



**CENTRAL
UNIVERSITY**
FAITH • INTEGRITY • EXCELLENCE

END OF FIRST SEMESTER EXAMINATION: 2017/2018

DEPARTMENT OF NURSING

NSNG 103: PHYSIOLOGY 1

LEVEL 100

DURATION: 1½ HOURS

STUDENT ID No.....

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BP 90/140 60/90

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**CENTRAL UNIVERSITY SCHOOL OF ARCHITECTURE AND SCIENCE
DEPARTMENT OF NURSING STUDIES
END OF FIRST SEMESTER EXAMINATIONS 2017/2018**

**COURSE CODE: NSNG 103
DURATION: 1 HR 30 MINS**

**COURSE TITLE: PHYSIOLOGY 1
LEVEL: 100
JANUARY 2018**

Candidate's Index Number:.....

**Answer ALL questions by selecting the *most appropriate answers* to the respective questions/statements on the question paper. Encircle only the alphabet of correct answer
Write your ID number on each question sheet attached**

- 1. Two media fluid for transportation and exchange of substances in the body are**
 - A. blood and lymph
 - B. blood and intercellular fluid
 - C. blood and plasma
 - D. blood and water

- 2. The AB blood group person is also called**
 - A. Negative recipient
 - B. Universal donor
 - C. Universal recipient
 - D. Zero donor

- 3. Type O blood group has antibodies**
 - A. A
 - B. A and B
 - C. B
 - D. None of the antibodies

- 4. A person with type 'A' blood can receive blood transfusion from another person with type**
 - A. A blood only
 - B. A blood or AB blood
 - C. A blood or B blood
 - D. A blood or O blood

- 5. Type AB blood group has antigens**
 - A. A
 - B. A and B
 - C. B
 - D. No antigens

6. **Oxygenated blood from the lungs enters the heart by the**
- A. Left Atrium
 - B. Left Ventricle
 - C. Right Atrium
 - D. Right Ventricle
7. **The instrument for measuring blood pressure is called**
- A. Sphymomanometer
 - B. Sphygmomanometer
 - C. Syphgmomanometer
 - D. Sygphmomanometer
8. **Measurement of Blood Pressure (BP) is expressed in a standard unit as**
- A. mm BP
 - B. ml Hb
 - C. mm Hg
 - D. ml Hg
9. **The lowest arterial pressure is also called**
- A. Diastolic pressure
 - B. Distended pressure
 - C. Systolic pressure
 - D. Systemic pressure
10. **Systolic pressure results from contraction of the**
- A. Atria
 - B. Valves
 - C. Veins
 - D. Ventricles
11. **When the atria contract blood flows into**
- A. Arteries.
 - B. Attached blood vessels
 - C. Lungs
 - D. Ventricles
12. **Which part of the heart is the Purkinje fibers located?**
- A. At the entrance of the heart
 - B. In the walls of the ventricles
 - C. In the walls of the atria
 - D. In the right atrium

13. **When the Ventricles contract blood flows into**
- A. Atria
 - B. Atrio-ventricular valve
 - C. Lymphatic vessels
 - D. The attached blood vessels
14. **Which of the following is true of the cardiovascular system?**
- A. Arteries carry O₂-rich blood and Veins carry O₂-poor blood
 - B. Arteries carry blood to the heart and Veins carry blood from the heart
 - C. Arteries carry O₂-poor blood and Veins carry O₂-rich blood
 - D. Arteries carry blood away from the heart and Veins carry blood to the heart
15. **An artificial pacemaker performs the same functional effect as the**
- A. Atrial diastole
 - B. Atrioventricular (AV) node
 - C. Sinoatrial (SA) node
 - D. Ventricular systole
16. **An Electrocardiogram (ECG) measures**
- A. Chemical activity of the heart
 - B. Chemical signals in the heart
 - C. Electrical activity in the heart
 - D. Electrical changes in the walls of the heart
17. **Which of the following describes the correct order of steps involved in the cardiac cycle?**
- A. Atrial contraction, relax of atria and ventricles/relax, Ventricular contraction
 - B. Atrial contraction, ventricular contraction, relax of atria and ventricles/relax
 - C. Ventricular contraction, atrial contraction, relax
 - D. Ventricular contraction, relax, atrial contraction
18. **Which pairing is NOT correct?**
- A. Erythrocytes→blood clotting
 - B. Thrombocytes→blood clotting
 - C. Red blood cells→hemoglobin
 - D. White blood cells→fighting foreign microbes
19. **The average heart beat of a normal person is about.....beats per minute**
- A. 45
 - B. 50
 - C. 70
 - D. 100

