

U.G. 5th Semester Examination-2020

PHYSIOLOGY

[HONOURS]

Course Code : PHYSIOL-H-CC-T-12

Full Marks : 40

Time : 2½ Hours

The figures in the right-hand margin indicate marks.

Candidates are required to give their answers in their own words as far as practicable.

1. Answer any **five** questions: 2×5=10
 - a) What is diabetes insipidus?
 - b) What is acromegaly?
 - c) Name the active hormones formed from the precursor protein POMC.
 - d) What do you understand by GLUT?
 - e) What is meant by infradian rhythm? Give one example.
 - f) What are oscillatory genes?
 - g) What is prolactinoma?
 - h) What are antithyroid antibodies?
 - i) Name the sign and symptoms of myxedema.
2. Answer any **two** questions: 5×2=10
 - a) Why ADH and Oxytocin are called neurohormones? Describe important physiological functions of oxytocin. 2+3=5

- b) Briefly discuss the effect of thyroid hormones on metabolism. 5
- c) Discuss about the synthesis of the components of Renin-Angiotensin system. Write about the significance of this system. 3+2=5
- d) Briefly discuss functions of melatonin in human. 5

3. Answer any **two** questions: 10×2=20
 - a) i) Describe with a suitable diagram the histological structure of adrenal cortex and name the hormones secreted from it.
 - ii) Discuss about the anti-inflammatory and immunomodulatory role of glucocorticoids. 4+6=10
 - b) i) Discuss the role of different hormones in the regulation of blood sugar level.
 - ii) How the secretion of insulin is regulated? 7+3=10
 - c) Name the source of PTH. Discuss the functions of PTH. How the secretion of PTH is regulated? 1+5+4=10
 - d) Write short notes on (any **two**): 5×2=10
 - i) Jet-lag
 - ii) Addison's Disease
 - iii) Circadian rhythm
 - iv) Synthesis of 1,25 DHCC

[Turn over]