ correct representation) in the Academic Section, Govt. Medical College, Srinagar within two days from the date of issuance of this notification.

Challenges made by the candidates will be verified by the subject Experts. If the challenge of any candidate is found correct, the respective Answer Key will be revised and applied in the response of all the candidates accordingly. The key finalized by the Experts after the challenge will be final and the result will be prepared on the basis of the revised Final Answer Key.

No objection/representation shall be entertained after expiry of the stipulated time frame i.e. after **07.03.2025 (04:00 PM)**

(Mohammad Ashraf Hakak), JKAS
Administrator, Assoc. Hospitals,
GMC, Srinagar
Member/Secy. Selection Committee.

No:- GMC/EC/WT/SR/PK/30-41 Dated:- 05-03-2025

Copy for information and n.a to the:-

1. Secretary to Government, Health & Medical Education Department, J&K Civil Secretariat, Srinagar.
2. Joint Director Information with the request that the notification may kindly be got published in the prominent local dailies preferably in Greater Kashmir, Aftab and Srinagar Times.
3. Chief Accounts Officer, Govt. Medical College, Srinagar for information
4. I/C Website, Govt. Medical College, Srinagar with the directions to upload the notification on the official website of the Institution.

(Annexure- A)

Representation regarding objections(s) to any Question/Answer pertaining to the written test held on 05-03-2025 for selection of SENIOR RESIDENTS/TUTORS

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Name of the candidate : _____

Roll No. : _____

Discipline : _____

Address : _____

Payment details : _____

Candidate's 16 digit A/C No. _____

Question No.	Details of objection	Resource Material (copy to be enclosed)

Signature of the candidate

SOLVED QUESTION PAPER OF ANATOMY

Q1 With regard to the spleen, which is NOT true?

A

a) in splenomegaly, the splenic flexure of the colon lies superficial to its anterior border
b) its anterior border is notched
c) its medial relations include left kidney, lienorenal ligament, pancreas and lesser sac
d) it lies between the 9th and 11th ribs.

Q2 Pelvic joints and ligaments

D

a) muscles of pelvis include obturator externus and piriformis
b) piriformis arises from the lower third part of the sacrum
c) the sigmoid colon becomes the section at the level of the 4th part of the sacrum
d) the rectum has no mesentery

Q3 Contents of the deep inguinal ring include all but:

A

a) ilioinguinal nerve
b) vas deferens
c) cremasteric artery
d) genital branch of the genitofemoral ligament

Q4 Which part of the brain has a blood-brain barrier?

A

a) anterior pituitary
b) posterior pituitary
c) pineal body
d) area postrema of the fourth ventricle

Q5 In central cord syndrome there is:

C

a) loss of movement and all sensation below the injured segment
b) paralysis and loss of touch sensation on one side and loss of pain and temperature sensation in the upper limbs and spasticity of the lower limbs
c) intact touch sensation with loss of all motor and other sensory functions
d) no loss of motor or sensory function

Q6 With regards to the retina, which is CORRECT?

C

a) the retina covers the inner surface of the choroids and is light sensitive everywhere except at the corneal area
b) the optic disc contains retina that is completely free of blood vessels and is yellowish in colour
c) the optic disc and fovea are of similar size
d) the fovea contains no blood vessels or cones, but a high concentration or rods

Q7 Which extraocular muscle does NOT arise from the tendinous ring of the orbit?

B

a) superior rectus
b) superior oblique
c) inferior rectus
d) medial rectus

Q8 Which structure is intrasynovial at the knee joint:
a) oblique popliteal ligament
b) tendon of popliteus
c) medial and lateral menisci
d) none of the above

D

Q9 The sciatic nerve:
a) lies deep to the posterior femoral cutaneous nerve
b) passes down over obturator internus, quadratus, femoris and piriformis
c) tibial and common peroneal components separate behind the hip joint
d) in the buttock it lies midway between the greater trochanter and pubic tuberosity

A

Q10 A 30 year old man presents with adenopathy of the medial group of superficial inguinal lymph nodes on the right side. Which of the following is the primary site resulting in this finding?
a) right testis
b) right buttock
c) the skin of the right lower limb
d) the anal canal

D

Q11 In the popliteal fossa, the deepest of these structures is:
a) popliteal vein
b) popliteal artery
c) tibial nerve
d) sural nerve

B

Q12 The strongest fibres of the 'deltoid' ligament in the ankle run from the tibial malleolus to:
a) medial tubercle of the talus
b) the neck of the talus
c) the sustentaculum tali
d) the navicular bone

C

Q13. Within the thoracic inlet
a. The oesophagus lies against the body of C5
b. The arch of aorta passes from right to left
c. On the right side, the trachea is separated from the vagus nerve and apex of the lung
d. The trachea touches the jugular notch of the manubrium

D

Q14 Pleural reflection lies at which rib level in the midaxillary line?
a. 6th
b. 8^{th}
c. 9th
d. 10^{th}

D

Q15 With respect to the bronchi:
a) the carina lies to the left of the midline
b) the left apicoposterior bronchus of the upper lobe rises highest from the posterior surface of the lung
c) each lung has eight segmental bronchi
d) the left main bronchus is shorter than the right

A

Q16 The sternoclavicular joint:
a) is a simple synovial joint
b) is more likely to dislocate posteriorly than anteriorly
c) is supplied by the cervical plexus
d) undergoes weak active rotation due to the action of subclavius

C

Q17 In the deepest intercostal muscle layer:
a) the subcostals line the rib cage at the side
b) fibres of the innermost intercostal group only span one intercostal space
c) fibres of the subcostals group only span one intercostal space
d) transversus thoracis fibres only arise from 2nd to 6th costal cartilages

D

Q18 Which vessel is not an end artery?
a) renal artery
b) retinal artery
c) pulmonary artery
d) intercostal artery

D

Q19 The appendages of the skin:
a) are derived from mesoderm
b) are derived from epidermal tissues
c) lie in the dermal layer
d) are derived from endoderm

B

Q20 Melanocyte(s):
a) number determine the colour of the skin
b) are responsible for high colour, greying is the result of decreasing numbers
c) produce varying melanin
d) are found mainly in the dermal layer

C

Q21 Which is correct?
a) B-cells are responsible for cell-mediated immunity
b) plasma cells are differentiated B-cells
c) all lymphoid tissue is encapsulated
d) in lymph nodes, follicles of lymphocytes are concentrated in the medullary region

B

Q22 In the foetal skull:
a) the vertical height of the orbit is equal to the combined heights of the maxilla and the mandible
b) the mandible is ossified at birth
c) the anterior fontanelle is closed at the end of one year of life
d) the volume of the vault is equal to that of the face

A

Q23 Which muscle does not insert in or next to the intertubecular groove of the upper humerus?
a) pectoralis major
b) pectoralis minor
c) latissimus dorsi
d) teres major

B

Q24 Which of the following has some nerve supply from the radial nerve?
a) long head of biceps
b) coracobrachialis
c) short head of biceps
d) brachialis

D

Q25 Regarding types of joints, which pairing is CORRECT?
a) diarthrosis – cranial suture
b) synarthrosis – symphysis pubis
c) amphiarthrosis – sternoclavicular joint
d) syndesmoses – tibiofibular joint

D

Q26 What structure does NOT lie in the anatomical snuff box?
a) cephalic vein
b) radial artery
c) radial styloid
d) extensor pollicis longus

D

Q27 An example of secondary cartilaginous joint include:
a) hip joint
b) manubrio-sternal joint
c) costochondral joint
d) epiphysis joint

B

Q28 Within the anal canal are anal cushions (dilated venous spaces and av anastomoses)
a) 3, 7 and 11 o'clock
b) 2, 6, and 10 o'clock
c) 3, 6 and 11 o'clock
d) 1, 7 and 12 o'clock

A

Q29 The midgut:
a) is from the opening of the bile duct into the duodenum to the ileocecal junction
b) all venous drainage is to the superior mesenteric vein
c) superior mesenteric artery lies on the right side of the superior mesenteric vein
d) superior mesenteric artery originates off the aorta at L3

B

Q30 Referred pain from which organ may be felt in the cutaneous distribution of the obturator nerve?
a) bladder
b) prostate
c) ovary
d) uterus

C

Q31 Lymph drainage of the scrotum is to
a) The superficial inguinal nodes
b) The internal iliac nodes
c) The deep inguinal does
d) The external iliac nodes

A

Q32 The ureters
a. Widest in diameter at the PUJ
b. Innervated by sympathetic nerves T12-L1
c. Lie lateral to the tips of the lumbar transverse processes
d. None of the above are true

D

Q33 All the following are veins which drain the stomach EXCEPT:
a. Gastroepiploic
b. Gastroduodenal
c. Right gastric
d. Left gastric

B

Q34 Which structure does NOT receive supply from the oculomotor nerve?
a) medial rectus
b) ciliary body
c) levator palpebrae superioris
d)lateral rectus

D

Q35 The brain stem does NOT include the:
a) diencephalons
b) midbrain
c) medulla oblongata
d) pons

A

Q36 The dermatome supplying the great toe is usually
a. L3
b. L4
c. L5
d. S1

C

Q37 Which muscle helps to open the jaw?
a) medial pterygoid
b) lateral pterygoid
c) masseter
d) temporalis

B

Q38 The facial nerve:
a) marginal mandibular branch supplies muscles of the upper and lower lips
b) emerges through the stylomastoid foramen
c) has four main branches that exit the parotid gland
d) supplies the anterior belly of digastric

B

Q39 The middle meningeal artery is a branch of the:
a) middle cerebral artery
b) anterior cerebral artery
c) internal carotid artery
d) maxillary artery

D

Q40 Regarding the bones of the skull:
a) the anterior clinoid processes are formed by the lesser wings of the sphenoid
b) the posterior clinoid processes are formed from the occipital bone
c) the dorsum sellae is formed from the anterior part of the occipital bone
d) the petrous temporal bone forms the floor of the middle cranial fossa, but not the wall of the posterior cranial fossa

A

Q41 Parotid duct traverses through:
a) Masseter
b) Buccinator
c) Medial pterygoid
d) Lateral pterygoid

B

Q42 Sensory supply of soft palate is by all EXCEPT?
a) Lesser Palatine nerve
b) Glossopharyngeal nerve
c) Vigus Nerve
d) Maxillary nerve

C

Q43 The occipital lobe contains which of the following primary sensory areas?
a) Visual
b) Taste
c) Auditory
d) Olfactory

A

Q44 The sensation of temperature, touch, pressure and pain occurs in:
a) Temporal lobe
b) Occipital lobe
c) Parietal lobe
d) Frontal lobe

C

Q45 Which does not pass through the transpyloric plane?
a) Splenic vein
b) Tips of the 9th costal cartilages
c) Lower border of L1
d) Spleen

D

Q46 Regarding the vessels of the pelvis
a) The inferior and superior gluteal arteries are branches of the posterior division of the internal iliac artery
b) The iliolumbar artery passes in front of the obturator nerve
c) The uterine artery passes above the ureter
d) The inferior vesical artery always supplies the lower end of the ureter

C

Q47 4 The thumb is supplied by which dermatome
a) C4
b) C5
c) C6
d) C7

C

Q48 The ankle jerk is a test of which segment
a) A L2
b) L3
c) L4
d) S1

D

Q49 For sternocleidomastoid, which is TRUE?
a) contraction of one muscle rotates the head to the ipsilateral shoulder
b) it is crossed superficially by the external jugular vein
c) it is supplied by the transverse cervical nerve
d) its clavicular fibres mainly insert into the superior nuchal line

B

Q50 As it emerges from the axilla, the median nerve lies where with regards to the brachial artery?
a) lateral
b) anterior
c) medial
d) posterior

A

Q51 Regarding muscle strength, which is NOT a factor?
a) resting length of muscle
b) cross sectional area
c) lever arm length
d) the extent to which the muscle is contracted

A

Q52 In regard to connective tissue:
a) aponeuroses are a form of deep fascia
b) retinaculae are a form of ligament
c) deep fascia is insensate
d) some ligaments are designed to allow a degree of elasticity

D

Q53 What are vincula?
a) the papillary ridges that form fingerprints
b) superficial fibres of the palmar aponeurosis that insert into the skin
c) remnant fibres of palmar interossei that insert into the proximal area of the thumb
d) vascular synovial folds of flexor tendons

D

Q54 In the skin:
a) apocrine sweat glands are confined to the axillae, areolar, periumbilical and genital regions
b) dark skinned races posses greater numbers of melanocytes
c) sebaceous glands are abundant on the palms and soles
d) melanocytes predominate in the dermis

A

Q55 Which vessel is NOT involved in the trochanteric anastomosis?
a) superior gluteal artery
b) obturator artery
c) lateral circumflex femoral artery
d) medial circumflex femoral artery

B

Q56 Which of the following, regarding the great saphenous vein, is INCORRECT?
a) it is the longest vein in the body
b) it passes behind the medial malleolus
c) at the knee, it lies a hand's breadth behind the medial border of the patella
d) the saphenous opening lies about 3cm below and lateral to the pubic tubercle

B

Q57 An example of a unipennate muscle is:
a) sartorius
b) flexor pollicis longus
c) rectus femoris
d) deltoid

B

Q58 Which of the following nerve roots is correctly associated with the corresponding muscle action?
a) L5 plantar flexion
b) L2 knee extension
c) C5 abduction of the shoulder
d) C8 abduction of the thumb

C

Q59 Which part of the brain has a blood-brain barrier?
a) anterior pituitary
b) posterior pituitary
c) pineal body
d) area postrema of the fourth ventricle

A

Q60 Which is the smallest cranial nerve?
a) olfactory nerve (I)
b) oculomotor nerve (III)
c) trochlear nerve (IV)
d) abducent nerve (VI)

C

SOLVED QUESTION PAPER OF ANAESTHESIOLOGY

1. Cefazolin, as a component of perioperative antimicrobial prophylaxis for surgery, must begin within what time before incision?
   A. Simultaneously with incision
   B. Within 30 minutes prior to incision
   C. Within 60 minutes prior to incision
   D. Within 120 minutes prior to incision

   C

2. For emergent surgery, anticoagulation produced by warfarin can be immediately reversed by using
   A. Fresh-frozen plasma (FFP)
   B. Injectable vitamin K
   C. Prothrombin complex concentrate
   D. Factor VIII concentration

   B

3. Which of the following flowmeters is situated nearest to the gas outlet?
   A. Nitrous oxide
   B. Oxygen
   C. Air
   D. None of the above

   B

4. In a CO2-absorbent canister, the greatest amount of carbon monoxide is produced by which of the following volatile agents?
   A. Sevoflurane
   B. Halothane
   C. Isoflurane
   D. Desflurane

   D

5. Etomidate is not used for long-term infusion because:
   A. It results in adrenal suppression
   B. It may cause vasospasm
   C. It results in cardiac arrhythmias
   D. It may cause increase in Intracranial pressure

   A

6. Triangle of Petit is a landmark for which block:
   A. Subarachnoid block
   B. Bier's block
   C. TAP block
   D. Interscalene block

   C

7. What forms the posterior boundary of the epidural space?
   A. Anterior longitudinal ligament
   B. Anterior aspect of the laminae
   C. Supraspinous ligament
   D. Posterior aspect of the laminae

   D

8. Which of the following statements about the occurrence of cardiac arrest after the administration of a spinal anaesthetic is MOST likely true:
   A. it is usually preceded by a period of hypoxia
   B. it is usually occurs approximately 30 minutes after the spinal injection
   C. it is usually associated with a sensory level above T2
   D. hypotension is frequently a preclude

   D

9. The site of action of epidural local analgesics is:
   A. Substantia gelatinosa of spinal cord
   B. Spinal cord
   C. Spinal nerve roots
   D. Dorsal horn

   C

10. TURP can cause all of the followings EXCEPT:
   A. Ammonia intoxication
   B. Hypernatremia
   C. Hemolysis
   D. Hypoosmolarity

   B

11. Adult spinal cord ends at
   A. L3 vertebra
   B. L1 vertebra
   C. L5 vertebra
   D. Sacral vertebra

   B

12. The major part of CO2 carried in blood as:
   A. Carbamino compound in RBCs
   B. Dissolved in plasma
   C. Bicarbonate
   D. Carbonic acid

   C

13. Which one of the following nerve injury causes wrist drop?
   A. Ulnar nerve
   B. Radial nerve
   C. Median nerve
   D. Musculocutaneous nerve

   B

14. Normal Alveolar-arterial gradiaent;
   A. 5-15
   B. less than 5
   C. Greater than 25
   D. 15-25

   A

15. pH of thiopental is:
   A. 10.8
   B. 6.5
   C. 8.1
   D. 3.5

   A

16. A twelve year old patient is prepared for dental surgery; his uncle has a history of hemophilia, which lab test should be done?
   A. PT
   B. APTT
   C. Platelet count
   D. BT & CT