20. A decrease in lymphocytes could result in challenges associated with
- A. Carbon dioxide transportation
 - B. Clotting
 - C. Oxygen transportation
 - D. Immunity
21. One of the following is NOT a function of the lymphatic system
- A. defends of the body against pathogens
 - B. returns excess fluid to the blood
 - C. produces red blood cells.
 - D. transports lipids absorbed from the digestive system
22. Melanin is derived from an amino acid called
- A. Alaline
 - B. Malaline
 - C. Glycine
 - D. Tyrosine
23. All but one is NOT a dead cell
- A. Stratum corneum ✓
 - B. Germinative layer ✓
 - C. Stratum granulosum ✓
 - D. Stratum lucidum
24. A fibrous protein substance that largely constitute the outermost epidermal layer of the skin is called
- A. Carotene
 - B. Chromatin
 - C. Fibrin
 - D. Keratin
25. The sebaceous gland in the dermis of the skin secretes an oily substance called
- A. Serum
 - B. Sebum
 - C. Sebrum
 - D. Selum
26. Special cells in the epidermis of the skin responsible for skin pigmentation are the
- A. Melocytes
 - B. Milocytes
 - C. Melanocytes
 - D. Melinocytes

27. The germinative layer of the skin occurs in the deepest part of the
- A. Dermis
 - B. Epidermis
 - C. Both Dermis and Epidermis
 - D. Hypodermis
28. The dermal papillae that forms a unique pattern of designs in an individual's palm is known as the
- A. Hypodermis
 - B. Dermalprints
 - C. Fingerprint
 - D. Epidermis
29. The functional units of the lungs are the
- A. alveoli
 - B. bronchi
 - C. bronchioles
 - D. larynx
30. Most Carbon dioxide is dissolved in the blood in the form of
- A. bicarbonate ion
 - B. carbon ion
 - C. carbon monoxide
 - D. hemoglobin ion
31. Carbon dioxide and Oxygen are
- A. both given off by mitochondria
 - B. not present in the lungs and tissues
 - C. both carried by hemoglobin
 - D. present only in veins and arteries respectively
32. A cartilaginous substance is absent in the
- A. bronchus
 - B. bronchioles
 - C. larynx
 - D. trachea
33. A flap of cartilaginous tissue that prevents food from entering the trachea is called
- A. adam's apple
 - B. epiglottis
 - C. glottis
 - D. voice box

34. Internal respiration may be expressed as

- A. cellular respiration resulting in ATP production.
- B. gaseous exchange between alveolar air and blood in the lungs.
- C. gaseous exchange between blood and tissue fluid
- D. the movement of air into lungs

35. Deoxygenated blood normally enters the heart by the

- A. right ventricle
- B. left atrium
- C. left ventricle
- D. right atrium

36. During cellular respiration, the following pair of products are oxidized and reduced respectively

- A. glucose and Water
- B. oxygen and Water
- C. glucose and Oxygen
- D. oxygen and Carbon dioxide

