

वारेख प्रदर्शक (गिरिजा शिक्षा विभाग) सेवीक्षा परीक्षा - 2020

पुस्तिका में पृष्ठों की संख्या : 24
Number of Pages in Booklet : 24

प्रश्न-पत्र पुस्तिका संख्या /
Question Paper Booklet No.

पुस्तिका में प्रश्नों की संख्या : 180
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MSDAn-02

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SUBJECT : Anatomy

परीक्षा दिनांक :- 13/09/2020

समय : 3.00 घण्टे
Time : 3.00 Hours

परीक्षा समय : 9:00 to 12:00

अधिकतम अंक : 180
Maximum Marks : 180

प्रश्न-पत्र पुस्तिका एवं उत्तर पत्रक के पेपर सील/पॉलिथीन बैग को खोलने पर परीक्षार्थी यह सुनिश्चित कर लें कि उसके प्रश्न-पत्र पुस्तिका पर वही प्रश्न-पत्र पुस्तिका संख्या अंकित है जो उत्तर पत्रक पर अंकित है। इसमें कोई भिन्नता हो तो वीक्षक से दूसरा प्रश्न-पत्र प्राप्त कर लें। ऐसा न करने पर जिम्मेदारी अभ्यर्थी की होगी।

The candidate should ensure that Question Paper Booklet No. of the Question Paper Booklet and Answer Sheet must be same after opening the Paper Seal / Polythene bag. In case they are different, a candidate must obtain another Question Paper. 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 प्वाइंट 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-पत्र निकाल कर ध्यान से केवल नीले बॉल पॉइंट 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 है। 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 सावधानीपूर्वक सही भरें। गलत अथवा अपूर्ण रोल नम्बर भरने पर 5 अंक कुल प्राप्तांकों में से काटे जा सकते हैं।

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.

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.

01-□



1. What is not true for the nerve supply of the diaphragm ?

- (1) Motor fibres of the phrenic nerve
- (2) Sensory nerve fibres come from the lower six intercostal nerves
- (3) Sensory nerve fibres come from phrenic nerve
- (4) Nerve come from cardiac plexus

2. Which of the following is a true statement about the conjoint tendon ?

- (1) It is formed from the lower fibres of external oblique muscle.
- (2) It descends behind the deep inguinal ring.
- (3) Ductus deferens passes medial to it.
- (4) It is innervated by iliohypogastric nerve.

3. Which muscle is not slashed if a cut is made just below ischial tuberosity ?

- (1) Semitendinosus
- (2) Semimembranosus
- (3) Long head of biceps femoris
- (4) Sartorius

4. The bones involved in transverse arch of the foot include the following, except :

- (1) the cuboid
- (2) the cuneiform
- (3) the bases of five metatarsals
- (4) the calcaneal tuberosity

5. What is NOT true for joints of the heads of the Ribs ?

- (1) The first rib and the three lowest ribs articulate by a single synovial joint with their corresponding vertebral body.
- (2) The heads of second to the ninth ribs, articulate by means of a synovial joint with the corresponding vertebral body and that of the vertebra below it.
- (3) The heads of the second to the ninth ribs articulate by means of a synovial joint with the corresponding vertebral body and that of the vertebra above it.
- (4) A strong intra-articular ligament connects the head of the rib to the intervertebral disc.

6. The articular disc of the temporomandibular joint receives some fibres of

- (1) lateral pterygoid
- (2) medial pterygoid
- (3) anterior fibres of temporalis
- (4) posterior fibres of temporalis

7. What is NOT true for atlanto-axial joint ?

- (1) It is a synovial joint.
- (2) It is a pivot joint.
- (3) It permits rotation movement of head.
- (4) It is a fibrous joint.

8. Shoulder abduction involves all of the following, except :
- (1) movement of sternoclavicular joint
 - (2) acromioclavicular joint
 - (3) medial rotation of scapula
 - (4) elevation of humerus
9. All of the following joints are involved in movements of supination and pronation, except :
- (1) Superior radioulnar joint
 - (2) Middle radioulnar joint
 - (3) Inferior radioulnar joint
 - (4) Radio carpal joint
10. Thigh is rotated laterally by all of the following muscles, except :
- (1) Piriformis
 - (2) Quadratus femoris
 - (3) Gluteus medius
 - (4) Obturator internus
11. Anterior cruciate ligament of femur prevents
- (1) Anterior dislocation of tibia
 - (2) Anterior dislocation of femur
 - (3) Posterior dislocation of tibia
 - (4) Posterior dislocation of femur
12. Which of the following statement is true about ankle joint ?
- (1) It is a cartilaginous joint.
 - (2) It is more stable at dorsiflexion position.
 - (3) It is more stable at planterflexed position.
 - (4) It is strengthened by deltoid ligament.
13. Pubic symphysis is a type of
- (1) primary cartilaginous joint
 - (2) secondary cartilaginous joint
 - (3) fibrous joint
 - (4) synovial joint
14. Smallest ball and socket joint in the body is
- (1) First carpo-metacarpal joint
 - (2) Incudo-stapedial joint
 - (3) Incudo-malleolar joint
 - (4) Tympanostapedal joint
15. Articular cartilage has all of the following characteristic features, except :
- (1) It is devoid of perichondrium.
 - (2) It is avascular.
 - (3) It has a rich nerve supply.
 - (4) It lacks capacity to regenerate.