   B

17. The following is NOT true about the Central Venous Pressure Waveform Components
A. v wave represent Systolic filling of atrium
B. h wave represents Diastolic plateau
C. v wave represent Systolic filling of ventricles
D. x descent represents Atrial relaxation

C

18. The highest blood flow per gram of tissue goes to which organ
A. Brain
B. Kidney
C. Liver
D. Heart

B

19. E type cylinder of O2 contains
A. 170 L
B. 340 L
C. 680 L
D. 1360 L

C

20. Vasoconstrictor not affecting the placental blood flow
A. Ephedrine
B. Epinephrine
C. Phenylephrine
D. Phentolamine

A

21. A 25 year old male with unanticipated difficult intubation and difficult mask ventilation. The attending anesthesiologist is in need of an immediate reversal of neuromuscular blockade induced by rocuronium. The dose of sugammadex required for the same is
A.6 mg/kg.
B.10mg/kg
C.16mg/kg
D. 20mg/kg

C

22. Which of the following is not a class I indication for Permanent Pacemaker during assessment in the preoperative period of a patient scheduled for surgery:
A. Sinus bradycardia with symptoms due to the bradycardia.
B. Symptomatic Mobitz I or II second-degree AV block
C. Bifascicular or trifascicular block associated with syncope possibly related to intermittent third-degree heart block
D. Exercise-induced second- or third-degree AV block

C

23. ASRA Evidence-Based Guidelines for Neuraxial Anesthesia in the Patient Receiving Thromboprophylaxis, Coumarins should be stopped how many days prior to neuraxial needle/catheter placement
A. 3 days
B. 4 day
C. 2 days
D. None of the above

D

24. Which of the following is NOT true about Alpha 2 agonists as an additive for epidural anesthesia

A

A. Epidural clonidine can prolong motor block to a greater extent than sensory block
B. The cardiovascular effects may be greatest when clonidine is administered in the epidural space at the thoracic level.
C. Epidural dexmedetomidine prolong both sensory and motor blocks.
D. The addition of clonidine reduces both epidural local anesthetic and opioid requirements

25. Which of the following is true about goal directed therapy

A

A. typical approach to GDT is to rapidly administer 250 mL boluses of colloid or crystalloid, aiming to increase SV by 10% or more each time.
B. A typical approach to GDT is to rapidly administer 250 mL boluses of colloid aiming to increase SV by 10% or more each time.
C. A typical approach to GDT is to rapidly administer 250 mL boluses of crystalloid, aiming to increase SV by 10% or more each time.
D. A typical approach to GDT is to rapidly administer 250 mL packed RBCs, aiming to increase SV by 10% or more each time.

26. Which of the following is true about delta anion Gap

C

A. Delta ratio of greater than 2 is suggestive of Hyperchloremic normal AG acidosis
B. Delta ratio is not successfully able to predict adverse outcomes in critical illness
C. Delta Ratio is calculated by Measured anion gap– Normal anion gap/ Normal [HCO−3] – Measured [HCO−3]
D. All the above statements are true

27. Which of the following is true about lactic acidosis

C

A. type 1 (type A) occurs in normal global oxygen delivery and tissue perfusion
B. Type 1 lactic acidosis may also be seen in cyanide poisoning (associated with sodium nitroprusside),
C. D-lactate-induced acidosis manifests as a widened AG acidosis where no other potential source of metabolic acid is identified.
D. fluid resuscitation should be continued IN lactic acidosis even if plasma lactate does not fall

28. All the following statements are true EXCEPT

A

A. In patients with a moderate to high risk of significant blood loss the Hb value ideally should be obtained 1 to 2 weeks prior to surgery
B. A restrictive policy is the administration of blood transfusion when the Hb value is 7 to 8 g/dL or less.
C. A liberal policy is the administration of blood transfusion when the Hb value is 9 to 10 g/dL or greater.
D. All the above statements are true

29. Criteria for Selection of Patients for Acute Normovolemic Hemodilution Which is NOT TRUE

A. Likelihood of transfusion exceeding 20% (i.e. blood requested for crossmatch according to a maximum surgical blood order schedule)
B. Preoperative Hb of at least 12 g/dL
C. Absence of clinically significant coronary, pulmonary, renal, or liver disease
D. Absence of severe hypertension.

A

30. In a normal person, what percentage of the cardiac output is dependent on the "atrial kick"?

A.25%
B.35%
C. 45%
D.55%

A

31. Normal resting myocardial O2 consumption is

A. 2.0 mL/100 g/min
B. 3.5 mL/100 g/min
C. 8 mL/100 g/min
D. 15 mL/100 g/min

C

32. The adverse effects (on the mother) associated with aortocaval compression by the gravid uterus include

A. Nausea and vomiting
B. Changes in cerebration
C. Fetal distress
D. All of the above

C

33. A Eutectic Mixture of Local Anesthetics (EMLA) cream is a mixture of which local anesthetics?

A. Lidocaine 2.5% and prilocaine 2.5%
B. Lidocaine 2.5% and benzocaine 2.5%
C. Prilocaine 2% and benzocaine 2%
D. Lidocaine 4%

A

34. Since fresh gas flow equal to minute ventilation is sufficient to prevent rebreathing, which of the following Mapleson circuit breathing/ventilation systems is the most efficient for spontaneous ventilation of the patient?

A. Mapleson A
B. Mapleson B
C. Mapleson C
D. Mapleson D

A

35. Anomalies and features associated with Down syndrome include

A. Smaller tracheas
B. Atlanto-occipital instability
C. Thyroid hypofunction
D. All of the above

D

36. Which of the following medications blocks angiotensin at the receptor?
A. Losartan
B. Terazosin
C. Lisinopril
D. Spironolactone

A

37. The dose of adenosine necessary to convert paroxysmal supraventricular tachycardia (PSVT) to normal sinus rhythm should be initially reduced
A. In patients receiving theophylline for chronic asthma
B. In patients with a history of arterial thrombotic disease taking dipyridamole
C. In patients with a history of chronic renal failure
D. In chronic alcoholics

B

38. The most common adverse cardiac event in the paediatric population is
A. Hypotension
B. Bradycardia
C. Tachycardia
D. Bigeminy

B

39. The end-tidal CO2 measured by an infrared spectrometer is 35 mm Hg. An arterial blood gas sample drawn at exactly the same moment is 45mm Hg. Which of the following is the LEAST plausible explanation for this?
A. Morbid obesity
B. Pulmonary embolism
C. Intrapulmonary shunt
D. Chronic obstructive pulmonary disease

C

40. Post Aortic valve replacement, the therapeutic range of INR to be maintained is:
A. 1.5-2.5
B. 1-1.5
C. 2.5-3
D. 3.5-4.5

C

41. A patient with cardiogenic pulmonary edema on NIV becomes unresponsive. The monitor shows mild tachycardia, hypertension, and spo2 90%.What will you do next?
A. Start CPR
B. Increase IPAP as tachycardia and hypertension mean increase in Paco2.
C. Intubate the patient.
D. Do cardiology call.

C

42. According to AIDAA guidelines, pre oxygenation should be administered in which head up position?
A. 10 DEGREE
B. 20 DEGREE
C. 30 DEGREE
D. 45 DEGREE

B

43. Which law is used to measure the amount of gas in an Oxygen cylinder?
A. Boyle's law
B. Charles law
C. Henry's law
D. Avagadro's hypothesis

A

44. All of the following drugs readily cross the placenta, except
A. β-Agonist antagonists
B. Local anesthetics
C. Insulin
D. Morphine

C

45. During rapid-sequence induction of anaesthesia for emergent laparotomy to explore multiple stab wounds, a 45-year-old man vomits a large quantity of undigested food particles. During intubation of the trachea, food particles are noted near the cords. After instituting ventilation with 100% oxygen, the most appropriate next step in this patient's management is
A. Place patient in Trendelenburg position
B. Ventilate with positive end–expiratory pressure of 15 cm H2O
C. Administer corticosteroids
D. Administer antibiotics

A

46. Each of the following statements about the preoperative management of an adrenal pheochromocytoma is true, except
A. Adequate blockade can be assessed by in-house blood pressures <160/90 mm Hg for 24 hours prior to surgery
B. β-Blockers should be administered only in conjunction with adequate αblockade
C. Administration of α-blocker can decrease operative mortality
D. Nasal congestion is a sign of inadequate α-adrenergic block

D

47. Neonates lose heat by all the following mechanisms in the operating room, except
A. Conduction to cold surfaces
B. Exposure to cold operating room
C. Dry airway gases
D. Metabolism of brown fat

D

48. All of the following anatomic structures may participate in triggering an acute and abrupt bradycardia during ophthalmic surgery, except
A. Trigeminal nerve
B. Vagus nerve
C. Globe
D. Optic nerve

D

49. Supraclavicular approach for brachial plexus blockade would deposit local anesthetics at which of the following anatomical levels of the plexus?
A. Branches
B. Trunks/Divisions
C. Cords
D. Roots

B

50. The accuracy of pulse oximetry can be significantly reduced by all of the following, except
A. Intravenous bolus of methylene blue
B. Intravenous bolus of heparin
C. Severe acidosis
D. Low blood flow

B

51. Approximately 30 minutes after the induction of general anesthesia in a healthy adult patient, you notice that core body temperature has dropped by a full degree Celsius. This is most likely due to
A. Conduction
B. Convection
C. Redistribution
D. Radiation

C

52. Which of the following drugs needs not be avoided in the anesthetic management of a patient with Wolff–Parkinson–White (WPW) syndrome?
A. Ketamine
B. Pancuronium
C. Succinylcholine
D. Digitalis

C

53. Which of the following anesthetic agents is contraindicated for use in patients with intermittent porphyria?
A. Ketamine
B. Etomidate
C. Isoflurane
D. Thiopental

D

54. Which of the following drugs decreases lower esophageal sphincter tone?
A. Succinylcholine
B. Glycopyrrolate
C. Metoclopramide
D. Neostigmine

B

55. The Framework for End-of-Life Conferences is/ are
A. – VALUE Framework
B. SPIKES Framework
C. NURSE framework
D. All of the above

D

56. The Physiologic Changes With Aortic Unclamping* and Therapeutic Intervention are all except
A. increased Total body oxygen consumption
B. decreased Lactate
C. increased Activated complement
D. decreased temperature

B

57. Ex-utero intrapartum therapy (EXIT) that allows fetal stabilization while on uteroplacental Circulation is used for
A. Fetal airway compression
B. sacrococcygeal teratome
C. Twin-twin transfusion syndrome
D. D. Amniotic band syndrome

A

58. Which of the following is not true about the cognitive screening tools
A. Montreal Cognitive Assessment takes less than 2 minutes to administer
B. Clock-drawing Test has No standards for administration and scoring
C. Mini-Mental State Examination has the disadvantage of being subject to age and cultural Bias
D. Verbal Fluency Test the cut point is not obvious

A

59. In Phases of Major Traumatic Resuscitation the phase 2 indicates
A. Ongoing hemorrhage—not immediately life-threatening—partial surgical control
B. Life-threatening uncontrolled haemorrhage
C. Hemorrhage controlled
D. Intracranial bleeding

A

60. Regarding intraocular pressure the following statements are NOT True
A. Normal intraocular pressure (IOP) is 16 ± 5 mm Hg
B. Value in excess of 35 mm Hg is considered pathological.
C. Normal intraocular pressure IOP is necessary to maintain cornea curvature
D. Normal intraocular pressure IOP a proper refracting index of the eye.

B

Solved question paper of Dermatology

1. Epidermal desmosomes serve to adhere the cells together due to the presence of various glycoproteins.
   Which of the following components of the desmosomes is not targeted in paraneoplastic pemphigus?
   a. Corneodesmosin
   b. Desmoglein
   c. Desmoplakin
   d. Periplakin
   e. Plakoglobins

   A

2. A 60 yr old man seriously ill in ICU with neutropenia on background of CML developed several erythematous and purpuric macules on his thigh and lower back , which rapidly developed into haemorrhagic bullae which ruptured leaving ulcers with eschars. There was a surrounding erythematous, violaceous , necrotic area of skin .
   Blood cultures will most likely show which of the following organisms?
   a. E.coli
   b. Nesseria meningitides
   c. Pseudomonas aeruginosa
   d. Staphylococcus aureus
   e. Streptococcus pyogenes

   C

3. Frusemide is a loop diuretic that is widely used. Which of the following blistering disorders can be caused by this drug ?
   a. Bullous pemphigoid & pseudoporphyria
   b. Bullous pemphigoid
   c. Drug induced pemphigus
   d. Linear IgA disease
   e. Pseudoporphyria

   A

4. Which of the following is not a feature of DRESS ?
   a. Fever
   b. Lymphadenopathy
   c. Mucosal ulceration
   d. Edema of face
   e. Peripheral eoisinophila

   C

5. Which of the following antibodies is most specific for SLE ?
   a. Anti Jo antibody
   b. Anti Mi2 antibody
   c. Anti Nuclear antibody
   d. Anti RNP antibody
   e. Anti Smith antibody

   E

6. Which of the following tumors is most likely to develop in organ transplant recipients?
   a. BCC
   b. Brain tumors
   c. Cutaneous lymphoma
   d. Melanoma
   e. SCC

   E

7. Which of the following alopecias has a predominantly neutrophillic infiltrate?
   a. Alopecia areata
   b. Alopecia mucinosa
   c. Foliculitis decalvans
   d. Lichen planopilaris
   e. Pseudopelade of Brocq

   C

8. A 40-yr old man presenting with fever & red/ purple tumid plaques on face for 3 days. A skin biopsy shows papillary dermal edema and a dense , diffuse neutrophillic infiltrate in the reticular dermis .
   What is the most common malignancy associated with this presentation?
   a. Essential thrombocythemia
   b. Lymphocytic leukemia
   c. Myelogenous leukemia
   d. Non Hodgkins lymphoma
   e. Polycythemia

C

9. Which of the following does not trigger or worsen Porphyria cutanea tarda?
   a. Alcohol
   b. Haemochromatosis
   c. HIV
   d. Estrogen containing contraceptives
   e. Phlebotomy

E

10. A patient with severe psoriasis currently on Anti TNF biological is planning to travel abroad and has asked your advice with regards to immunization.
    Which vaccine is safe in this context?
    a. Measles
    b. Pneumococcal
    c. Typhoid
    d. Varicella
    e. Yellow fever

A

11. Which of the following is the commonest clinical subtype of BCC?
    a. Morphoeic
    b. Nodulocystic
    c. Pigmented
    d. Superficial
    e. Ulcerated

B

12. Which of the following is not a neutrophillic dermatosis?
    a. Behcet's disease
    b. Erythema allevatum diutinum
    c. Erythema multiforme
    d. Pyoderma gangerosum
    e. Sweets syndrome

C

13. A 40-yr old women attends for botox injection to treate glabellar lines. Which of the following concurrent treatment would not be considered a contraindication for the botulinum toxin injection?
    a. Aminoglycosides
    b. Calcium channel blockers
    c. Digoxin
    d. Penicillamine
    e. Quinine

E

14. A 58-yr old women is admitted with DVT. Three days after being commenced on warfarin she develops necrotic painful bullae on her thighs.
    What would be next step in management?
    a. Increase warfarin dose
    b. Reduce warfarin dose
    c. Skin biopsy
    d. Start heparin
    e. Stop warfarin

E

15. A 50-yr old patient is commenced on cyclosporin for psoriasis.
Which of the following is true regarding monitoring of cyclosporine therapy?
a. Dose should be reduced if serum creatinine increases by 30% above baseline
b. Cyclosporin bioavailability remains uniform irrespective of the brand used
c. GFR measurement should be carried out every six monthly
d. Intake of grape fruit juice should be encouraged
e. Rise in BP always necessitates additional drug therapy

A

16. Which of the following is the most common malignancy associated with Acanthosis nigricans?
a. Bone
b. Gastric
c. Haematological
d. Lung
e. Renal

B

17. A 2-yr old caucacian boy is referred to paediatric dermatology with the appearance of kinky, wavy hair on scalp. Microscopy of plucked hair reveals tightly coiled hair.
Which other system involvement is to be excluded?
a. Cardiac
b. CNS
c. Gastrointestinal
d. Haematological
e. Renal

A

18. A forensic pathologist is examining hair for suspected poisoning. Chronic exposure and cumulative toxicity of which of the following chemicals can be identified in this way?
a. Arsenic
b. Boric acid
c. Lead
d. Phosphorus
e. Thallium

