

**AIIMS PG MAY 2014****ANATOMY**

1. All of the following are derived from ectoderm except
  - A. Hair follicles
  - B. Erector pilae
  - C. Sebaceous glands
  - D. Mammary glands
2. Which of the following muscles is not a derivative of mesoderm?
  - A. Skeletal muscles
  - B. Smooth muscles
  - C. Cardiac myocyte
  - D. Dilators of pupil
3. Buccopharyngeal membrane develops from:
  - A. Ectoderm + Mesoderm
  - B. Ectoderm + Endoderm
  - C. Mesoderm + Endoderm
  - D. Ectoderm + Mesoderm + Endoderm
4. Epithelioid cells include Which of the following?
  - A. Islet cells of pancreas
  - B. Theca lutein cells
  - C. Cells of Brunner's gland
  - D. Interstitial cells of Leydig
5. Venous drainage of esophagus is into the
  - A. Azygous and inferior thyroid veins
  - B. Azygous, inferior thyroid and left gastric veins
  - C. Azygous, inferior thyroid and right gastric veins
  - D. Superior thyroid, , inferior thyroid veins, azygous and hemi- azygous veins
6. The most common variant in the blood supply of colon is
  - A. Absent right colic artery
  - B. Absent middle colic artery
  - C. Absent left colic artery
  - D. Absent superior rectal artery
7. All of the following are part of mesorectal fascia except
  - A. Superior rectal vein
  - B. Inferior rectal vein
  - C. Para rectal nodes
  - D. Inferior mesenteric plexus
8. Which of the following is not true about blood testis barrier?
  - A. It is formed by Sertoli cells
  - B. It is formed before primary spermatogenesis

- C. Any rupture of barrier can cause immune response to germ cells
- D. Germ cells are not necessary for formation of the barrier

9. Which of the following is not true about dural matter?

- A. It is the outermost of the cranial meninges
- B. It has two layers-periosteal and meningeal
- C. Dural venous sinuses lie below the meningeal layer
- D. It is supplied by a branch of the V nerve

10. Which of the following structures is seen in the cavernous sinus?

- A. 1<sup>st</sup> part of V nerve
- B. 2<sup>nd</sup> part of V nerve
- C. ICA
- D. 4<sup>th</sup> nerve

11. The medulla receives its blood supply from all of the following arteries except

- A. Anterior spinal
- B. Posterior inferior cerebellar
- C. Vertebral
- D. Superior cerebellar

12. Which of the following is not supplied by ipsilateral nerve nucleus?

- A. Superior rectus
- B. Inferior Superior
- C. Medial Superior
- D. Inferior oblique

13. Trigeminal nerve supplies all of the following muscles except

- A. Stylohyoid
- B. Medial pterygoid
- C. Lateral pterygoid
- D. Tensor veli palatine

14. Facial nerve gives out secretomotor fibres to all of the following except

- A. Lacrimal gland
- B. Parotid gland
- C. Submandibular gland
- D. Nasal glands

### PHYSIOLOGY

15. In an encephale is ole preparation, the transsection is done at:

- A. First cervical spinal segment
- B. Level of medulla
- C. Midpontine level
- D. Midcollicular level

16. If a supramaximal stimulus is applied to an excitable tissue like a nerve or a muscle and it elicits a response, then the tissue is said to be in

- A. Absolute refractory period
- B. Relative refractory period

- C. Latent period
- D. After-depolarization

17. Nuclear bag fibres are related to

- A. Force
- B. Length
- C. Tone
- D. Length and velocity

18. True about Golgi tendon organ is

- A. Sence the dynamic length of the muscle
- B. Are involved in reciprocal innervations
- C. Are stimulated by alpha motor neuron
- D. Sense muscle tension

19. The mechanostretch receptors joints and ligaments are

- A. Fast adapting
- B. Slow adapting
- C. Non adapting
- D. Adapt ifferentially for different stresses

20. During hip replacement, loss of joint and ligament receptors leads to

- A. No loss of sensation
- B. Loss of all sensations
- C. Joint sensation lost in stable position
- D. Decrease in movements and decrease in sensation

21. Fast fatigue fibres are recruited during walking

- A. In the beginning
- B. In the end
- C. Throughout the walking process
- D. When small neurons are excited

22. Which of the following can cause a shift of the oxygen-hemoglobin dissociation curve to the left?

- A. pH
- B. Temperature
- C. 2,3-BPG
- D. pCO<sub>2</sub>

23. In the given circuit, the inward flow pressure is 100 mm Hg and the outward flow pressure is 10 mm Hg/mL/min. Calculate the flow across the circuit

- A. 45 mL
- B. 90 mL
- C. 3.6 mL
- D. 135 mL

24. Which of the following defines the pressure in the vascular system in the absence of blood flow?

- A. Pulse pressure
- B. Critical closing pressure

- C. Mean circulatory pressure
- D. Perfusion pressure

25. Which of the following defines the pressure in the vascular system in the absence of blood flow?

- A. Pulse pressure
- B. Critical closing pressure
- C. Mean circulatory pressure
- D. Perfusion pressure

26. Which of the following is true about measurement of blood pressure?

- A. The length of the bladder in the blood pressure cuff should cover more than 80% of the arm area
- B. The person should be comfortably sitting and blood pressure cuff should be at higher level than the heart
- C. Caffeine intake induces decrease in blood pressure
- D. Blood pressure increases during sleep.