16. Joint between vomer-sphenoid is a type of
- (1) Syndesmosis
 - (2) Schindylesis
 - (3) Synostosis
 - (4) Gomphosis
17. Hinge variety of synovial joint is also known as
- (1) Ginglymi
 - (2) Trochoid
 - (3) Spheroidal
 - (4) Bicondylar
18. The type of joint between sacrum and coccyx is
- (1) Symphysis
 - (2) Synchrondrosis
 - (3) Synostosis
 - (4) Syndesmosis
19. Type of suture present between parietal and occipital bone is
- (1) Metopic suture
 - (2) Sagittal suture
 - (3) Lambdoid suture
 - (4) Coronal suture
20. Knee joint is a type of
- (1) Symphysis
 - (2) Synarthrosis
 - (3) Amphiarthrosis
 - (4) Diarthrosis
21. What type of joint is present in growth plate ?
- (1) Fibrous
 - (2) Primary cartilagenous
 - (3) Secondary cartilagenous
 - (4) Plane joint
22. Klippel - Feil sequence is
- (1) Cervical vertebrae fused causing reduced mobility
 - (2) Thoracic vertebrae fused causing reduced mobility
 - (3) Thoracic and lumbar vertebrae fused causing reduced mobility
 - (4) Lumbar and sacral vertebrae fused causing reduced mobility
23. Sternoclavicular joint is a
- (1) Plane variety of synovial joint
 - (2) Saddle variety of synovial joint
 - (3) Pivot variety of synovial joint
 - (4) Condylar variety of synovial joint
24. Which of the following is not a branch of cavernous segment of internal carotid artery ?
- (1) Dorsal meningeal branch
 - (2) Inferior hypophyseal branch
 - (3) Anterior meningeal branch
 - (4) Ophthalmic branch



25. The vertebral artery traverses all of the following, except :
- (1) Foramen magnum
 - (2) Subarachnoid space
 - (3) Intervertebral foramen
 - (4) Foramen transversarium
26. Which of the following is a true statement about portal vein ?
- (1) It is formed by joining of superior mesentric and splenic veins.
 - (2) It descends behind the appendix.
 - (3) It lies in root of the mesentery.
 - (4) It ends in inferior vena cava.
27. Profunda femoris artery is a branch of
- (1) External iliac artery
 - (2) Femoral artery
 - (3) Popliteal artery
 - (4) Posterior tibial artery
28. The arch of aorta lies in the
- (1) superior mediastinum
 - (2) anterior mediastinum
 - (3) middle mediastinum
 - (4) posterior mediastinum
29. The branches of internal iliac artery include all of the following, except :
- (1) Uterine artery
 - (2) Middle rectal artery
 - (3) Obturator artery
 - (4) Inferior epigastric artery
30. Which of the following artery forms anastomosis around surgical neck of humerus ?
- (1) 1st part of axillary artery
 - (2) 2nd part of axillary artery
 - (3) 3rd part of subclavian artery
 - (4) 2nd part of subclavian artery
31. Cephalic vein drains into
- (1) Brachial vein
 - (2) Subclavian vein
 - (3) Axillary vein
 - (4) Baselic vein
32. The branch of right coronary artery is
- (1) Obtuse marginal
 - (2) Acute marginal
 - (3) Posterior inter-ventricular
 - (4) Diagonal
33. Left superior intercostal vein drains into
- (1) Azygous vein
 - (2) Hemiazygous vein
 - (3) Innominate vein
 - (4) Left branchio-cephalic vein
34. Which of the following statement is true for thoracic duct ?
- (1) It passes through aortic opening of diaphragm.
 - (2) It starts at the level of T₃.
 - (3) It opens into superior vena cava.
 - (4) It crosses from right to left at T₈.

35. Submental lymph nodes drain all, except :
- (1) Anterior palate
 - (2) Tip of tongue
 - (3) Floor of mouth
 - (4) Lower lip
36. Lymphatics of stomach includes all except :
- (1) Right gastroepiploic nodes
 - (2) Pyloric nodes
 - (3) Pre-aortic nodes
 - (4) Coeliac nodes
37. Lymphatics from the spongy urethra drain into the following lymph nodes :
- (1) Superficial inguinal nodes
 - (2) Deep inguinal nodes
 - (3) Internal iliac nodes
 - (4) Sacral nodes
38. The statement which is NOT true about palatine tonsil ?
- (1) It develops from second pharyngeal pouch.
 - (2) Its arterial supply is from facial nerve.
 - (3) Its sensory supply is by glossopharyngeal nerve.
 - (4) It increases after puberty.
39. Discrete lesions of hippocampal formation causes
- (1) The affected individual unable to remember past memories but new memories unaffected.
 - (2) The individual unable to remember new memories but past memories unaffected.
 - (3) Both new and past memories unaffected.
 - (4) Both new and past memories affected.
40. Which part of the ventricular system contains choroid plexus ?
- (1) Frontal horn
 - (2) Occipital horn
 - (3) Third ventricle
 - (4) Terminal ventricle
41. Which sinus drains the superior surface of the cerebellum ?
- (1) Straight sinus
 - (2) Inferior sagittal
 - (3) Inferior petrosal
 - (4) Sigmoid
42. The spinal tract involved with the control of trunk muscles is the
- (1) Cuneo cerebellar
 - (2) Vestibulospinal
 - (3) Ventral corticospinal
 - (4) Ventral spino cerebellar

