



**CENTRAL  
UNIVERSITY**

**SCHOOL OF ARCHITECTURE AND SCIENCE  
DEPARTMENT OF NURSING**

**END OF FIRST SEMESTER EXAMINATION, 2018**

**NSNG 101: ANATOMY 1**

**LEVEL 100**

**DURATION: 1 HOUR 30 MINUTES**

**Index no.....**

**INSTRUCTIONS:**

**ANSWER ALL QUESTIONS ON THE QUESTION PAPER.**

**DO NOT TURN OVER THIS PAGE UNTIL YOU HAVE BEEN TOLD  
TO DO SO BY THE INVIGILATOR**

**CU-SAS-DEPARTMENT OF NURSING  
END OF FIRST SEMESTER 2017/18 EXAMINATION  
NSNG 101 (ANATOMY I)**

**TIME: 1 HR. 30 MINS**

**INDEX NUMBER: ..... DATE: .....**

**ANSWER ALL QUESTIONS ON THE QUESTION PAPER.**

**SECTION A: Circle the most appropriate answer from the options (a, b, c and d) given (1 Mark each).**

1. **Cilia are structured to .....**
  - a) increase surface area for absorption.
  - b) interlock with cell membranes of cells.
  - c) move particles over cell surface.
  - d) protect the cell.
  
2. **Centrosome contains .....**
  - a) centrioles.
  - b) chromosomes.
  - c) proteasomes.
  - d) ribosomes.
  
3. **Mitochondria are .....**
  - a) cigar or sausage shaped.
  - b) filamentous.
  - c) flattened membranes.
  - d) star-shaped.
  
4. **Acrosome is an organelle in a/an .....**
  - a) sperm.
  - b) egg.
  - c) nucleus.
  - d) nucleolus.
  
5. **Proteasomes are organelles for .....**
  - a) breakdown of proteins.
  - b) neutralization of toxic compounds.
  - c) removal of damaged organelles or of pathogens.
  - d) synthesis of proteins.
  
6. **Which of the following statements is not part of the cell theory?**
  - a) All organisms are composed of cells or cell fragments.
  - b) All cells have nuclei which are controlling centers
  - c) Cells are the basic units of structure and function.
  - d) All cells are produced from other cells

7. Cell membranes are composed of .....
- a) basement membranes.
  - b) cytoplasm.
  - c) cytoskeleton.
  - d) two layers.
8. Microvilli are structured to .....
- a) increase surface area for absorption.
  - b) interlock with cell membranes of cells.
  - c) move particles over cell surface.
  - d) protect the cell.
9. A cell with abundant peroxisomes would most likely be involved in .....
- a) ATP manufacture.
  - b) detoxification activities.
  - c) movement
  - d) secretion.
10. Where in the body do gap junctions occur?
- a) Heart
  - b) Intestines
  - c) Skin
  - d) None of the above
11. Desmosomes are ..... junctions.
- a) anchoring
  - b) basement
  - c) communicating
  - d) impermeable
12. Tight junctions are ..... junctions.
- a) anchoring
  - b) basement
  - c) communicating
  - d) impermeable
13. Mitochondrion in a cell is involved in .....
- a) ATP manufacture.
  - b) detoxification activities.
  - c) cell movement
  - d) secretion.

14. Nucleolus is the assembly site of .....

- a) Acrosomes
- b) Lysosomes
- c) Peroxisomes
- d) Ribosomes

15. Cristae are folds found in the .....

- a) cell membrane.
- b) Golgi apparatus.
- c) mitochondrion.
- d) nucleus.

16. Lysosomes are organelles for the .....

- a) breakdown of proteins.
- b) neutralization of toxic compounds.
- c) removal of damaged organelles or of pathogens.
- d) synthesis of proteins.

17. Ribosomes are organelles for the .....

- a) breakdown of proteins.
- b) neutralization of toxic compounds.
- c) removal of damaged organelles or of pathogens.
- d) synthesis of proteins.

18. Ribosomes are found in or on .....

- a) cell membrane.
- b) cytoplasm.
- c) Golgi apparatus.
- d) smooth endoplasmic reticulum.

19. Which of the following parts of the plasma membrane is hydrophobic?

- a) Non-polar tails of phospholipid molecules
- b) Polar heads of phospholipid molecules
- c) Membrane(Protein) channels
- d) None of the above

