Exam Date-25-08-22

पुस्तिका में पृष्ठों की संख्या–32
No. of Pages in Booklet -32
पुस्तिका में प्रश्नों की संख्या–180
No. of Questions in Booklet -180

Paper Code : **09**

SUBJECT : **Anatomy**
(Broad Speciality)

BSAP-22

30/8/22

प्रश्न पुस्तिका संख्या / Question Booklet No. **1001161**

समयः **3.00** घण्टे
Time: **3.00** Hours

अधिकतम अंकः **180**
Maximum Marks: **180**

प्रश्न–पत्र पुस्तिका के पेपर सील/ पॉलिथिन बैग को खोलने पर परीक्षार्थी यह सुनिश्चित कर लें कि प्रश्न पुस्तिका संख्या तथा ओ.एम.आर. उत्तर–पत्रक पर अंकित बारकोड समान हैं। इसमें कोई भिन्नता हो तो परीक्षार्थी वीक्षक से दूसरा प्रश्न–पत्र प्राप्त कर लें। ऐसा सुनिश्चित करने की जिम्मेदारी अभ्यर्थी की होगी।

On opening the paper seal/ polythene bag of the Question Booklet the candidate should ensure that Question Booklet Number and Barcode of OMR Answer Sheet must be same. If there is any difference, candidate must obtain another Question Booklet from Invigilator. Candidate himself shall be responsible for ensuring this.

परीक्षार्थियों के लिए निर्देश

1. सभी प्रश्नों के उत्तर दीजिए।
2. सभी प्रश्नों के अंक समान हैं।
3. प्रत्येक प्रश्न का केवल एक ही उत्तर दीजिए।
4. एक से अधिक उत्तर देने की दशा में प्रश्न के उत्तर को गलत माना जाएगा।
5. प्रत्येक प्रश्न के चार वैकल्पिक उत्तर दिये गये हैं, जिन्हें क्रमशः **1, 2, 3, 4** अंकित किया गया है। अभ्यर्थी को सही उत्तर निर्दिष्ट करते हुए उनमें से केवल एक गोले अथवा बबल को उत्तर–पत्रक पर **नीले बॉल प्वॉइंट पेन** से गहरा करना है।
6. **OMR** उत्तर–पत्रक इस परीक्षा पुस्तिका के अन्दर रखा है। जब आपको परीक्षा पुस्तिका खोलने को कहा जाए, तो उत्तर–पत्रक निकाल कर ध्यान से केवल **नीले बॉल प्वॉइंट पेन** से विवरण भरें।
7. **प्रत्येक गलत उत्तर के लिए प्रश्न अंक का 1/3 भाग काटा जायेगा।** गलत उत्तर से तात्पर्य अशुद्ध उत्तर अथवा किसी भी प्रश्न के एक से अधिक उत्तर से है। किसी भी प्रश्न से संबंधित गोले या बबल को खाली छोड़ना गलत उत्तर नहीं माना जायेगा।
8. मोबाइल फोन अथवा इलेक्ट्रॉनिक यंत्र का परीक्षा हॉल में प्रयोग पूर्णतया वर्जित हैं। यदि किसी अभ्यर्थी के पास ऐसी कोई वर्जित सामग्री मिलती है, तो उसके विरुद्ध आयोग द्वारा नियमानुसार कार्यवाही की जायेगी।
9. कृपया अपना रोल नम्बर ओ.एम.आर. पत्रक पर सावधानी पूर्वक सही भरें। गलत अथवा अपूर्ण रोल नम्बर भरने पर **5 अंक** कुल प्राप्तांकों में से काटे जा सकते हैं।
10. यदि किसी प्रश्न में किसी प्रकार की कोई मुद्रण या तथ्यात्मक प्रकार की त्रुटि हो, तो प्रश्न के हिन्दी तथा अंग्रेज़ी रूपान्तरों में से अंग्रेज़ी रूपान्तर मान्य होगा।

चेतावनी : अगर कोई अभ्यर्थी नकल करते पकड़ा जाता है या उसके पास से कोई अनधिकृत सामग्री पाई जाती है, तो उस अभ्यर्थी के विरुद्ध पुलिस में प्राथमिकी दर्ज कराते हुए विविध नियमों–प्रावधानों के तहत कार्यवाही की जाएगी। साथ ही विभाग ऐसे अभ्यर्थी को भविष्य में होने वाली विभाग की समस्त परीक्षाओं से विवर्जित कर सकता है।

INSTRUCTIONS FOR CANDIDATES

1. Answer all questions.
2. All questions carry equal marks.
3. Only one answer is to be given for each question.
4. If more than one answers are marked, it would be treated as wrong answer.
5. Each question has four alternative responses marked serially as **1, 2, 3, 4**. You have to darken only one circle or bubble indicating the correct answer on the Answer Sheet using **BLUE BALL POINT PEN.**
6. The **OMR** Answer Sheet is inside this Test Booklet. When you are directed to open the Test Booklet, take out the Answer Sheet and fill in the particulars carefully with **blue ball point pen** only.
7. **1/3 part of the mark(s) of each question will be deducted for each wrong answer.** A wrong answer means an incorrect answer or more than one answers for any question. Leaving all the relevant circles or bubbles of any question blank will not be considered as wrong answer.
8. Mobile Phone or any other electronic gadget in the examination hall is strictly prohibited. A candidate found with any of such objectionable material with him/her will be strictly dealt as per rules.
9. Please correctly fill your Roll Number in O.M.R. Sheet. **5 Marks** can be deducted for filling wrong or incomplete Roll Number.
10. If there is any sort of ambiguity/mistake either of printing or factual nature, then out of Hindi and English Version of the question, the English Version will be treated as standard.

