



January - 2022

Physiology : Paper - 1

[Total Marks : 80]

Instruction :

નીચે દર્શાવેલ નિશાનીવાળી વિગતો ઉપરવર્તી પર અવશ્ય લખવી.

Fillup strictly the details of signs on your answer book.

Name of the Examination : First Year M. B. B. S.

Name of the Subject : Physiology : Paper - 1

Section No. (1, 2,...) : Nil

Subject Code No. : 2 0 0 6 0 0 0 1 0 1 0 2 0 0 0 1

Seat No. : [] [] [] [] [] [] [] [] [] []

Student's Signature

Section B (40 marks)

1. A 46 year old Obese male patient is brought to emergency medical room with perspiration, chest pain (radiating to left shoulder) which is relieved on rest. (1+ 6+3 =10)
- Identify the underlying clinical condition
 - Describe the blood supply to heart
 - Enumerate the investigations likely to be advised to this patient
2. Answer in Short (any 5 out of 6) (5 x 3 = 15)
- Na⁺.K⁺ pump
 - Functions of platelets
 - Pernicious anaemia
 - Anatomical dead space
 - Neat, labeled diagram of a nephron
 - myosin filament
3. Short notes (any 3 out of 4) (3 x 5 = 15)
- Oxygen transport
 - Functions of bile
 - Countercurrent mechanism
 - Negative feedback mechanism

Section C (40 marks)

4. Draw a well labelled diagram of oxygen dissociation curve. Describe in detail about oxygen uptake, delivery and transport in blood. Add a note on Haldane's effect. (3+5+2 = 10)

[Contd...

5. Answer in Short (any 5 out of 6)**(5 x 3 = 15)**

- | | | |
|---------------------|--------------------------|----------------------|
| a. A V nodal delay | b. Herring Breuer reflex | c. Mitochondria |
| d. Latch phenomenon | e. Respiratory membrane | f. Plateau potential |

6. Short notes (any 3 out of 4)**3 x 5 = 15**

- | | |
|-------------------------------|---------------------------|
| a. Neuromuscular transmission | b. GFR |
| c. Erythroblastosis foetalis | d. Cell mediated immunity |