20. Where in the body do microvilli occur?

- a) Fallopian tube
- b) Intestines
- c) Liver
- d) Skin

21. Where in the body do cilia occur?

- a) Fallopian tube
- b) Intestines
- c) Liver
- d) Skin

22. In the anatomical position, the heart is ..... to the ribs.
- a) deep
  - b) inferior
  - c) superior
  - d) superficial
23. Which of the planes or sections divides a structure, an organ or the body into superior and inferior parts?
- a) frontal
  - b) median
  - c) sagittal
  - d) transverse
24. Which of the following structures is not in the abdominal cavity?
- a) Bladder
  - b) Kidney
  - c) Liver
  - d) Stomach
25. A cut along a lengthwise plane that divides the body into left and right unequal parts is a ..... section.
- a) Frontal
  - b) Mid-sagittal
  - c) Sagittal
  - d) Transverse
26. In the anatomical position, the elbow is ..... to the wrist.
- a) distal
  - b) lateral
  - c) medial
  - d) proximal
27. Which of the following is superior in location to the trachea?
- a) Bronchioles.
  - b) Bronchus.
  - c) Larynx.
  - d) Lung.
28. In the anatomical position, the nose is ..... to the mouth.
- a) anterior
  - b) inferior
  - c) posterior
  - d) superior

29. The ventral cavity is sub-divided into .....cavities.
- a) pelvic and abdominal
  - b) thoracic and cranial
  - c) thoracic and abdominopelvic
  - d) cranial and spinal
30. The dorsal cavity is sub-divided into .....
- a) pelvic and abdominal
  - b) thoracic and cranial
  - c) thoracic and abdominopelvic
  - d) cranial and spinal
31. Which of the following statements is untrue?
- a) The conchae produce mucus.
  - b) The conchae increase the surface area of mucosa.
  - c) The conchae increase air turbulence in the nasal cavity.
  - d) None of the above.
32. Which of the following two are tonsils?
- a) pharyngeal and lingual
  - b) palatine and sublingual
  - c) parotid and lingual
  - d) none of the above.
33. The pharyngo-tympanic tube opens into the.....
- a) laryngopharynx
  - b) nasal cavity
  - c) nasopharynx
  - d) oropharynx
34. In the nasal cavity, the epithelial tissue cells have ..... on their surfaces.
- a) cilia
  - b) hairs
  - c) microvilli
  - d) none of the above
35. The structure that divides the oral cavity from the nasal cavities is called .....
- a) conchae.
  - b) palate.
  - c) septum.
  - d) sinus.
36. The structure that divides the two nasal cavities is .....
- a) concha.
  - b) palate.
  - c) septum.
  - d) sinus.

37. The vocal cords in the respiratory system occur in the .....
- a) Bronchus.
  - b) Larynx.
  - c) Laryngopharynx.
  - d) Trachea.
38. The ..... protects the superior portion of the larynx.
- a) Epiglottis
  - b) Glottis
  - c) Tonsil
  - d) Thyroid cartilage.
39. How many lobes does the left lung have?
- a) Two.
  - b) Three.
  - c) Four.
  - d) Five.
40. The oropharynx is inferior in location to the .....
- a) Larynx
  - b) Laryngopharynx
  - c) Nasopharynx
  - d) trachea
41. The Adam's apple forms part of .....
- a) bronchus.
  - b) larynx.
  - c) pharynx.
  - d) trachea.
42. The wall of the.....is reinforced with C-shaped cartilage rings.
- a) Bronchus
  - b) Larynx
  - c) Pharynx
  - d) Trachea
43. Trachea is lined with mucosa having ..... on it.
- a) cilia
  - b) flagella
  - c) hairs
  - d) microvilli

44. When you exhale, air flows through respiratory structures in which sequence?
- Alveolus, bronchiole, bronchus, larynx, pharynx, and nasal cavity.
  - Alveolus, trachea, bronchus, bronchiole, larynx, pharynx, and nasal cavity.
  - Alveolus, bronchus, bronchiole, trachea, larynx, pharynx, and nasal cavity.
  - Alveolus, bronchiole, bronchus, trachea, larynx, pharynx, and nasal cavity.
45. Sinuses in the respiratory system .....
- enhance speech.
  - increase surface area in the nasal cavity.
  - keep nasal cavity open.
  - warm inhaled air.
46. Each alveolus in the lung consists of a single layer of .....cells
- columnar
  - cuboidal
  - squamous
  - transitional
47. The three pairs of salivary glands of the digestive system are:
- parotid, sub-mandibular, sublingual.
  - pharyngeal, parotid, sublingual.
  - sub-lingual, parotid, and pituitary.
  - sub-mandibular, pharyngeal, and palatine.
48. The three major subdivisions of the small intestine are:
- cecum, duodenum, and ileum.
  - cecum, jejunum, and duodenum.
  - jejunum, duodenum and colon.
  - ileum, jejunum, and duodenum.
49. The three major subdivisions of the large intestine are:
- cecum, colon, and rectum
  - duodenum, colon, and rectum.
  - ileum, cecum, and rectum.
  - jejunum, colon, and rectum.
50. The pyloric sphincter is between the .....
- esophagus and the stomach.
  - small intestine and the large intestine.
  - rectum and the anus.
  - stomach and the duodenum