Warning : If a candidate is found copying or if any unauthorized material is found in his/her possession, F.I.R. would be lodged against him/her in the Police Station and he/she would liable to be prosecuted. Department may also debar him/her permanently from all future examinations.

इस परीक्षा पुस्तिका को तब तक न खोलें जब तक कहा न जाए।
Do not open this Test Booklet until you are asked to do so.

1. Brodmann area 44 and Brodmann area 45 of the dominant hemisphere is -
   (1) Sensory speech area
   (2) Broca's motor speech area
   (3) Primary auditory area
   (4) Taste area
2. Right coronary artery supplies -
   (1) right atrium, SA and AV nodes, posterior part of IVS
   (2) only right atrium and SA node
   (3) only right atrium and posterior part of IVS
   (4) only right side of heart
3. Flexion-extension of shoulder takes place in a plane -
   (1) Parallel to the plane of scapula
   (2) Parallel of coronal plane of body
   (3) Perpendicular to the plane of scapula
   (4) Perpendicular to the coronal plane of body
4. Along the antero median fissure of spinal cord, the pia mater is thickened to form a glistening band called -
   (1) Filum terminale
   (2) Ligamenta denticulata
   (3) Linea splendens
   (4) Bands of Baillarger
5. In complete oculomotor nerve palsy there is -
   (1) Drooping of upper eyelid and a fully dilated and non-reactive pupil
   (2) Drooping of upper eyelid and a fully abducted and depressed pupil
   (3) Both (1) and (2)
   (4) None of the above
6. In the event of myocardial infarction, pain commencing from precordial radiates along medial side of the arm. Which nerves carry pain fibres from the heart to the CNS?
   (1) Vagus
   (2) Greater thoracic splanchnic
   (3) Least thoracic splanchnic
   (4) Intercostobrachial nerve

7. The left subclavian trunk usually opens into -

(1) Internal thoracic vein

(2) Internal jugular vein

(3) Thoracic duct

(4) Subclavian vein

8. Examples of association fibres are -

(1) Anterior commissure

(2) Arcuate fibres

(3) Fornix

(4) Both (2) and (3)

9. For age estimation of skull -

(1) Sagittal suture is most reliable

(2) Lambdoid suture is most reliable

(3) Coronal suture is most reliable

(4) None of the above

10. Internal anal sphincter is a part of -

(1) Puborectalis muscle

(2) Deep perineal muscle

(3) Internal longitudinal fibers

(4) Internal circular fibers

11. Muller's muscle is supplied by nerve -

(1) Oculomotor

(2) Trochlear

(3) Parasympathetic

(4) Sympathetic

12. Numerical abnormalities -

(1) Euploid refers to exact multiple of n

(2) Normal gametes are haploid

(3) Normal somatic cells are diploid

(4) All of the above

13. A 35-year-old woman admitted to the hospital with a complaint of shortness of breath was noted to have wide splitting of her S2 heart sound on auscultation. ECG reveals a right bundle branch block. Which of the following valves is most likely defective?

(1) Mitral valve

(2) Pulmonary

(3) Aortic and mitral

(4) Tricuspid and aortic

14. Downward displacement of enlarged spleen is prevented by -

(1) Lienorenal ligament

(2) Phrenicocolic ligament

(3) Upper role of right kidney

(4) Sigmoid colon

15. The following features are seen in relation to the medial surface of the Thalamus, EXCEPT -

(1) Stria terminalis

(2) Hypothalamic sulcus

(3) Stria medullaris thalami

(4) Taenia thalami

16. Submental lymph nodes drain the lymph from -

(1) tip of nose

(2) central part of lower lip

(3) lateral part of lower lip

(4) upper lip

17. A father transmits a single gene disorder to two of his four sons. The probable mode of inheritance is -

(1) Autosomal dominant

(2) X linked recessive

(3) X linked dominant

(4) Y linked

18. Cranial neuropore closes at around -

(1) 15^{th} day

(2) 25^{th} day

(3) 5^{th} day

(4) 45^{th} day

19. A 35-year-old man admitted to the hospital with pin on swallowing, was found to have a dilated left atrium on Imaging. Which structure is most likely being compressed by the expansion of the left atrium to result in the patient's symptoms?

(1) Esophagus

(2) Root of the lung

(3) Trachea

(4) Superior vena cava

20. Melanocytes are derived from -

(1) Mesenchyme

(2) Ectoderm

(3) Endoderm

(4) Neural crest cells

21. Loss of somatic sensation over the anterior two-thirds of the tongue indicates damage to the -

(1) Lingual branch of the mandibular nerve

(2) Chorda tympani branch of the facial nerve

(3) Lingual branch of the glossopharyngeal nerve

(4) Hypoglossal nerve

22. Embalming of bodies with burns -

(1) Evisceration is recommended prior to giving the injection of higher concentration of formalin (40% by volume) and methanol or ethanol (50% by volume)

(2) Evisceration is not recommended

(3) Lower concentration of formalin (10% by volume) is recommended

(4) None of the above

23. Mitochondrial inheritance -

(1) is also called maternal inheritance

(2) human mitochondrial DNA codes for 37 genes

(3) human RNA and DNA inheritance

(4) Both (1) and (2)

24. Antidiuretic hormone is secreted by which nucleus of hypothalamus?

(1) Supraoptic

(2) Paraventricular

(3) Preoptic

(4) Posterior

25. Hirschsprung disease -

(1) results from failure of parasympathetic ganglia to form in the wall of a part or all of the colon and rectum