27. The left atrial 'v' wave is larger than 'a' wave in comparison to right atrium because

- A. Left side is high pressure system
- B. Left atrium is more compliant
- C. Left atrium is compressed posteriorly by pulmonary veins
- D. Right atrial pressure is transmitted into the pulmonary circulation

28. The right atrium chronic overload is indicated by a P wave of more than

- A. 2.5 mm
- B. 3.5 mm
- C. 4.5 mm
- D. 5.5 mm

29. The cells of the human body most sensitive to ischemia are

- A. Neurons
- B. Nephrons
- C. Cardiac myocyte
- D. Hepatocytes

30. The most important hormone that increases gallbladder contraction after a fatty meal is

- A. Gastrin
- B. Secretin
- C. CCK
- D. GIP

31. The most serious complication of prolonged sitting position is

- A. Venous air embolism
- B. Dysrhythmias
- C. Hypotension
- D. Nerve palsies

**BIOCHEMISTRY**

32. Not an intermediate product of citric acid cycle is

- A. Acyl CoA
- B. Succinyl CoA
- C. Citrate
- D.  $\alpha$  - ketoglutarate

33. The enzyme common to both glycogenolysis and glycogenesis is

- A. Glycogen phosphorylase
- B. Glycogen synthase
- C. Glucotransferase
- D. Carboxykinase

34. In the entire human genome, coding DNA constitutes

- A. 0.02
- B. 0.1
- C. 0.25
- D. 0.4

35. Methylation of cytosine leads to

- A. Increased expression of gene
- B. Decreased expression of gene
- C. No effect on gene expression
- D. Mutation

36. 2,3 - BPG binds to --- sites of hemoglobin and - - - the affinity for oxygen

- A. 4, decreases
- B. 1, decreases
- C. 4, increases
- D. 1, increases

37. The last receiver of electrons in electron transport system is

- A. Coenzyme Q
- B.  $\text{FADH}_2$
- C.  $\text{O}_2$
- D. Cytochrome b

#### PHARMACOLOGY

38. Which of the following is not converted into an active metabolite?

- A. Lisinopril
- B. Fluoxetine
- C. Cyclophosphamide
- D. Diazepam

39. Methacholine is a

- A.  $M_1$  receptor agonist
- B.  $M_2$  receptor agonist
- C.  $M_3$  receptor agonist
- D.  $M_4$  receptor agonist

40.  $\alpha_2$  agonists cause all of the following except

- A. Analgesia
- B. Hyperalgesia
- C. Sedation
- D. Anxiolysis

41. Which of the following is a mixed alpha and beta agonist?

- A. Dobutamine
- B. Fenoldopam
- C. Epinephrine
- D. Phenylephrine

42. Peripheral vasospasm is observed with which of the following anti-Parkinsonian drugs?

- A. Ropinirole
- B. Levodopa
- C. Bromocriptine
- D. Entacapone

43. Peripheral vasospasm is observed with which of the following anti-Parkinsonian drugs?

- A. Ropinirole
- B. Levodopa
- C. Bromocriptine
- D. Entacapone

44. Lithium potentiates the action of non-depolarizing muscle relaxants. How many days before administration of the muscle relaxants should lithium be stopped?

- A. 1 day
- B. 2 days
- C. 3 days
- D. 4 days

45. True statement regarding methadone are all except

- A. It is a long acting  $\mu$  receptor agonist
- B. It is rapidly absorbed from the gastrointestinal tract and is detected in plasma 30 minutes after oral administration
- C. The primary use of methadone is relief of chronic pain
- D. The onset of analgesia is 30-60 minutes after parenteral administration and 1-2 hours after oral administration

46. The site of action of the loop diuretic furosemide is

- A. Thick ascending limb of loop of Henle
- B. Descending limb of loop of Henle
- C. Proximal tubule
- D. Distal tubule

47. Which of the following pairs of drug and its indication is matched incorrectly?

- A. Carbamazepine
- B. Octreotide – treatment of diarrhea associated with vasoactive intestinal peptide tumours
- C. Desmopressin-treatment of diabetes insipidus
- D. hCG-treatment of infertility in men and women

48. Time dependent killing and prolonged post-antibiotic effect is seen with

- A. Fluoroquinolones
- B. Beta lactam antibiotics
- C. Clindamycin
- D. Erythromycin

49. Non – nucleoside reverse transcriptase inhibitors (NNRTIs) include all of the following except

- A. Nevirapine
- B. Delavirdine
- C. Efavirine
- D. Lamivudine

50. Which of the following antitubercular drugs is associated with hypothyroidism?

- A. Rifampicin
- B. PZA
- C. Etionamide
- D. Streptomycin

51. The most common side effect of cancer chemotherapy is nausea with or without vomiting. The anticancer drugs vary in their ability to cause nausea and vomiting. Which of the following anti-cancer drugs is least likely to cause nausea and vomiting?

- A. Chlorambucil
- B. Cisplatin
- C. Doxorubicin
- D. Daunorubicin

52. Which of the following medications is essential for ameliorating the toxicity of pemetrexed?

- A. Folinic acid and vitamin B6
- B. Folic acid and vitamin B12
- C. Vitamin B6 and vitamin B12
- D. Folic acid and dexamethasone

53. Which of the following drugs is useful for the treatment of advanced prostate cancer?

- A. Goserelin
- B. Cetrorelix
- C. Abarelix
- D. Goserelin

### **PATHOLOGY**

54. A 50-year old patient presents with weakness and bleeding episodes. His hemoglobin was 10.5 g/dL. His leukocyte count was  $48 \times 10^9$  cells/L and platelet count was  $50 \times 10^9$  cells/L. There was dysplasia of neutrophilia with a sifferential count showing 76% neutrophils, 8% blast cells, 12% myelocytes and metamyelocytes and 4% other cells. Bone marrow examination showed 14% blasts. Cytogenetics showed t(8,21). The most likely diagnosis is

- A. Acute myeloid leukemia
- B. Chronic myeloid leukemia
- C. Chronic lymphoid leukemia
- D. Myelodysplastic syndrome

55. Which of the following regarding cellular events in acute inflammation is not correct?

- A. PECAM/CD31 is responsible for neutrophil activation
  - B. Components of complement can assist in chemotaxis
  - C. Neutrophil margination is assisted by selectins
  - D. ICAM-1/VCAM-1 is responsible for neutrophil adhesion
56. Which of the following factors is morphogenic as well as mitogenic?
- A. Fibroblast growth factor
  - B. Platelet derived growth factor
  - C. Bone morphogenetic protein
  - D. Insulin-like growth factor
57. Which of the following is not an example of a syndrome caused by uniparental disomy?
- A. Prader-Will syndrome
  - B. Angelman syndrome
  - C. Russell-Silver syndrome
  - D. Bloom syndrome
58. Anti-neutrophil cytoplasmic antibodies (ANCA) is seen in
- A. Wegener's granulomatosis
  - B. Diabetes mellitus
  - C. Rheumatoid arthritis
59. ARDS is due to a defect in
- A. Type 1 pneumocytes
  - B. Type 2 pneumocytes
  - C. Clara cells
  - D. Endothelial cells
60. A 50-year old male presents with large bowel type diarrhea and rectal bleeding. On sigmoidoscopy, a cauliflower like growth is seen in the rectum. Colectomy specimen on histopathology shows adenocarcinoma. Which of the following prognostic investigations is not required?
- A. Microsatellite instability
  - B. c-myc mutations
  - C. EGFR mutations
  - D. k-RAS mutations
61. Verocay bodies are seen in
- A. Meningioma
  - B. Hemangioma
  - C. Glioma
  - D. Schwannoma
62. Histopathologically, rosettes are not seen in
- A. Retinoblastoma
  - B. Neurocysticercosis
  - C. PNET
  - D. Medulloblastoma

