



## 2019 Scheme

Q.P. Code: 113001

Reg. no.: .....

### First Professional MBBS Degree Supplementary (SAY) Examinations August 2021 Physiology I

Time: 3 Hours

Total Marks: 100

- Answer all questions to the point neatly and legibly • Do not leave any blank pages between answers • Indicate the question number correctly for the answer in the margin space
- Answer all parts of a single question together • Leave sufficient space between answers
- Draw table/diagrams/flow charts wherever necessary

#### Long Essays

(2x15=30)

1. A 55- year old man is brought to the casualty after a road traffic accident. He was disoriented and irritable. On examination his blood pressure was 90/40 mmHg, respiratory rate was 24/minute and pulse rate was 150 /minute. His ECG did not show any abnormality.
  - What is your diagnosis
  - Discuss the physiological basis for various clinical features seen and management of this condition
  - Describe baroreceptor reflex. (1+5+4+5)
2. Name the location of the respiratory centres. Explain their role in the regulation of respiration. Describe the mechanisms of periodic breathing. (4+6+5)

(5x8=40)

#### Short essays

3. Describe the role of T- lymphocytes in immune mechanisms.
4. Describe the dangers associated with blood transfusion. Explain what precautions could be taken to prevent them.
5. Describe the cardiorespiratory changes during exercise.
6. Counter-current exchange system.
7. Name the types of intestinal movements and explain their functions.

(5x4=20)

#### Write briefly

8. Explain the regulation of gastric juice secretion in different phases.
9. Draw and label a normal cystometrogram.
10. Explain the physiological basis of symptoms in decompression sickness.
11. Draw the schematic diagram to show the intrinsic pathway of blood clotting
12. Draw a tracing of the jugular venous pressure and give the basis of each wave.

#### One word Answers

(10x1=10)

13. The cell that processes and presents antigens to lymphocytes is .....
14. Nutritional anaemia seen in Vitamin B<sub>12</sub> deficiency is.....
15. The tissue capacity to utilise oxygen is lost in .....type of hypoxia
16. Combination of hypoxia and hypercapnia is called.....
17. The role of pudendal nerve in micturition reflex is by controlling .....sphincter
18. Heart sound produced due to closure of the aortic and pulmonary valves is.....
19. QRS complex in ECG indicates.....
20. Part of the nephron in which the maximum amount of water is reabsorbed is.....
21. The final product of carbohydrate digestion is .....
22. Defecation observed immediately after a meal in children is due to..... reflex

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