(2) result from failure of sympathetic ganglia to form in the wall of a part or all of the colon and rectum

(3) Both (1) and (2)

(4) None of the above

26. All are the branches of basilar artery, except -

(1) Superior cerebellar artery

(2) Anterior inferior cerebellar artery

(3) Posterior cerebral arteries

(4) Posterior inferior cerebellar arteries

27. Sensations from muscle, tendon, joints and inner ear are conveyed through which of the following sensory receptors?

(1) Proprioceptors

(2) Mechanoreceptors

(3) Nociceptor

(4) Exteroceptors

28. Periosteum -

(1) is very sensitive to any type of injury

(2) receives blood vessels

(3) is the outer covering of bone

(4) All of the above

29. TP53 Gene -

(1) mutation produces human tumours

(2) located on chromosome 17

(3) Both (1) and (2)

(4) None of the above

30. HOX Genes -

(1) Humans contains 235 functional genes

(2) Establish body plan during development and specify positional identity of cells

(3) Discovered by Bridges and Morgan in Drosophila

(4) All of the above

31. The nucleus of thalamus related to recent memory is -

(1) Ventral anterior

(2) Anterior

(3) Medial dorsal

(4) Pulvinar

32. The joint between basisphenoid and basiocciput at the base of the skull is the example of -

(1) Synchondroses

(2) Syndesmosis

(3) Symphysis

(4) Plane synovial

33. Gluteus Maximus -

(1) is innervated by L5, S1 & S2

(2) extends the thigh

(3) assists in lateral rotation

(4) All of the above

34. Lumbar hemivertebra results due to the abnormal development of -

(1) HOXA7

(2) HOXB8

(3) HOXC9

(4) HOXD10

35. Special visceral efferent fibers of the glossopharyngeal nerve arises from the -

(1) Nucleus ambiguous

(2) Mesencephalic nucleus

(3) Inferior salivatory nucleus

(4) Solitary nucleus

36. The thalamic nucleus which receives the trigeminal lemniscus is -

(1) Nucleus ventral posterolateral

(2) Nucleus ventral posteromedial

(3) Nucleus ventral anterior

(4) Nucleus ventral lateral

37. Femoral neck fracture results in -

(1) Lateral rotation of lower limb

(2) Medial rotation of lower limb

(3) Disruption of the blood supply to the head of femur

(4) Both (1) and (3)

38. Which of the following statements is true of the pupillary light reflex?

(1) Its efferent limb is carried in the optic nerve

(2) It is mediated by the inferior colliculi in the midbrain

(3) It is a consensual reflex

(4) Its afferent limb is carried in the oculomotor nerve

39. Patient is presenting with clinical features of Cerebellar syndrome. Which of the following is NOT a feature of cerebellar syndrome?

(1) Ataxia

(2) Asynergia

(3) Nystagmus

(4) Athetosis

40. Renshaw cells are seen in -

(1) Cerebral cortex

(2) Spinal cord

(3) Basal ganglia

(4) Cerebellum

41. The arachnoid villi is responsible for cerebrospinal fluid absorption protrude mainly in the -

(1) Superior sagittal sinus

(2) Inferior sagittal sinus

(3) Straight sinus

(4) Transverse sinus

42. During development of the heart, which structure is responsible for the division of the truncus arteriosus into the great arteries?

(1) Septum primum

(2) Bulbar septum

(3) Aorticopulmonary septum

(4) Endocardial cushions

43. Which condition is best characterized by pulmonary stenosis, overriding of the aorta, ventricular septal defect and hypertrophy of the right ventricle in an infant born with congenital heart disease?

(1) Tetralogy of Fallot

(2) Eisenmenger syndrome

(3) Transposition of the great vessels

(4) Coronary steal syndrome

44. Which of the following is a feature of Y chromosome?

(1) Telocentric

(2) Acrocentric

(3) Submetacentric

(4) Metacentric

45. Weber's syndrome consists of -

(1) Oculomotor nerve paralysis ipsilateral to the midbrain lesion and contralateral hemiplegia

(2) Contralateral tremors with oculomotor nerve paralysis ipsilateral to the midbrain lesion

(3) Contralateral ataxia & tremors with oculomotor nerve paralysis ipsilateral to midbrain lesion

(4) Bilateral oculomotor nerve paralysis & vertical gaze palsy

46. Stomach is lined by -

(1) Simple columnar epithelium

(2) Stratified squamous epithelium

(3) Pseudostratified columnar epithelium

(4) Simple cuboidal epithelium

47. First tributary of internal jugular vein is -

(1) Superior thyroid vein

(2) Inferior petrosal sinus

(3) Lingual vein

(4) Facial vein

48. Coracoid process of scapula and posterior tubercle of talus are examples of which type of epiphyses?

(1) Pressure

(2) Atavistic

(3) Traction

(4) Aberrant

49. At the level of S3 vertebrae -

(1) Rectosigmoid junction is present

(2) Teniae of the sigmoid colon spread to form a continuous outer longitudinal layer of smooth muscle

(3) Fatty omental appendices are discontinued

(4) All of the above

50. Lymph node of Cloquet drain the lymph from -

(1) root of penis

(2) Clitoris

(3) Testis

(4) whole of external genitalia

51. The transpyloric plane -

(1) lies on line connecting left and right 10^{th} costal cartilages

(2) lies at the level of T12

(3) lies at the origin of the superior mesenteric artery off the aorta

(4) is 2cm below the xiphisternum

52. Transverse section of mid-medulla at the location of internal arcuate fiber decussation contains -

(1) Spinocerebellar tracts

(2) Spinal tract of trigeminal

(3) Fasciculus gracilis and nucleus gracilis

(4) All of the above

53. Middle cerebellar peduncle is also known as -

(1) Restiform body

(2) Juxtarestiform body

(3) Brachium pontis

(4) Both (1) and (2)

