

Q.P. Code :01223

[Time: Three Hours]

[Marks:80]

Please check whether you have got the right question paper.

- N.B:
1. All question are compulsory.
 2. Figure to the right indicate full marks.
 3. Draw neat labelled diagrams wherever necessary.

Q.1 (a) Answer the following: **(16)**

- i. Draw a neat labelled diagram of a neuron.
- ii. Explain the terms:
 - a) Inspiratory capacity
 - b) Alveolar ventilation rate
- iii. Name the cells of the anterior pituitary and their secretions.
- iv. What is hypertrophy?
- v. Comment on 'Pituitary dwarfism.'
- vi. Discuss the structure of taste bud.
- vii. Describe clinical symptoms of Parkinson's disease.
- viii. Define:
 - a) Respiratory acidosis
 - b) Respiratory alkalosis

Q.1 (b) Answer the following : **(4)**

- i. Name the photo receptors and photo pigments.
- ii. The two types of cholinergic receptors are _____ and _____.
- iii. Give the function of alveoli.
- vi. The posterior pituitary releases the hormones _____ and _____.

Q.2 (a) Answer the following: **(4)**

- i. Discuss the causes of cell injury.

OR

- i. Explain the mechanisms of Apoptosis.
- ii. Give the etiology of cancer.

OR

- ii. Discuss classification of tumors.

Q.2 (b) Discuss the biological effects of (any one) : **(4)**

- i. Nuclear radiation
- ii. U.V. radiation

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- Q.3** (a) Answer the following (**any two**) : **(8)**
- Describe the formation and function of cerebrospinal fluid.
 - With the help of a diagram explain the structure of simple reflex arc.
 - Discuss the phases of nerve action potential.
- (b) Write short note on (**any one**) : **(4)**
- Depression
 - Alzheimer's disease
- Q.4** (a) Answer the following (**any two**) : **(8)**
- Explain physiology of respiration.
 - Explain the structure of the bronchial tree. Draw a diagram of the same.
 - Explain mechanism of voice production.
- (b) Write a short note on (**any one**) : **(4)**
- Bronchitis
 - Pneumonia
- Q.5** (a) Answer the following (**any two**) : **(8)**
- Explain calcium homeostasis.
 - Describe the physiological effects of glucocorticoids and mineralocorticoids.
 - How is blood glucose level regulated?
- (b) Write a short note on (**any one**) : **(4)**
- Diabetes insipidus
 - Grave's disease
- Q.6** (a) Answer the following (**any two**) : **(8)**
- Describe the structure of retina.
 - Explain the functions of skin.
 - Discuss the physiology of hearing.
- (b) Answer the following (**any one**) : **(4)**
- Write a short note on autonomic ganglia.
 - Give the effect of acetyl choline and adrenaline on:
 - Eye
 - Bronchi
 - Heart
 - Sweat gland