

**20P215**

(Pages: 1)

Name.....

Reg. No.....

**SECOND SEMESTER M.Sc. DEGREE EXAMINATION, APRIL 2021**

(CUCSS - PG)

(Regular/Supplementary/Improvement)

**CC19P ZOL2 C04 - PHYSIOLOGY**

(Zoology)

(2019 Admission onwards)

Time: Three Hours

Maximum: 30 Weightage

I. Answer any *four* of the following:

1. What are alveolar surfactants? Briefly explain their functions.
2. What are the major chemical differences between blood plasma and glomerular filtrate?
3. List the components and major functions of the lymphatic system.
4. Define renal plasma clearance and describe its importance.
5. What is chemical thermogenesis? Mention uncouplers of oxidative phosphorylation.
6. Brief the physiology of gustation.
7. Give short note on Alzheimer's disease and Senile dementia

**(4 × 2 = 8 Weightage)**

II. Answer any *four* of the following:

8. What are the main health effects of obesity? How is obesity measured?
9. Describe olfactory receptors and neural pathway for olfaction.
10. What is counter current mechanism? Why is it important?
11. Describe Ischemic heart diseases. Mention its causes.
12. Outline the functional components of a reflex arc. How does an autonomic reflex arc differ from a somatic reflex arc?
13. Explain mechanoreceptors and their stimulation.
14. Brief the role of hormones and neurotransmitters in the control of gastrointestinal motility.

**(4 × 3 = 12 Weightage)**

III. Answer any *two* of the following:

15. Write an essay on Oxygen dissociation curve and factors affecting it.
16. Present an account of the functional areas of motor cortex and their motor functions.
17. Explain image formation on the retina. Add a note on photoreceptors and photopigments.
18. Discuss Cardiac cycle. Give a short note on neural regulation of heart function.

**(2 × 5 = 10 Weightage)**

\*\*\*\*\*