54. From birth, most of the body's marrow is red, however, as the subject ages, more red marrow is converted into yellow marrow within -

(1) the medulla of the long bones

(2) the medulla of the flat bones

(3) Both (1) and (2)

(4) None of the above

55. Calcarine sulcus is the example of -

(1) Limiting

(2) Axial

(3) Complete

(4) Secondary

56. All of the following are developed from 2nd pharyngeal arch, EXCEPT -

(1) Stapes

(2) Styloid process

(3) Lesser cornu of hyoid

(4) Sphenomandibular ligament

57. Adenohypophysis is derived from neural ectoderm and contains -

(1) acidophils

(2) basophils

(3) chromophobes

(4) All of the above

58. Klinefelter syndrome -

(1) Karyotype of 47, XXY

(2) results from nondisjunction of the XX homologues

(3) associated with gynecomastia, small testes and decreased fertility

(4) All of the above

59. The root of mesentery -

(1) is 15 cms long and directed obliquely, inferiorly and to the right

(2) the average length of the mesentery from its root to the intestinal border is 20 cms

(3) Both (1) and (2)

(4) is 15 cms long and directed obliquely, superiorly and to the right

60. When there is a complete loss of cytoplasm resulting in death of the secretory cell during the process of secretion, the gland is said to be -

(1) Merocrine

(2) Apocrine

(3) Holocrine

(4) Cytocrine

61. In Coronary Artery Bypass Grafting CABG, the graft may be taken from -

(1) Great saphenous vein

(2) Femoral vein

(3) Popliteal vein

(4) Portal vein

62. The body of the sternum has all the following features, EXCEPT -

(1) The junction between the body and the xiphoid process is the Louis angle

(2) On the lateral border, there are four articulated facets for the third till the sixth rib and a demifacet for articulation with the second rib

(3) The sternoclavicular joint is a saddle variety of synovial joint

(4) On the lateral border, inferiorly there is the articulation with the seventh rib

63. The otic vesicle -

(1) gives rise to the bony labyrinth

(2) is found adjacent to the rhombencephalon

(3) is derived from neuroectoderm

(4) gives rise to auricle (pinna)

64. Brachioradialis is the example of which type of muscle?

(1) Spurt

(2) Shunt

(3) Hybrid

(4) Composite

65. The deep fascia -

(1) Is firmly blended with periosteum and gives attachment to underlying muscles

(2) Is dense connective tissue layer devoid of fat

(3) Both (1) and (2)

(4) None of above

66. Superior parathyroid glands develops from endoderm of which pharyngeal pouch?

(1) 1^{st}

(2) 2^{nd}

(3) 3^{rd}

(4) 4^{th}

67. Adult uterus -

(1) is anteverted and anteflexed

(2) changes its position with the degree of fullness of the bladder, rectum and stage of pregnancy

(3) body is freely movable

(4) All of the above

68. Angle of femoral torsion in adult range between -

(1) 10-20 degrees

(2) 20-30 degrees

(3) 05-10 degrees

(4) 25-30 degrees

69. Gall bladder -

(1) can hold up to 50 ml of bile

(2) peritoneum completely surrounds the fundus and binds its body and neck to the liver

(3) lymphatic drainage is to the hepatic lymph nodes

(4) All of the above

70. Magnetic Resonance Angiography is required in -

(1) Severe limb/neck/chest/abdomen/pelvis injuries

(2) Tumours

(3) Pregnancy

(4) Both (1) and (2)

71. The functions of cartilage are to -

(1) Support soft tissues

(2) Provide a smooth, gliding surface for bone articulations at joints

(3) Enable the development and growth of long bones

(4) All of the above

72. A lesion of which one of the following hypothalamic nuclei would most likely lead to diabetes insipidus?

(1) Supraoptic nucleus

(2) Paraventricular nucleus

(3) Infundibular nucleus

(4) Preoptic nucleus

73. Rectus abdominis muscle is the example of -

(1) Strap

(2) Fusiform

(3) Spiral

(4) Quadrilateral

74. Inability to make normal 'ok' with Thumb & Index finger (Loss of normal ok sign) denotes injury to -

(1) Median Nerve

(2) Radial Nerve

(3) Ulnar Nerve

(4) Axillary Nerve

75. A stethoscope placed on the left second intercostal space just lateral to the sternal margin is the best positioned to hear sounds of which cardiac valve?

(1) Mitral

(2) Tricuspid

(3) Pulmonary

(4) Aortic

76. Submandibular glands -

(1) Arterial supply is from submental arteries

(2) Lymphatic vessels end in deep cervical lymph nodes

(3) Both (1) and (2)

(4) None of the above

77. Lymphatic vessels -

(1) contain valves

(2) present in bone marrow and cartilage

(3) present in epithelia

(4) All of the above

78. Area between the 12^{th} floating rib and the lateral border of the erector spinae locates the -

(1) Renal angle

(2) Duodenopelvic junction

(3) Incisura angularis

(4) Spleen

79. Omphalocele involves herniation of -

(1) Viscera like liver, small and large intestines, stomach, spleen, gallbladder covered by amnion

(2) Viscera through an enlarged umbilical ring

(3) Viscera not covered by amnion

(4) Both (1) and (2)

80. The tail of the Pancreas -

(1) is mobile and passes between the layers of the splenorenal ligament with the splenic vessels

(2) is fixed and passes between the layers of the splenorenal ligament with the splenic vessels