**MICROBIOLOGY**

63. Which of the following is correct regarding staining of microbes?
- A. Gram positive bacteria stain black
  - B. Gram negative bacteria stain red
  - C. Gomori's methenamine silver stains fungi green
  - D. Calcofluor white stains acanthamoeba red
64. Both DNA and RNA are present in
- A. Bacteria
  - B. Prions
  - C. Virioids
  - D. Plasmid
65. Which of the following is not true regarding IgE antibodies
- A. It mediates release of histamine and other chemical mediators
  - B. It is the primary antibody involved in allergic reactions
  - C. It is involved in anti-parasitic immune responses
  - D. May cross the placenta and fix complement
66. A 10-year old child presented with severe sore throat and a grey pseudomembrane over pharynx and tonsils. The organism causing this infection is most likely
- A. A gram positive bacillus
  - B. A gram negative bacillus
  - C. A Catalase-positive gram positive coccus that grows in clusters
  - D. A single-standed positive sense RNA virus
67. The hematoxylin and eosin staining of a lung section during autopsy of a patient suffering from AIDS shows desquamation of type 1 pneumocytes with prominent intranuclear basophilic inclusion bodies surrounded by a clear halo. The CD4 count was less than 100/mm<sup>3</sup> before demise. The most likely diagnosis causing these features is
- A. Acute respiratory distress syndrome
  - B. Pneumocystis jiroveci pneumonia
  - C. CMV pneumonia
  - D. Mycobacterium avium-intracellulare pneumonia
68. Giemsa stained smear of epithelial cells obtained from a newborn with hepatosplenomegaly is shown below. What is the most likely cause of this congenital infection?
- A. CMV
  - B. Rubella
  - C. HIV
  - D. Epstein-Barr virus
69. An elderly male presents 2 months after renal transplantation with nephropathy. Which of the following can be a viral etiological agent?
- A. Polyoma virus BK
  - B. Human herpes virus type 6
  - C. Hepatitis C
  - D. Human papilloma virus, high risk types
70. The causative organism for AIDS was identified in the year
- A. 1983
  - B. 1976

- C. 1994
- D. 1969

71. The term recrudescence in malaria refers to
- A. Same as relapse in *P. vivax* and *p. ovale* malaria
  - B. Resistance to antimalarial drugs
  - C. Recurrence of sexual parasitemia after completion of treatment
  - D. Reinfection with the same species

### FORENSIC MEDICINE AND TOXICOLOGY

72. The legal responsibilities of an intoxicated person is given in section -- IPC
- A. 82
  - B. 83
  - C. 84
  - D. 85

73. A person is liable for punishment for perjury which is defined under?
- A. Section 190 IPC
  - B. Section 191 IPC
  - C. Section 192 IPC
  - D. Section 193 IPC

74. The most important sign of age determination as per Gustafson's method is
- A. Root transparency
  - B. Root attrition
  - C. Root resorption
  - D. Paradentosis

75. A person of eonism derives pleasure from
- A. Wearing clothes of opposite sex
  - B. Fondling female body parts
  - C. Rubbing genitalia against body of other person
  - D. Seeing the opposite partner nude

76. Cannabis is the most commonly used illicit drug in India. Which of the following is not derived from cannabis?
- A. Bhang
  - B. Charas
  - C. Ganja
  - D. Afeem

77. The characteristic burnt odour is caused by toxin of
- A. Cannabis
  - B. Tobacco
  - C. Strychnine
  - D. Chloral hydrate

78. The active principle of white oleander is
- A. Nicotine
  - B. Nerin

- C. Abrine
- D. Pilocarpine

79. A doctor is treating a patient with viper snake bite. He should not forget that viper venom is

- A. Histotoxic
- B. Vasculotoxic
- C. Musculotoxic
- D. Neurotoxic

### **PREVENTIVE AND SOCIAL MEDICINE**

80. The prospectively evaluated, double-blinded, randomized clinical trial represents the gold standard for providing evidence for therapeutic decision making. This was first proposed by the father of evidence-based medicine:

- A. Tostoy
- B. Sackett
- C. Hippocrates
- D. da Vinci

81. True statements regarding the calculation of HDI are all of the following except

- A. The minimum value for combined gross enrolment ratio is fixed at 0%
- B. The minimum value for adult literacy rate is fixed as 100
- C. The minimum value of life expectancy at birth is taken as 100
- D. The minimum value for per capita income is fixed at 40,000

82. Regarding education in HDI, true statement is

- A. In gross enrolment, only secondary education is considered, not primary education
- B.  $\frac{1}{3}$  weightage is given to adult literacy
- C.  $\frac{2}{3}$  weightage is given to gross enrolment
- D. Country's achievement is computed on the basis of adult literacy

83. Immune thrombocytopenic purpura (ITP) is a complication observed with which of the following vaccines?

- A. MMR
- B. HiB conjugate polysaccharide vaccine
- C. Typhoid Vi polysaccharide vaccine
- D. Influenza vaccine

84. Immune thrombocytopenic purpura (ITP) is a complication observed with which of the following vaccines?

- A. MMR
- B. HiB conjugate polysaccharide vaccine
- C. Typhoid Vi polysaccharide vaccine
- D. Influenza vaccine

