

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)

(5x8=40)

Short essays

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 -----