(3) is mobile and passes between the layers of the gastrosplenic ligament with the splenic vessels

(4) is fixed and passes between the layers of the gastrosplenic ligament with the splenic vessels

81. A system of vessels interposed between two capillary beds is called -

(1) Systemic venous system

(2) Portal venous system

(3) Pulmonary venous system

(4) Vertebral venous system

82. All the following muscle has dual nerve supply, Except -

(1) Adductor magnus

(2) Flexor digitorum profundus

(3) Brachialis

(4) Adductor longus

83. Chorda tympani -

(1) Carries taste sensation from the anterior two-thirds of the tongue and parasympathetic innervation to all the salivary glands below the level of oral fissure

(2) Carries taste sensation from the anterior two-thirds of the tongue

(3) Carries both general sensation from the anterior two-thirds of the tongue and taste sensation

(4) Both (2) and (3)

84. Which of the following imaging technique is used to study metabolic changes in brain?

(1) MR Spectroscopy

(2) Functional MRI (fMRI)

(3) PET Scan

(4) CT Scan

85. Knee joint is -
(1) hinge type of synovial joint
(2) relatively weak mechanically
(3) most stable in erect and extended position
(4) All of the above

86. Inferior rectal artery is a branch of -
(1) Inferior mesenteric artery
(2) Internal pudendal artery
(3) Middle rectal artery
(4) Internal iliac artery

87. A bed–ridden patient on liquid diet develops aspiration pneumonia. Which of the following bronchopulmonary segment is most likely affected?
(1) Posterior of right upper lobe
(2) Inferior lingular of left upper lobe
(3) Apical of right lower lobe
(4) Posterior of right lower lobe

88. The umbilical cord contains -
(1) two umbilical arteries, one umbilical vein and Wharton Jelly
(2) one umbilical artery, two umbilical veins and Wharton Jelly
(3) two umbilical arteries, one umbilical vein and Wharton Jelly & amnion
(4) one umbilical vein, one umbilical artery and amnion

89. Which of the following ear ossicle is attached to the oval window?
(1) Malleus
(2) Incus
(3) Stapes
(4) None of the above

90. A muscle which contracts isometrically to stabilize the origin of the prime mover so that it can act efficiently is called -
(1) Agonist
(2) Antagonist
(3) Fixator
(4) Synergist

91. The disease in which the body produces antibodies against acetylcholine receptors and is marked by great weakness of skeletal muscle due to reduced transmission at the myoneural junction is called -
(1) Parkinson's disease
(2) Huntington's disease
(3) Sydenham chorea
(4) Myasthenia gravis

92. Distinguishing features of vein are -

(1) Thin tunica media with a large lumen

(2) Valves often are present in vein

(3) Venae comitantes closely associated with arteries in peripheral regions

(4) All of the above

93. All are the modifications of aponeurosis of external oblique, except -

(1) Poupart's ligament

(2) Cooper's ligament

(3) Lacunar ligament

(4) Anterior public ligament

94. The moderator band of the right ventricle stretches from the -

(1) Anterior wall to the septal wall

(2) Posterior wall to the septal wall

(3) Anterior wall to posterior wall

(4) Lower part of anterior wall to the upper part

95. Which of the following muscles is NOT innervated by the pharyngeal plexus?

(1) Levator veli palatini

(2) Tensor veli palatini

(3) Palatopharyngeus

(4) Palatoglossus

96. The clinical signs of medial medullary syndrome include -

(1) Contralateral weakness of the UMN

(2) Contralateral loss of kinesia and discriminative touch

(3) Loss of pain and temperature in ipsilateral face

(4) Both (1) and (2)

97. A 24-year-old woman has a dull aching pain in the umbilical region and flexion of the hip against resistance (psoas test) causes a sharp pain in the right lower abdominal quadrant. Which of the following structures is most likely inflamed to cause the pain?

(1) Appendix

(2) Gallbladder

(3) Pancreas

(4) Uterus

98. Slow painless loss of vision results from -
(1) Occlusion of a branch of the central vein of the retina
(2) Blockage of central artery of retina
(3) Both (1) and (2)
(4) None of the above

99. Fertilization results in -
(1) restoration of diploid number of chromosomes
(2) determination of sex of the embryo
(3) cleavage initiation
(4) All of the above

100. Angelman syndrome is due to -
(1) Digenic inheritance
(2) Inversion
(3) Uniparental disomy
(4) Mitochondrial disorder

101. During cardiac catheterization of a 6–year-old child, the radiologist notes that the contrast medium released into the arch of the aorta is visible immediately in the left pulmonary artery. What is the most likely explanation for his finding?
(1) Atrial septal defect
(2) Mitral stenosis
(3) Patent ductus arteriosus
(4) Patent ductus venosus

102. Ankel sprain -
(1) is a type of inversion injury
(2) anterior talofibular ligament is torn
(3) lateral malleolus may be fractured
(4) All of the above

103. Bilateral cleft lip is formed due to failure of fusion of mesenchymal masses in -
(1) Frontonasal process and medial nasal process
(2) Frontonasal process and lateral nasal process
(3) Maxillary process and merged medial nasal prominences
(4) Medial nasal process and lateral nasal process