43. Which of the following thalamic nuclei has a motor function ?
 (1) Lateral dorsal nucleus
 (2) Medial dorsal nucleus
 (3) Ventral lateral nucleus
 (4) Ventral posterior nucleus
44. Post ganglionic sympathetic cholinergic fibres innervates the
 (1) Sweat glands
 (2) Lacrimal glands
 (3) Trigone of urinary bladder
 (4) Detrusor muscle
45. Anosmia results from damage to which cranial nerve ?
 (1) C.N. I
 (2) C.N. II
 (3) C.N. III
 (4) C.N. IV
46. Purkinje cells of the cerebellum project inhibitory axons to which of the following nuclei ?
 (1) Superior olivary nucleus
 (2) Inferior olivary nucleus
 (3) Arcuate nucleus
 (4) Fastigial nucleus
47. Sexually dimorphic nucleus is located in the
 (1) Anterior nucleus
 (2) Medial preoptic nucleus
 (3) Posterior nucleus
 (4) Ventro-lateral nucleus
48. Difficulty in swallowing and phonation due to paralysis of ipsilateral palatal and laryngeal muscles is an indication of lesion of
 (1) Nucleus ambiguus
 (2) Hypoglossal nucleus
 (3) Trigeminal nucleus
 (4) Abducent nerve nucleus
49. Basal ganglia consists of all of the following, except :
 (1) Caudate nucleus
 (2) Putamen
 (3) Thalamus
 (4) Globus pallidus
50. Which is the nucleus of masseteric reflex ?
 (1) Chief sensory nucleus
 (2) Nucleus of spinal tract of trigeminal nerve
 (3) Nucleus of mesencephalic nucleus of trigeminal nerve
 (4) Dorsal vagal nerve
51. In adults the spinal cord normally ends at the
 (1) Lower border of L₁
 (2) Lower border of L₃
 (3) Lower border of L₄
 (4) Lower border of L₅

52. Cranial nerve which emerges from dorsal surface of brain is
- (1) IInd
 - (2) IIIrd
 - (3) IVth
 - (4) VIth
53. Which of the following area of the cerebral cortex is concerned with the recognition of painful stimuli from teeth ?
- (1) Precentral gyrus
 - (2) Post central gyrus
 - (3) Superior temporal gyrus
 - (4) Cingulate gyrus
54. Sensory fibres from taste buds in the hard and soft palate travel along
- (1) Trigeminal nerve
 - (2) Facial nerve
 - (3) Glossopharyngeal nerve
 - (4) Vagus nerve
55. Neurologic examination reveals paralysis of upward and downward gaze, absence of convergence and absence of pupillary reaction to light. The lesion is in the
- (1) Rostral midbrain tectum
 - (2) Caudal midbrain tectum
 - (3) Caudal pontine tegmentum
 - (4) Rostral pontine tegmentum
56. Medial squint and diplopia results in damage to
- (1) Vestibulo-cochlear nerve
 - (2) Abducent nerve
 - (3) Oculomotor nerve
 - (4) Trochlear nerve
57. Neuro-epithelium type sensory receptors are present in the following system :
- (1) Olfactory
 - (2) Auditory
 - (3) Visual
 - (4) Gustatory
58. One component of middle ear is
- (1) Auricle
 - (2) Incus
 - (3) Organ of corti
 - (4) Scala vestibuli
59. Sensations from muscle, tendon, joints and inner ear are conveyed through
- (1) Extroceptors
 - (2) Proprioceptors
 - (3) Mechanoreceptors
 - (4) Interceptors
60. The primary olfactory cortex includes the following, except :
- (1) Lateral part of orbital surface of frontal lobe
 - (2) Gyrus semilunaris
 - (3) Gyrus ambiens
 - (4) Dorso-medial part of amygdale

