## **PARUL UNIVERSITY**

## PARUL INSTITUTE OF APPLIED SCIENCES

## MID SEMESTER INTERNAL EXAMINATION, APRIL 2017

## B. Sc. Semester IV Biochemistry

Paper Code:11103252 Human anatomy & physiology

Date: 17 /04/2017 Time: 12.30 p.m. to 02.00 p.m.

**Maximum Marks: 40** 

**Instructions:** 

1. All questions are compulsory and options are given in first and second question only.

2. Numbers to the right of question indicate the marks of respective question.

|       | Attempt any one question of the following.                             |     |                        |  |  |
|-------|--|-----|------------------------|--|--|
| Q. 1  | (i) Explain process of Urine formation in detail                       |     |                        |  |  |
|       | (ii) Describe RBC generation and destruction.                          |     |                        |  |  |
|       | Attempt any three questions of the following.                          |     |                        |  |  |
| Q. 2  | (i) How cardiac cycle is arrested?                                     |     |                        |  |  |
|       | (ii) Write a note: ECG   |     |                        |  |  |
|       | (iii) Explain conduction of cardiac impulse                            |     |                        |  |  |
|       | (iv) Describe structure of hemoglobin.                                 |     |                        |  |  |
|       | (v) Explain mechanism of breathing                                     |     |                        |  |  |
| Q. 3  | Do as directed. Attempt all five questions.                            |     |                        |  |  |
|       | (i) What is diuretic? Give examples.                                   |     |                        |  |  |
|       | (ii) GFR=  |     |                        |  |  |
|       | (iii) State functions of RBCs.   |     |                        |  |  |
|       | (iv) What is hemodialysis?   |     |                        |  |  |
|       | (v) Narrate functions of Vasopressin.                                  |     |                        |  |  |
| Q. 4  | Write correct option in your answer sheet for following 15 multiple    |     |                        |  |  |
|       | choice questions.  |     |                        |  |  |
| MCQ 1 | From following which is not a site of reabsorption?                    |     |                        |  |  |
|       | (A) Glomerulus   | (B) | Convule tubule         |  |  |
|       | (C) Both A & B   | (D) | Loop of Henle          |  |  |
|       | Physiological condition in which oxygen is low known as                |     |                        |  |  |
| MCQ 2 | (A) Anemia   | (B) | Thalassemia            |  |  |
|       | (C) Hypoxia  | (D) | Hemophilia             |  |  |
| MCQ 3 | hormone initiates the process of erythropoesis.                        |     |                        |  |  |
|       | (A) ADH  | (B) | Erythropoetin          |  |  |
|       | (C) Angiostenin  | (D) | Prothrombin            |  |  |
| MCQ 4 | Which is the natural pacemaker of the body?                            |     |                        |  |  |
|       | (A) Myocardium   | (B) | AV node                |  |  |
|       | (C) SA node  | (D) | RV & LV                |  |  |
| MCQ 5 | From following which is true in case of heart contraction & relaxation |     |                        |  |  |
|       | (A) Systole is contraction   | (B) | Diastole is relaxation |  |  |
|       | (C) Both A & B true  | (D) | None of these          |  |  |

|        | Cardiac output=   |                            |     |                                  |  |
|--------|---|----------------------------|-----|----------------------------------|--|
| MCQ 6  | (A)   | Stroke volume * heart rate | (B) | Stroke volume / heart rate       |  |
|        | (C)   | Stroke volume + heart rate | (D) | stroke volume -heart rate        |  |
|        | The % of blood within ventricle pumped out per beat is known as                         |                            |     |                                  |  |
| MCQ 7  | (A)   | Cardiac output             | (B) | Cardiac reserve                  |  |
|        | (C)   | Blood flow                 | (D) | Ejection fraction                |  |
| MCQ 8  | Diaphram moves downward, contracts & chest cavity expands                               |                            |     |                                  |  |
|        | (A)   | Exhalation                 | (B) | Both of these                    |  |
|        | (C)   | Inhalation                 | (D) | None of these                    |  |
| MCQ 9  | Which hormone increases reabsorption of Na <sup>+</sup> & excretion of K <sup>+</sup> ? |                            |     |                                  |  |
|        | (A)   | ADH                        | (B) | Aldosterone                      |  |
|        | (C)   | Renin                      | (D) | ANP                              |  |
|        | Excretion of urine from body is known as  |                            |     |                                  |  |
| MCQ 10 | (A)   | Micturition                | (B) | Dialysis                         |  |
|        | (C)   | Reabsorption               | (D) | Secretion                        |  |
|        | Creatinine is high in urine in case of  |                            |     |                                  |  |
| MCQ 11 | (A)   | Secretion of nutrients     | (B) | Ions reabsorption                |  |
|        | (C)   | Kidney failure             | (D) | Acidosis                         |  |
| MCQ 12 | What is not a part of buffer system of acid base balance?                               |                            |     |                                  |  |
|        | (A)   | $H_2CO_3$                  | (B) | Na <sub>2</sub> HPO <sub>4</sub> |  |
|        | (C)   | NaHCO <sub>3</sub>         | (D) | Acetic acid                      |  |
| MCQ 13 | Increase in the number of RBC is known as   |                            |     |                                  |  |
|        | (A)   | Anemia                     | (B) | Polycythemia                     |  |
|        | (C)   | Adema                      | (D) | Hypoxia                          |  |
| MCQ 14 | QRS complex in ECG represents   |                            |     |                                  |  |
|        | (A)   | Ventricular depolarization | (B) | Repolarization                   |  |
|        | (C)   | Atrial depolarization      | (D) | None of these                    |  |
| MCQ 15 | First step of respiration is  |                            |     |                                  |  |
|        | (A)   | Excitation                 | (B) | Pulmonary respiration            |  |
|        | (C)   | Transport of gases         | (D) | Pulmonary ventilation            |  |