104. Persistence of the vitelline duct may result in -

(1) Ileal diverticulum

(2) Meckel's diverticulum

(3) Vitelline cyst

(4) All of the above

105. Structure passing deep to the hyoglossus muscle is -

(1) Hypoglossal nerve

(2) Lingual nerve

(3) Submandibular duct

(4) Lingual artery

106. The typical points where incompetent valves occur between the superficial and deep veins are -

(1) Saphenofemoral junction

(2) In the lower thigh

(3) At 20 cms above the medial malleolus

(4) All of the above

107. Which of the following is not a part of the wrist joint?

(1) Radius

(2) Ulna

(3) Scaphoid

(4) Articular disc

108. Which is the most superficial layer of the integument that also has capillaries, lymphatics and sensory neurons?

(1) Reticular dermal layer

(2) Papillary dermal layer

(3) Stratum granulosum

(4) Stratum lucidum

109. The principle adductors of larynx is -

(1) Lateral Cricoarytenoid muscles

(2) Cricothyroid muscles

(3) Thyroarytenoid muscles

(4) All of the above

110. Fabella is -

(1) Bone lateral to tibia

(2) Sesamoid bone in gastrocnemius muscle

(3) Sesamoid bone in quadriceps

(4) Sesamoid bone around I metatarsal head

111. A 70-year-old man has a biopsy of a growth on his lower lip. The biopsy reveals a squamous cell carcinoma. Which lymph nodes will most likely be first involved in the spread of the cancer cells?

(1) Parotid

(2) Retropharyngeal

(3) Jugulodigastric

(4) Submental

112. Froment's test is performed for the integrity of -

(1) second palmar interosseous

(2) first dorsal interosseous

(3) adductor pollicis

(4) first lumbrical

113. Trendelenburg test is found to be positive in 60-year-old man. Trendelenburg test is suggestive of which of the following nerve damage?

(1) Inferior gluteal nerve

(2) Superior gluteal nerve

(3) Obturator nerve

(4) Pudendal nerve

114. Oesophagus is narrowest at -

(1) Lower border of Cricoid C6 level

(2) Superior border of thyroid cartilage C4 level

(3) Cardiac orifice

(4) Pharyngoesophageal junction

115. Which of the following ligament transmits the weight of upper limb to the axial skeleton?

(1) Coracoclavicular ligament

(2) Coracoacromial ligament

(3) Costoclavicular ligament

(4) Coracohumeral ligament

116. The nucleus ambiguus give origin to motor fibres that run through which of the following cranial nerves?

(1) Vagus, trigeminal and facial nerves

(2) Glossopharyngeal, vagus and accessory nerves

(3) Vagus, hypoglossal and facial nerves

(4) Facial, abducens and oculomotor nerves

117. An unconscious 54-year-old female is admitted to the hospital. A CT scan reveals a tumor in her brain, producing a tentorial herniation. When she regains consciousness, her right eye is directed laterally and downward, with complete ptosis of her upper eyelid and pupillary dilation. Which of the following lobes of the brain is affected by the tumor?

(1) Parietal

(2) Temporal

(3) Occipital

(4) Frontal

118. Facial nerve ganglion develops from -

(1) Hindbrain neural crest cells and first epibranchial placode

(2) Hindbrain neural crest cells and second epibranchial placode

(3) Hindbrain neural crest cells and both first and second epibranchial placode

(4) None of the above

119. Which of the following bones has a process that joins with the zygomatic bone to form the zygomatic arch?

(1) The maxillary bone

(2) The temporal bone

(3) The sphenoid bone

(4) The frontal bone

120. Meissner's plexus is present in which layer of GIT?

(1) Lamina propria

(2) Submucosa

(3) Muscularis externa

(4) Serosa

121. Ureter receives its blood supply from -

(1) Common iliac, internal iliac and ovarian arteries

(2) Common iliac and internal iliac arteries

(3) Common iliac and ovarian arteries

(4) Internal and external iliac arteries

122. Vasculature of vertebral column is by -

(1) Vertebral and ascending cervical arteries

(2) Posterior intercostal arteries

(3) Subcostal and lumbar arteries

(4) All of the above

123. Vidian nerve passes through -

(1) Inferior orbital fissure

(2) Incisive foramen

(3) Tympanomastoid fissure

(4) Pterygoid canal

124. Limbic system regulates -

(1) memory and emotions

(2) memory only

(3) memory, emotions and motivational state

(4) memory, emotions, homeostatic functions and motivational state

125. Dorello's canal transmits -

(1) Middle meningeal artery

(2) Mandibular nerve

(3) Superior alveolar branch of maxillary

(4) Abducent nerve

126. The nucleus located deep to facial colliculus is -

(1) Trigeminal

(2) Abducens

(3) Facial

(4) Vestibulocochlear

127. A 42-year-old patient is admitted to the hospital after suffering a ruptured spleen in a skiing accident. Physical examination revels intense pain that radiates to the region of the left shoulder, presumably due to irritation of the diaphragm. Which of the following signs best describes this condition?

(1) Mittelschmerz

(2) Kehr sign

(3) Rovsing sign

(4) Psoas sign

128. Sensation of touch is carried by -

(1) Anterolateral pathway

(2) Posterior column-medial lemniscal pathway

(3) Both (1) and (2)

(4) None of the above

129. Diaphragm develops from -

(1) Pleuroperitoneal membranes, dorsal mesentery of the esophagus and somites at cervical levels three to five

(2) Pleuroperitoneal membranes and somites at cervical levels three of five

(3) Dorsal mesentery of the oesophagus

(4) None of the above

130. Which blood vessel is also known by the name of "Charcot's artery of cerebral haemorrhage"?

(1) Medial striate artery

(2) Lateral striate artery

(3) Posterior communicating artery

(4) Basilar artery

131. Abduction of the humerus till 90° is facilitated by -

(1) Supraspinatus and deltoid

(2) Trapezius and deltoid

(3) Supraspinatus & Subscapularis

(4) Teres major & Subscapularis

132. Sources of stem cells -

(1) Embryoblast, Teratoma cells, Aborted foetuses

(2) Umbilical cord blood and placenta

(3) Bone marrow cells, liver, epidermis, retina, skeletal muscles, intestine, dentine pulp

