DF-3036
Second Year B. Sc. (Sem. III) Examination
March/April – 2016
Medical Technology : MT - 06
(Human Anatomy & Physiology - I)

Time : 2 Hours] [Total Marks : 50

Instructions :

(1) Fill up strictly the details of signs on your answer book.

(2) This exam contains 50 multiple choice questions, each worth 1 mark.

(3) Choose only ONE most appropriate answer per question.

(4) Do not crease or fold the answer sheet.

O.M.R. Sheet भन्ले अनेकै अनेकै सूचनाले आफ्नो A मष्टि लाई भनेको छ।

Important instructions to fillup O.M.R. Sheet is given on back side of the provided O.M.R. Sheet.
1 A brush border is formed in:
   (A) Distilled convoluted tubule
   (B) Proximal convoluted tubule
   (C) Medullary loop
   (D) None of these

2 Which cells of stomach secrete intrinsic factor?
   (A) Parietal cells
   (B) Chief cells
   (C) G-cells
   (D) Mucous neck cells

3 The chemical causing the transmission of nerve impulse across synapses is:
   (A) Acetic acid
   (B) Cholinesterase
   (C) Choline
   (D) Acetylcholine

4 Which joints permit the movement to signify 'yes'?
   (A) Atlanto-axial joint
   (B) Atlanto-occipital joint
   (C) Vertebrocostal joint
   (D) Sacroiliac joint

5 Bile secreted by the liver passes into the gall bladder through:
   (A) Hepatopancreatic duct
   (B) Cystic duct
   (C) Hepatic duct
   (D) Hepato-gall duct

6 The divisions of the skeletal system include:
   (A) dorsal and ventral
   (B) proximal and distal
   (C) cranial, caudal, and anterior
   (D) axial and appendicular

7 Which of the following has the highest speed of nerve impulse?
   (A) Non-medullated nerve
   (B) Medullated nerve
   (C) Both Non-medullated nerve and Medullated nerve
   (D) None of these
8. The crossbridges involved in muscle contraction are located on the _____.
   (A) tropomyosin
   (B) actin myofilaments
   (C) myosin myofilaments
   (D) dystrophin

9. Axon part of the neuron is highly modified for which of the following function?
   (A) Reception of stimuli from neuron
   (B) Conduction of impulses away from neurons
   (C) Reception of internal stimuli
   (D) Conduction for neuron

10. Which of the following is not one of the four major types of tissues?
    (A) Epithelial
    (B) Connective
    (C) Nervous
    (D) Skeletal muscle

11. The complex food stuffs become simplified by the process of
    (A) Digestion
    (B) Assimilation
    (C) Excretion
    (D) Metabolism

12. Smooth ER are involved in:
    (A) protein synthesis in some cells
    (B) lipid synthesis in some cells
    (C) processing and packing of glycoprotein
    (D) ribosome formation

13. All the following are functions of the oral cavity except:
    (A) to mechanically digest foods
    (B) to digest certain carbohydrates
    (C) to lubricate foods
    (D) to chemically digest proteins

14. The body of urinary bladder is made up of which involuntary muscles?
    (A) Detrusor muscles
    (B) Circular muscles
    (C) Smooth muscles
    (D) Longitudinal muscles
15 The sequence of urine formation is as follows:
(A) Secretion, reabsorption, filtration
(B) Reabsorption, secretion, filtration
(C) Filtration, reabsorption, secretion
(D) Secretion, filtration, reabsorption

16 Hydrolytic enzymes which act on low pH are known as –
(A) proteases
(B) a-amylases
(C) hydrolases
(D) peroxidases

17 Which of the following is Agranular cell?
(A) Neutrophils
(B) Lymphocytes
(C) Basophil
(D) Eosinophil

18 Creatinine is the end product of which metabolism?
(A) Muscles
(B) Protein
(C) Carbohydrates
(D) Lipids

19 All the following are regions of the stomach except:
(A) the hilus
(B) cardia
(C) the pylorus
(D) fundus

20 Lactase breaks lactose molecule into:
(A) Glucose and Glucose
(B) Glucose and Galactose
(C) Fructose and Glucose
(D) Maltose and Maltotriose
21 Largest and strongest bone of face is:
(A) Mandible  (B) Maxilla
(C) Frontal  (D) Parietal

22 Most absorption occurs:
(A) in the esophagus  
(B) in the lining of the stomach
(C) in the jejunum  
(D) all along the gastrointestinal tract

