**Sardar Bhagwan Singh University, Balawal, Dehradun**

**M.Pharm first year IInd semester**

**Seventh Assignment Advanced Pharmacology II (MPL-201T)**

Q1. Fill in the blanks:

1. The circadian clock resides in clusters of nerve cells called........................
2. .........................is a hormone that is secreted by the white adipose tissue displays a cricdian rhythm.
3. Acid secretion is 2-3 times greater between ……………….
4. MI occurs frequently in the ..............................
5. Parathohorme is secrete by..............................cells of parathyroid gland.
6. PTH hormone increase bone resorption by stimulating.................... activity.
7. Calcitrol promote intestinal absorption of calcium in kidney by activating ............... enzyme
8. Cinacalcet block PTH secretion by activating............. in parathyroids.
9. The active form of vitamin D is...................................
10. Cells that is responsible for production of calcitonin.....................
11. Fall in calcium conc. Increase......................release.
12. Synthetic PTH preparation used for the treatment of severe osteoporosis....................
13. Nasal spary formulation of........................... increase bone mineral density in menopausal women and to reduce vertebral fractures.
14. PTH receptors are expressed on the surface of................................ cell.
15. Fullform of RANKL..................................
16. Osteoprotegerin (OPG) prevent activation of...................... cell.
17. ........................recombinant preparation of human PTH
18. The activity of rate limiting enzyme HMGCoA reductase is higher in ………………………… time.
19. Angiotensin converting enzyme inhibitors (ACEIs) are found to be safe when are administered at…………………………
20. In bronchial asthma corticosteroids should be administered during ………………. so as to maximize their efficacy.

Q2. Give reason why:

1. The symptoms such as joint stiffness and pain are more prominent in the early morning.
2. The incidences of stroke is in the early morning after awakening and lowest incidence during nocturnal sleep.
3. There are two phases of occurrence of allergic rhinitis i.e. early phase (developing within minutes) and late phase (manifesting after 12–16 h.)
4. Airway hyperresponsiveness and decreased lung function are exaggerated during night time and in the early morning.

Q3. Short note on: Vitamin D and PTH

Q4. Define chronopharmacology, mechanism of circadian rhythm and its advantages.