(4) All of the above

133. Failure of closure of neural folds in the cranial region can result in -

(1) Anencephaly and Hydranencephaly

(2) Anencephaly and Hydranencephaly and Encephalocele

(3) Anencephaly and Encephalocele

(4) Anencephaly and Hydranencephaly, Encephalocele and Iniencephaly

134. A sensory nerve supplying a joint also supplies the muscles moving the joint and the skin overlying the insertions of these muscles has been codified as -

(1) Simon's law

(2) Murphy's law

(3) Trousseau's law

(4) Hilton's law

135. Applications of FISH -

(1) To confirm the presence of specific chromosomes or gene

(2) To assess structural defects of chromosomes

(3) To identify small deletion or addition of chromosome

(4) All of the above

136. Patient comes to emergency with complaint of drooling of saliva, unable to close one eye properly and facial palsy of one side. Doctor has diagnosed it as upper motor neuron palsy. Identify the cranial nerve involved?

(1) Trigeminal Nerve

(2) Facial Nerve

(3) Glossopharyngeal Nerve

(4) Oculomotor Nerve

137. The reticular layer of dermis consists of following type of connective tissue -

(1) Loose areolar

(2) Dense regular

(3) Dense irregular

(4) Adipose tissue

138. Lymphatic drainage of the cervix occurs by all of the following lymph nodes, EXCEPT -

(1) Parametrical lymph nodes

(2) Deep inguinal lymph nodes

(3) Internal iliac lymph nodes

(4) External iliac lymph nodes

139. Pleural tapping in the mid axillary line, muscle not pierced is -

(1) External intercostal

(2) Internal intercostal

(3) Innermost intercostal

(4) Transversus thoracis

140. Symphyses joints are examples of -

(1) Fibrous joints

(2) Primary cartilaginous joints

(3) Secondary cartilaginous joints

(4) Synovial joints

141. A 58-year-old female employee of a housecleaning business visits the outpatient clinic with a complaint of constant, burning pain in her knees. Clinical examination reveals a "housemaids' knee" condition. Which of the following structures is most likely affected?

(1) Prepatellar bursa

(2) Infrapatellar bursa

(3) Posterior cruciate ligament

(4) Patellar retinacula

142. Imaging technique that forms images by detecting radioactive isotopes injected into the body is -

(1) Positron Emission Tomography (PET)

(2) Ultrasonography

(3) Digital Subtraction Angiography (DSA)

(4) Magnetic Resonance Imaging (MRI)

143. Couinaud's segmental nomenclature for Hepatic segments is based on the position of -

(1) Hepatic artery, portal vein and bile ducts

(2) Hepatic veins and biliary ducts

(3) Portal vein and cystic ducts

(4) Central vein and celiac artery

144. Vascular perfusions to the spinal cord are from -

(1) two posterior spinal and one anterior spinal arteries

(2) eight to ten segmental medullary arteries

(3) artery of Adamkiewicz

(4) All of the above

145. In both sexes, the deep perineal pouch contains -

(1) Part of the urethra, centrally, the inferior part of the external urethral sphincter and anterior extensions of ischioanal fat pads

(2) Part of the urethra, centrally and deep perineal muscles

(3) Part of the urethra, ischioanal fat pads and transverse perineal muscles

(4) All of the above

146. Which of the following is not a component of the cornea?

(1) Bowman's membrane

(2) An endothelial layer containing melanin

(3) Stratified squamous nonkeratinized epithelium

(4) Lamellae of collagenous fibrils

147. Which of the following is not true concerning Brown sequard syndrome?

(1) Contralateral spinothalamic deficit

(2) Ipsilateral spinothalamic deficit

(3) Ipsilateral dorsal column deficit

(4) Ipsilateral pyramidal tract deficit

148. Regarding the hip joint all of the following statements are true, EXCEPT -

(1) Anterior fibres of the gluteus medius and minimum act as medial rotator of the hip joint.

(2) Gluteus maximus is the most powerful lateral rotator of the hip joint.

(3) Gluteus medius and minimus are supplied by the inferior gluteal nerve (L5, S1, S2).

(4) Superior gluteal nerve (L4, L5, S1) emerges from the greater sciatic notch.

149. Conjoint tendon is formed by -

(1) External and internal oblique

(2) External oblique and transversus abdominis

(3) Internal oblique and transversus abdominis

(4) Internal oblique alone

150. The tympanic membrane is -

(1) Unilaminar

(2) Bilaminar

(3) Trilaminar

(4) None of the above

151. The nodules of lymphoid tissue found in the wall of the intestinal tract are known as -

(1) Hashimoto's nodes

(2) Grave's region

(3) DiGeorge's nodes

(4) Peyer's patches

152. Appendix of the testis is developed from -

(1) Mesonephric duct

(2) Paramesonephric duct

(3) Both (1) and (2)

(4) None of the above

153. Nerve supply of pyramidalis muscle is -

(1) Ilioinguinal

(2) Subcostal

(3) Genitofemoral

(4) Iliohypogastric

154. A 17-year-old male suffered the most common of fractures of the carpal bones when he fell on his out-stretched hand. Which bone would this be?