61. Which of the following cells are not present in Retina ?
- (1) Pigment epithelial cells
 - (2) Rods and cones
 - (3) Bipolar cells
 - (4) Stellate cells
62. The visual association cortex (area 18 and 19) is involved in which of the following functions ?
- (1) Recognition of object
 - (2) Perception of colour
 - (3) Depth of vision and motion
 - (4) All of these
63. Which of the following steps is false in transmission of sound from tympanic membrane to cochlea ?
- (1) Vibration of tympanic membrane
 - (2) Vibration of malleus, incus and stapes
 - (3) Vibration of membrane coreing round ligament
 - (4) Vibration of basilar membrane
64. The uterus is normally
- (1) Antiverted and Antiflexed
 - (2) Antiverted and Retroflexed
 - (3) Retroverted and Retroflexed
 - (4) Retroverted and Antiflexed
65. Pouch of Douglas is situated between
- (1) Bladder and Uterus
 - (2) Uterus and Rectum
 - (3) Bladder and Rectum
 - (4) Bladder and pubic symphysis
66. Which of the following is NOT a characteristic feature of large intestine ?
- (1) Villi
 - (2) Taeniae coli
 - (3) Sacculations
 - (4) Appendices epiploicae
67. The space between the right left vocal fold is called
- (1) Vestibule
 - (2) Ventricle
 - (3) Rima vestibuli
 - (4) Rima glottidis
68. The volume of the normal renal pelvis and calyces usually does not exceed
- (1) 2 ml
 - (2) 8 ml
 - (3) 15 ml
 - (4) 30 ml
69. Which of the following is not related to visceral surface of the liver ?
- (1) Hepatic flexure of colon
 - (2) Superior duodenal flexure
 - (3) Greater omentum
 - (4) Lesser omentum

70. Base of the heart is mainly formed by the

- (1) Right atrium
- (2) Left atrium
- (3) Left ventricle
- (4) Right ventricle

71. Renal papillae opens into

- (1) Cortex
- (2) Pyramid
- (3) Minor calyx
- (4) Major calyx

72. All of the following structures form the splenic bed, except :

- (1) Stomach
- (2) Splenic flexure of colon
- (3) Kidney
- (4) Adrenal gland

73. Neck of the pancreas is related on its posterior surface to the

- (1) Gastroduodenal artery
- (2) Superior mesenteric vein
- (3) Inferior vena cava
- (4) Right gastroepiploic artery

74. Following statement is NOT true about maxillary air sinus :

- (1) It opens into the inferior meatus of the nasal cavity.
- (2) It is related posteriorly to the infratemporal and pterygopalatine fossae.
- (3) A cancer growing towards its roof will produce diplopia.
- (4) It can be surgically approached from canine fossa.

75. Following statement is NOT true about the thyroid gland :

- (1) Carotid sheath is related to its posterolateral surface.
- (2) It develops from the third pharyngeal pouch.
- (3) During thyroidectomy the gland is removed with its true capsule.
- (4) The pretracheal fascia attaches it to hyoid.

76. The statement which is NOT true about the larynx :

- (1) Sensory supply above the vocal cord is by recurrent laryngeal nerve.
- (2) During phonation, vocal cords are adducted.
- (3) The internal laryngeal nerve lies in the floor of pyriform fossa.
- (4) Lymphatics from above the vocal cord drains into upper deep cervical group.



77. All are true about posterior triangle of neck, except :

- (1) sternocleidomastoid and trapezius forms its boundaries
- (2) prevertebral fascia forms its floor
- (3) branches of cervical plexus forms its contents
- (4) trunks of brachial plexus emerging between scalenus medius and posterior

78. True about the parotid salivary gland is

- (1) It comprises longly of serous acini.
- (2) Its duct pierces masseter muscle before opening into the vestibule of oral cavity.
- (3) The external carotid artery divides the gland into superficial and deep lobes.
- (4) The secretomotor nerve supply is from the greater petrosal branch of facial nerve.

79. All are true about perineal membrane, except :

- (1) Forms the roof of the deep perineal pouch.
- (2) Fuses with the pubic symphysis anteriorly.
- (3) Is pierced by the male urethra.
- (4) Its continuous with the membranous layer of superficial fascia posteriorly.

80. The defence mechanism which approximates roof and floor of the inguinal canal is

- (1) Ball valve
- (2) Flap valve
- (3) Slit valve
- (4) Shutter

81. Structures forming the thoracic inlet include all, except :

- (1) upper border of manubrium sterni
- (2) inner border of 1st rib
- (3) 1st thoracic vertebrae
- (4) upper border of clavicle

82. All statements are true about Oesophagus, except :

- (1) Begins at C₆ level.
- (2) Has a constriction 11 inches from the incisor teeth due to left principal bronchus.
- (3) Its lined by non-keratinised stratified squamous epithelium.
- (4) Passes through the right dome of diaphragm at T₈ level.

83. All the statements NOT true about conducting tissue of the heart, except :

- (1) Sinuatrial node is located at the opening of inferior vena cava.
- (2) Atrioventricular node is related to right atrial wall.
- (3) Moderator band contains the right bundle branch.
- (4) Atrioventricular bundle is at the muscular interventricular septum.