A

19. You see a 34-yr old patient with longitudinal melanonychia affecting two finger nails. Which of the following is not a recognized cause?
a. AIDS
b. Addison' disease
c. Inflammatory nail disorders
d. Piebaldism
e. Racial

D

20. A 60-yr old woman is referred with scaly, crusted erosions on the malar area of the face and seborrhoeic sites. Skin biopsy shows acantholysis (sub corneal & in granular layer) and ANA is positive . Which of the following is the correct diagnosis?
a. Fogo selvagen
b. PNP
c. Pemphigus erythematosis
d. Pemphigus folicaceus
e. Pemphigus vulgaris

C

21. Latex can cross- react with all of the following except:
a. Avocado
b. Banana
c. Chestnut
d. Kiwi
e. Peanut

E

22. With regards to Anti TNF therapy in severe psoriasis in patients with CCF, the current BAD recommendations are :
    a. Avoidance in any NYHA class
    b. Avoidance in class IV only
    c. Avoidance in class II and above
    d. Avoidance in class III &IV
    e. Safe to use with no risks in patients with cardiac failure

D

23. Which of the following drugs is associated with acneiform eruption?
    a. Erythromycin
    b. Lithium
    c. Propanalol
    d. Ramipril
    e. Tetracycline

B

24. Which of the following cutaneous manifestations can be associated with Hepatitis C infection?
    a. Atopic dermatis
    b. Hidradrenitis suppurativa
    c. Porphyrea cutanea tarda
    d. Pustular psoriasis
    e. Scleroedema

C

25. Which of the following treatments is least suitable for BCC ?
    a. Cryotherapy
    b. Curettage and cautery
    c. Diclofenac sodium gel
    d. Imiquimod
    e. Photodynamic therapy

C

26. In which group of patients will SSS syndrome be associated with poor prognosis ?
    a. Afro- carribeians
    b. Asthmatics
    c. Females
    d. Haemodialysis patients
    e. Males

D

27. Which of the following is the auto antigen in dermatitis herpetiformis ?
    a. BP230
    b. Collagen VII
    c. Collagen XII
    d. Epidermal trans glutaminases
    e. Intestinal trans glutaminase

D

28. A 60 yr old women presents with non tender ,violaceous , annular plaque on the dorsum of her hand . She is on methotrexate for rheumatoid arthritis . skin biopsy shows palisaded granulomas with necrobiosis and dermal mucin . Which of the following statements regarding this condition is true
    a. Methotrexate dose reduction is recommended
    b. Increase the dose of methotrexate
    c. Spontaneous resolution can be expected in 2 yrs
    d. Disease follows severity of rheumatoid arthritis
    e. There is association with rheumatoid arthritis

C

29. A 70 yr old women with CRF develops gangerenous areas on her thighs.
    A skin biopsy shows calcific deposits in blood vessels , necrosis and paniculitis. Which of the following statements is true ?
    a. IV sodium thiosulphate
    b. Parathyroidectomy has no role
    c. Primary hyperparathyroidism is a cause
    d. Prognosis is excellent
    e. Serum calcium levels are generally low

A

30. Which of the following statements is false:
    a. Buccal macules in Peutz Jeghers syndrome may disappear over time
    b. Buccal mucosal macules are pathognomic features
    c. Mutation in STKII or LKBI gene is responsible for more than half of all cases
    d. Pigmented macules are absent at birth
    e. Most common malignancies associated with Peutz Jeghers syndrome are gastrointestinal

A

31. Which of the following is the aetiologic agent of oral hairy leukoplakia?
    a) Cytomegalovirus
    b) Epstein-bar virus
    c) Herpes simplex virus
    d) Small pox virus
    e) Varicella zoster virus

B

32 .You are going to operate on a very anxious patient. All the following help to reduce the pain from local anaesthetic injections except:
    a) Buffered solution
    b) Finer needle
    c) Pinching the skin before injecting
    d) Superficial injection
    e) Warm solution

D

33. Which of the following is not an amide anaesthetic?
    a) Bupivacaine
    b) Lignocaine
    c) Mepivacaine
    d) Prilocaine
    e) Procaine

E

34. A 35 year old Woman presents with Ptosis of her left upper eyelid four days following botulinum toxin injections for forehead wrinkles. What is the best treatment?
    a) Aproclonidine
    b) Clonidine
    c) Doxazocin
    d)Glutaraldehyde
    e) Propranolol

A

35. A 78 year old man presents with recurrent crops of small, pruritic blisters on the scalp, face and neck. Examination shows atrophic scars and small vesicles on the scalp. Oral mucosa is spared. A punch biopsy shows a non-inflammatory, sub-epidermal blister and DIF demonstrates linear deposits of complement C3 and IgG at dermoepidermal junction. What is the diagnosis?
    a) Brunsting-perry cicatricial pemphigus
    b) Linear IgA disease
    c) Porphyria Cutanea tarda
    d) Pseudo Porphyria
    e) Sweet's Syndrome

A

36. A 50 year old man presented with non tender papules and nodules with no surface changes on the back. He had recently been complaining night sweats and weight loss. Histology of the lesion showed a dense dermal infiltrate which stained negative for CD3, CD20, CD79a, bcl-6, CD4, CD30 & CD5 and was positive for CD43 and myeloperoxidase. What is the likely diagnosis?
    a) Anaplastic large cell lymphoma
    b) Follical centre B cell lymphoma
    c) Leukaemia cutis
    d) Marginal zone B cell lymphoma
    e) Mycosis fungoides

C

37. Perineural invasion is typically not observed in which of the following:
    a) Desmoplastic trichoepithelioma
    b) Infiltrative type BCC
    c) Microcystic adnexal carcinoma
    d) Morphoeic type BCC
    e) Poorly differentiated SCC

A

38. Of all the pregnancy associated dermatosis, cholestatis of pregnancy is associated with highest incidence of foetal distress. The risk of foetal distress is highest if the levels of maternal bile salts are higher than:
    a) 5µmol/l.
    b) 10µmol/l
    c) 20µmol/l
    d)30µmol/l
    e) 40µmol/l

E

39. Which of the following antibodies is used to highlight pagetoid spread in superficial spreading Malignant melanoma?
    a) Alpha SMA.
    b) CD 30
    c) CD 31
    d) Melan-A
    e) MNF116

D

40. Naso-septal perforation can be found in all of the following except:
    a) Bevacizumab therapy
    b) Cocaine use
    c) Polyarteritis nodosa
    d) Trauma
    e) Wegner's granulomatosis.

C

41. Select the marker most useful in differentiating BCC from Basaloid SCC ?
    a) Ber-EP4
    b) CEA
    c) HMB-45
    d) Melan-A
    e) S100 protein

A

42. A 44 year old female presents with papules showing interface change and Civatte bodies on skin biopsy. What is your preferred diagnosis?
    a) Bowen's disease
    b) Eczema
    c) Lichen planus
    d) Psoriasis
    e) Sarcoidosis

C

43. A 7 year old girl is noted to have exaggerated wrinkling of the palms after brief immersion in water. Which of the following investigations would you perform?
    a) Random glucose
    b) Sweat test
    c) Thyroid function test
    d) Diagnostic skin biopsy
    e) Nerve conduction studies.

B

44. Which HPV serotype is most commonly associated with subungual squamous cell carcinoma?
    a) HPV 16
    b) HPV 18
    c) HPV 26
    d) HPV 31
    e) HPV 56

A

45. What is the protein target of local anaesthetics?
    a) Sodium channels
    b) Calcium channels
    c) Gap junctions
    d) Potassium channels
    e) Chloride channels

A

46. Which of the following medications would you wish to avoid in patients with Urticaria pigmentosa?
    a) Propranolol
    b) Hydroxychloroquine
    c) Lithium
    d) Atropine
    e) Terbinafine

D

47. In which of the following conditions is IV immunoglobulin recommended(BAD guidelines)?
    a) Bullous pemphigoid
    b) Erythema multiforme
    c) Kawasaki disease
    d) Linear IgA disease
    e) Toxic epidermal necrolysis

C

48. A 56 year old man presented with bilateral eczema affecting dorsal aspects of his feet and has been present since he started wearing a pair of new shoes. The patient is referred for patch test. The most likely allergen in this case would be?
    a) Formaldehyde 1%
    b) Neomycin sulphate
    c) Nickle sulphate
    d) Potassium dichromate
    e) Quaternium 15

D

49. A 34 year old lady has persistent acne over last 10 years with hirsuitism, hair loss and menstrual irregularities. PCOS has been ruled out. She is on a number of medications, one of which could be a cause of her symtoms. Which of the following medications is most likely to be associated with her symptoms?
    a) Ibuprofen
    b) Lithium
    c) Minocycline
    d) Prednisilone
    e) Sodium valproate

E

50. A 50 year old man presents with perianal ulceration. The differential diagnosis includes:
    a) Infections
    b) Malignancy
    c) Crohn's
    d) Nicorandil use
    e) All of the above.

E

51. Cataracts are the feature of which of the following dermatological conditions.
    a) Behcet's disease
    b) Juvenile Xanthogranuloma
    c) Mucous membrane pemphigoid
    d) Reiter's disease
    e) Rothumund-Thompson syndrome

E

52. Which of the following antibiotic in the treatment of acne is associated with the least resistance?
    a) Doxycycline
    b) Erythromycin
    c) Minocycline
    d) Oxytetracycline
    e) Tetracycline

C

53. Which of the following is not the treatment option in pruritus secondary to end stage renal failure?
    a) Gabapentine
    b) Mirtazapine
    c) Rifampicin
    d) Topical anti-pruritic therapy
    e) UVB phototherapy

C

54. Commonest manifestation of ocular rosacea?
    a) Blepharitis
    b) conjunctivitis
    c) Keratitis
    d) Meibomian gland dysfunction
    e) Scleritis.

D

55. Sarcoidal granulomas can be seen in all of the following except:
    a) Crohn's disease
    b) Granuloma annulare
    c) Granulomatous rosacea
    d) Sarcoidosis
    e) Silica foreign body reaction

B

56. Which of the following leishmaniasis species causes visceral leishmaniasis only with no cutaneous lesions?
    a) L.brasiliensis
    b) L.donovani
    c) L.major
    d) L.mexicana
    e) L.tropica

B

57. When differentiating between GA and necrobiosis lipodica histologically, which of the following statements is correct?
    a) Abundant plasma cells may be seen in GA
    b) Abundant plasma cells may be seen in necrobiosis lipodica
    c) Necrobiosis lipodica often has increased mucin deposition in the dermis
    d) Subcutaneous involvement is only a feature found in GA
    e) The type of granuloma in GA is sarcoidal.

B

58. You patch test a 30 year old lady who gave a history of worsening of her eczema with a use of certain topical preparations and you found a strong positive reaction to benzalkonium chloride. Which of the following topical preparations is safe to use?
    a) Lotion
    b) Cream
    C) Emulsion
    d) Gel
    e) Any of the above in combination.

D

59. Which of the following statements regarding cat scratch disease is incorrect?
    a) Bartonellosis is the disseminated form of the infection in the immunocompromised host.
    b) Bacillary angiomatosis is the cutaneous-limited manifestation of Bartonella henselae.
    c) Lymphadenopathy may occur in half of the cases
    d) The condition is self-limiting in immune competents and therefore conservative management is appropriate.
    e) The responsible organism is Bartonella henselae.

C

60. Spongiosis is least likely to be present in:
    a) "Id" reaction
    b) Contact dermatitis
    c) Cutaneous B cell lymphoma
    d) Pityriasis rosea
    e) Tinea corporis.

C

SOLVED QUESTION PAPER OF MEDICINE

1. In multiple myeloma, which of the following is single best predictor of survival and can substitute for staging?
   a. Serum β -2 microglobulin
   b. LDH
   c. Thymidine kinase
   d. % plasma cells in marrow

A

2. Laboratory evaluation of posttransfusion hemolysis includes
   a. Haptoglobin
   b. LDH
   c. Indirect Bi
   d. All of the above

D

3. Prolonged aPTT suggests
   a. Deficiency of factor VIII
   b. Deficiency of factor II
   c. Deficiency of factor X
   d. Deficiency of factor V

A

4. Which of the following is reversible inhibitor of P2Y12?
   a. Clopidogrel
   b. Ticlopidine
   c. Prasugrel
   d. Ticagrelor

D

5. Which of the following is not the part of 4T's in diagnosis of HIT?
   a. Thrombocytopenia
   b. Thrombosis
   c. Timing of platelet count fall
   d. Other evident cause of thrombocytopenia

D

6. Which is incorrect in the definition of orthostatic hypotension?
   a. Fall in systolic BP of >20mmHg
   b. Fall in systolic BP of >10mmHg
   c. Within 1 min of upright posture from supine position
   d. None of the above

D

7. Osborn wave in ECG is found in
   a. Heat stroke
   b. Hypothermia
   c. Cardiomyopathy
   d. Pneumothorax

B

8. Which of the following prolong QT interval?
   a. Hypocalcemia
   b. Hypomagnesemia
   c. Hypokalemia
   d. All of the above

D

9. Contraindications to exercise stress test are all except
   a. Rest angina within 48 hrs
   b. Unstable rhythm
   c. Severe mitral stenosis
   d. Severe aortic stenosis

C

10. Early (30 day) mortality from acute MI is ?
   a. 10 %
   b. 20%
   c. 30%
   d. 40%

C

11. Clear contraindication to the use of fibronolytic agents are all except?
   a. Cerebrovascular hemmorhage at any time
   b. Ischemic stroke at any time
   c. suspicion of aortic dissection
   d. active internal bleeding (excluding menses)

B

12. In malignant hypertension, initial goal of therapy is to reduce mean arterial blood pressure by no more than ?
   a. 10%
   b. 25%
   c. 50%
   d. 80%

B

13. In acute pericarditis , reciprocal depression of ST segment is seen in
   a. aVR
   b. aVL
   c. aVF
   d. V4-V6

A

14. To minimize nitrate tolerance , nitrate free period should be atleast …….hrs each day
   a. 8
   b. 6
   c. 4
   d. 2

A

15. Definitive diagnostic test for PTE is
   a. V/Q
   b. CT chest
   c. D dimer
   d. Selective pulmonary angiography

D

16. Treatment of choice in type2 brittle asthma
   a. Oral corticosteroids
   b. Continuous beta 2 agonists infusion
   c. Continuous corticosteroids infusion
   d. Subcutaneous epinephrine

D

17. Caplan' syndrome is
    a. Seronegative rheumatoid arthritis with neutropenia
    b. Seropositive rheumatoid arthritis with splenomegaly
    c. Seropositive rheumatoid arthritis with pneumoconiotic nodules
    d. Seronegative rheumatoid arthritis with asthma

C

18. Systemic wasting in advanced COPD is related to?
    a. Neutrophil elastase
    b. Matrix metalloproteinase 12
    c. TNF-α
    d. Transforming growth factor β

C

19. Lung volume reduction surgery (LVRS) is not recommended if pulmonary artery systolic pressure is ?
    a. > 15mmHg
    b. >25 mmHg
    c. >35 mmHg
    d. >45 mmHg

D

20. All are associated with smoking, except
    a. Pulmonary Langerhans cell histiocytosis (PLCH)
    b. Lympangioleiomyomatosis (LAM)
    c. Desquammative interstitial pneumonia (DIP)
    d. Pulmonary alveolar proteinosis

B

21. Which of the following is fulminant form of ILD?
    a. Acute interstitial pneumonia (AIP)
    b. Hypersensitivity pneumonitis
    c. Desquamative interstitial pneumonia
    d. Respiratory bronchiolitis

A

22. Which organ is least affected in sarcoid?
    a. Skin
    b. Heart
    c. Lymphnodes
    d. CNS

B

23. Which of the following are commonest cause of pleural affusion?
    a. Bronchogenic carcinoma
    b. Breast cancer
    c. Lymphoma
    d. All of the above

D

24. In pneumomediastinum, mediastinal air is absorbed faster if the patient is given?
    a. High concentration of oxygen
    b. IV hypertonic saline
    c. High dose IV steroids
    d. CO_2 inhalation

A

25. Which of the following stimulates respiration?
    a. Acetazolamide
    b. Estrogen
    c. Testosterone
    d. Norepinephrine

A

26. Type IV respiratory failure is seen in.
    a. Shock
    b. COPD
    c. CRF
    d. ARDS

A

27. Pneumonia caused by which of the following closely mimics ARDS?
    a. Pneumococci
    b. Staphylococcus aureus
    c. Pneumocystitis jiroveci
    d. E. coli