(1) Trapezium

(2) Lunate

(3) Pisiform

(4) Scaphoid

155. The ankle joint has greatest freedom of movement when -

(1) it is plantarflexed

(2) it is dorsiflexed

(3) the foot is inverted

(4) the foot is everted

156. Middle lobe of prostate is present in between -

(1) Prostratic urethra and ejaculation duct

(2) Prostratic urethra and rectum

(3) Ejaculation duct and pubis

(4) Pubis and rectum

157. Mark the spines of 4^{th}, 5^{th} and 6^{th} thoracic vertebrae & mark a vertical one inch area lateral to these spines to locate -

(1) Root of lungs

(2) Scapular border

(3) Mediastinal border of lungs

(4) All of the above

158. All of the following statements are true, EXCEPT -

(1) Basic and cephalic veins join in the axilla to form the axillary vein.

(2) Cephalic vein forms the roof of anatomical snuff box.

(3) Basilic vein runs along the medial border of forearm.

(4) Cephalic and basilic vein are separated from the brachial artery by bicipital aponeurosis.

159. Afferent of cremasteric reflex is -

(1) Genitofemoral nerve

(2) Ilioinguinal nerve

(3) Iliohypogastric nerve

(4) Iliofemoral nerve

160. Exstrophy of the bladder (ectopia vesicae) is often associated with -

(1) Adrenal hyperplasia

(2) Urachal fistula

(3) Hypospadias

(4) Epispadias

161. Once they have reacted with antigen molecules, the B-lymphocytes of the immune system -

(1) leave the lymphoid tissue and proceed to the antigen site

(2) change into red blood cells to secrete toxins

(3) convert into plasma cells to secrete antibodies

(4) change into macrophages to perform phagocytosis

162. The paraxial mesoderm around the neural tube gives rise to -

(1) Scleretome

(2) Somites

(3) Ectoderm

(4) Dermomyotome

163. The reduction of physiological hernia occurs at -

(1) 6^{th} week

(2) 7^{th} week

(3) 8^{th} week

(4) 10^{th} week

164. Structures entering/exiting the middle cranial fossa by passing through foramen ovale include all, EXCEPT -
(1) meningeal artery
(2) mandibular nerve
(3) lesser petrosal nerve
(4) emissary vein

165. If the circumflex artery gives off the posterior interventricular artery, then the arterial supply is called -
(1) Left dominant circulation
(2) Right dominant circulation
(3) Undetermined circulation
(4) Balanced circulation

166. The cisterna chyli is the inferior end of which of the following structures?
(1) Inferior vena cava
(2) Renal vein
(3) Testicular artery
(4) Thoracic duct

167. Left renal vein crosses over to inferior vena cava -
(1) Anterior to aorta and inferior to superior mesenteric artery
(2) Posterior to aorta and inferior to superior mesenteric artery
(3) Anterior to aorta and inferior to inferior mesenteric artery
(4) Posterior to aorta and inferior to inferior mesenteric artery

168. Special sensory system pathways which do not have a thalamic relay is -
(1) Olfactory system
(2) Taste sensation
(3) Auditory sensation
(4) Visual system

169. Phrenic nerve originates chiefly from C4 nerve but receives contribution from C3 and C5 nerves -
(1) contains motor, sensory and sympathetic nerves
(2) contains only motor nerves
(3) contains both motor and sensory nerves
(4) contains both motor and sympathetic nerves

170. In near total blockage of the circumflex artery near its origin from the left coronary artery, what accompanying vein must be protected from injury when this artery is exposed to perform a bypass procedure?
(1) Middle cardiac
(2) Great cardiac
(3) Small cardiac
(4) Anterior cardiac

171. The cause of peadu'orange appearance is due to infiltration of -

(1) Lactiferous duct

(2) Mammary ridge

(3) Ligament of cooper

(4) Retromammary space

172. Autonomous region (where overlap of dermatomes is least likely) -

(1) C6 dermatome

(2) C5 dermatome

(3) C7 dermatome

(4) C8 dermatome

173. All the following statements regarding the medullary sinuses of the lymph node are correct, EXCEPT -

(1) They are traversed by reticular cells.

(2) The sinuses are lined by endothelium.

(3) They drain into afferent vessels.

(4) They filter lymph.

174. The thymus is supplied by which of the following?

(1) Inferior thyroid and internal thoracic artery

(2) Brachiocephalic and superior thyroid artery

(3) Posterior intercostal arteries

(4) Left common carotid artery

175. Acrocentric chromosomes is -

(1) Chromosomes with centromere at one end

(2) Chromosomes with centromere at one end with satellite bodies

(3) Chromosomes 3, 4, 5

(4) Chromosomes 12

176. Gland receiving secretomotor fibres from pterygopalatine ganglion is -

(1) Lacrimal

(2) Submandibular

(3) Sublingual

(4) Parotid

177. Lymph nodes -

(1) have capsule, cortex, medulla and sinuses

(2) medullary cords have B-lymphocytes, plasma cells and macrophages

(3) inner cortex has mainly B-lymphocytes

(4) Both (1) and (2)

178. A boy playing football received a blow to the lateral aspect of the knee and suffered a twisting fall. His medial meniscus is damaged; which other structure is most likely to be injured?

(1) Deltoid ligament

(2) Posterior cruciate ligament

(3) Anterior cruciate ligament

(4) Patellar-ligament

179. Which ribs have "bucket handle" type of movements?

(1) Rib No. 1-2

(2) Rib No. 3-5

(3) Rib No. 6-10

(4) Rib No. 11-12

180. Types of embalming fluids -

(1) For international transit

Formalin 30%, Alcohol 65%,

Phenol 2.5%, Water 2.5%

(2) For local transportation

Formalin 20%

Industrial methylated spirit 80%

(3) For infected bodies

Formalin 50%

Industrial methylated spirit 45%

Phenol 2.5%

Water 2.5%

(4) All of the above

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Space for Rough Work