84. The ligamentum arteriosum is remnant of
- (1) Ductus arteriosus
 - (2) Umbilical vein
 - (3) Ductus venosus
 - (4) Umbilical artery
85. Primitive streak initiation and maintenance is due to
- (1) Nodal gene
 - (2) BMPRA
 - (3) FGF-8
 - (4) Brachyury gene
86. Meiosis occurs at which of the following transformation ?
- (1) Primary spermatocyte to intermediate spermatocyte
 - (2) Primary spermatocyte to secondary spermatocyte
 - (3) Secondary spermatocyte to round spermatid
 - (4) Round spermatid to elongated spermatid
87. Which of the following is true regarding Gastrulation ?
- (1) Establishes all the three germ layer
 - (2) Occurs at the caudal end of the embryo prior to its cephalic end
 - (3) Involves the hypoblastic cells of inner cell mass
 - (4) Usually occurs at 4th week
88. Surface ectoderm gives rise to all of the following structures, except :
- (1) Anterior layer of Iris
 - (2) Lens
 - (3) Corneal epithelium
 - (4) Conjunctival epithelium
89. Unequal division of the conus cordis resulting from anterior displacement of the conotruncal septum gives rise to
- (1) Persistent truncus arteriosus
 - (2) Tetralogy of fallot
 - (3) Transposition of great vessels
 - (4) None of these
90. Reichert's cartilage give rise to all, except :
- (1) Stapes
 - (2) Lesser corner of hyoid
 - (3) Greater corner of hyoid
 - (4) Stylohyoid ligament
91. Structure derived from Mullerian duct in male
- (1) vas deferens
 - (2) seminal vesicles
 - (3) ejaculatory duct
 - (4) appendix testis
92. Hirschsprung disease associated with all of the following, except :
- (1) Absence of sympathetic ganglia in bowel wall
 - (2) Absence of parasympathetic ganglia in bowel wall
 - (3) Mutation of RET gene
 - (4) In most cases rectum is involved

93. Structures contributing to formation of the face, following statement is correct :

- (1) Maxillary prominence develops into philtrum of upper lip
- (2) Mandibular prominence develop into cheeks
- (3) Medial nasal prominence form the alae of the nose
- (4) Frontonasal prominence develops into forehead

94. Descent of the testies is associated with all, except :

- (1) Gubernaculum
- (2) Testosterone
- (3) Androgen
- (4) Intra abdominal pressure

95. Tongue muscle derives from

- (1) Cervical somite
- (2) Mesoderm of pharyngeal pouch
- (3) Occipital somite
- (4) Head and neck mesenchyme

96. Which of the following nuclei belongs to the general visceral efferent column ?

- (1) Facial nerve nucleus
- (2) Dorsal nerve nucleus
- (3) Trigeminal nerve nucleus
- (4) Nucleus ambigenous

97. Polyhydramnios is associated with all, except :

- (1) Bilateral renal agenesis
- (2) Tracheo-esophageal fistula
- (3) Anencephaly
- (4) Bowel atresia

98. Meckel's diverticulum all are true about it, except :

- (1) Form by persistence of vitelline duct
- (2) Present at the ileocecal valve
- (3) Occurs in 2 percentage of cases
- (4) Normally remain asymptometric

99. In hyaline cartilage type of collagen present is

- (1) Type I
- (2) Type II
- (3) Type III
- (4) Type IV

100. Which of the following is used to make fat visible ?

- (1) Eosin
- (2) Hematoxylin
- (3) Sudan
- (4) Toluidine blue

101. A cell-cell junction, seals cells together in an epithelium, causing zero leakage of molecules, called as

- (1) Tight junction only
- (2) Occluding junction only
- (3) Adhering junction only
- (4) Tight and occluding junction

102. What type of epithelium lines the vas deferens ?
- (1) Pseudostratified columnar
 - (2) Stratified squamous
 - (3) Simple squamous
 - (4) Simple cuboidal
103. A sub-capsular sinus is typically present in this structure :
- (1) Thymus
 - (2) Synovial joint
 - (3) Spleen
 - (4) Lymph node
104. Which layer contains Auerbach's plexus ?
- (1) Mucosa
 - (2) Sub-mucosa
 - (3) Muscularis externa
 - (4) Serosa
105. Pericytes are found close to the
- (1) Hair follicle
 - (2) Lymph vessels
 - (3) Capillaries and venules
 - (4) Cartilage
106. Which cell secrete pepsinogen ?
- (1) Parietal cell
 - (2) Oxyntic cell
 - (3) Chief cell
 - (4) Mucous neck cell
107. Epithelium of the collecting ducts of the kidneys is
- (1) Transitional
 - (2) Simple cuboidal or columnar
 - (3) Pseudostratified ciliated columnar
 - (4) Simple squamous
108. The cells of the outermost layer of cerebral cortex are
- (1) Horizontal
 - (2) Purkinje
 - (3) Martinoti
 - (4) Granule
109. In the fracture of middle cranial fossa, absence of tears would be due to lesion in
- (1) Trigeminal ganglion
 - (2) Ciliary ganglion
 - (3) Greater petrosal nerve
 - (4) Cervical ganglion
110. Injury of which of these nerve cause vocal cord paralysis ?
- (1) Recurrent laryngeal nerve
 - (2) External laryngeal nerve
 - (3) Internal laryngeal nerve
 - (4) Superior laryngeal nerve
111. In agenesis of corpus callosum occurs
- (1) Hemiparesis
 - (2) Hemi anaesthesia
 - (3) Astereognosis
 - (4) No neurological sign.



