

Please check whether you have got the right question paper.

- N.B:**
1. All questions are compulsory
  2. Figures to the right indicates full marks.
  3. Draw neat, Labelled diagrams wherever necessary

- Q.1** a) Answer the following: **(12 Marks)**
- i) Define the terms  
1) Vital Capacity      2) Residual volume.
  - ii) Enlist the hormones secreted by posterior pituitary gland with their biological role.
  - iii) What is diabetes insipidus?
  - iv) Enlist the neuroglia cells of CNS with functions.
  - v) Give the signs and symptoms of Parkinson's disease.
  - vi) Discuss in short light & dark adaptation.
- b) Answer the following: **(03 Marks)**
- i) Respiratory centers are situated in \_\_\_\_\_ .
  - ii) \_\_\_\_\_ & \_\_\_\_\_ are the inhibitory neurotransmitters.
  - iii) Name the bones of auditory ossicles.
- Q.2** a) Answer the following (**Any Two**): **(08 Marks)**
- i) Compare benign & malignant tumour.
  - ii) Discuss in detail cellular adaptations.
  - iii) Explain the etiology of cancer.
- b) Discuss the biology effects of (**Any one**): **(03 Marks)**
- i) UV radiation
  - ii) Nuclear radiation

- Q.3 a) Answer the following (Any Two): (08 Marks)**
- i) Explain the process of generation of action potential.
  - ii) Discuss the structure & functions of brain stem.
  - iii) Describe the functional areas of cerebrum.
- b) Answer the following (Any one): (03 Marks)**
- i) Write a note on Epilepsy.
  - ii) Discuss the pathophysiology of Anxiety.
- Q.4 a) Answer the following (Any Two): (08 Marks)**
- i) Explain external & internal respiration.
  - ii) Discuss the mechanism involved in control of respiration.
  - iii) Draw a neat, labelled diagram of bronchial tree.
- b) Write a short note on (Any one): (03 Marks)**
- i) Pneumonia
  - ii) Bronchitis
- Q.5 a) Answer the following (Any Two): (08 Marks)**
- i) Discuss the various types of anterior pituitary cells with physiological roles.
  - ii) Describe the physiological role of thyroid hormones.
  - iii) Write a note on renin-angiotensin-aldosterone system.
- b) Answer the following (Any One): (03 Marks)**
- i) Discuss the effect of hyposecretion of anterior pituitary hormones on human body.
  - ii) Write a short note on Goiter.

- Q.6** a) Answer the following (**Any one**): **(04 Marks)**
- i) Explain the anatomical features of eye with the help of a diagram.
  - ii) Discuss the physiology of smell.
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- b) Answer the following (**Any One**): **(04 Marks)**
- i) Differentiate between somatic & autonomic nervous system.
  - ii) Write the effect of parasympathetic & sympathetic nervous system on following organ.  
1)Heart 2)Lungs 3)Sweat gland 4)Eye
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- c) Answer the following (**Any One**): **(03 Marks)**
- i) Discuss the structure of taste bud.
  - ii) Write the functions of skin.