85. Chemoprophylaxis is indicated for all of the following except

- A. Cholera
- B. Measles
- C. Meningococcal meningitis
- D. Conjunctivitis

86. All of the following statements regarding INH chemoprophylaxis are correct except
- A. It is cheap
  - B. It is not feasible to apply on a large scale
  - C. It has risk of drug-induced hepatitis
  - D. It is not highly clinically effective
87. Positive predictive value is a function sensitivity, specificity and
- A. Absolute risk
  - B. Relative risk
  - C. Incidence
  - D. Prevalence
88. All of the following are correct regarding the period of isolation in the following disease except
- A. Chicken pox – 6 days after the onset of rash
  - B. Measles – 5 days after the onset of rash
  - C. German measles – 7 days after the onset of rash
  - D. Herpes zoster – 6 days after the onset of rash
89. Which of the following regarding oral polio vaccine (OPV) is not true?
- A. Useful in epidemics
  - B. Excretion of virus in stools may cause disease to the unimmunized
  - C. Rapid antibody response
  - D. Protective even in the presence of maternal antibodies
90. HIV sentinel surveillance provides data
- A. To monitor trends
  - B. To identify high risk population
  - C. To estimate disease incidence
  - D. To assess the quality of related services
91. A boy complained of unprovoked bite by a local dog in the community. The dog was later caught by the local animal authorities and appeared to be healthy. The most appropriate course of action would be
- A. Give post-exposure prophylaxis to the bitten person with cell-culture derived vaccine
  - B. Withhold vaccination, keep the dog under observation for ten days for signs of rabies
  - C. Test the dog for rabies antibodies
  - D. Immediately carry out euthanasia of the dog
92. Evidence of decreased risk of cardiovascular disease is associated with all of the following except
- A. Vitamin E supplementation
  - B. Low to moderate daily alcohol consumption
  - C. Regular physical activity
  - D. Potassium
93. Under the school vision screening programme, vision screening in schools is done by
- A. Ophthalmologist
  - B. Optometrist
  - C. NGO worker
  - D. Teacher

94. Under the National Rural Health Mission, an ASHA will receive financial remuneration for all of the following except

- A. Institutional deliveries
- B. Measuring the birth weight of neonates
- C. 1<sup>st</sup> dose of DPT and OPV
- D. Registration of births

95. The provisions under Janani Shishu Suraksha Karyakram (JSSK) include all of the following except?

- A. Free food to the mother in the hospital
- B. Cash incentive for institutional deliveries
- C. Free transport to the mother and baby to/from hospital
- D. Free treatment of the neonate and infant in all public health facilities.

96. Calculate the neonatal mortality rate for a population according to the data of 2012. Number of neonatal deaths: 450. Number of still births: 212. Total number of live births 12,450

- A. 36
- B. 15
- C. 90
- D. 56

97. Infant mortality rate includes all of the following except

- A. Early neonatal deaths
- B. Late neonatal deaths
- C. Post neonatal deaths
- D. Still births

98. A girl is having white hair. 40% of her classmates are also suffering from the same problem. None of the other people from the same village have white hair. Her brother who is staying with an aunt in the neighbouring village is also normal and does not have white hair. Which of the following explains the probable cause of her white hair?

- A. Environmental
- B. Genetic
- C. Nutritional

99. Severe Acute Malnutrition (SAM) in India is defined as

- A. Very low weight for age (below -3 Z scores of the mean WHO standards for growth), by visible severe wasting or presence of nutritional edema
- B. Very low weight for age (below -3 Z scores of the mean WHO standards for growth), only
- C. Visible severe wasting, or presence of nutritional edema
- D. Very low weight for height (below -3 Z scores of the mean WHO standards for growth), by visible severe wasting, or presence of nutritional edema

100. The most sensitive indicator of environmental iodine deficiency is

- A. Serum T4 levels
- B. Serum T3 levels
- C. Urine iodine excretion
- D. Neonatal hypothyroidism

101. All of the following can cause epidemic in post-disaster period except

- A. Leishmaniasis

- B. Leptospirosis
- C. Rickettsiosis
- D. Acute respiratory infections

102. The hemoglobin levels of pregnant females in a community was found to have a mean of 10.6 g/dL and a standard deviation of 2 g/dL. What is the minimum hemoglobin level below which 5% of the pregnant females will have their hemoglobin levels?

- A. 7.32
- B. 8.64
- C. 6.68
- D. 8.96

103. Universal Health coverage in India was recommended by which of the following committees?

- A. Multipurpose worker committee
- B. Health development and planning committee
- C. High level expert committee
- D. Medical education committee

104. All of the following provisions are included in the primary health care according to the Alma Ata declaration except

- A. Adequate supply of safe drinking water
- B. Provision of food supply
- C. Provision of free medicines
- D. Basic sanitation

### OPHTHALMOLOGY

105. The critical angle of cornea-air interface is

- A.  $36^\circ$
- B.  $46^\circ$
- C.  $56^\circ$
- D.  $66^\circ$

106. Which diagnostic procedure is not done in a dilated pupil?

- A. Gonioscopy
- B. Laser interferometry
- C. Fundus examination
- D. Electroretinography

107. A 59-year old male presents with dimness of near vision. On examination, the media was clear in both the eyes. What would be the next step?

- A. Refraction with near add
- B. Refraction under atropine
- C. Radial keratotomy
- D. Cataract surgery

108. Which organismal infection is highly virulent and may cause corneal ulcer perforation within 48 hours?

- A. Herpes simplex
- B. Pseudomonas

- C. Staphylococci
- D. Aspergillus

109. Circumcorneal vascularization is observed in deficiency of

- A. Vitamin D
- B. Thiamine
- C. Riboflavin
- D. Biotine

110. A patient gives a history of chuna falling into his eyes. All of the following would be a part of his immediate management except

- A. Irrigation of both eyes with copious amounts of normal saline
- B. Frequent sodium citrate drops
- C. Thorough slit-lamp examination on presentation
- D. Removal of chuna particles by double eversion of upper eyelids

111. Which of the following drugs acts on trabecular meshwork and affects the aqueous outflow?

- A. Timolol
- B. Pilocarpine
- C. Brimonidine
- D. Brinzolamide

112. Ex-press glaucoma implant is made up of

- A. Silicone
- B. Titanium
- C. Gold
- D. Stainless steel

113. Ascorbate and  $\alpha$ -tocopherol are maintained in a reduced state in the lens by

- A. Glucose
- B. Glycoprotein
- C. Glutathione
- D. Fatty acid

114. A 7-year old male child presents with normal vision 6/6 in the right eye and hand movement perception close to the face in the left eye. On fundoscopy, his right eye was normal and left eye showed retinal detachment, subretinal yellowish exudates and telangiectatic vessels. The most likely diagnosis is

- A. Coats disease
- B. Sympathetic ophthalmitis
- C. Familial exudative vitreoretinopathy
- D. Retinopathy of prematurity

115. A young male presents with central scotoma in left eye. His right vision showed 6/6 vision. On examination, in the left eye, there was focal foveal detachment. What would be the next step?

