

MAY 2011

U/ID 14805/UCQD

Time : Three hours

Maximum : 100 marks

PART A — (10 × 2 = 20 marks)

Answer ALL questions.

Each answer should not exceed 50 words.

1. Define RMP.
2. Explain Mitochondria.
3. Define GFR.
4. Bring out the peculiarities of renal blood flow.
5. Define tidal volume and give the normal value.
6. Show the structure of respiratory unit membrane.
7. Define Peristalsis.
8. Chewing.
9. Isometric contraction.
10. Rigor mortis.

PART B — (5 × 6 = 30 marks)

Answer ALL questions.

Each answer should not exceed 250 words.

11. (a) Define Homeostasis. Explain feed back mechanisms.
Or
(b) Explain the structure of nucleic acids.
12. (a) Extra cellular fluid compartment.
Or
(b) Micturition reflex.
13. (a) Classify hypoxia and explain one type of hypoxia.
Or
(b) Acclimatization to high altitude.
14. (a) Describe the process of deglutition.
Or
(b) Defecation reflex.
15. (a) Oxygen debt.
Or
(b) Explain various thermal changes during muscle contraction.

PART C — (5 × 10 = 50 marks)

Answer ALL questions.

Each answer should not exceed 500 words.

16. (a) Define action potential. Explain the ionic basis of action potential.

Or

- (b) Classify transport mechanism across cell membrane. Explain passive transport in detail.

17. (a) Explain the pathophysiology of Edema.

Or

- (b) Explain the mechanism of urine formation.

18. (a) Explain the mechanism of oxygen transport. Give a note on oxygen dissociation curve.

Or

- (b) Explain the neural regulation of respiration.

19. (a) Describe the structure of gastric gland. Give the composition and function of gastric juice.

Or

- (b) Describe the movements of small intestine.

20. (a) Write briefly on : (2 × 5)

(i) Theories of aging

(ii) Chloride shift.

Or

(b) Write briefly on :

(i) Vomiting

(ii) Fatigue.