C

28. Most common site of lymphoma in HIV.
    a. Mediastinum
    b. CNS
    c. Gut
    d. All of the above

B

29. Which of the following cause hyperkalemia?
    a. Thyroxine
    b. Heparin
    c. Multivitamins
    d. Calcitriol

B

30. Urinary sediment in ATN has which of the following casts?
    a. Broad casts
    b. RBC casts
    c. Waxy casts
    d. Muddy brown granular casts

D

31. Normal BUN: Creatinine ratio is
    a. 5:1
    b. 10:1
    c. 15:1
    d. 20:1

B

32. Plama osmolality is calcutated by ?
    a. 2 Na +(glucose /18) +(BUN /2.8)
    b. 2Na+(glucose +BUN)/18
    c. 2Na +(glucose +BUN)/2.8
    d. 2Na +glucose + BUN

A

33. Risk factors for osmotic demyelination syndrome include
    a. Hypokalemia
    b. Rapid or overcorrection of hyponatremia
    c. Prior cerebral anoxic injury
    d. All of the above

D

34. AVP antagonists do not have approved role in the treatment of
    a. Acute hyponatremia
    b. Heart failure
    c. Cirrhosis
    d. SIAD

A

35. Rate of IV infusion of potassium in severe hypokalemia should not exceed ?
    a. 20mmol/hr
    b. 40mmol/hr
    c. 60mmol/hr
    d. 80mmol/hr

A

36. True hypercalcemia refers to ?
    a. Elevated serum level of total calcium.
    b. Elevated serum level of nonionized calcium.
    c. Elevated serum level of ionized calcium.
    d. Any of the above

C

37. ECG changes in hypercalcemia include all except?
    a. Bradycardia.
    b. AV block
    c. Short QT interval
    d. Prolonged PR interval

D

38. Increases in PTH are often accompanied by?
    a. Hypokalemia
    b. Hyperphosphatemia
    c. Hypophosphatemia
    d. Hypernatremia

C

39. Drugs that decrease 1,25(OH) 2D production is?
    a. Ketoconazole
    b. Chloroquine
    c. Hydroxychloroquine
    d. All of the above

D

40. For eliciting Trousseau's sign, BP cuff is inflated how much above patient's systolic blood pressure?
    a. 5mmHg.
    b. 10mmHg
    c. 15mmHg
    d. 20mmHg

D

41. Systemic arterial pH is maintained between 7.35 and 7.45 by
    a. CNS
    b. Respiratory system
    c. Kidney
    d. All of the above

D

42. Etiologies of refractory ulcer (GU/DU) include all except?
    a. Leprosy
    b. Cytomegalovirus
    c. Tuberculosis
    d. Syphilis

D

43. The diarrhea in celiac sprue is due to all except?
    a. Steatorrhea
    b. Lipase deficiency
    c. Bile acid malabsorption
    d. Endogenous fluid secretion

B

44. Which of the following statement about pathology of Crohn's disease is false?
    a. Can affect any part of GIT
    b. Terminal ileum involved in 90% of patients.
    c. Rectum is always involved in CD.
    d. Segmental with Skip areas

C

45. Most common and most characteristic symptom of liver disease is ?
    a. Fatigue
    b. nausea
    c. poor apetite
    d. itching

A

46. Serum albumin has half life
    a. 18-20 days
    b. 24-28 days
    c. 30-45 days
    d. >60 days

A

47. Which class of immunoglobulins is elevated in autoimmune hepatitis?
    a. alpha globulin
    b. beta globulin
    c. gamma globulin
    d. delta globulin

C

48. Walled off necrosis how many weeks after necrotizing pancreatitis?
    a. > 2 weeks
    b. > 4 weeks
    c. > 6 weeks
    d. > 8weeks

B

49. Which of the following is an uncommon complication of chronic pancreatitis?
    a. DKA
    b. pancreatic cancer

A

c. GI bleeding
d. biliary cirrhosis

50. Which of the following is the most common sign of hypothyroidism?
a. Bradycardia
b. Diffuse alopecia
c. Dry coarse skin
d. Peripheral oedema

C

51. Which of the following anti-thyroid drug is preferred in pregnancy with Graves disease?
a. Propylthiouracil
b. Carbimazole
c. Methimazole
d. Any of the above

A

52. Cortisol inactivation occurs mainly in?
a. Spleen
b. Lung
c. Kidney
d. Skeletal muscle

C

53. Mineralocorticoids are major determinants of the metabolism of?
a. sodium
b. Potassium
c. Chlorine
d. All of the above

B

54. Which of the following is the first-line medication in focal seizure?
a. Valproic acid
b. Lamotrigine
c. Topiramate
d. Ethosuximide

B

55. Acute stroke may begin as which of the following?
a. Sudden severe headache
b. Change in vision
c. Change in gait
d. Any of the above

D

56. Peak incidence of re-rupture of an untreated aneurysm following SAH is within?
a.1 day
b.3 day
c. 7 day
d.14 day

C

57. 'Early imbalance and falls' favors the diagnosis of?
a. Parkinsons disease
b. Progressive supranuclear palsy (PSP)
c. Cortical dementia with lewy bodies (DLB)
d. Multiple system atrophy (MSA)

B

58. Majority of neuropathies are predominantly?
    a. motor
    b. sensory
    c. autonomic
    d. combined

B

59. Diagnosis of vitamin B12 deficiency is made by.
    a. low serum cobalamin
    b. raised levels of methylmalonic acid
    c. raised levels of homocysteine
    d. all of the above

D

60. In patients taking azathioprine, which out of following drugs should not be used?
    a. paracetamol
    b. allopurinol
    c. cephalosporins
    d. terfenadine

B

SOLVED QUESTION PAPER OF PATHOLOGY

1. Tissues for electron microscopy are fixed in:
   a) Carnoy's fixative
   b) 10% buffered formalin
   c) Saline
   d) 4% glutaraldehyde

D

2. The following hereditary diseases have higher incidence of cancers due to inherited defect in DNA repair mechanism except:
   a) Ataxia telengiectasia
   b) Xeroderma pigmentosum
   c) Familial Polyposis coli
   d) Bloom's syndrome

B

3. The most important mutation in small cell carcinoma is in the following gene:
   a) RB gene
   b) MYC gene
   c) CDK gene
   d) RAS gene

A

4. A 63-year-old woman with a lung mass showing acinar growth and mucinous cells on biopsy is likely to have which mutation?
   a) ALK rearrangement
   b) BRAF
   c) EGFR
   d) KRAS

D

5. 60-year-old male presents with a mass in the kidney that, on electron microscopy, shows numerous cytoplasmic microvesicles in pale cells and abundant mitochondria in eosinophilic cells. What is the most likely diagnosis based on these findings?
   a) Clear cell renal carcinoma
   b) Papillary renal cell carcinoma
   c) Chromophobe renal cell carcinoma
   d) Collecting duct carcinoma

C

6. Which statement is NOT correct regarding synovial sarcoma?
   a) It is commonly associated with the t(X;18) translocation
   b) It shows positive staining for cytokeratins and EMA
   c) It expresses TLE1, a diagnostic marker
   d) SOX10 and CD34 are positive

D

7. True regarding dysplastic nevus syndrome is?
   a) This lesion does not progress to melanoma
   b) Has Autosomal recessive mode of inheritance
   c) The probability of transformation to melanoma in dysplastic nevus syndrome is 50 % by the age of 60
   d) The probability of transformation to melanoma in sporadic dysplastic nevi is 50 % by the age of 60

C

8. Activating mutations in FFR 3 is seen in which of the following?
   a) Actinic keratosis
   b) Seborrheic keratosis
   c) Cylindroma
   d) Syringoma
   e) Basal cell carcinoma

B

9. Syndromes associated with pheochromocytoma include all the following EXCEPT:
   a) Beckwith-Wiedemann syndrome
   b) MEN type II|
   c) von Hippel-Lindau disease
   d) Von Recklinghausen disease

A

10. Most common site of Serous tubal intraepithelial carcinoma (STIC) lesion is?
    a) Fimbriae
    b) Ampulla
    c) Isthmus
    d) None

A

11. In apoptosis, cytochrome C acts through:
    a) Apaf
    b) Bcl-2
    c) FADD
    d) TNF

A

12. You receive a radical nephrectomy specimen containing a necrotic tumor measuring 8 cm in size, confined to the kidney. The tumor extends into the perinephric tissue but does not involve any major veins. What is the most likely pathological stage of the tumor?
    a) pT1b
    b) pT2a
    c) pт2b
    d) pT3a

D

13. Down's syndrome is associated with the clinical manifestation of mental retardation. Which of the following is not associated with Down's syndrome?
    a) Trisomy 21
    b) Mosaic 21
    c) Translocation t (14,21), t (21,21)
    d) Deletion of 21

D

14. Lynch syndrome is associated with cancers of the:
    a)Colon, ovary, breast
    b) Breast, endometrium, ovary
    c) Breast, colon, endometrium
    d) Colon, endometrium, ovary

D

15. A 39-year-old male with a soft tissue mass is found to have the cytogenetic alteration (12;16). Which tumor is associated with this genetic finding?
    a) Alveolar Rhabdomyosarcoma
    b) Myxoid liposarcoma
    c) Synovial sarcoma
    d) Ewing sarcoma

B

16. Wire loop lesions are often characteristic for the following class of lupus nephritis:
    a) Mesangial proliferative glomerulonephritis (WHO class II)
    b) Focal proliferative glomerulonephritis (WHO class III)
    c) Diffuse proliferative glomerulonephritis (WHO class IV)
    d) Membranous glomerulonephritis (WHO class V)

D

17. An abnormal Ham test is most likely associated with which of the following?
    a) Spectrin
    b)Defect in complement activating proteins
    c)Defective GPI anchor
    d) Mannose-binding residue effect

C

18. Anaemia of chronic disease is characterized by all except:
    a) Decreased serum iron levels
    b) Decreased TIBC
    c) Decreased Serum ferritin level
    d) Increased macrophages iron in marrow

C

19. Pancytopenia with cellular marrow is seen in all except
    a) Megaloblastic anemia
    b) Myelodysplasia
    c) Paroxysmal nocturnal hemoglobinuria
    d) G6PD deficiency

D

20. Mantle cell lymphomas are positive for all of the following except:
    a) CD 23
    b) CD 20
    c) CD 5
    d) CD 43

A

21. In a patient with mitral valve vegetations, the vegetations are present along lines of closure along with fusion of commisures. Which of the following is the most likely diagnosis?
    a) Infective endocarditis
    b) Marantic endocarditis
    c) Rheumatic endocarditis
    d) Libman sacks endocarditis

C

22. Which of the following is the diagnosis for a condition having mutation in COLAA5 chain?
    a) Alport's syndrome
    b) Good pasture's syndrome
    c) Thin membrane disease
    d) Nodular glomerulosclerosis

A

23. Piece meal necrosis is seen in:
    a) Alcoholic hepatitis
    b) Toxic hepatitis
    c) Chronic active hepatitis
    d) Malignancy

C

24. Alpha fetoprotein is Not raised in which testicular tumors?
    a) Choriocarcinoma
    b) Teratocarcinoma
    c) Yolk sac tumor
    d) Embryonal cell carcinoma

A

25. Tennis racquet cells are seen in
    a) Rhabdomyoma
    b) Rhabdomyosarcoma
    c) Histiocytoma
    d) Eosinophilia granuloma

B

26. BRCA 1 gene is located on:
    a) Chromosome 13
    b) Chromosome 1
    c) Chromosome 17
    d) Chromosome 2

C

27. What is the pTNM stage according to AJCC 8th edition of a malignant ovarian tumor. Both ovaries are involved and uterine implants are present. No nodal involvement or no other organ involvement is seen.
    a) pT1c N0 M0, Stage IC
    b) pT1c N0 M1b, Stage IVB
    c) pT2a N0 M0 Stage IIB
    d) pT3c N0 M1b, Stage IVB

C

28. The expression of the following oncogene is associated with a high incidence of medullary carcinoma of thyroid:
    a) p53
    b) Her 2 neu
    c) RET proto oncogene
    d) Rb gene

C

29. The typical immunophenotype of CLL/ SLLtumor cells includes:
    a) Bright expression of surface Ig and B- cell markers, along with positivity for CD5 and CD23
    b) Dim expression of surface Ig and B- cell markers, along with positivity for CD5 and CD23
    c) CD10, CD20 and CD5 positivity
    d) Cyclin D1, CD20 and CD5 positivity

B

30. Which of the following immunohistochemical stains will likely be negative in adrenal cortical carcinomas?
    a) Inhibin-A
    b) Vimentin
    c) Synaptophysin
    d) Chromogranin A

D

31. Which of the following mutation is seen in Cowden syndrome?
    a) STK11 mutation
    b) SMAD4 mutation
    c) PTEN mutation
    d) PTCH mutation

C

32. Inhibition of phosphorylation of the Rb gene will have which of the following effect on cell cycle?
    a) Inhibition of cel cycle at G1 phase
    b) Inhibition of cell cycle at G2 phase
    c) The cell cycle will progress as it is and the cell will divide
    d) There will be no effect on cell cycle as for Rb gene phosphorylation is not needed

A

33. Which of the following is the ideal section thickness for preparing routine H and E stained sections?
    a) 3-5 microns
    b) 8-12 microns
    c) 2 microns
    d) 0.35 microns

A

34. Which colour does picric acid containing fixatives such as bouin's fixative impart on the tissue?
    a) Green
    b) Yellow
    c) Red
    d) Magenta

B

35. What is the mordant used in meyer's hematoxylin?
    a) Mercuric Oxide
    b) Iron
    c) Aluminium
    d) Sodium Iodate

D

36. Gaucher cells are positive for all except:
    a) PAS
    b) Mucicarmine
    c) Oil red O
    d) Prussian blue

B

37. CD59 deficiency leads to:
    a) Chediak Higashi disease
    b) TTP
    c) Paroxysmal nocturnal hemoglobinuria (PNH)
    d) Burkitt's lymphoma

C

38. Which of these is true about intracellular iron homeostasis in iron deficiency anemia?
    a) Ferritin mRNA concentration decreases and ferritin synthesis increases
    b) Transferrin receptor 1mRNA upregulation and increased receptor expression
    c) Ferritin mRNA concentration increases and ferritin synthesis decreases
    d) Transferrin receptor 1mRNA down regulation and decreased receptor expression

B

39. Which of the following is not true regarding von Willebrand disease?
    a) Normal platelet count
    b) Quantitative defects are seen in subtypes 1 and 3 von Willebrand disease
    c) Hemarthrosis is the usual presentation
    d) Produced by endothelial cells

C

40. Warthin Finkeldey cells are seen in:
    a) Mumps
    b) Measles
    c) Rubella
    d) Chicken pox

B

41. Which of the following stains is used to detect lipid in frozen section biopsy in histopathology laboratory?
    a) PAS
    b) Oil Red O
    c) NSE
    d) Silver Methanamine

B

42. Young boy presented with multiple flaccid Bullae and oral lesions. Diagnostic finding in skin biopsy immunofluorescence test would be:
    a) Fish net IgG in dermoepidermal junction
    b) Linear IgG ni dermoepidermal junction
    c) Linear IgG in dermal papillae
    d) Granular IgA in reticular dermis

A

43. Dystrophin is absent:
    a) Duchenne muscular dystrophy
    b) Becker's muscular dystrophy
    c) Myotonic dystrophy
    d) Limb-girdle dystrophy

A

44. Insulin increases glucose entry into skeletal muscle, adipose tissues and liver cells by:
    a) Increasing the number of glucose transporter GLUT2 in all these tissues.
    b) Increasing the number of GLUT4 in muscle and adipose tissue and glucokinase in liver cells.
    c) Increasing the number of GLUT3 in skeletal muscle and adipose tissues and GLUT4 in liver cells.
    d) Increasing the number of GLUT1 in muscle, GLUT3 in adipose tissues and GLUT4 in liver cells.

