Time: 150 Minutes   Max Marks: 80 Marks

Physiology Paper I QP Code C1021

(Your answer should be specific to the question asked
Draw neat labeled diagrams wherever necessary)

Long Essay   10 × 2 = 20 Marks

1. Define hemostasis. List the steps in hemostasis. Describe the coagulation cascade of the intrinsic system.   (2+3+5).
2. Define cardiac cycle and give its normal duration. Describe various events occurring on the leftside of the heart during cardiac cycle. (1+1+8)

Short Essay   5 × 12 = 60 Marks

3. Mention the 3 mechanisms by which carbon dioxide is transported in blood. Add a note on Haldane's effect.

4. Describe the body fluid compartments with its distribution in 70 kg adult

5. Explain the development of acquired immunity following invasion of an antigen

6. Describe erythroblastosis fetalis. How can it be prevented

7. Describe renal mechanism in long-term regulation of blood pressure

8. Diagrammatically depict mechanism of operation of sodium potassium pump. Mention its importance.

9. Draw a neat labelled diagram of Lead II ECG, and mention the cause for each wave

10. List the properties of cardiac muscle, explain any one property

11. Describe the composition of salivary secretion and explain its functions

12. Describe the sites and mechanism of reabsorption of water in the nephron.

13. Describe the experimental evidences to demonstrate the regulation of Gastric acid secretion

14. Draw a neat labeled diagram of a cystometrogram and explain the pressure volume changes during bladder filling

Time: 150 Minutes   **Max Marks: 80 Marks**

Physiology Paper II QP Code C1022

(Your answer should be specific to the question asked
Draw neat labeled diagrams wherever necessary)

Long Essay   **2 × 10 = 20 Marks**

1. List the hormones secreted by the posterior pituitary gland. Describe the functions of each.

2. Name the functional divisions of cerebellum. Describe the connections and functions of cerebellum. Mention 2 clinical tests for cerebellar functions

Short Essay   **5 × 12 = 60 Marks**

3. Mention permanent and temporary methods of contraception in males. Explain the mechanism of action of two temporary methods.

4. Describe two clinical tests for hearing

5. Describe neuromuscular transmission.

6. Describe the process of acclimatization to cold environment

7. Describe the functions of sertoli cells

8. Draw a reflex arc and explain stretch reflex

9. The teacher of a 10-year-old student who sits in the last row, noticed her student's class noteswere incomplete. On inquiring, she got to know the student is unable to clearly visualize the blackboard and what is written on it by the teacher. The student had no problem reading her books.

   A. Name the refractive error the student is suffering from. (1)

   B. With a neat labelled diagram illustrate the refractive error and its correction. (4)

10. Describe the consequences of sedentary lifestyle.

11. State Law of Projection. Explain Phantom limb. (2+3)

12. list and explain the physiological basis for the 3 clinical features of Type 2 Diabetes Mellitus

13. Name the receptor for color vision and describe color blindness

14. Describe the pubertal changes in boys.