112. Caudal herniation of the cerebellar tonsil and medulla through the foramen magnum is called

- (1) Dandy – Walker syndrome
- (2) Down syndrome
- (3) Arnold – Chiari syndrome
- (4) Myeloschisis

113. Which of the following is a characteristic of Friedreich's ataxia ?

- (1) Disease appears in puberty
- (2) Bilateral degeneration of the posterior spino-cerebellar tract
- (3) Degeneration of anterior spino-cerebellar tract
- (4) Dorsolateral tract of Lissauer involved

114. A 50-years-old patient with idiopathic trigeminal neuralgia reports sharp, stabbing pain in the upper lip and nose. Which branch of trigeminal nerve is affected ?

- (1) Ophthalmic
- (2) Maxillary
- (3) Mandibular
- (4) Lacrimal

115. Which of the following is correct ?

- (1) Hirschsprung disease is peptic ulcer disease.
- (2) Reynaud disease is congenital aganglionic mega colone.
- (3) Horner's syndrome associated with anisocoria and hemianhidrosis.
- (4) Riley-Day syndrome characterised by painful vasospasm affecting the digits.

116. The cervical rib exerts pressure on

- (1) The lower trunk of the brachial plexus
- (2) Upper trunk of brachial plexus
- (3) Axillary artery
- (4) Middle trunk of brachial plexus

117. The usual location of pericardial puncture for pericardiocentesis is

- (1) At left costoxiphoid angle
- (2) Through the transverse sinus
- (3) Near the apex of the heart
- (4) Through the jugular notch

118. Winging of scapula is caused by

- (1) Paralysis of Rhomboid major muscle
- (2) Injury to long thoracic nerve
- (3) Paralysis of latissimus dorsi muscle
- (4) Injury to rotator cuff



119. Injury to which spinal segments would result in loss of biceps tendon reflex ?

- (1) C₅, C₆
- (2) C₆, C₇, C₈
- (3) C₇, C₈
- (4) C₈, T₁

120. In an adult, avascular necrosis of the head of femur is a likely consequence of

- (1) Intertrochanteric fracture
- (2) Obstruction of obturator artery
- (3) Posterior dislocation of the head of femur resulting in tearing of ligamentum teres
- (4) Sub-capital fracture of femur

121. Two elderly patients were diagnosed to be suffering from pleurisy. One was found to have left lateral thoracic pain, whereas the other complained of pain on the left neck and left shoulder. The difference in this presentation can be explained by differing innervation of pleura by

- (1) Cervical splanchnic and thoracic splanchnic
- (2) Intercostal and phrenic
- (3) Parasympathetic and sympathetic
- (4) Phrenic and Vagus

122. In early appendicitis, the dermatome to which the pain is referred to is

- (1) T₁₀
- (2) T₁₁
- (3) L₃
- (4) L₄

123. A postero-lateral episiotomy cuts through

- (1) Bulbospongiosus
- (2) Ischiocavernosus
- (3) Perineal body
- (4) Pubovaginalis

124. Following statement is true about diaphragm of thoraco-abdominal cavity, except :

- (1) Diaphragm is a muscle of inspiration
- (2) Its contraction raises the intra abdominal pressure
- (3) Its contraction decreases venous return
- (4) Its contraction decrease intra thoracic pressure

125. All of the following is true about CSF, except :

- (1) CSF supports and cushions the brain and spinal cord against concussive injury.
- (2) It removes metabolic waste products.
- (3) It helps in diagnosis of meningitis.
- (4) Its protein content is very high compared to plasma protein.

126. Viewed from the back, the medial edge of the pleura may be surface marked along a line joining the transverse process of the following vertebrae :
- (1) C₇ - T₈
 - (2) T₁ - T₁₀
 - (3) T₂ - T₁₂
 - (4) T₄ - L₂
127. Anterior border of parotid gland is represented by
- (1) Line descending from mandibular condyle to middle of masseter, 2 cm below and behind angle of mandible.
 - (2) Line from lower part of masseter to angle of mandible.
 - (3) Line from lower border of tragus to 2 cm below the angle of mandible.
 - (4) None
128. Which one out of the following is felt against styloid process of radius ?
- (1) Radial pulse
 - (2) Brachial pulse
 - (3) Ulnar pulse
 - (4) Posterior Interosseous pulse
129. What does a line drawn 4 cm long just below the level of 4th right costal cartilage, passing down and slightly to right depicts ?
- (1) Tricuspid valve
 - (2) Aortic valve
 - (3) Pulmonary orifice
 - (4) Mitral orifice