B

45. Peudorossettes are seen in all except:
    a) Neuroblastoma
    b) Retinoblastoma
    c) Medulloblastoma
    d) Thecoma

D

46. Which antigen is not of prognostic significance in carcinoma breast?
    a) Her 2 neu receptor
    b) Epithelial membrane antigen
    c) Estrogen receptor
    d) Progesterone receptor

B

47. Finding on histopathological examination of liver in case of malaria is:
    a) Microabscess formation
    b) Kupffer's cell hyperplasia with macrophage infiltration around periportal area laden with pigments.
    c) Non caseating granuloma
    d) Non specific finding of neutrophilic infiltration

B

48. Persistent low C3 complement level is not found in:
    a) Post streptococcal nephritis
    b) Mesangiocapillary glomerulonephritis
    c) Cryoglobulinemia
    d) SLE

A

49. A 67 year male with history of chronic smoking, hemoptysis with cough. Bronchoscopic biopsy from centrally located mass shows undifferentiated tumor histopathologically. Most useful I.H.C. (immunohistochemical) marker to make a proper diagnosis would be:
    a) Cytokeratin
    b) Parvalbumin
    c) HMB-45
    d). Hep Par 1

A

50. All of the following features are seen in asbestosis except:
    a) Diffuse pulmonary interstitial fibrosis
    b) Fibrous pleural thickening
    c) Emphysema
    d) Calcific pleural plaques

C

51. A patient presents with respiratory symptoms, i.e. cough, hemoptysis and glomerulonephritis. His c-ANCA levels in serum were found to be raised. The most likely diagnosis is:
    a) Goodpasture's syndrome
    b) Classic polyarteritis nodosa
    c) Wegener's granulomatosis
    d) Kawasaki's syndrome

C

52. ABO incompatibility is not seen with:
    a) Fresh frozen plasma
    b) Platelet rich plasma
    c) Single donor platelets
    d) Cryoprecipitate

D

53 Popcorn cells' are seen in which type of Hodgkin's disease?
    a) Lymphocyte dominant
    b) Nodular sclerosisc) lymphocytic depleted
    d) Mixed type

A

54. AML with worst prognosis:
    a) 8/21 translocation
    b) Inversion 16
    c) Normal cytogenetics
    d) Monosomy 7

D

55. Lardaceous spleen is due to deposition of amyloid in:
    a) Sinusoids of red pulp
    b) White pulp
    c) Pencillary artery
    d) Splenic trabeculae

A

56. The gene that regulates normal morphogenesis during development is:
    a) FMR-1 gene
    b)Homeobox gene
    c) P-16
    d) PTEN

B

57. Shock lung is characterized by:
    a) Alveolar proteinosis
    b) Bronchiolitis obliterans
    c) Diffuse pulmonary hemorrhage
    d) Diffuse alveolar damage

D

58. Schistosomiasis of the urinary bladder is implicated in the following type of bladder tumour:
    a) Transitional cell carcinoma
    b) Squamous cell carcinoma
    c) Adenocarcinoma
    d) Adenoacanthoma

B

59. Which of the following feature is not used in modified Bloom-Richardson grading system for breast cancer?
    a) Tubule formation
    b) Nuclear pleomorphism
    c) Mitotic count
    d) Tumour necrosis.

D

60. Neuritic plaques are seen in the brain in:
    a) Multiple sclerosis
    b) Alzheimer's disease
    c) Parkinsonism
    d) Perivenous encephalomyelitis

B

SOLVED QUESTION PAPER OF PAEDIATRICS

1. A 13-year-old girl presents with a history of pain in her left arm for several weeks. The pain is located in the shoulder and upper arm and is not relieved by over-the-counter pain medication. Physical examination reveals tenderness to palpation in the proximal humerus. An X-ray of the affected area shows a well-defined, radiolucent lesion in the proximal humerus. The lesion does not appear to be causing any cortical disruption or other bone changes. What is the most likely diagnosis for this patient's condition?
   A. Non-ossifying fibroma
   B. Enchondroma
   C. Chondroblastoma
   D. Osteosarcoma

B

2. What is the likely diagnosis for a 9-year-old boy with persistent headaches, ataxic gait, dysdiadochokinesia, and a cystic tumor in the right cerebral lobe on CT scan, showing positive staining for GFAP and hair-like processes under the microscope, following neurosurgery revealing a gelatin-filled cyst with a thin-walled, 1-cm mosaic nodule?
   A. Astrocytoma
   B. Hemangioblastoma
   C. Meningioma
   D. Schwannoma

A

3. Schick test is performed to determine susceptibility to-
   A. Diphtheria
   B. Typhoid
   C. Pertusis
   D. Polio

A

4. Which of the following anti-epileptic drugs causes renal calculi?
   A. Levitiracetam
   B. Zonisamide
   C. Valproic acid
   D. Ethosuximide

B

5. Which genetic mutation is involved in Digeorge syndrome ?
   A. Microdeletion of 11p22.2
   B. Microdeletion of 22q11.2
   C. Microdeletion of ATPB7
   D. Microdeletion of 13p11.3

B

6. 6 days old is being examined, while checking reflexes, a brisk Moro reflex is noted. Which of the following may be a cause?
   A. Kernicterus
   B. Stage 3 HIE
   C. Hypoglycemia
   D. Erb's Palsy

C

7. A term newborn with clear airways, correctly positioned, and heart rate (HR) above 100/min is having labored breathing. Next step in management is:
   A. Start positive pressure ventilation
   B. Continuous positive airway pressure (CPAP)
   C. Start chest compression
   D. Deep pharyngeal suction

B

8. Primary apnoea is characterized by all except:
A. Fall in blood pressure
B. Fall in heart rate
C. Cessation of respiration
D. Decrease in neuromuscular tone

A

9. A 7 year old boy experiences ascending paralysis with peripheral neuropathy. The cranial nerves are intact. The cerebrospinal fluid is normal except for an elevated protein level. Which of the following is the likely infectious agent precipitating this syndrome?
A. Claustridium difficile
B. Claustridium tetani
C. Corynebacterium diphtheria
D. Claustridium jejuni

D

10. A child can copy a triangle at what age?
A. 3 years
B. 4 years
C. 5 years
D. 6 years

C

11. A 1 yr old girl has a history of fever, anemia, severe skin eruption, generalized lymphadenopathy, and pulmonary infiltrates. A skull radiograph shows multiple punched out lesions. The most likely diagnosis is:
A. Osteosarcoma
B. Osteochondritis
C. Langerhans cell histiocytosis
D. Ewing sarcoma

C

12. A female infant is born at 25 weeks' gestation with a birth weight of 809 g. She is born in good condition and requires no active resuscitation, but develops moderate respiratory distress requiring intubation and surfactant. She is extubated to CPAP the next day. She has some mild feed intolerance and apnoea of prematurity, but otherwise has an uncomplicated neonatal admission. Her cranial ultrasounds are all reported as normal. She never required treatment for retinopathy of prematurity. Which one of the following neurological problems is most likely to be present on long-term follow-up?
A. Blindness
B. Spastic diplegia
C. Hemiplegia
D. Spastic quadriplegia

B

13. Symptomatic neonatal CNS involvement is most common in which of the following intrauterine infections ?
A. CMV & syphilis
B. Rubella & HSV
C. CMV & toxoplasmosis
D. Rubella & toxoplasmosis

B

14. Which is the only GSD which is a lysosomal storage disorder ?
A. Pompe’s
B. Cori’s
C. McArdle’s
D. Anderson’s

A

15. Manning score for fetal well being includes all except-
A. NST
B. Oxytocin challenge test
C. Breathing movements
D. Fetal movements

B

16. Generalised painless lymphadenopathy is seen in-
A. Rocky mountain spotted fever.
B. Scrub typhus
C. Q fever
D. Epidemic typhus

A

17. Which of following is not a gene involved in congenital nephritic syndrome?
A. NPHS1
B. NPHS 2
C. LAMB 2
D. Podocin 4

C

18. Yoyo reflex is seen in-
A. Polycystic kidney
B. Multicystic dysplastic kidney
C. Duplication of ureter
D. Horseshoe kidney

C

19. All are true regarding ASD except-
A. ASD is second most common congenital heart disease in adults & children
B. Patients with ASD may present first time with embolic stroke
C. Most common yet least serious type of ASD is the ostium secundum type
D. Most common yet least serious type of ASD is the ostium primum type

C

20. Earliest sign of CHF on Chest X-Ray is-
A. Increased heart size
B. Kerley's B lines
C. Pulmonary edema
D. Pleural effusion

A

21. Most characteristic feature of refeeding syndrome is-
A. Hyperphosphatemia
B. Hypercalcemia
C. Hypocalcemia
D. Hypophosphatemia

D

22. Child can use past tense from which age ?
A. 3 years
B. 4 years
C. 5 years
D. 6 years

D

23. Trummerfield zone is seen in which deficiency?
A. Vitamin A
B. Vitamin B
C. Vitamin C
D. Vitamin D

C

24. The average whey:casein ratio in breast milk is-
A. 60:40
B. 80:20
C. 20: 80
D. 40:60

A

25. After preterm delivery, mother's milk is low in-
A. Lactose
B. Fat
C. Protein
D. Sodium

A

26. High anion gap acidosis is seen in all except-
A. Diarrhoea
B. Salicylate poisoning
C. Acute renal failure
D. Lactic acidosis

A

27. What is composition of low osmolar ORS?
A. Na 90+ 311mOsml/L
B. Na 75+ 245mOsml/L
C. Na 60 + 245 mOsml/L
D. Na 60 +240 mOsml/L

B

28. A child who was normal at birth, develops chronic liver failure & muscle weakness at 3 months age. On investigations, serum glucose is low, along with ketoacidosis & decreased pH. AST & ALT are raised. Blood lactate & uric acid levels are normal. Intravenous glucagon given after meals raises the blood sugar but does not raise glucose levels when given after an overnight fast. Liver biopsy shows increased glycogen in liver. Which is the enzyme likely to be defective in this child?
A. Glucose-6-phosphatase
B. Muscle phosphorylase
C. Branching enzyme
D. Debranching enzyme

D

29. Chediak Higashi syndrome is characterized by all of following except-
A. Neutrophilia
B. Defective degranulation
C. Delayed microbial killing
D. Giant granules

A

30. Congenital Rubella causes all except-
A. Microcephaly
B. ASD
C. VSD
D. Pulmonary stenosis

B

31. True regarding stage IV-S of neuroblastoma are all except:
A. Limited to infants < 1 year
B. Primary localized tumor
C. Dissemination to bone
D. Good prognosis

C

32. All are associated with malignancy except:
    A. Down's syndrome
    B. Fragile X-syndrome
    C. Bloom syndrome
    D. Fanconi's anemia

B

33. The histological features of celiac disease include all of the following except:
    A. Crypt hyperplasia
    B. Increase in thickness of the mucosa
    C. Increase in intraepithelial lymphocytes
    D. Increase in inflammatory cells in lamina propria

A

34. Fasting provides relief in?
    A. Osmotic diarrhea
    B. Secretory diarrhea
    C. Infective diarrhea
    D. Dysentery

A

35. In mechanical ventilation of a newborn with ARDS, the end tidal volume is kept at?
    A. 5 mL/kg
    B. 7 mL/kg
    C. 10 mL/kg
    D. 15 mL/kg

A

36. A 9-month-old HIV positive child following URTI developed sudden onset of breathlessness. The chest X-ray shows hyperinflation. The O2 saturation was greater than 90%; the treatment of choice is:
    A. Cotrimoxazole
    B. Ribavarin
    C. IV ganciclovir
    D. Nebulized acyclovir

B

37. In a child with foreign body in bronchus, next step is:
    A. Rigid bronchoscopy
    B. Chest X-ray
    C. Flexible bronchoscopy
    D. Direct laryngoscopy

A

38. Best method of estimation of amount of proteinuria in a 2-year child with nephrotic syndrome is
    A. Dipstick testing
    B. 24 hr urine protein
    C. Spot urine sample for protein/creatinine ratio
    D. Microalbuminuria

C

39. A child has diarrhea for 8 days. He is dehydrated and urine output is reduced. Which of the following is not correct regarding the renal failure in this patient?
    A. Urinary sodium > 40 mEq/L
    B. Urinary osmolality > 500 mosm/L
    C. FENa < 1%
    D. BUN/Creatinine > 20

A

40. A 6 months old girl has failure to thrive, polyuria and medullary nephrocalcinosis affecting both kidneys. Investigations show blood pH 7.48, bicarbonate 25 meq/L, potassium 2 meq/L, sodium 126 meq/L and chloride 88 meq/L. The most likely diagnosis is:
    A. Distal renal tubular acidosis
    B. Primary hyperaldosteronism
    C. Bartter syndrome
    D. Pseudo-hypoaldosteronism

C

41. Congenital adrenal hyperplasia with hypertension is due to deficiency of:
    A. 21-hydroxylase
    B. 3-beta HSD
    C. 17-a hydroxylase
    D. None of the above

C

42. Pseudohypoparathyroidism is characterized by:
    A. Normal serum Ca++ and decreased serum PTH
    B. Decreased serum Ca++ and decreased serum PTH
    C. Decreased serum Ca++ and Increased serum PTH
    D. Normal serum Ca++ and Increased serum PTH

C

43. Most common cause of fetal ventriculomegaly is:
    A. Arnold-Chiari Malformation – I
    B. Arnold-Chiari malformation – II
    C. Aqueductal stenosis
    D. Dandy-Walker Malformation

C

44. Which among the following is the most common tumor associated with neurofibromatosis in a child?
    A. Juvenile myelomonocytic leukemia
    B. Acute lymphoblastic leukemia
    C. Acute monocytic leukemia
    D. Acute myeloid leukemia

A

45. An adolescent school girl presents with complaints of dropping objects from hands, it gets precipitated during morning and during exams. There is no history of loss of consciousness and her cousin sister has been diagnosed with epilepsy. EEG was done and was suggestive of epileptic spikes. What is the diagnosis?
    A. Juvenile myoclonic epilepsy
    B. Atypical absence
    C. Choreo–athetoid epilepsy
    D. Centrotemporal spikes

A

46. Macrocephaly is seen in which of the following syndromes?
    A. Metachromatic leukodystrophy
    B. Adrenoleukodystrophy
    C. Canavan disease
    D. Krabbe's disease

C

47. True about Autistic disorder:
    A. All affected children have subnormal intelligence
    B. Treatment should be targeted toward speech development
    C. Seen only after 3 yr of age
    D. Stereotyped patterns of behavior

D

48. All are habit disorders except:
    A. Nail biting
    B. Thumb sucking
    C. Temper tantrum
    D. Tics

C

49. Non-erosive arthritis is seen in:
    A. Systemic lupus erythematosus
    B. Ankylosing spondylitis
    C. Rheumatic fever
    D. Juvenile idiopathic arthritis

A

50. A 10-year-old boy has a fracture of femur. Biochemical evaluation revealed Hb 11.5 gm/dL and ESR 18 mm 1st hour. S. calcium 12.8 mg/dL, S. phosphorus 2.3 mg/dL, alkaline phosphate 93 IU and blood urea 32 mg/dL. Which of the following is the most probable diagnosis in his case:
    A. Nutritional rickets
    B. Renal rickets
    C. Hyperparathyroidism
    D. Skeletal dysplasia

C

51. Osteogenesis imperfecta with normal dentition and sclera:
    A. Type 1A
    B. Type 2
    C. Type 3
    D. Type 4B

A

52. How are chest compressions given in a newborn?
    A. Using palm on the lower third of sternum
    B. Using two fingers on the middle third of sternum
    C. Using the two thumbs on the lower third of sternum
    D. Using three fingers on the lower third of sternum

C

53. The clinical consequences of hypokalemia in skeletal muscle include muscle weakness and cramps. What is the level of Serum Potassium at which Paralysis Is a possible complication of hypokalemia?
    A. Serum Potassium at 2.0 mEq/L
    B. Serum Potassium at 2.5 mEq/L
    C. Serum Potassium at 3.0 mEq/L
    D. Serum Potassium at 3.5 mEq/L

A

54. Following pathogenetic mechanisms operate in septic shock except?
    A. Increased peripheral vascular resistance
    B. Venoconstriction
    C. Direct toxic endothelial injury
    D. Activation of complement

A

55. An alert 6-month-old child is brought with vomiting and diarrhea. RR-45/min, HR-130/min, SBP-85 mm Hg. Capillary refilling time is 4 seconds, Diagnosis is
    A. Early compensated hypovolemic shock
    B. Early decompensated hypovolemic shock
    C. Late compensated hypovolemic shock
    D. Late decompensated shock due to SVT

A

56. What is proband in pedigree?
A. Male child of diseased
B. Female child of diseased
C. Diseased individual
D. Pregnant lady

C

57. Which of the following is autosomal recessive inherited cancer syndrome?
A. Ataxia telangiectasia
B. Cowden syndrome
C. Retinoblastoma
D. HNPCC

A

58. In children with classical galactosemia all are true except:
A. E. coli neonatal sepsis is common
B. Elimination of galactose in diet will not reverse cataract
C. Galactose converts to galactitol which is toxic to brain and liver
D. Duarte variant of galactosemia were asymptomatic

B

59. Mental retardation is seen in:
A. Phenylketonuria
B. Alkaptonuria
C. Gaucher disease
D. Von Gierke disease

A

60. About Henoch-Schönlein purpura, all true except:
A. Thrombocytopenia
B. Hematuria
C. Palpable purpura
D. Intusussception