37. The products of cellular respiration are energy and

- A. oxygen
- B. water and carbon dioxide
- C. water
- D. oxygen and water

38. Infection of one of the two structural branches just below the trachea is called

- A. laryngitis
- B. tonsillitis
- C. stomutitis
- D. bronchitis

39. This lymphatic tissue is associated with the respiratory system

- A. appendix
- B. red bone marrow
- C. spleen
- D. tonsil

40. A muscular tissue separating the abdominal cavity from the thoracic cavity is the

- A. omentum
- B. inter-costal muscles
- C. diaphragm
- D. thoracic membrane

41. A Carbohydrate that *cannot* be digested in the digestive system of man is
- A. Starch
 - B. Cellulose
 - C. Sucrose
 - D. Sugar
42. Bacterial action on indigestible materials normally causes the.... of feces and accounts for the presence of...in the large intestine.
- A. color and water
 - B. gas and water
 - C. color and gas
 - D. texture and gas
43. A breakdown product of bilirubin and the presence of oxidized....cause the brown color of feces.
- A. carbon
 - B. iron
 - C. iodine
 - D. water
44. One of the following is NOT a digestive enzyme.
- A. Isomerase ✓
 - B. Lipase
 - C. Nuclease
 - D. Trypsin
45. The energy released from metabolic activity of food is usually measured in
- A. grams
 - B. kilocalories
 - C. kilograms
 - D. pound
46. Digestion of carbohydrates usually starts in the
- A. duodenum
 - B. large intestine
 - C. mouth
 - D. stomach
47. Food substances move through the alimentary canal by process of
- A. active transport
 - B. diffusion
 - C. osmosis
 - D. peristalsis

48. **Two endocrine hormones that influence digestive process are**
- A. adrenalin and ptyalin
 - B. gastrin and gastric juice
 - C. gastrin and secretin
 - D. secretin and pepsin
49. **Sodium bicarbonate (NaHCO_3) and Hydrochloric acid (HCl) are respectively discharged by the**
- A. large intestine and stomach
 - B. pancreas and stomach
 - C. small intestine and stomach
 - D. stomach and liver
50. **Secretin and Cholecystikin (CCK) are hormones that influence digestive secretions of**
- A. stomach and duodenum
 - B. gallbladder and duodenum
 - C. gallbladder and pancreas
 - D. pancreas and duodenum
51. **Place the following blood vessels in order, from largest diameter to the smallest.**
- A. Arterioles→capillaries→arteries
 - B. Arterioles→arteries→capillaries
 - C. Arteries→capillaries→arterioles
 - D. Arteries→arterioles→capillaries
52. **Erythrocytes also known as the red blood cells**
- A. continually synthesize hemoglobin
 - B. reproduce themselves by mitosis
 - C. are destroyed in the liver and spleen
 - D. more than one of the above options correct
53. **Which of the following assist in the return of venous blood to the heart?**
- A. Skeletal muscle contraction
 - B. Respiratory movement
 - C. Valve
 - D. All the above options correct
54. **The best explanation for the slow movement of blood in capillaries is that**
- A. there are many more capillaries than arterioles
 - B. capillaries have much more thinner walls than arteries
 - C. venules are not prepared to receive so much blood from the capillaries
 - D. skeletal muscle press on veins not capillaries

55. In the tissues, nutrients and.....are exchanged for....and other waste.

- A. blood, oxygen
- B. carbon dioxide, blood
- C. oxygen, carbon dioxide
- D. hemoglobin, tissue fluid

56. Food and air both travel through the

- A. larynx :
- B. lungs
- C. pharynx ~
- D. trachea

57. The large intestine

- A. is the longest part of the digestive tract
- B. digests all types of food
- C. is connected to the stomach
- D. absorbs water

58. Which of the following could be absorbed easily without being digested?

- A. Sugar
- B. Glucose
- C. Proteins
- D. Maltose

59. Why can a person NOT swallow food and talk at the same time?

- A. The brain cannot control two activities simultaneously
- B. Swallowing is a reflex initiated when the mouth is closed
- C. In order to swallow, the epiglottis must close off the trachea
- D. All the above mentioned options

60. Most of the digested food products are absorbed by

- A. villi of the small intestine
- B. convoluted walls of the stomach
- C. squamous epithelium of the esophagus
- D. smooth walls of the large intestine