

QP Code : 21788

(3 Hours)

[Total Marks : 70

- N.B.** (1) All questions are **compulsory**.
 (2) **Figures to right** indicate **full marks**.
 (3) Draw **neat** labelled diagrams wherever **necessary**.

1. (a) Answer the following :- 12
- (i) Explain
 - (1) Tidal volume
 - (2) Total lung capacity
 - (ii) Give difference between sensory and motor neuron
 - (iii) Enlist parts of brainstem
 - (iv) Give etiology of type-I diabetes
 - (v) Explain different types of epilepsy
 - (vi) Enlist various layers of skin
- (b) Fill in the blanks. 3
- (i) _____ layer of adrenal gland produce Epinephrine and Norepinephrine.
 - (ii) _____ is the link between endocrine and nervous system.
 - (iii) Rodopsin is formed by _____ and _____
2. (a) Answer any **two** of the following :- 8
- (i) Write a note on hallmarks of cancer
 - (ii) Enlist causes of cell injury and explain any one in detail.
 - (iii) Write a note on cellular adaptation.
- (b) Answer any **one** of the following :- 3
- (i) Explain biological effects of X-ray radiation.
 - (ii) Explain harmful effects of UV radiation.
3. (a) Answer any **two** of the following :- 8
- (i) Draw neat labelled diagram of reflex arc
 - (ii) Enlist various areas of cerebrum ? Write a note on visual area.
 - (iii) Enlist twelve pairs of cranial nerves.
- (b) Write short note on any **one** of the following :- 3
- (i) Parkinson's disease
 - (ii) Stroke

4. (a) Answer any **two** of the following :- 8
- (i) Draw neat labelled diagram of bronchial tree
 - (ii) Write a note on external respiration
 - (iii) Give pathophysiology of emphysema.
- (b) Write short note on any **one** of the following :- 3
- (i) Explain factors affecting gas exchange
 - (ii) Discuss in detail transport of oxygen by blood.
5. (a) Answer any **two** of the following :- 8
- (i) Explain process of synthesis, storage and release of thyroid hormon
 - (ii) Discuss in detail hormones of pancreatic islet
 - (iii) Explain in detail role of hormones of posterior pituitary
- (b) Write short note on any **one** of the following :- 3
- (i) Acromegaly
 - (ii) Goiter.
6. (a) Answer any **one** of the following :- 4
- (i) Explain physiology of hearing.
 - (ii) Explain in detail physiology of olfaction
- (b) Answer any **one** of the following :- 4
- (i) Write a note on various types of neurotransmitters
 - (ii) Discribe effect of stimulation of sympathetic and parasympathetic devision on blood pressure and eye.
- (c) Answer any **one** of the following :- 3
- (i) Explain physiology of equilibrium
 - (ii) Draw neat labelled diagram of eye showing internal parts.
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