

**PG Degree Supplementary Examinations in Physiology (MD)
November 2022**

Paper III - Physiological Chemistry, Biophysics and Radiation Biology

Time: 3 hrs

Max 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*

Essay:

(20)

1. Explain the molecular basis of perception of visual images

Short essays:

(8x10=80)

2. Origin, characteristic of waves and clinical application of electroencephalography (EEG).
3. Role of hypothalamus in maintaining normal core body temperature.
4. Explain the effect of positive G and microgravity on various body systems.
5. Explain how cells sense and adapt to oxygen availability.
6. Explain the physiological basis of hyperbaric oxygen therapy.
7. Local membrane potentials.
8. Injury potential of myocardial tissues.
9. Anion gap.