51. The accessory structures of the digestive system include the following:
- a) Cecum, salivary glands, kidneys, and pancreas.
  - b) Liver, teeth, pancreas, and salivary glands.
  - c) Pancreas, liver, cecum, and salivary glands.
  - d) Salivary glands, kidneys, liver, and cecum.
52. Blood vessels have three main layers. They are.....
- a) tunica mucosa, tunica media, and tunica externa.
  - b) tunica media, tunica intima, and tunica submucosa.
  - c) tunica externa, tunica intima, and tunica mucosa.
  - d) tunica intima, tunica media, and tunica externa.
53. The most external layer of the pericardium is the .....
- a) fibrous pericardium.
  - b) visceral layer of serous pericardium.
  - c) pericardial cavity.
  - d) parietal layer of serous pericardium.
54. All veins above the diaphragm drain into the .....
- a) brachiocephalic trunk
  - b) inferior vena cava
  - c) pulmonary veins
  - d) superior vena cava
55. The left atrium receives blood from the.....
- a) aorta.
  - b) pulmonary artery.
  - c) pulmonary vein.
  - d) vena cavae.
56. The right ventricle pumps blood into the.....
- a) aorta.
  - b) pulmonary trunk.
  - c) pulmonary vein.
  - d) vena cavae.
57. Which of the following blood vessels has a semi-lunar valve?
- a) coronary artery.
  - b) pulmonary trunk.
  - c) pulmonary vein.
  - d) vena cava.

58. The right atrio-ventricular valve consists of..... cusps or leaflets.
- a) two
  - b) three
  - c) four
  - d) five
59. The three main arteries that branch off from the top of the aortic arch are:
- a) Brachiocephalic trunk, left common carotid artery, and left subclavian artery.
  - b) Left common carotid artery, coronary artery, and left subclavian artery.
  - c) Left subclavian artery, abdominal aorta, and brachiocephalic trunk.
  - d) Right subclavian artery, brachiocephalic trunk, and right subclavian artery.
60. The phrenic arteries are branches of the .....
- a) abdominal aorta.
  - b) ascending aorta.
  - c) common iliac artery.
  - d) thoracic aorta.
61. Which of the following blood vessels carry oxygen-rich blood?
- a) Cardiac veins
  - b) Inferior vena cava
  - c) Pulmonary veins
  - d) Superior vena cava
62. Which of the following vessels carry oxygen-poor blood?
- a) aorta
  - b) coronary artery
  - c) umbilical artery
  - d) pulmonary vein
63. Arterial blood supply to the brain is by the .....
- a) external carotid artery, and vertebral artery.
  - b) internal carotid artery, and external carotid artery.
  - c) internal carotid artery, and vertebral artery.
  - d) subclavian artery, and external carotid artery.
64. The umbilical cord contains blood vessels. The vessels are:
- a) 1 artery and 1 vein.
  - b) 2 arteries and 2 veins.
  - c) 1 vein and 2 arteries
  - d) 2 veins and 1 artery.

65. In fetal circulation, ..... allows blood to flow from the right atrium to left atrium.

- a) ductus arteriosus
- b) foramen ovale
- c) fossa ovalis
- d) ligamentum arteriosum

66. In fetal circulation, ..... allows blood to flow from the pulmonary artery to the aorta.

- a) ductus arteriosus
- b) foramen ovale
- c) fossa ovalis
- d) ligamentum arteriosum

67. Circle of Willis (Circulus arteriosus) occurs in the .....

- a) abdominal cavity.
- b) cranial cavity.
- c) pelvic cavity.
- d) thoracic cavity.

68. The greater omentum occurs in the .....

- a) abdominal cavity.
- b) cranial cavity.
- c) pelvic cavity.
- d) thoracic cavity.

69. Which of the following structures is not in the mediastinum:

- a) esophagus
- b) heart
- c) lung
- d) trachea

70. Chordae tendineae occur in the .....

- a) nose .
- b) heart.
- c) intestine
- d) larynx.

**SECTION B: Answer the following questions in the spaces provided(2 marks each):**

1. Name the arteries that supply the lung tissues with oxygen-rich blood.

Answer: .....

2. What is renal calculus?

Answer: .....  
.....  
.....

3. Which of the two main bronchi is the most likely site for an inhaled object to become lodged? Explain why.

Answer: .....  
.....  
.....  
.....  
.....

4. Name the four structures that make up the respiratory zone.

Answer: .....  
.....  
.....

5. The stomach wall consists of four main layers. Name them starting from the innermost to the outermost layers.

Answer: .....  
.....  
.....  
.....

6. What is visceral peritoneum?

Answer: .....  
.....  
.....  
.....

7. What is tongue-tie?

Answer: .....  
.....  
.....  
.....  
.....

8. What are varicose veins?

Answer: .....  
.....  
.....  
.....  
.....

9. Which vein in the arm is often chosen as the site for drawing blood for the purpose of blood testing?

Answer: .....  
.....

10. Name the artery posterior to the knee where pulse can be palpated.

Answer: .....  
.....

Examiner: James Samman