- A. Examine retrolental cells
- B. Inquire about the use of steroids
- C. Ask for history of trauma in the other eye

116. A 28-week baby suffered from respiratory distress syndrome at birth. On day 14 of life, he developed sepsis. No other morbidity was seen. He should be evaluated for retinopathy of prematurity at what post natal age?

- A. 2 weeks
- B. 4 weeks
- C. 6 weeks
- D. 8 weeks

117. A person is diagnosed to be a diabetic on his 45<sup>th</sup> birthday. You will recommend a dilated fundoscopic examinatio

- A. Immediately
- B. Before his 50<sup>th</sup> birthday
- C. When he turns 50 years of age
- D. When he complains of dimness of vision

118. Microaneurysms are the earliest manifestation of diabetic retinopathy. Which of the following layer is involved in diabetic retinopathy?

- A. Outer plexiform layer
- B. Inner nuclear layer
- C. Layer of rods and cones
- D. Retinal pigment epithelium

119. Pneumoretinopexy is an outpatient procedure in which retinal detachment is sealed with air insufflations. Which of the following gas is used in pneumoretinopexy?

- A. Sulfur hexafluoride
- B. Carbon dioxide
- C. Nitrous oxide
- D. Oxygen

120. Cells affected in glaucomatous optic neuropathy are

- A. Amacrine cells
- B. Bipolar cells
- C. Ganglion cells
- D. Rods and cones

121. Lipogranulomatous inflammation is seen in

- A. Fungal infection
- B. Tuberculosis
- C. Chalazion
- D. Viral infection

### EAR, NOSE AND THROAT

122. Which of the following does not show negative Rinne test in the right ear?

- A. Sensorineural hearing loss of 45 dB in left ear and normal right ear
- B. Profound hearing loss
- C. Conductive hearing loss 40 dB in both ears
- D. Conductive hearing loss 40 dB in right ear and left ear normal

123. The screening investigation of high risk neonates in ICU for suspected hearing loss is

- A. Otoacoustic emissions

- B. Free field audiometry
- C. Stapedial reflex testing
- D. Pure tone audiometry

124. The wave V in BERA represents activity in which of the following?

- A. Lateral lemniscus
- B. Superior olivary complex
- C. Cochlear nerve
- D. Cochlear nucleus

125. Which of the following is not resected in stapedotomy?

- A. Anterior crus of stapes
- B. Posterior crus of stapes
- C. Stapedial ligament
- D. Lenticular process of incus

126. Which of the following part of cochlear implant is implanted during surgery?

- A. Receiver stimulator
- B. Transmitting coil
- C. Microphone
- D. Speech processor

127. A 75-year old diabetic patient presents with severe ear pain and granulation tissue at external auditory canal with facial nerve involvement. The most likely diagnosis is:

- A. Skull base osteomyelitis

128. A 14-year old boy presents with nasal bleeding. His Hb was found to be 6.4 g/dL and peripheral smear showed normocytic hypochromic anemia. The most probable diagnosis is

- A. Juvenile nasopharyngeal angiofibroma
- B. Hemangioma
- C. Antrochoanal polyp
- D. Carcinoma of nasopharynx

129. A patient presents with antrochoanal polyp arising from the medial wall of the maxilla. Which of the following would be the best management for the patient?

- A. FESS with polypectomy
- B. Medial maxillectomy (TEMM)
- C. Caldwell-Luc procedure
- D. Intranasal polypectomy

130. An elderly male presents with T3 No laryngeal carcinoma. What would be the management?

- A. Neo-adjuvant chemotherapy followed by radiotherapy
- B. Concurrent chemoradiotherapy
- C. Radical radiotherapy followed by chemotherapy
- D. Radical radiotherapy without chemotherapy

### MEDICINE

131. Which of the following is not a characteristic feature of multiple myeloma?

- A. Increased Ig levels in serum

- B. Positive ANA
- C. Plasmacytosis
- D. M spike on electrophoresis

132. A 60 year old obese male with a history of chronic smoking since childhood presents in ICU with pelvic fracture due to fall from height. On the 4<sup>th</sup> day of the ICU stay, he developed sudden tachypnoea, fall in SpO<sub>2</sub> and hypotension. On 2D echo, there was a dilation of right ventricle and tricuspid regurgitation. What would be the next immediate step?

- A. D-dimer assay
- B. Administration of heparin
- C. Pericardiocentesis
- D. Systemic thrombolysis

133. A 4-year old girl presents with severe vomiting after a viral fever of 5 days. She is hospitalized and develops cerebral edema. Liver biopsy is most likely to demonstrate which of the following?

- A. Centrizonal hemorrhagic necrosis
- B. Non-alcoholic steatohepatitis
- C. Ring granulomas
- D. Marked microvesicular steatosis

134. A 40-year old obese female presents with fullness of right upper quadrant of abdomen. Her medical history is significant for type 2 DM and hyperlipidemia. Liver biopsy is most likely suggestive of which of the following diagnoses?

- A. Non-alcoholic steatohepatitis
- B. Peliosis hepatis
- C. Autoimmune hepatitis
- D. Primary biliary sclerosis

135. A young female patient presents with jaundice and elevated liver enzymes. She has a history of 2 similar episodes in the past. Her serum ANA was 1:40 and IgG was 2400 IU. His serum copper levels were normal and viral markers were negative. A liver biopsy was carried out and based on the pathology report, you treated her with immunosuppressants and the patient's condition improved. What was the most likely finding on pathology report to suggest the treatment?