A

SOLVED QUESTION PAPER OF PHYSIOLOGY

1. RDW should be compared with:
    a) MCV
    b) MCHC
    c) Reticulocyte count
    d) MCH

A

2. The normal range of pH of human plasma is:
    a) 7.20 – 7.30
    b) 7.35 – 7.45
    c) 7.50 – 7.60
    d) 7.10 – 7.20

B

3. Afferents to swallowing center include all EXCEPT:
    a) V^{th} cranial nerve
    b) X^{th} cranial nerve
    c) XII^{th} cranial nerve
    d) IX^{th} cranial nerve

C

4. All of the following are families of molecular motors EXCEPT:
    a) Kinesin
    b) Dynein
    c) Actin
    d) Myosin

C

5. Decreased red cell fragility is seen in:
    a) Spherocytosis
    b) Thalassemia
    c) Autoimmune Haemolytic Anaemia
    d) G6PD deficiency

B

6. Renal threshold of glucose in venous blood is:
    a) 180 g/dl
    b) 180 mg/dl
    c) 180 g/l
    d) 180 mg/l

B

7. PCV is decreased in all except:
    a) Aplastic anaemia
    b) Congestive heart failure
    c) Severe leucopenia
    d) Anaemia

B

8. The sensor for tubuloglomerular feedback is:
    a) Macula densa
    b) Proximal Convoluted Tubule
    c) Distal Convoluted Tubule
    d) Collecting duct

A

9. Clinical symptoms associated with severe dehydration are all EXCEPT:
    a) Rapid pulse rate
    b) Acidosis
    c) Low blood pressure
    d) High Cardiac Output

D

10. Ethanol acts as a diuretic by:
    a) Producing osmotic diuresis
    b) Inhibiting action of vasopressin on collecting duct
    c) Inhibiting vasopressin secretion
    d) Supplying acid load

C

11. Nerve fibers highly susceptible to hypoxia are:
    a) Type A
    b) Type B
    c) Type C
    d) Type Aa

B

12. All are medial descending pathways EXCEPT:
    a) Vestibulospinal tract
    b) Rubrospinal tract
    c) Reticulospinal tract
    d) Tectospinal tract

B

13. Chronaxie is prolonged in all EXCEPT:
    a) Neuronal diseases
    b) Myopathies
    c) High temperatures
    d) Paralyzed muscles

C

14. Cells of gastric glands include all EXCEPT:
    a) D cells
    b) G cells
    c) Chief cells
    d) S cells

D

15. The cells in cerebellum that release Glutamate as neurotransmitter are:
    a) Basket cells
    b) Stellate cells
    c) Granule cells
    d) Purkinje cells

C

16. Refractory period of Ventricular muscle is _____.
    a) 50 m sec
    b) 150 m sec
    c) 200 m sec
    d) 250 m sec

D

17. Duration of Atrial systole in cardiac cycle with heart rate of 75 bpm is:
    a) 0.10 sec
    b) 0.01 sec
    c) 0.70 sec
    d) 0.07 sec

A

18. A 35-year-old man is suffering from chronic pain. The doctors prescribe him Gabapentin that helps him in neuropathic and inflammatory pain. The MOA of drug is:
    a) Acting on ligand gated Ca^{2+} channels
    b) Acting on voltage gated Ca^{2+} channels
    c) Acting on ligand gated K^{+} channels
    d) Acting on voltage gated K^{+} channels

B

19. Ejection fraction can be calculated by using the formula:
    a) EF= EDV / SV x 100
    b) EF= SV / EDV x 100
    c) EF= SV / CO x 100
    d) EF= CO / SV x 100

B

20. Concentration and permeability of all of the following ions are taken into consideration in Goldman-Hodgkin-Katz equation EXCEPT:
    a) Sodium
    b) Potassium
    c) Chloride
    d) Calcium

D

21. The step of neuromuscular transmission that is affected in Lambert-Eaton syndrome is:
    a) Formation of vesicles
    b) Synthesis of Ach
    c) Fusion of vesicles
    d) Diffusion of Ach in synaptic space

D

22. Myocardial contractility is increased by all EXCEPT:
    a) Glucagon
    b) Insulin
    c) Cortisol
    d) Hypoxia

D

23. Ghrelin is responsible for:
    a) Stimulation of appetite
    b) Stimulation of sleep
    c) Stimulation of heart
    d) Stimulation of respiration

A

24. Anti-inflammatory action of steroids is due to:
    a) Inhibition of Phospholipase A2
    b) Inhibition of Lipo-oxygenase
    c) Inhibition of cyclo-oxygenase
    d) Increased activity of lipase

A

25. Cushing reflex is:
    a) ↑ BP & reflex Bradycardia
    b) ↑ BP & reflex Tachycardia
    c) ↓ BP & reflex Bradycardia
    d) ↓ BP & reflex Tachycardia

A

26. In mitosis 2 chromatids of a single chromosome are pulled apart during:
    a) Prophase
    b) Metaphase
    c) Anaphase
    d) Telophase

C

27. Iron in predominantly absorbed in:
    a) Stomach
    b) Duodenum
    c) Colon
    d) Ileum

B

28. Cyanosis develops in a person when there is:
    a) 2g of reduced Hb
    b) 5g or more of reduced Hb
    c) 15g of oxygenated blood
    d) 1g of reduced Hb

B

29. A 13-year-old boy presented to the emergency with spastic paralysis. History revealed an injury with rusted nail some time back. On examination he was found to have "Lock jaw". This condition results from the toxin causing:
    a) Release of epinephrine
    b) Inhibition of release of glycine and GABA
    c) Inhibition of release of acetylcholine
    d) Release of norepinephrine

B

30. Bezold-Jarisch reflex leads to:
    a) ↓ BP and ↑ Heart rate
    b) ↑ BP and ↑ Heart rate
    c) ↓ BP and ↓ Heart rate
    d) ↑ BP and ↓ Heart rate

C

31. Type of breathing seen at high altitude:
    a) Cheyne-stokes breathing
    b) Biot's breathing
    c) Respiratory distress syndrome
    d) Adult Sleep Apnea

A

32. A desert traveller at ambient temperature of 47°C loses heat by:
    a) Convection
    b) Radiation
    c) Sweating
    d) All of the above

D

33. O_2 therapy is highly useful in:
    a) Histotoxic hypoxia
    b) Stagnant hypoxia
    c) Hypoxic hypoxia
    d) Anemic hypoxic

C

34. In a healthy person, the maximum resistance of air flow occurs in:
    a) Bronchi
    b) Small bronchioles
    c) Respiratory bronchioles
    d) Alveolar duct

A

35. Lateral inhibition plays an important role in:
    a) Two-point discrimination
    b) Enhancing the frequency of action potential
    c) Fast adaptation of mechanoreceptors
    d) Acting as gate at the level of spinal cord

D

36. Pacemaker cells of gastrointestinal smooth muscle are:
    a) Neurons of Meissner's plexus
    b) Interstitial cells of Cajal
    c) Neurons of Myenteric plexus
    d) Parasympathetic post ganglionic neurons

B

37. Stage 1 of asphyxia includes all EXCEPT:
    a) Dyspnea
    b) Cyanosis
    c) Convulsions
    d) Anxiety

C

38. A 68-year-old male complaints of forgetfulness for last 3 years. Initially his forgetfulness was related to recent events but now it has worsened to even old events. He also displays agitation and irritability on minor issues. A diagnosis of Alzheimer's disease is made and he is started on Donepezil. Mechanism of action of Donepezil is:
    a) Increased metabolism of Dopamine
    b) Decreased binding of serotonin to 5HT receptors
    c) Increased availability of Acetylcholine
    d) Decreased binding of Glutamate to NMDA receptors

C

39. Factors that increase surfactant level are all EXCEPT:
    a) Thyroid hormones
    b) Insulin
    c) Prolactin
    d) Pure O_2 breathing

D

40. Carbon dioxide is mainly transported in the blood as:
    a) Bound to Hb
    b) Dissolved
    c) Bicarbonate
    d) Bound to proteins

C

41. All of the following are true regarding high fiber diet EXCEPT:
    a) ↓ serum cholesterol levels
    b) Reduces glycemic response to carbohydrate meal
    c) ↑ colonic transit time
    d) ↑ the bulk of the stool

C

42. In obstructive lung disease:
    a) Total lung capacity is normal/high
    b) Residual volume is low
    c) FEV_1 % is normal or high
    d) PEFR is normal

A

43. The area of the brain that is deficient in blood brain barrier is:
    a) Sensory cortex
    b) Median eminence
    c) Thalamus
    d) Medulla

B

44. The process of measuring the thickness of cornea is:
    a) Perimetry
    b) Tonometry
    c) Gonioscopy
    d) Pachymetry

D

45. In heart, the highest conduction velocity is found in:
    a) Ventricular muscle
    b) Papillary muscle
    c) AV node
    d) Purkinje fibres

D

46. Patients with anemia show:
    a) Low cardiac output
    b) Increased incidence of heart murmurs
    c) Low arterial PO_2
    d) Large pale erythrocytes

C

47. Which of the following is not anterior group of hypothalamic nucleus?
    a) Paraventricular nucleus
    b) Supra optic nucleus
    c) Mammillary body
    d) Pre optic nucleus

C

48. Volume of which of the following body fluid compartments CANNOT be determined directly:
    a) Total body water
    b) Extracellular fluid
    c) Intracellular fluid
    d) Plasma

C

49. The receptor for Inverse Stretch reflex is:
    a) Pacinian Corpuscle
    b) Ruffini's end organ
    c) Golgi tendon organ
    d) Muscle spindle

C

50. Bitemporal hemianopia is seen in lesion of:
    a) Optic nerve
    b) Optic chiasma
    c) Lateral geniculate body
    d) Optic tract

B

51. Contribution of atrial contraction to diastolic ventricular blood volume is:
    a) 90%
    b) 70%
    c) 50%
    d) 30%

D

52. Vestibular organ responding to head movement in the vertical plane:
    a) Utricle
    b) Saccule
    c) Semi-circular canals
    d) Organ of corti

B

53. Secretion of Parathormone is controlled by:
    a) Anterior Pituitary
    b) Hypothalamus
    c) Blood Calcium levels
    d) All of the above

D

54. Which of the following inhibits gastric acid secretion by an action on the parietal cell?
    a) Ach
    b) Histamine
    c) Gastrin
    d) PgE

D

55. Life span of corpus luteum in non-pregnant state is:
    a) 4 days
    b) 6 days
    c) 12 days
    d) 14 days

D

56. Steroid biosynthesis occurs in:
    a) SER
    b) RER
    c) Golgi body
    d) Liposome

A

57. A major stimulus for the release of ADH is:
    a) Rise in plasma osmolality
    b) Inhibition of osmoreceptors
    c) Increase in ECF water concentration
    d) Stimulation of baroreceptors

A

58. All are true about Human Placental Lactogen (HPL) EXCEPT:
    a) Stimulates growth of breast tissue
    b) Mobilizes proteins for energy purposes
    c) Resembles prolactin & GH in structure & function
    d) Its secretion gradually increases throughout pregnancy

B

59. FSH secretion in male is regulated by:
    a) Testosterone
    b) Androgen binding protein
    c) Inhibin
    d) Estrogen

C

60. Which is the most important cholagogue:
    a) Secretin
    b) CCK
    c) Gastrin
    d) GIP

B

SOLVED QUESTION PAPER OF PSYCHIATRY

1. According to Tim Crow's model, what is the 'Type 1' symptom dimension in schizophrenia associated with?
   a) Enlarged lateral ventricles.
   b) Reduced brain grey matter.
   c) Perturbation of dopamine transmission in mesolimbic tracts.
   d) Negative symptoms similar to Bleuler's four As.

C

2. What cognitive impairments are considered to be severely impacted in individuals with schizophrenia?
   a) Perceptual skills and delayed recognition memory.
   b) Distractibility, memory, and working memory.
   c) Verbal and full-scale IQ.
   d) Executive functioning, verbal fluency, and motor speed.

D

3. What is Thomas Szasz's ironic term for schizophrenia?
   a) The ghost in the machine
   b) The shadow illness
   c) Sacred symbol of psychiatry
   d) The great imitator.

C

4. Which of the following cognitive domains shows mild impairment in people with schizophrenia?
   a) Executive functioning
   b) Verbal fluency
   c) Motor speed
   d) Perceptual skills

D

5. In the first episode sample, what times more likely were patients to relapse if they did not take their medications over the ensuing 2 years?
   a) Two times more likely
   b) Three times more likely
   c) Four times more likely
   d) Five times more likely

D

6. In the United States, who explicitly labelled two symptom sets/dimensions further, as 'positive' and 'negative'?
   a) Peter Liddle
   b) Tim Crow
   c) Robin Murray
   d) Nancy Andreasen

D

7. Most psychodynamic theorists believe that dissociative symptoms are caused by which of the following?
   a) repression
   b) ego state
   c) conflict
   d) gender identity issue

A

8. What domains are covered by the Calgary Depression Scale for Schizophrenia?
   a) Subjective only
   b) Objective only
   c) Subjective and Objective
   d) Biological

C

9. Lower levels of activation in the Prefrontal Cortex results in:
   a) Failure to regulate emotions.
   b) Deficit in the will to change.
   c) Failure to anticipate incentives.
   d) Inability to understand the context of affective reactions

C

10. Decreased activation in the Anterior Cingulate Cortex (ACC) results in which of the following?
   a) Failure to regulate emotions.
   b) Failure to regulate body temperature.
   c) Failure to anticipate incentives.
   d) Inability to understand the context of affective reactions.

A

11. In depression deficits in Hippocampal function may result in:
   a) Deficit in the will to change.
   b) Failure to regulate emotions.
   c) The individual dissociating affective responses from their relevant contexts.
   d) Failure to anticipate incentives.

C

12. According to Freud's psychodynamic theory, the first stage of response to loss is called introjection where the individual regresses to:
   a) Anal stage of development.
   b) Phallic stage of development.
   c) Oral stage of development.
   d) Sensorimotor stage of development

C

13. Which of the following is a concept proposed by Freud to counteract the theoretical problems of introjection?
   a) Diabolic loss.
   b) Symbolic loss.
   c) Metabolic loss.
   d) Catastrophic loss

B

14. According to Garber & Flynn (2001), affectionless control is a type of parenting style characterized by which of the following?
   a) High levels of control and prohibition.
   b) Authoritarian father.
   c) Parenting without boundaries.
   d) High levels of overprotection combined with a lack of warmth and care.

D

15. What does a LOD score of 1.0 mean?
   a) Linkage is equally likely as nonlinkage
   b) Linkage is 10 times more likely than nonlinkage
   c) Linkage is not likely
   d) Linkage is 100 times more likely than nonlinkage

B

16. (DAOA) What is the possible function of D-Amino Acid Oxidase Activator (DAOA)?
   a) Neuron microtubule formation
   b) Glutamate neurotransmission
   c) Monoamine metabolism
   d) Serotonin synthesis

B

17. Psychodynamic theory as developed by Freud saw phobias as:
    a) Repressed Ego.
    b) Repressed Id impulses.
    c) Repressed superego.
    d) Repressed defence mechanisms.

B

18. According to conditioning theory Incubation is a phenomenon that should lead to:
    a) Distinction.
    b) Extinction.
    c) Annulation.
    d) Conflagration

B

19. Which of the following is a predominant evolutionary theory of phobias?
    a) Non-associative fear acquisition.
    b) Learned fear responses.
    c) Biological preparedness.
    d) Specific phobia acquisition.

C

20. The disease-avoidance model of animal phobias (Matchett & Davey, 1991) is supported by which of the following?
    a) Evidence that a medical approach supports psychological disturbances.
    b) Findings that sick individuals avoid animals.
    c) All spiders spread disease.
    d) Findings that high levels of disgust sensitivity is a vulnerability factor for animal phobias.

D

21. Stimulus Control Treatment for Generalised Anxiety Disorder involves:
    a) Instructing the individual not to worry.
    b) Encouraging the individual to control their worry by performing rituals.
    c) Instructing the individual to worry at a specific time or in a particular location.
    d) Keep a diary of their worries.

C

22. In schizophrenia when an individual has disorganised speech the term 'clanging' refers to:
    a) Individuals only communicate with words that rhyme
    b) Answers to questions may not be relevant
    c) Individuals communicate without completing their sentences.
    d) Speech may be neither structured nor comprehensible

A

23. According to the Mental Healthcare Act, 2017, under what condition can an advance directive be invoked?
    a) Whenever the person feels it is necessary.
    b) Only when the person ceases to have the capacity to make mental healthcare or treatment decisions
    c) During any mental health emergency.
    d) When a medical professional deems it appropriate.