130. Lumber triangle lies between
- (1) Lowermost outer border of latissimus dorsi, posterior free border of external oblique and iliac crest
 - (2) Lowermost outer border of Latissimus dorsi, inter oblique muscle and iliac crest
 - (3) Upper border of latissimus dorsi, post free border of external oblique and iliac crest
 - (4) Upper border of latissimus dorsi, internal oblique and iliac crest
131. Which of the following provide images similar to transverse sections of the body parts ?
- (1) Skiagram
 - (2) CT Scan
 - (3) Sonography
 - (4) All of these
132. For cross-sectional study of body following is true, except :
- (1) CT scan can be used in pregnant lady
 - (2) MRI can be used in patient with cardiac pacemakers
 - (3) For CT scan X-rays required
 - (4) MRI is cheaper than the CT scan

133. The exception to Mendel's law of segregation is

- (1) Co-dominance
- (2) Genetic linkage
- (3) Intermediate inheritance
- (4) Non-disjunction

134. The number of functional gametes produced from a single primary oocyte is

- (1) One
- (2) Two
- (3) Four
- (4) Sixteen

135. The unusual long phase in meiosis in female is

- (1) Prophase I
- (2) Anaphase I
- (3) Metaphase II
- (4) Telophase II

136. Which of the following cell type can be used for Karyotyping ?

- (1) Neurons
- (2) Erythrocytes
- (3) Buccal mucosal cells
- (4) Fibroblasts

137. The Trisomy syndrome that is associated with Koche's bottom feet is

- (1) Klinefelter
- (2) Patau
- (3) Edward
- (4) Down

138. The Barr-body seen in a

- (1) Turner syndrome
- (2) Klinefelter syndrome
- (3) Testicular feminisation
- (4) Karyotype 46 XY

139. Mutation is defined as alteration in

- (1) DNA sequence
- (2) mRNA formation
- (3) Amino acids of polypeptides
- (4) Cell wall receptors

140. The type of inheritance where an affected father transmits the disease to half of his children is

- (1) Autosomal dominant
- (2) X linked recessive
- (3) Mitochondrial
- (4) X linked dominant

141. If a disease, caused by environmental condition, mimics a genetic disorder, it is called as

- (1) Association
- (2) Genocopy
- (3) Phenocopy
- (4) Heterogeneity



142. Gene bank characterised by all of the following, except :

- (1) Collection of artificial recombined DNA molecules.
- (2) Collection of artificial recombined RNA molecules.
- (3) Useful in maintaining the species that are on the verge of being extinct.
- (4) Incorporated into bacterial plasmids.

143. Following statements are true about plastination, except :

- (1) It is a process to preserve the perishable biological tissue for long time.
- (2) Technique was invented by Gunther Von Hagens.
- (3) In modified short protocol plastination done by using epoxy resin.
- (4) Plastinated tissue cannot be stored at room temperature.

144. Most commonly used contrast medium in Radiography is

- (1) Barium sulphate
- (2) Iodine
- (3) Technetium
- (4) Lead (Pb)

145. All statements are true about Magnetic Resonance Angiography (MRA), except :

- (1) No exposure to X-ray.
- (2) Its a short process than the traditional angiography.
- (3) There is need to introduce catheter for the procedure.
- (4) Procedure can be carried out without using contrast material.

146. In an intravenous pyelogram, a stone is suspected at the pelviurethral junction. It is likely to be visible near the transverse process of the following vertebrae :

- (1) T₁₀
- (2) T₁₂
- (3) L₂
- (4) L₅

147. Which artery was used by William Hunter during embalming for injecting chemical solution ?

- (1) Femoral artery
- (2) Carotid artery
- (3) Popliteal artery
- (4) Axillary artery

148. All of the following criteria are considered for rejection of body in body donation process, except :

- (1) Body of medico legal case
- (2) No consent of family / blood relatives
- (3) Extreme obese
- (4) Body with removed organ (Epeer)

149. First Manual on Anatomy was written in

- (1) Egypt about 3400 BC
- (2) Greek Era 450 BC
- (3) Modern Era 15th to 16th century
- (4) None of these

150. The term Histology was coined by

- (1) Mayer (1819)
- (2) Bichat (1771-1802)
- (3) Marcello Malpighi (1628)
- (4) Robert Hooke (1635)

151. Which of the following is the thickest intervertebral disc ?

- (1) Disc between C₅ and C₆
- (2) Disc between T₁₂ and L₁
- (3) Disc between L₅ and S₁
- (4) Disc between S₁ and S₂

152. Isometric muscle contraction is defined as

- (1) length of muscle changes but tension does not increase
- (2) length of muscle changes and tension increases
- (3) length of muscle remain constant but tension increases
- (4) length and tension of muscle both remain constant

153. Which of the following is NOT an end artery ?

- (1) Central artery of Retina
- (2) Facial artery
- (3) Medullary branches of cerebral artery
- (4) Arteries of spleen

154. Father of modern anatomy

- (1) Vesalius
- (2) William Harvey
- (3) John Hunter
- (4) Malpighi

155. A trend towards simplification of anatomical nomenclature began ?

- (1) In 17th century
- (2) In 18th century
- (3) In 19th century
- (4) In 20th century

156. The term anatomy is derived from the Greek word anatome whose meaning is

- (1) to analyse
- (2) to cut up
- (3) to observe death
- (4) to cut anus



157. What is true about Hippocrates ?

- (1) He was a famous Greek Physician.
- (2) He had wide exposure to human dissection.
- (3) He had attributed disease to natural cause.
- (4) He is regarded as father of medicine.