- A. Non-alcoholic steatohepatitis
- B. Hemosiderosis
- C. Autoimmune hepatitis
- D. Primary biliary cirrhosis

136. Laxative abuse is associated with

- A. Hypokalemia
- B. Hypomagnesemia
- C. Hypoglycemia
- D. Colonic spasticity

137. A 27-year old male presents with low backache, that occurs early in the morning, associated with stiffness, and persists for more than 30 minutes. On examination, his chest expansion is also restricted. The most probable diagnosis is

- A. Rheumatoid arthritis
- B. Osteoarthritis

- C. Gouty arthritis
- D. Ankylosing spondylitis

138. One of the following is not a diagnostic criteria for declaring brainstem death

- A. Absence of brainstem reflexes
- B. A positive apnea test
- C. Lack of cerebromotor response to pain in all extremities
- D. Absence of stretch reflex all extremities is essential

139. A vascular lesion in the mid-brainstem level in the area depicted in the figure can cause all of the following except

- A. Deviation of the tongue to the same side
- B. Contralateral loss of pain and temperature below the neck
- C. Nystagmus
- D. Paralysis of soft palate

140. Two persons A and B were told to draw a square from the blank and filled circle, respectively. The square drawn by A is irregular. What could be the possible cause?

- A. Lesion in basal ganglia
- B. Lesion in subthalamic nucleus
- C. Lesion in cerebellum
- D. Physiological tremors

141. One of the following drugs is used in acute bacterial meningitis

- A. Erythromycin
- B. Sulfamethoxazole
- C. Ceftriaxone
- D. Streptomycin

### SURGERY

142. The first priority in management of a case of head injury with open fracture of shaft of femur is

- A. Neurosurgery consultation
- B. Give IV fluids
- C. Intubation
- D. Splintage of fracture

143. Neurogenic shock is characterized by

- A. Hypertension and tachycardia
- B. Hypertension and bradycardia
- C. Hypotension and tachycardia
- D. Hypotension and bradycardia

144. During resuscitation, artefacts of fractured ribs most commonly involve

- A. 2<sup>nd</sup> – 4<sup>th</sup> ribs
- B. 3<sup>th</sup> – 5<sup>th</sup> ribs
- C. 4<sup>th</sup> – 6<sup>th</sup> ribs
- D. 5 – 7 ribs

145. A 12-year old girl presents with nodular goiter. Which of the following statements regarding her evaluation and management incorrect?

- A. 99 m-Tc scan should be performed to determine whether the nodules are hypofunctioning or hyperfunctioning
- B. Functional thyroid nodules are usually benign
- C. All nodules > 4cm should be resected irrespective of cytology
- D. FNAC should be performed for all nodules > 1 cm in diameter

146. Which of the following incisions is taken for diaphragmatic surgery?

- A. Transverse
- B. Circumferential
- C. Vertical
- D. Radial

147. Which of the following is not an etiological factor for pancreatitis?

- A. Abdominal trauma
- B. Hyperlipidemia
- C. Islet cell hyperplasia
- D. Germline mutations in the cationic trypsinogen gene

### OBSTETRICS AND GYNECOLOGY

148. All of the following indicate superimposed pre-eclampsia in a pregnant female of chronic hypertension except

- A. New onset proteinuria
- B. Platelet count < 75,000
- C. Increase in systolic BP by 30 mm Hg and diastolic by 15 mm Hg
- D. Fresh retinal hypertensive changes

149. All of the following indicate superimposed pre-eclampsia in a pregnant female of chronic hypertension except

- A. New onset proteinuria
- B. Platelet count < 75,000
- C. Increase in systolic BP by 30 mm Hg and diastolic by 15 mm Hg
- D. Fresh retinal hypertensive changes

150. Which of the following antihypertensives is not given in pregnancy?

- A. Enalapril
- B.  $\alpha$  - methyl dopa
- C. Labetalol
- D. Nifedipine

151. All of the following can be administered in acute hypertension during except

- A. IV labetalol
- B. IV nitroprusside
- C. IV dihydralazine
- D. IV diazoxide

152. Which of the following is not a part of HELLP syndrome?

- A. Hemolysis
- B. Elevated liver enzyme

- C. Thrombocytopenia
- D. Reteroplacental hemorrhage

153. A Cesarian section was done in the previous pregnancy. All of the following would be indications for elective Cesarean section except

- A. Breech
- B. Macrosomia
- C. Polyhydramnios
- D. Post-term

154. Which of the following is responsible for pubertal growth in females?

- A. Decreased level of adrenal androgens at puberty
- B. High level of estrogen at puberty
- C. Pulsatile release of GnRH during sleep
- D. Increased sensitivity of HPO axis to estrogen

155. One of the following forms the basis for sex chromatin testing?

- A. Barr body
- B. Testosterone receptors
- C. Hormone levels
- D. Phenotypic features

156. Hysteroscopic myomectomy scores over open myomectomy in all of the following except

- A. Less recurrence
- B. Less post-operative pain
- C. Less bleeding
- D. Early ambulation

### PAEDIATRICS

157. A 32-week, 1400 g neonate is born to a primigravida. The baby did not require resuscitation and showed stable vitals. The baby was transferred to the feeding of the patient?