B

24. According to the Mental Healthcare Act, 2017, what right does every person have regarding mental healthcare?
    a) Right to choose any treatment they prefer, regardless of cost.
    b) Right to access mental healthcare and treatment from services run or funded by the appropriate Government.
    c) Right to demand private mental health services at government expense.
    d) Right to refuse any mental health treatment.

B

25. What is the minimum punishment for committing penetrative sexual assault on a child below sixteen years of age?
    a) Imprisonment for a term which shall not be less than seven years.
    b) Imprisonment for a term which may extend to imprisonment for life.
    c) Imprisonment for a term which shall not be less than twenty years, but which may extend to imprisonment for life, which shall mean imprisonment for the remainder of natural life of that person.
    d) Imprisonment for a term which may extend to three years.

C

26. Under what circumstances is a person said to commit "aggravated penetrative sexual assault"?
    a) If the perpetrator is a stranger to the child.
    b) If the perpetrator is a police officer committing the assault within the limits of the police station.
    c) If the assault occurs during school hours.
    d) If the child does not sustain physical injuries.

B

27. What is the key element that defines "sexual harassment" under the Protection of Children from Sexual Offences Act?
    a) Physical contact with a child.
    b) Sexual intent.
    c) Use of electronic devices.
    d) Threatening behaviour.

B

28. What presumption does the Special Court make when a person is prosecuted for committing an offence under sections 3, 5, 7, or 9 of the Act?
    a) That the accused is innocent until proven guilty.
    b) That such person has committed or abetted or attempted to commit the offence, as the case may be unless the contrary is proved.
    c) That the accused has a culpable mental state.
    d) No presumption is made; the prosecution must prove the offence.

B

29. Within what period should the evidence of the child be recorded after the Special Court takes cognizance of the offence?
    a) Within 60 days
    b) Within six months
    c) Within a year
    d) Within thirty days

B

30. During trials, how does the Special Court ensure that the child is not exposed to the accused while testifying?
    a) By allowing the accused to be present in the courtroom but behind a screen.
    b) By ensuring the accused is not in a position to hear the statement of the child
    c) By recording the statement of a child through video conferencing or by utilising single visibility mirrors or curtains or any other device.
    d) By having the child testify in a separate room without any visual or auditory connection to the court.

C

31. Social labelling' in Schizophrenia is characterised by which of the following features?
    a) Others will begin to behave differently towards sufferers, and define any deviant behaviour as a symptom of schizophrenia
    b) The person who is diagnosed may themselves assume a 'role' as someone who has a disorder, and play that role to the detriment of other - perhaps more adaptive - roles
    c) The individual generates a self-fulfilling prophecy, in which a diagnosis leads to the individual, their family and friends behaving in ways which are likely to maintain pathological symptom
    d) All of the above

D

32. The alcohol intoxicated individual has less cognitive capacity available to process all on-going information, and so alcohol acts to narrow attention and means that the drinker processes fewer cues less well. This is known as:
    a) Alcohol myopia
    b) Alcohol dependency
    c) Alcohol abuse
    d) Alcohol amnesia

A

33. Local community drug prevention schemes have used which of the following?
    a) Peer-pressure resistance training
    b) Peer pressure
    c) Peer promotion
    d) Peer propaganda

A

34. n aversion therapy clients are given their drug followed immediately by another drug that causes unpleasant physiological reactions such as nausea and sickness. Rather than physically administering these drugs in order to form an aversive conditioned response the client to imagine taking their drug followed by imagining some upsetting or repulsive consequence. The variant on aversion therapy is known as:
    a) Covert sensitisation
    b) Inverted de-sensitization
    c) Overt desensitisation
    d) Covert habituation

A

35. Which of the following is an assumption of controlled drinking, which is a variant of Behavioural Self-Control Training (BSCT)?
    a) In modern day western societies it is difficult to avoid alcohol altogether
    b) Ensuring that alcohol consumption stays within the legal limit.
    c) Making sure one never goes to the pub too late
    d) Making one's own alcohol

A

36. Growing evidence to suggest that nicotine has its effects by:
    a) Releasing serotonin into the cerebellum
    b) Releasing dopamine in the mesolimbic system of the brain
    c) Releasing GABA into the hypothalamus
    d) Releasing acetylcholine into the diencephalons

B

37. Alcohol Dependence is supported specifically by evidence of tolerance effects and withdrawal symptoms that develop within:
    a) 1-2 hours of restricted consumption
    b) 3-6 hours of restricted consumption
    c) 4-12 hours of restricted consumption
    d) 12-24 hours of restricted consumption

C

38. In the 17th century, which of the following terms was used to describe a disorder characterised by large food intake followed by vomiting?
    a) Bulimia nervosa
    b) Vomitoria
    c) Fames canina
    d) Nuxcanina

C

39. Biological accounts of anorexia and bulimia suggest that maintaining a low body weight and self-starvation may be reinforced by:
    a) Endogenous opioids
    b) Serotonin
    c) Endorphins
    d) Dopamine

A

40. A score of 8 or more on the AUDIT questionnaire is suggestive of:
    a) Mild alcohol use.
    b) Moderate alcohol dependence9.
    c) Hazardous or harmful alcohol use.
    d) No alcohol-related issues

C

41. What type of relationship is seen between quetiapine concentration associations?
    a) Derived from peak samples
    b) Analysis of trough samples because of the long half-life of quetiapine
    c) Peak plasma levels less related to the dose
    d) Derived from analysis of trough samples due to the short half-life of quetiapine

D

42. What is a question on the Adapted Naranjo adverse drug reactions probability scale criteria?
    a) Was the patient in a controlled environment
    b) Was the patient honest about other medications they are taking
    c) Was the medication prescribed as a result of a previous illness
    d) Did the ADR improve when the drug was discontinued?

D

43. Which of the following is a direct treatment method which deals with symptoms of erectile dysfunction or male and female orgasmic disorder?
    a) Squeeze technique
    b) Tickle technique
    c) Tease technique.
    d) Stroke technique

C

44. Which of the following can be used to treatment erectile dysfunction?
    a) Hoover erection device (HED)
    b) Vacuum erection device (VED)
    c) Piston erection tool (PET)
    d) Erectile dysfunction pump (EDP)

B

45. Paedophiles become sexually aroused by sexually immature children, an alternative term for this type of behaviour is:
    a) Non consent molesters
    b) Minor molester
    c) Preference molesters
    d) Pree-teen molester

C

46. Which of the following is NOT considered to be a risk factor for the development of paraphilias?
    a) Early drug abuse
    b) Hypersexuality
    c) Childhood abuse
    d) Childhood neglect

A

47. There is one particular form of therapy that has been successfully used to treat individuals with personality disorders and involves providing them with insight into their dysfunctional ways of thinking and is designed to provide them with the necessary skills to overcome these problematic ways of thinking and behaving. Which of the following is this therapy?
    a) Dialectical behaviour therapy
    b) Psychodynamic therapy
    c) Systematic desensitization
    d) Exposure and response prevention

A

48. In somatoform disorders the sufferer sometimes believes they have physical deficits or symptoms that are significant and threatening. However, in most cases there is little or no medical justification for these beliefs. Such cognitive biases are termed:
    a) Cognitive dissonance
    b) Hypochondrial biases
    c) Interpretation biases
    d) Overt reaction biases

C

49. Individuals with hypochondriasis are inclined to actively seek out and accept information which confirms their own view of their medical state, but they ignore or reject arguments against their own beliefs. This is known as:
    a) A reasoning bias
    b) A memory bias
    c) Cognitive dissonance
    d) Inflated knowledge structure

A

50. Information biases acquired by those with somatoform disorders are developed by a range of experiences, and these representations provide inappropriate templates by which information is selected and interpreted. These are known as:
    a) Rogue representations
    b) Deviant representations
    c) Biased representations
    d) Maladaptive representations

A

51. Which form of treatment for somatoform disorders has been found to be significantly more effective than no treatment control conditions:
    a) Exposure and response prevention
    b) Behavioural stress management
    c) Cognitive restructuring
    d) Psychotherapy

B

52. According to a study, the observed mothers playing with medically related toys with their 4-8 year-old children. who exhibited somatization symptoms were:
    a) Significantly less responsive to their children
    b) Did not respond to their children
    c) Significantly more responsive to their children
    d) Were excessively responsive

C

53. What percentage of all cases of Mild Cognitive Impairment (MCI) have Alzheimer Disease pathology?
    a) ~10%
    b) ~25%
    c) ~50%
    d) ~75%

C

54. What is the most important genetic risk factor for AD occurring after 65 years of age?
    a) TREM2
    b) SORL1
    c) ABCA7
    d) APOE

D

55. In canonical Alzheimer DiseaseD dementia, where are Aβ-containing extracellular neuritic plaques found?
    a) Medial temporal lobe
    b) Temporal, parietal, and frontal lobes
    c) Widespread distribution throughout the cerebral cortex
    d) Hippocampus

C

56. Where are tau-containing neurofibrillary tangles initially found?
    a) Frontal lobes
    b) Parietal lobes
    c) Medial temporal lobe
    d) Cerebral cortex

C

57. Where is Tau normally present?
    a) Extracellular space
    b) Cytoplasm of axons
    c) Amyloid plaques
    d) Microglia

B

58. Loss of synapses is strongly correlated with what in patients with AD?
    a) Aβ plaques
    b) Neurofibrillary tangles
    c) Cognition
    d) Neurodegeneration

C

59. What does Tau-PET binding topography strongly correlate with?
    a) Amyloid burden
    b) Age
    c) Cognitive performance
    d) Neuroanatomical variability

C

60. Aβ peptides are derived from APP following the cleavage of APP by which secretases?
    a) α-secretases and γ-secretases
    b) α-secretases and β-secretases
    c) β-secretases and γ-secretases
    d) δ-secretases and γ-secretases

C

SOLVED QUESTION PAPER OF RADIOLOGY

1. Lipiodol a pale yellow to amber, clear liquid embolisation agent contains iodine in concentration of
    a) 480 mg/mL
    b) 408 mg/mL
    c) 380 mg/mL
    d) 400 mg/mL

A

2. A right-sided aortic arch with mirror-image branching is most frequently associated with which congenital cardiac abnormality?
    a) Pulmonary atresia and ventricular septal defect
    b) Truncus arteriosus
    c) Uncomplicated ventricular septal defect
    d) Fallot's tetralogy

D

3. A 52-year-old female presents with cough. She is on dialysis but apart from abnormal urea and creatinine, her bloods are normal. A chest radiograph is abnormal and high-resolution CT is performed. This demonstrates fluffy, nodular, 5–10 mm opacities of airspace-type appearance with foci of calcification, in an upper lobe distribution with subpleural sparing. Calcification of chest wall vessels is noted. What is the most likely cause of the appearances?
    a) Varicella
    b) Chronic renal failure
    c) Tuberculosis
    d) Histoplasmosis
    e)

B

4. In patients with rheumatoid arthritis, what is the commonest pulmonary finding seen on the chest radiograph?
    a) Pleural effusion
    b) Fibrosis
    c) Pulmonary nodules
    d) Heart failure

A

5. A 52-year-old male presents with mild dyspnoea. A chest radiograph shows a raised left hemidiaphragm which demonstrates paradoxical movement on fluoroscopy. Which of the following would be the most likely cause?
    a) Left lower lobe tumour
    b) Mediastinal small cell carcinoma
    c) Eventration
    d) Cerebrovascular accident

B

6. In coronary artery anatomy, the vessel supplying the sinoatrial node most commonly arises from which structure?
    a) Left anterior descending/anterior interventricular artery
    b) Circumflex artery
    c) Right coronary artery
    d) Right coronary sinus at aortic root

C

7. In MRI of the heart in the assessment of hypertrophic cardiomyopathy, muscle mass is best assessed by using a steady-state free precession sequence in which plane?
    a) Left ventricular vertical long axis
    b) Left ventricular horizontal long axis
    c) Left ventricular short axis
    d) Left ventricular short axis oblique

D

Signature of the Candidate

8. In persistent left-sided superior vena cava, drainage usually occurs into which structure?
    a) Left atrium
    b) Right atrium
    c) Hemiazygos vein
    d) Coronary sinus

D

9. A 60-year-old male awaiting cardiac bypass surgery undergoes Doppler assessment of leg veins to check suitability for a vein graft. On ultrasound, incidental note is made of 1.8-cm popliteal artery aneurysm with mural thrombus. Which of the following statements regarding popliteal artery aneurysm is false?
    a) It is bilateral in 50–70% of cases
    b) It is associated with abdominal aortic aneurysm in 30–50% of cases
    c) It may be missed on conventional angiography
    d) It should be treated only when symptomatic

D

10. A junior doctor requests your opinion on a postero-anterior (PA) CXR of a 21-year-old man admitted with chest pain. She suspects that the patient has right middle lobe consolidation. What feature on the patient's radiograph allows you to reassure her that the imaging appearances are secondary to pectus excavatum?
    a) Rightward displacement of the heart
    b) Sevens appearance to ribs
    c) Indistinct right heart border
    d) Steeply angulated posterior ribs

B

11. A 39-year-old male presents with tenderness and decreased range of movement of the right elbow after falling on an outstretched arm while playing indoor football. A radial head fracture is noted on his radiographs, but the A&E doctor asks for your opinion, suspecting an additional injury. What is the most common associated fracture with this injury?
    a) Olecranon fracture
    b) Coronoid process fracture
    c) Scaphoid fracture
    d) Proximal ulna fracture

B

12. A 75-year-old man has a cemented right total hip replacement. On routine follow-up imaging he is noted to have a progressive well-delineated, rounded, focal area of lucency at the cement bone interface adjacent to the tip of the femoral stem. Which of the following given reasons is the most appropriate for this progressive lucency?
    a) Aggressive granulomatous disease
    b) Primary loosening
    c) Cement fracture
    d) Metal bead shedding

A

13. A 30-year-old female runner presents with a history of pain in the legs on running. Plain radiographs are unremarkable. An isotope bone scan reveals subtle, longitudinal, linear uptake on the delayed bone scan images, with normal angiogram and blood pool images. What is the diagnosis?
    a) Shin splints
    b) Medial tibial stress syndrome
    c) Stress fracture
    d) Both a and b

D

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14. A 25-year-old man presents with a painful knee. A plain film reveals a lucent area with a wide zone of transition in the distal femoral metaphysis. MRI reveals fluid–fluid levels. What is the most likely diagnosis?
    a) Osteosarcoma
    b) Aneurysmal bone cyst
    c) GCT
    d) Chondroblastoma

A

15. A 34-year-old woman has chronic right wrist pain, with no documented history of previous trauma. An x-ray of the right wrist shows sclerosis and irregularity of the scaphoid with early bony fragmentation. What is the most likely eponymous disease that has resulted in this abnormality?
    a) Sever disease
    b) Freiberg disease
    c) Preiser disease
    d) Iselin disease

C

16. A 45-year-old female undergoes aggressive chemotherapy for bone metastases followed by bone marrow transplantation. Which of the following findings on MRI indicates recurrent metastatic disease instead of rebound hematopoietic marrow?
    a) Intermediate signal on T1WI
    b) High signal on T2WI
    c) Loss of signal on out-of-phase GE images
    d) Increased conspicuity on prolonged time-to-echo (TE) images

D

17. An 18-year-old male with fingernail dysplasia and a family history of renal failure is investigated for possible nail-patella syndrome. Which of the following radiographic findings is considered pathognomonic for this disorder?
    a) Patellar hypoplasia
    b) Lateral elbow hypoplasia
    c) Posterior iliac horns
    d) Madelung deformity

C

18. A 24-year-old man undergoes acute trauma to his right knee playing football. He is unable to weight bear. An x-ray of the right knee is performed and this demonstrates a large joint effusion and a small, avulsed elliptical fragment of bone at the medial aspect of the proximal tibia at the joint margin. Which knee structure is likely to be deranged in association with this injury at a subsequent MRI?
    a) Anterior cruciate ligament
    b) Posterior cruciate ligament
    c) Lateral collateral ligament
    d) Lateral meniscus

B

19. A radiologist is reporting a 99mTc bone scan and describes it as a 'superscan'. He can say this because of reduced uptake in the:
    a) Brain
    b) Skeleton
    c) Kidneys
    d) Spleen

C

20. A 41-year-old male presents to the A&E department with knee pain following a fall at work. Plain radiography does not demonstrate any fracture, but note is made of continuous, irregular cortical hyperostosis along the lateral margin of the femur. What is the most likely diagnosis?
    a) Osteopoikilosis
    b) Fibrous dysplasia
    c) Engelmann disease
    d) Melorheostosis

