

2019 Scheme

Q.P. Code: 113001

Reg. no.:

First Professional MBBS Degree Regular/Supplementary Examinations

February 2022

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. An individual was brought to a hospital from the site of an accident. He showed following signs and symptoms:
Restlessness, extreme weakness, pale, cold, clammy skin, rapid, thready pulse
hypotension, oliguria
 - What is your diagnosis
 - Define it and classify it. Explain it with examples
 - How do you explain the signs and symptoms
 - What are compensatory regulatory mechanisms which will operate in the body to bring back all the signs and symptoms to normal
 - What immediate treatment do you suggest
2. Describe the role of counter current multiplier and exchanger system in the concentration of urine. Add a note on renal failure and artificial kidney.

(1+6+2+4+2)

(6+4+5)

Short essays

(5x8=40)

3. Describe the phases of gastric secretion. How is it regulated.
4. Describe the stages of erythropoiesis with the help of diagrams. Describe the factors regulating it. Add a note on polycythemia.
5. Define immunity and classify it. Explain the mechanism of cell-mediated immunity. Add a note on natural killer cells.
6. Describe the respiratory pressure changes with diagrams. Add a note on ventilation perfusion ratio.
7. Define cardiac cycle. Explain the mechanical and pressure events of it with help of a neat labelled diagram.

Write briefly

(5x4=20)

8. With the aid of a diagram, explain how capillary fluid exchange is modified in hypoproteinemia.
9. Draw and label the conducting system of heart.
10. Mismatched blood transfusion.
11. Draw a neat labelled diagram of the respiratory membrane, indicating the factors affecting diffusion across it.
12. Hypothermia

One word Answers

(10x1=10)

13. Deficiency of clotting factor XI leads to
14. Kernicterus is caused due accumulation of in the basal ganglia.
15. Purpura is caused due to deficiency of
16. Blood is stored in blood banks at degree centigrade.
17. Decreased heart rate in athletes is due in vagal tone.
18. The shock produced due to hypersensitivity reaction is
19. Difficulty in breathing on lying down is called
20. Influence of oxygen on the release of uptake of carbon dioxide is called effect.
21. Alteration of heart rate in different phases of respiration is called
22. Ptyalin is an enzyme present in