- A. Start total enteral feeding and IV feeding not required
- B. Start IV feeding with minimal enteral feeding<sub>d</sub>
- C. Start IV feeding and introduce feeding on 2<sup>nd</sup> day of life<sub>d</sub>
- D. Start parenteral feeding and institute oral feeding on 2<sup>nd</sup> day of life

158. Which of the following is not a component of Kangaroo mother care (KMC)?

- A. Skin to skin contact
- B. Supplementary nutrition
- C. Exclusive breast feeding
- D. Exclusive discharge and follow-up

159. A 32 week baby is born to a mother with eclampsia, who was given IV magnesium sulphate. The baby was resuscitated and transferred to the NICU. 12 hours later, the baby showed hypotonia, lethargy, constricted pupils and two episodes of seizures. The staging of HIE is

- A. 1
- B. 2
- C. 3
- D. There is no HIE

160. Asymmetric Moro's reflex at birth is indicative of

- A. HIE
- B. Brain damage
- C. Erb's palsy
- D. Kernicterus

161. A very preterm baby on 30 mL/kg of enteral feeding developed sudden severe abdominal distension with visible bowel loops on day 6 of life. The baby also showed temperature instability and lethargy. X-ray of the abdomen showed portal venous gas. The staging of NEC is

- A. Ib
- B. 2a
- C. 2b
- D. 3a

162. Which of the following babies has the least risk of developing hypoglycemia?

- A. A baby born to mother treated with beta blockers
- B. Infant of diabetic mothers
- C. Appropriate for gestational age babies
- D. IUGR babies

163. The most common fungal infection in the neonates transmitted by caregiver's hands is

- A. Candida albicans
- B. Candida glabrata
- C. Candida tropicalis
- D. Candida parapsilosis

164. A child has deficient bone mineralization with low serum calcium, high serum phosphorus, with decreased urinary excretion of calcium and phosphorus and elevated levels of alkaline phosphatase. The most likely diagnosis is

- A. Nutritional rickets
- B. Renal tubular rickets
- C. Renal glomerular rickets
- D. Celiac rickets

165. Bull-neck is seen in severe cases of which of the following?

- A. Diphtheria
- B. Tubercular lymphadenitis
- C. Mumps
- D. Goitre

166. In a rural clinic, a 3-year old girl child is brought by her mother and is emaciated. Her hemoglobin was 5g/dL. The girl also has edema over her knees and ankles with discrete rash on her knees, ankles and elbows. The most likely worm infestation causing these manifestations is

- A. Hook worm
- B. Round worm
- C. Whip worm
- D. Pin worm

167. A 6-week baby presents with cough and cold for the past 3 days. Respiratory rate is 48/min. On examination, patient is febrile with wheezing but no chest in drawing. Which of the following is not true?

- A. Child has pneumonia
- B. Antibiotics are not required
- C. Wheezing to be treated
- D. Fever to be treated

168. A 10-year old presents with edema, oliguria and frothy urine. HE has no past history of similar complaints, On examination, his urine was positive for 3 + proteinuria, no RBCs/WBCs and no casts. His serum albumin was 2.5 g/L and serum creatinine was 0.5 mg/dL. The most likely diagnosis is

- A. IgA nephropathy
- B. Minimal change disease
- C. Acute interstitial nephritis
- D. Membranous nephropathy

169. A 6 – year old girl presents with fever for the past 5 days, generalized erythematous rash, strawberry tongue and cervical lymphadenopathy. The most likely diagnosis is

- A. Kimura disease
- B. Kawasaki disease
- C. Scarlet fever
- D. Rosie-Dorfman syndrome

170. A 6-year old girl presents with fever for the past 5 days, generalized erythematous rash, strawberry tongue and cervical lymphadenopathy. The most likely diagnosis is

- A. Kimura disease
- B. Kawasaki disease
- C. Scarlet fever
- D. Rosie-Dorfman syndrome

171. Enzyme replacement therapy is available for

- A. Gaucher's disease
- B. Pompe disease
- C. San Philipo disease
- D. Fabry's disease

172. A child presents will albinism. He should be evaluated for

- A. ENT consultation
- B. Eye consultation
- C. Electrocardiography
- D. Neurosurgery

173. A 34-week female fetus was born as shown below. Identify the congenital anomaly

- A. Anencephaly
- B. Iniencephaly
- C. Anen- Iniencephaly
- D. Complete craniospinal rachischisis

174. A 7-year old boy presents with a right sided hemangioma and left sided focal seizures. The most likely diagnosis is

- A. Neurofibromatosis
- B. Incontinentia pigmenti
- C. Hypermelanosis of Ito
- D. Sturge-Weber disease

176. A 1.5 year old female is brought to the clinic with complaints of excessive enlargement of head, intolerance to feeds and severe malnourishment. MRI imaging was suggestive of a medulloblastoma causing obstructive hydrocephalus. Which of the following is an example of irrational management of the patient?

- A. Craniotomy and sub-total excision of the tumour. Surgeon leaves the layer of the tumour adherent with colliculus
- B. First ventriculoperitoneal shunt was done
- C. CCNU and vincristine were given as chemotherapy
- D. Radiotherapy 35-40 Gy was given to the whole craniospinal axis

### ORTHOPAEDICS

176. In a case of tuberculosis of the thoracic spine, the earliest sign of cord compression is

- A. Bladder dysfunction
- B. Extensor plantar
- C. Motor weakness
- D. Sensory loss

177. A 5-year old boy presents with pain and swelling in diaphysis of tibia. He also complains of fever. On examination, his ESR was raised, Which of the following is the likely diagnosis?

- A. Ewing sarcoma
- B. Chondrosarcoma
- C. Osteogenic sarcoma
- D. Fibrosarcoma

178. The signs of malignant transformation in osteochondroma are all except

- A. Pain
- B. Weight loss
- C. Increase in size
- D. Increase in thickness of cartilage cap

### DERMATOLOGY

179. Olymian brow and rhagades are seen in

- A. CMV inclusion disease
- B. Ectodermal dysplasia
- C. Congenital syphilis
- D. Hyper IgE syndrome

180. A 60-year old male presents with painful, grouped vesicles over erythematous plaques in T3 dermatome region of trunk, which of the following would be the likely causative organism?

- A. Varicella zoster
- B. Herpes simplex
- C. Pox virus
- D. Papilloma virus

181. A 19-year old male presents with several comedones, papules and pustules on face and trunk. The appropriate drug of choice for the patient would be

- A. Topical retinoic acid
- B. Topical retinoic acid + Oral doxycycline
- C. Topical clindamycin
- D. Topical azithromycin

182. A 37 year female presents with multiple, linear, itchy wheals, with itching for 30 minutes at the site. The most probable diagnosis is

- A. Dermatographic urticaria
- B. Pressure urticaria
- C. Acute urticaria
- D. Chronic urticaria

183. A young 8 year old boy presents with multiple discrete, shiny, pin-head papules on dorsal aspect of hand, forearms and shaft of penis. The diagnosis is

- A. Molluscum contagiosum
- B. Scabies
- C. Lichen planus
- D. Lichen nitidus

184. A 30-year old male presents with flaccid bullae on an erythematous base and erosions over the oral mucous membrane. The blisters developed painful erosions on rupture. What would be the most likely finding on an immunofluorescent examination of the skin biopsy of this patient?

