

- a) Vital capacity
c) Inspiratory capacity
- b) Total lung capacity
d) Functional residual capacity
- (viii) predict the name of the movement of water across the cell membrane from an area of lower solute concentration to an area of higher solute concentration
- a) Osmosis
c) Diffusion
- b) Active transport
d) Facilitated diffusion
- (ix) Choose the name of the movement of molecules against their concentration gradient with the expenditure of energy -
- a) Osmosis
c) Diffusion
- b) Passive transport
d) Active transport
- (x) Find the odd one out of the following regarding the function of the thyroid gland.
- a) Regulation of metabolism
c) Regulation of blood calcium levels
- b) Production of thyroid hormones
d) Maintenance of body temperature
- (xi) Find the hormone responsible for regulating the body's response to stress
- a) Insulin
c) Cortisol
- b) Glucagon
d) Parathyroid hormone (PTH)
- (xii) Select the hormones involved in the body's sleep-wake cycle and circadian rhythm.
- a) Melatonin
c) Dopamine
- b) Serotonin
d) Endorphins
- (xiii) Select the term "hypotension" refers to:
- a) Low blood pressure
c) Abnormal heart rhythm
- b) High blood pressure
d) Inflammation of blood vessels
- (xiv) Name the process in which the fertilized egg attaches to the uterine lining.
- a) implantation
c) Fertilization
- b) Ovulation
d) Menstruation
- (xv) Propose the correct contraceptive method prevent pregnancy by creating a physical barrier between sperm and the egg
- a) Intrauterine device
c) Birth pills
- b) copper T
d) Condom

Group-B

(Short Answer Type Questions)

3 x 5=15

2. Explain ;The pituitary gland is called master gland. (3)
3. Differentiate endocytosis and exocytosis. (3)
4. Explain the role of gastric juices in the stomach during the process of protein digestion. (3)
5. Describe the structure of the skin and its main layers. (3)
6. Explain the process of micturition or urination. (3)

OR

Differentiate between active and passive transport. (3)

Group-C

(Long Answer Type Questions)

5 x 6=30

7. Explain the process of O₂ transport in the bloodstream. (5)
8. Write a brief note about Lung surfactant with its clinical implications (5)
9. Describe the process of Carbohydrate digestion in elementary canal. (5)
10. Describe the basic structural properties of Pulmonary circulation. (5)
11. Explain the structure and functions of the cell membrane, emphasizing its role in maintaining cell homeostasis (5)
12. Propose the mechanism of role of Insulin and glucagon in glucose homeostasis. (5)

OR

Rewrite the role of RAAS in regulation of mineral homeostasis in our body. (5)