D

21. Which of the following favours appendical carcinoid over appendical adenocarcinoma?
    a) Bulbous swelling involving the distal third of the appendix
    b) Slow growth
    c) Direct extension into caecum
    d) Ileocaecal lymph node enlargement

A

22. Which is the most commonly affected site in systemic sclerosis after the oesophagus?
    a) Anorectum
    b) Small bowel
    c) Colon
    d) Stomach

A

23. A patient is undergoing a barium meal. What is the best position to place the patient in to see an *en face* view of the lesser curve?
    a) Left lateral
    b) Left anterior oblique (LAO)
    c) Supine
    d) Right anterior oblique (RAO)

B

24. A 65-year-old male with a pancreatic head mass and obstructive jaundice undergoes percutaneous cholangiogram and external biliary drain insertion via the right lobe of the liver. The patient returns for a biliary stent insertion. On removing the external drain there is significant arterial bleed from the puncture site. A selective coeliac axis angiogram does not reveal any abnormality, but pulsatile bleeding persists. What would you do next?
    a) Selective left gastric angiogram
    b) Selective superior mesenteric angiogram
    c) Selective inferior mesenteric angiogram
    d) Selective gastroduodenal artery angiogram

B

25. A 55-year-old man with a previous history of liver transplantation presents with a 1-week history of abdominal pain and distension. An AXR shows some distended small bowel loops centrally within the abdomen. You are asked to perform a CT scan of abdomen for further evaluation. This shows a cluster of non-encapsulated dilated small bowel loops adjacent to the anterior abdominal wall on the right side. There are adjacent crowded mesenteric vessels. What is the most likely diagnosis?
    a) Left paraduodenal hernia
    b) Right paraduodenal hernia
    c) Foramen of Winslow hernia
    d) Transmesenteric hernia

D

26. A patient with a known history of malignancy undergoes a CT scan of the chest, abdomen, and pelvis for staging purposes. This examination identifies a solitary hypodense lesion in the spleen measuring 4 cm in diameter, but no other evidence of metastatic disease. A PET-CT is considered as a possible mechanism for determining whether or not this is a metastasis, but is considered not likely to be helpful. Which malignancy is the patient most likely to have?
    a) Melanoma
    b) Lung carcinoma
    c) Lymphoma
    d) Renal cell carcinoma

D

27. A 75-year-old man is undergoing a CT colonography examination for investigation of a change in bowel habit. He has difficulty retaining the CO2 for adequate bowel distension. Which of the following segments of colon is likely to be better distended on the prone scan?
    a) Caecum
    b) Transverse colon
    c) Rectosigmoid
    d) Ascending colon

C

28. Which is the most likely source of a metastatic deposit to the pancreas?
    a) Renal Cell Carcinoma
    b) Bronchogenic carcinoma
    c) Breast cancer
    d) Soft tissue sarcoma

A

29. Which is the most common MR feature of autoimmune hepatitis?
    a) MR is diagnostic test for AIH
    b) Surface nodules rarely present
    c) PV thrombosis is frequently present
    d) Enlarged preportal space is a recognised finding

D

30. Which is the most common source of false positives in cathartically prepared CT colonography by Computer aided detection (CAD)?
    a) Haustral folds
    b) Untagged/poorly tagged stool
    c) Electronic cleansing and tagging artefact
    d) Extrinsic compression

A

31. Which of the following statements about Onodi cells is incorrect?
    a) Important due to their close proximity to the optic nerves
    b) The posteriormost ethmoidal air cell
    c) Synonymous with aeration of the anterior clinoid process
    d) Located superolateral to the sphenoid sinus

C

32. All other things being equal, which of the following biomarkers confers the poorest prognosis in diffuse gliomas?
    a) ATRX not mutated (intact)
    b) IDH-1 not mutated (wild-type)
    c) MGMT methylated (low activity)
    d) 1p19q co-deleted

B

33. The overall prevalence of ectopic pregnancy is 2%. In a patient with first trimester bleeding, however, the prevalence increases to
    a) 7%
    b) 12%
    c) 18%
    d) 31%

C

34. What myometrial thickness around the edge of a gestational sac located near the uterine cornua is suspicious for an interstitial ectopic pregnancy?
    a) <7 mm
    b) <3 mm
    c) <5 mm
    d) <10 mm

C

35. How much change in kVp doubles the amount of film density/exposure?
    a) 15%
    b) 25%
    c) 50%
    d) 100%

A

36. Which of the following statements is incorrect in regards to intracranial aneurysms?
    a) Aneurysms may present with intraparenchymal haemorrhages and little subarachnoid blood
    b) Approximately 90% of aneurysms are located in the anterior circulation
    c) Posterior communicating artery aneurysms typically compress the trigeminal nerve
    d) There is an increased incidence of aneurysms at arterial fenestrations

C

37. Which of the following histological features denotes a grade 4 astrocytic tumour - astrocytoma/glioblastoma?
    a) Cellular atypia
    b) Increased mitotic activity
    c) Infiltration of adjacent parenchyma
    d) Microvascular proliferation

D

38. Which of these cannot be detected on a first trimester ultrasound study at 12-13 weeks?
    a) Agenesis of the corpus callosum
    b) Alobar holoprosencephaly
    c) Gastroschisis
    d) Megacystis

A

39. Which of the following medulloblastoma subgroups is least common?
    a) Group 3
    b) Group 4
    c) Sonic hedgehog (SHH)
    d) Wingless (WNT)

D

40. In MR spectroscopy *myo*-inositol will resonate at...
    a) 2.60 ppm
    b) 3.00 ppm
    c) 3.20 ppm
    d) 3.50 ppm

D

41. The marginal sulcus, also known as pars marginalis, is the extension of the...
    a) Calcarine sulcus
    b) Central sulcus
    c) Cingulated sulcus
    d) Parieto-occipital fissure

C

42. A Malgaigne fracture of the pelvis is typically the result of which traumatic mechanism?
    a) Vertical shearing
    b) Anteroposterior compression
    c) Axial loading
    d) Lateral compression

A

43. In Wilms tumour, hypertension is caused by...
    a) Renal vein invasion
    b) Angiotensin Converting Enzyme (ACE) upregulation
    c) Elevated renin production
    d) Endothelial dysfunction

B

44. Which segment of the colon would develop the most wall tension in a low rectal obstruction?
    a) Caecum
    b) Sigmoid colon
    c) Transverse colon
    d) Descending colon

A

45. Which is most common type of endoleak after repair of a thoracic aortic aneurysm?
    a) Type 1 endoleak
    b) Type 2 endoleak
    c) Type 3 endoleak
    d) Type 4 endoleak

A

46. An endoleak through a defective portion of an endoluminal stent is classified as a...
    a) Type 1 endoleak
    b) Type 3 endoleak
    c) Type 5 endoleak
    d) Type 4 endoleak

B

47. The tip of the appendix is most commonly seen...
    a) Ascending paracaecal preileal
    b) Ascending retrocaecal
    c) Subcaecal
    d) Ascending paracaecal retroileal

B

48. What mechanism of injury typically results in a Chance fracture?
    a) Axial loading
    b) Flexion-distraction
    c) Hyperextension
    d) Rotation-lateral flexion

B

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49. An embryo without a heart rate may indicate a failed early pregnancy, but what crown rump length (CRL) is necessary to make the diagnosis on transvaginal ultrasound?
    a) At least 5 mm
    b) At least 7 mm
    c) At least 9 mm
    d) At least 6 mm

B

50. Which of the following features is most commonly seen in CT hypoperfusion complex?
    a) Collapsed inferior vena cava
    b) Small bowel wall thickening
    c) Small calibre abdominal aorta
    d) Splenic hyperenhancement

B

51. Which of the following does not directly reduce patient dose in CT imaging?
    a) Automatic exposure control
    b) Collimation
    c) Anti-scatter grid
    d) Filtration

C

52. What vascular territory is the typical distribution of nonocclusive ischaemic colitis?
    a) Arc of Riolan
    b) Inferior mesenteric artery
    c) Superior mesenteric artery
    d) Ileocolic artery

B

53. A disease has a prevalence of 1/1,000. A test to detect the disease has a false positive rate of 5% and a false negative rate of 0%. What is the sensitivity of the test?
    a) 50%
    b) 95%
    c) 98%
    d) 100%

D

54. On a baseline low rectal cancer staging MRI study, what is the size cut-off for considering an obturator territory node to be involved?
    a) 5mm
    b) 6mm
    c) 7mm
    d) 8mm

C

55. A 60 year old woman is referred for an MR scan to stage endometrial cancer. Which imaging characteristics is the tumour most likely to show on T1-weighted imaging pre- and post-gadolinium?
    a) Isointense and enhances more slowly than the myometrium
    b) Of increased signal and enhances more slowly than the myometrium
    c) Of decreased signal and enhances more rapidly than the myometrium
    d) Of decreased signal and enhances similarly to the myometrium

A

56. Which imaging modality is most commonly used to guide cryoablation procedures in oncology?
    a) Computed tomography (CT)
    b) Whole body magnetic resonance imaging (MRI)
    c) X-ray fluoroscopy
    d) Ultrasonography

A

57. The right inferior phrenic artery most commonly arises from which artery?
    a) Abdominal aorta
    b) Celiac trunk
    c) Right renal artery
    d) Superior mesenteric artery

A

58. Which catheter is most commonly used for selective hooking during bronchial artery embolisation?
    a) Cobra type curved catheter (RDC)
    b) Rosch celiac catheter (RC)
    c) Simmons-1 catheter
    d) Picard catheter

A

59. Which of the following is incorrect regarding TACE in hepatocellular cancer?
    a) Lipoidol is used for embolisation
    b) Epirubicin is used as chemotherapeutic agent
    c) Gel foam is not used.
    d) Portal vein branches opacification is a key endpoint

C

60. Which riskier subtype of hepatic adenoma may mimic FNH on imaging?
    a) Atoll-deficient
    b) β-Catenin-mutated
    c) HNF-1α
    d) Sonic Hedgehog

B

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SOLVED QUESTION PAPER OF SURGICAL GASTROENTEROLOGY						
Ques No	**QUESTION**	**Option A**	**Option B**	**Option C**	**Option D**	**Correct answer**
1	UGI surviellance in FAP begins	20-25 yrs	25-30 yrs	30-35 yrs	35-40 yrs	A
2	Manometric findings not not associated with achalasia	All waves are simultaneous	No primary peristalsis wave	Resting pressure elevated in body of esophagus	Hypertonic lower esophageal sphincter	D
3	Which of the following is most likely related to Barrett's esophagus	Chest pain	Sensation of food sticking onto the throat	History of reflux	Difficulty in sleeping at night	C
4	Not a complication of esophageal diverticula	Perforation	Obstruction	SCC	Candidial esophagitis	D
5	Most useful for malignant NET	CT	FDG PET/CT	DOTATATE PET/CT	MRI	C
6	NETs with max. malignant potential arises from	Appendix	Colon	Ileum	Lung	C
7	False about esophageal leiomyoma	Equal gender distribution	Endoscopic biopsy not required	Arises from muscularis mucosa	No malignant potential	C
8	As per Schatzki rule, an esophageal ring will always be symptomatic if ring diameter is more than	12 mm	15 mm	20 mm	25 mm	A
9	Edematous bowel wall on USG is more than	1 mm	2 mm	3 mm	4 mm	C

10	Leiomyoma originates from which layer of Esophagus as viewed by EUS	1st	2nd	3rd	4th	D
11	Earliest feature noted in eophageal perforation	Tachycardia	Tachypnea	Subcut. Emphysema	Dysphagia	C
12	Found to be effective for esophageal strictures	PPI	Octreotide	Steroid	None	D
13	Secondary peristalsis in the Esophagus	Centrally mediated	Peripherally mediated	Centrally mediated in the distal esophagus	Both centrally & peripherally mediated	D
14	Correct time of start & end of muscularization of esophagus(in week)	9 & 12	6 & 9	3 & 5	1 & 3	B
15	segmental vascularity of CBD is seen in	2%	5%	10%	20%	A
16	Staging lap is not recommended in	Ca GB	Ca pancreas	Ca GE junction	Hilar cholangiocarcinoma	D
17	Sacral nerve stimulation in Fecal Incontinence is done through	S1	S2	S3	S4	C
18	Basal hourly secretory rate of stomach	40 cc	50 cc	60 cc	70 cc	C
19	Accessory GB appearance on cholangiogram is seen in choledochal cyst	Type 1	Type 2	Type 3	type 5	B
20	Mean colonic transit time in Males	10 hrs	20 hrs	30 hrs	40 hrs	C

21	Most malignant gastric carcinoid	Type 1	Type 2	Type 3	Type 4	D
22	SBS type 2 length to avoid permanent TPN	30 cm	50 cm	65 cm	75 cm	C
23	SBS type 2 anatomy	End jejunostomy	Jejunoileocolic anastomosis	Jejunocolic anastomosis	Jejunoileal anastomosis	C
24	Sorafenib for intraabdominal desmoid is used in stage	1	2	3	4	C
25	Best for 35 yr old male of FAP with 10 rectal adenomas	IRA	IPAA	TPC with ileostomy	none	A
26	Middle white line on ERUS	Mucosa	MM	SM	MP	C
27	Post meal CBD pressure (in cm of water)	10	20	30	40	B
28	Pancreas apperas at what stage of embryonic development	3 mm	5 mm	7 mm	8 mm	C
29	Appleby procedure is done for pancreatic carcinoma of	Head	Uncinate	Body	Tail	C
30	Warshaw technique preserves	Distal pancreas	Splenic vessels	Spleen	Gastric vessels	C
31	Most common symptom of IPMNs	Jaundice	Pain	Fatigue	Mass	B

32	First pancreaticoduodenectomy was done by	Whipple	Halstead	Codivilla	Trendelenberg	C
33	Least variable branch of SMA	ileocolic	Right colic	Middle colic	Appendicular	A
34	Migratory erythema in Glucaganoma tends to start from	Chest	Lower extremity	Perineum	Trunk	C
35	Gene mutation not seen in well differentiated PNETs	MEN 1	MTOR	DAXX/ARTX	P53	D
36	MC Histopathological type of BD-IPMN	Gastric	Intestinal	Pancreaticobiliary	Oncocytic	A
37	Best to diagnose colovesical fistula	Colonoscopy	Cystoscopy	CECT	IVU	C
38	Commonest familial syndrome associated with PNETs	VHL	NF 1	MEN 1	TS	B
39	Which vein is used to obtain samples in simultaneous testing of Insulinoma	PV	HV	SMV	IJV	B
40	10 villous polyp of 1 cm in D2 with moderate dysplasia , comes under Spigelman stage	1	2	3	4	C
41	Venous Zone of GEJ with portal HTN changes	Truncal	Perforating	Plaisade	Gastric	C

42	TEMS introduced by	Mason	Kraske	Park	Zargar	B
43	Most common pancreatic manifestation in VHL	PNETs	simple cysts	SCN	MCN	B
44	MC mutation in sessile serrated adenoma	KRAS	APC	BRAF	MMR	C
45	Not a cause of increased risk of cholangiocarcinoma on PSC	Prior history of colectomy	Smoking	Duration of disease	All	C
46	Commonest cardiac manifestation of esophagectomy	MI	AF	Cardiac aneurysm	Sick sinus syndrome	B
47	PVE was first done by	Glisson	Going	Belghiti	Makuchi	D
48	Stoma retraction defined as …cm or more below the level of skin	0.5	1	1.5	2	A
49	Ablative treatment as first line therapy	1 cm	2 cm	3 cm	4 cm	B
50	Which is commonest portal branch punctured during PVE	Right anterior	Right posterior	Left	All equally done	A
51	Confluence of LHD & RHD overlies	LPV	RPV	Confluence of LPV & RPV	Variable	B
52	Paraneoplastic syndrome not associated with ca stomach	Acanthosis nigrans	Cerebellar ataxia	Hypercalcemia	Cushings syndrome	C

53	Higher incidence in patients of PSC undergoing ERCP	Pancreatitis	Cholangitis	Perforation	Haemorrhage	C
54	In case of PSC , amino transferases more than 3 times , s/o an overlap of	PBC	IBD	AIH	RPC	C
55	Tangential CBD injury as per Hannover classification	Type A	Type B	Type C	Type D	C
56	Intra hepatic Bile duct dilataion is suspected when ductal diameter is more than(mm)	2	4	6	10	A
57	Left portal fissure separates segment 2 from	3	4	1	3 &4	A
58	Hepatic osteodystrophy is associated with	PSC	PBC	Choledocholithiasis	RPC	A
59	Arc of Rialon connects	Middle & Right colic	Left & Right colic	Middle & Left colic	Left colic & SRA	C
60	Not a risk factor for PDAC	Smoking	Alcohol	Type 2 DM	Obesity	B