- A. Linear IgA deposition in dermoepidermal junction
- B. Linear IgA deposition in dermoepidermal junction
- C. Fish net IgG deposition in epidermis
- D. Granular deposits of IgA in dermal papillae

185. A patient presented with thinning of nails and onycholysis. What else finding can be observed in him?

- A. Violaceous papules
- B. Suprabasal split
- C. Basal degeneration
- D. Acantholysis

186. A patient presents with focal alopecia areata. All of the following are associations of alopecia areata except

- A. Nail pitting
- B. Atopy
- C. Geographical tongue
- D. Exclamatory mark

187. A man presents with rashes on face and also complains of decreased mental function. He is also having few macular lesions on his skin. On CT scan, intracranial calcification was seen. His wife is normal. His 10-year old daughter is also normal but his 6 year old son is also having similar skin lesions. What would be the most likely diagnosis?

- A. Neurofibromatosis-1
- B. Neurofibromatosis-2
- C. Xeroderma pigmentosum

D. Autosomal dominant inheritance

### **ANAESTHESIA**

188. A patient of head injury is intubated and ventilated. The ideal mode of ventilation in him would be

- A. CMV
- B. CPAP
- C. AMV
- D. SIMV

189. The appropriate size of LMA for an average adult patient weighing 50 kg is

- A. 2.5
- B. 3.0
- C. 4.0
- D. 5.0

190. At supra MAC concentrations, anaesthetics lead to shift of EEG wave from

- A.  $\alpha$  to  $\beta$  waves
- B.  $\beta$  to  $\delta$  waves
- C.  $\delta$  to  $\theta$  waves
- D.  $\theta$  to  $\alpha$  waves

191. The plane of surgical anesthesia during either anesthesia is defined as

- A. Loss of consciousness
- B. Loss of consciousness to the onset of spontaneous respiration
- C. From onset of regular respiration to cessation of spontaneous breathing
- D. Absence of reflexes

192. Which of the following drugs does not affect absorption and secretion of cerebrospinal fluid?

- A. Halothane
- B. Nitrous oxide
- C. Ketamine
- D. Thiopentone sodium

193. Which of the following intravenous anesthetic agents is contraindicated in epileptic patients posted for general anesthesia?

- A. Ketamine
- B. Thiopentone
- C. Propofol
- D. Midazolam

194. Midazolam causes all except

- A. Anterograde amnesia
- B. Retrograde amnesia
- C. Cause tachyphylaxis during high dose infusions
- D. Decreased cardiovascular effects as compared to propofol

### **RADIOLOGY**

195. Puff of smoke appearance on cerebral angiography is seen in

- A. ACA aneurysm
- B. Cavernous sinus thrombosis
- C. Moyamoya disease
- D. Vein of Galen malformation

196. A 7-year old patient presents with severe headache, paralysis of upward gaze, loss of light perception and accommodation, nystagmus and failure of convergence. CT scan showed homogenous hyperdense lesion above the sella and in the posterior part of the third ventricle. MRI showed that the lesions were homogenous and isointense on T1 weighted imaging, and isointense on T2 weighted imaging with intense contrast enhancement. The most likely diagnosis is:

- A. Teratoma
- B. Germinoma
- C. Dermoid
- D. Choroid plexus carcinoma

### PSYCHIATRY

197. All of the following statements are true about blackouts except

- A. The person appears confused to the onlookers
- B. Remote memory is relatively intact during the blackout
- C. It is a discrete episode of anterograde amnesia
- D. It is associated with alcohol intoxication

198. According to the ICD-10 revision, for establishing a diagnosis of mania, the symptoms should persist for at least

- A. 1 week
- B. 2 weeks
- C. 3 weeks
- D. 4 weeks

199. The evidence-based psychological therapy of choice for depression is

- A. Group discussion therapy
- B. Counselling
- C. Cognitive behavior therapy
- D. Psychological psychotherapy

**ANSWER KEY**

1	B	41	C	81	C	121	C	161	C
2	D	42	C	82	D	122	A	162	C
3	B	43	C	83	A	123	A	163	D
4	D	44	B	84	A	124	A	164	C
5	B	45	D	85	B	125	D	165	A
6	B	46	A	86	A	126	A	166	A
7	B	47	A	87	D	127	A	167	A
8	B	48	C	88	C	128	A	168	B
9	C	49	D	89	B	129	A	169	B
10	C	50	C	90	A	130	B	170	B
11	D	51	A	91	A	131	B	171	A
12	A	52	B	92	A	132	D	172	B
13	A	53	D	93	D	133	D	173	D
14	B	54	B	94	B	134	A	174	D
15	A	55	A	95	B	135	C	175	D
16	B	56	D	96	A	136	A	176	B
17	D	57	D	97	D	137	D	177	A
18	D	58	A	98	A	138	D	178	B
19	B	59	B	99	D	139	A	179	C
20	A	60	C	100	C	140	C	180	A
21	B	61	D	101	A	141	C	181	B
22	A	62	B	102	C	142	C	182	A
23	B	63	B	103	C	143	D	183	D
24	B	64	A	104	C	144	C	184	C
25	B	65	D	105	B	145	C	185	C
26	A	66	A	106	A	146	B	186	C
27	A	67	C	107	A	147	C	187	D
28	A	68	A	108	B	148	C	188	A
29	A	69	A	109	C	149	C	189	C
30	C	70	A	110	C	150	A	190	B
31	A	71	C	111	B	151	D	191	C
32	A	72	D	112	D	152	D	192	B
33	C	73	D	113	C	153	C	193	A
34	A	74	A	114	A	154	C	194	B
35	B	75	A	115	B	155	A	195	C
36	B	76	D	116	B	156	C	196	B
37	C	77	A	117	A	157	B	197	A
38	A	78	B	118	A	158	B	198	A
39	B	79	B	119	A	159	B	199	C
40	B	80	B	120	C	160	C	200	