

SEAT No. \_\_\_\_\_

No. of Printed Pages: 02

[88]

**SARDAR PATEL UNIVERSITY**

**Bachelor of Science (B.Sc.)**

**Fifth Semester Examination December – 2020**

**Tuesday, 29<sup>th</sup> December, 2020**

**2:00 P.M to 4:00 P.M**

**Subject: Biochemistry**

**COURSE: US05CBCH24**

**(Human Physiology)**

Note: (1) Figures to the right indicate marks.

(2) Draw a neat and labeled diagram, wherever necessary.

**Total Marks: 70**

**Q.1 Choose the most appropriate answer from the four alternatives given:**

**[10]**

- (1) **The lowest level of structural organization in the human body.**  
a) Chemical level                      b) Tissue level  
c) Cellular level                        d) None
- (2) **Sulphur containing amino acids provide \_\_\_\_\_**  
a) Sulphur                                b) Iron  
c) Sodium                                 d) None of these
- (3) **PO<sub>2</sub> in inspired air is \_\_\_\_\_ mm Hg.**  
a) 58                                        b) 158  
c) 358                                      d) 458
- (4) **What is circulatory system?**  
a) Breathing system                    b) Food processing system  
c) Blood transport system            d) Immune system
- (5) **From what source does tissue get their food?**  
a) Blood                                    b) C.S.F  
c) CO<sub>2</sub>                                      d) Urine
- (6) **\_\_\_\_\_ not digested in the stomach.**  
a) Carbohydrates                        b) Fat  
c) Protein                                 d) None
- (7) **A brush border is formed in \_\_\_\_\_**  
a) DCT                                      b) PCT  
c) Glomeruli                              d) Loop of Henle
- (8) **Skeletal muscle composed of \_\_\_\_\_ % of water.**  
a) 50                                        b) 100  
c) 75                                         d) 40
- (9) **\_\_\_\_\_ transport urine from kidney to the bladder.**  
a) Ureter                                    b) Nephron  
c) Bile duct                                d) Hepatic duct
- (10) **What is the unit of nervous system?**  
a) Nephron                                b) PCT  
c) Neuron                                 d) DCT

[1]

(P.T.O.)

- Q.2 (a) Fill in the blanks** [4]
- (1) \_\_\_\_\_ is known as suicidal beg of cell
  - (2) \_\_\_\_\_ is functional unit of kidney.
  - (3) \_\_\_\_\_ is function of digestive system.
  - (4) T3 T4 secreted from \_\_\_\_\_ gland.

- Q.2 (b) Write True and False** [4]
- (1) Human blood is not liquid connective tissue.
  - (2) Organs are made up of tissues.
  - (3) There are two ureter in the urinary system.
  - (4) Smooth muscles are voluntary muscle.

- Q.3 Answer any TEN from the following:** [20]
- (1) What are four basic tissues?
  - (2) Define cell and name the blood cells.
  - (3) When we inhale, where does the air go?
  - (4) How Respiratory system regulates Acid base balance?
  - (5) Define Neurotransmitter.
  - (6) Write importance of maturation.
  - (7) What is Homeostasis?
  - (8) What are Voluntary and Involuntary muscles?
  - (9) What are components of nervous system?
  - (10) What is GFR?
  - (11) What are various sarcoplasmic proteins of Muscle?
  - (12) Define endocrine and exocrine glands.

- Q.4 Write Answer in detail (Any four)** [32]
- (1) Write the names of respiratory, Immune, integumentary and nervous systems organs.
  - (2) Discuss about hormones of Anterior pituitary gland.
  - (3) Discuss about O<sub>2</sub> transport in the blood.
  - (4) Write about cardiac cycle
  - (5) Write about composition of skeletal muscle.
  - (6) Draw the labeled diagram of cortical Nephron and write about its importance.
  - (7) Define Neuron and write about nerve impulse transmission.
  - (8) Discuss importance of Kidney.

————— X —————