23 The outer layer of the skin is composed of ________.
(A) transitional epithelium  
(B) stratified squamous epithelium
(C) transitional epithelium  
(D) stratified columnar epithelium

24 Secretion of gastric juice is stopped by
(A) gastrin  
(B) pancreozymin
(C) cholecystokinin  
(D) enterogastrone

25 Which type of joint is a shoulder joint?
(A) Hinge joint  
(B) Pivot joint
(C) Saddle joint  
(D) Ball and socket joint

26 Normal Childbirth is an example of -
(A) Negative feedback mechanism  
(B) Positive feedback mechanism
(C) Cascade Mechanism  
(D) None

27 An average glomerular filtration done by kidney per minute is -
(A) 1100 to 1200 ml/min  
(B) 1100 to 1350 ml/min
(C) 1100 to 1300 ml/min  
(D) 1100 to 1250 ml/min

28 If a man takes large amount of protein he is likely to excrete:
(A) Ammonia  
(B) Urea and uric acid
(C) Ketone bodies  
(D) Glucose

29 A twisting motion of the foot that turns the sole inward is termed as:
(A) Rotation  
(B) Eversion
(C) Inversion  
(D) Plantar flexion

30 Dental formula of adult man is
(A) 2321/2321  
(B) 1632/1632
(C) 2123/2123  
(D) 3216/3216
31 Epithelial tissue is characterized by each of these traits, except that ______.
(A) it lacks blood vessels
(B) it functions in secretion, absorption, and excretion
(C) it is anchored to a basement membrane
(D) epithelial cells are loosely packed and have much intercellular material.

32 Which term is the smallest subdivision in this group?
(A) fiber (B) fibril
(C) filament (D) actin

33 The inner most layer of GIT is:
(A) Serosa (B) Muscularis
(C) Submucosa (D) Mucosa

34 Which selection includes only accessory digestive organs?
(A) salivary glands, thyroid gland, pancreas, liver
(B) gallbladder, liver, pancreas, salivary glands
(C) stomach, duodenum, pancreas, gallbladder
(D) liver, thyroid gland, gallbladder, spleen

35 Contraction of gall bladder is stimulated by:
(A) Gastrin
(B) Secretin
(C) Cholecystokinin
(D) Both Secretin and Cholecystokinin

36 Name the suture which unite the parietal and temporal bone:
(A) Sagittal suture
(B) Squamous suture
(C) Lambdoid suture
(D) Coronal suture

37 The mucosa of the large intestine is characterized by:
(A) lack of intestinal villi
(B) numerous goblet cells and intestinal glands
(C) many lymphatic nodules and cells in the lamina propria
(D) all of these

38 The pancreas is located close to the:
(A) stomach
(B) sigmoid colon
(C) cecum
(D) Appendix

39 Cells are bathed in which fluid?
(A) Intracellular fluid
(B) Synovial fluid
(C) Intercellular fluid
(D) Interstitial fluid

40 The length of pharynx is:
(A) 11.5 cm (B) 12 cm
(C) 12.5 cm (D) 13 cm
41 One of the main functions associated with simple squamous epithelium is _____.
   (A) secretion
   (B) active transport
   (C) diffusion
   (D) absorption

42 What is the mineralized matrix, similar to bone but harder, that forms the primary mass of each tooth?
   (A) enamel
   (B) cementum
   (C) dentin
   (D) pulp

43 Muscles are made up of:
   (A) Calcium and phosphorus
   (B) Polyester threads
   (C) Fibres
   (D) Silica

44 Thick filament of A-band is made up of:
   (A) Myosin
   (B) Actin
   (C) Both Myosin and Actin
   (D) None of these

45 The large intestine is so-named because it exceeds the small intestine in:
   (A) length
   (B) diameter
   (C) number of enzymes produced
   (D) amount of muscle present
Choose the correct enzyme – substrate pair:

(A) carbohydrate – lipase
(B) maltase – lactose
(C) rennin – casein
(D) protein – amylase

Which is the largest salivary gland in man?

(A) Sublingual gland
(B) Submandibular gland
(C) Parotid gland
(D) None of them

The segment of a myofibril that is called a sarcomere runs from ______.

(A) one Z line to the next Z line
(B) one H zone to the next H zone
(C) one A band to the next A band
(D) one end of a skeletal muscle to the opposite end

Where is protein digestion accomplished?

(A) Stomach
(B) ileum
(C) Rectum
(D) duodenum

Bone cells capable of breakdown of bonds are termed as:

(A) Osteoblasts
(B) Osteoclasts
(C) Chondrocytes
(D) None