

UNIVERSITY OF CALCUTTA

CITY COLLEGE CENTER

DEPARTMENT OF ZOOLOGY

Internal Assessment Examination 2020 [CBCS Syllabus 2018]

ZOOA, SEMESTER – 4 {MCQ}

Paper – CC4-9 TH

(Full Mark 10)

[Animal Physiology: Life Sustaining Systems]

ANSWER ANY FIVE

5×2 = 10

1. Which of the following does not cause shifting of oxygen dissociation curve to the right

- (a) Increased CO₂
- (b) Increased pH
- (c) Increased blood temperature
- (d) Increased BPG.

2. In our body during transport chain CO can diffuse

- (a) About 40 times as slowly as O₂
- (b) About 20 times as rapidly as O₂
- (c) About 40 times as rapidly as O₂
- (d) About 20 times as slowly as O₂

3. Vital capacity is equal to

- (a) Total lung capacity + inspiratory reserve volume.
- (b) Functional residual capacity + tidal volume.
- (c) Tidal volume + expiratory reserve volume+inspiratory reserve volume.
- (d) Inspiratory capacity+expiratory reserve volume.

4. A freshwater fish maintains its osmolarity by

- (a) Producing dilute urine
- (b) Not drinking any water
- (c) Replacing lost salt through food
- (d) All of above

5. Sea animals secrete excess salt primarily in the form of

- (a) Chloride ion
- (b) Sodium ion
- (c) Both (a) and (b)
- (d) Potassium Ion

6. Lymphocytes and their precursors are referred to as:

- (a) Myeloid cells
- (b) Mega karyocytes cells
- (c) Lymphoid cells
- (d) Granulocytes cells

7. In human blood clotting system factor IV is known as:

- (a) Magnesium
- (b) Calcium
- (c) Potassium
- (d) Iron

8. Pace Maker of heart is:

- (a) SA Node
- (b) AV Node
- (c) Bundle of His
- (d) Purkinje Fibres

9. In adult man, the stroke volume of heart is:

- (a) 40-50 ml
- (b) 50-60 ml
- (c) 70-80 ml
- (d) 90-100 ml

10. Among the following, which one is the correct relationship?

- (a) Heart rate=Cardiac output×Stroke Volume
- (b) Cardiac output=Heart rate×Stroke volume
- (c) Stroke volume=Cardiac output×Heart rate
- (d) None of the above

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DEPARTMENT OF ZOOLOGY

Theory Examination 2020 [CBCS Syllabus 2018]

ZOOA, SEMESTER – 4

Paper – CC4-9 TH

(Full Mark 25)

[Animal Physiology: Life Sustaining Systems]

1. Answer any **four** 4×5 = 20
- (a) What is Coronary Circulation?
 - (b) What do you mean by conductive tissue of heart?
 - (c) What is Isometric contraction period?
 - (d) What is Halden effect?
 - (e) What is Proto-diastolic period?
 - (f) Write in brief the structure of Haemoglobin.
 - (g) Draw and explain oxygen dissociation curve.
 - (h) State in brief the stages of conversion of fibrinogen into fibrin.
2. Answer any **one** 1×5 = 05
- (a) What is Cardiac Cycle? Briefly describe the steps of Cardiac cycle. 2+3
 - (b) How does a fish maintain osmolarity of its body fluid during a catadromous migration? Define euryhaline and stenohaline organisms with examples? 3+2
 - (c) Mention four anatomical adaptations in camels that help them withstand extreme environmental heat. How does polar bear prevent or control overheating during or after any physical activity? 3+2

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DEPARTMENT OF ZOOLOGY

Practical Examination 2020 [CBCS Syllabus 2018]

ZOOA, SEMESTER – 4

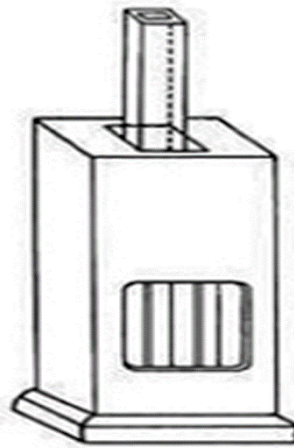
Paper – CC4-9 TH

(Full Mark 15)

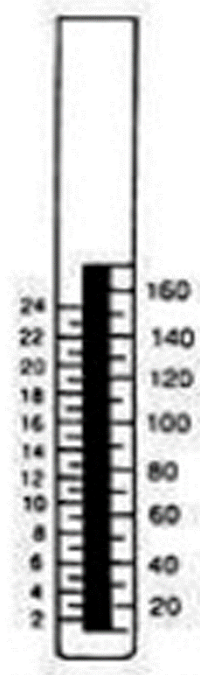
[Animal Physiology: Life Sustaining Systems]

1. Write the principle of ABO blood group determination. Write with diagram the procedure of your blood group determination. 4+5 = 9
2. Name the following instruments and write the use of them (A, B and C). 2 × 3 = 6.

Item- A



Item- B



Item- C