158. All are true regarding thymus, except :

- (1) it is located in superior mediastinum
- (2) secretes thymosin
- (3) filters blood to remove blood borne antigens
- (4) receives immunologically incompetent cells from bone marrow

159. The right sequence of reflex arc is

- (1) sensory receptor – afferent neuron – association neuron – efferent neuron – effector organ
- (2) sensory receptor – association neuron – afferent neuron – efferent neuron – effector organ
- (3) effector organ – efferent neuron – association neuron – afferent neuron – sensory receptor
- (4) afferent neuron – sensory receptor – association neuron – efferent neuron – effector organ

160. The spinal nerve which is not associated with its specific dermatome

- (1) C₁
- (2) C₇
- (3) C₈
- (4) T₁

161. Strongest ligament of body is

- (1) Round ligament
- (2) Iliofemoral ligament
- (3) Ischiofemoral ligament
- (4) Pubofemoral ligament

162. Segmental innervation of hip joint is

- (1) L₁, L₂, L₃, L₄
- (2) L₂, L₃, L₄, L₅
- (3) L₃, L₄, L₅, S₁
- (4) L₄, L₅, S₁, S₂

163. Circumduction is defined as combination of

- (1) flexion, extension, abduction and adduction
- (2) abduction, adduction, extension and flexion
- (3) extension, flexion, adduction and abduction
- (4) flexion, extension, adduction and abduction

164. Largest carpal bone is

- (1) Scaphoid
- (2) Capitate
- (3) Hamate
- (4) Pisiform

165. Distal end of humerus develops from how many centres ?

- (1) 1
- (2) 2
- (3) 3
- (4) 4

166. Most common site of clavicle fracture

- (1) between medial 1/3rd and lateral 2/3rd
- (2) medial end
- (3) lateral end
- (4) between medial 2/3rd and lateral 1/3rd

167. Upper border of pubic ramus forms

- (1) pubic tubercle
- (2) pubic symphysis
- (3) arcuate line
- (4) upper margin of obturator foramen

168. Which one of the ligament supports talus ?

- (1) Spring ligament
- (2) Deltoid ligament
- (3) Lateral calcaneum ligament
- (4) Cervical ligament

169. Nutrient artery to femur is a branch from

- (1) femoral artery
- (2) profunda femoral artery
- (3) lateral circumflex femoral artery
- (4) popliteal artery

170. Which among the following is the longest Rib ?

- (1) 7th Rib
- (2) 9th Rib
- (3) 1th Rib
- (4) 12th Rib

171. Xiphoid process lies at the level of

- (1) T₉ vertebrae
- (2) T₇ vertebrae
- (3) T₅ vertebrae
- (4) T₃ vertebrae

172. Metopic suture closes at the age of

- (1) 6 months
- (2) 3 years
- (3) 6 years
- (4) 60 years



173. Reid's line extends from

- (1) Infraorbital margin to superior margin of external acoustic meatus
- (2) Infraorbital margin to centre of external acoustic meatus
- (3) Infraorbital margin to inferior margin of external acoustic meatus
- (4) Supraorbital margin to inferior margin of external acoustic meatus

174. Coracobrachialis is pierced by the following nerve :

- (1) Axillary nerve
- (2) Median nerve
- (3) Musculo-cutaneous nerve
- (4) Ulnar nerve

175. Muscle acting both on knee and ankle joint is

- (1) Soleus
- (2) Plantaris
- (3) Tibialis posterior
- (4) Flexor hallucis longus

176. Femoral ring is bounded by the following structures, except :

- (1) Femoral vein
- (2) Inguinal ligament
- (3) Femoral artery
- (4) Lacunar ligament

177. Muscle which is not pierced while pleural tapping in mid axillary line

- (1) Internal intercostal
- (2) External intercostal
- (3) Innermost intercostal
- (4) Transverses thoracic

178. Pyramidalis muscle is supplied by

- (1) Subcostal nerve
- (2) Ilioinguinal nerve
- (3) Iliohypogastric nerve
- (4) Genitofemoral nerve

179. Which of the following muscle depresses the mandible ?

- (1) Medial pterygoid
- (2) Lateral pterygoid
- (3) Masseter
- (4) Temporalis

180. Which of the following muscle of palate is not supplied by the cranial part of the accessory nerve fibres ?

- (1) Tensor veli palatini
- (2) Palatopharyngeus
- (3) Palatoglossus
- (4) Musculus uvulae

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