

**Name of the Examination: B.PHARMACEUTICAL TECHNOLOGY
FIRST YEAR SECOND SEMESTER 2017**

Subject: Pharmaceutical Biology II

Times : Three hours

Full Marks : 100

Answer any *five* questions taking atleast *one* from each group.

GROUP - A

Answer the following questions:

1. Pituitary gland is called the master gland of our body – Justify the statement with detailed discussion of the role played by different pituitary hormones. Explain how the blood glucose homeostasis is maintained.
(5 + 5 = 10)
2. How different gonadotrophic hormones maintained a synchronized mode of action during female menstrual cycle. How do thyroid and parathyroid hormone maintains the calcium homeostasis in our system?
(5 + 5 = 10)
3. State the disease or the physiological consequences followed due to hyper and hypo secretion of these four hormones : a) growth hormone/somatostatin b) thyroid hormones c) calcitonin d) follicular stimulating hormone (FSH).
(2.5 X 4 = 10)

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Full Marks: 100

GROUP - B

4. Write down the function of nephron. With appropriate diagram discuss the structure of nephron. 8+12=20

3. Define glomerular filtration rate. Describe the different factors that control glomerular filtration. 2+18=20

6. Write notes on (any two)- 10X2=20
 - a. Micturation
 - b. Mechanism of glucose reabsorption.
 - c. Abnormal constituent of urine.

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Clearly mention the question number and part number for each answer.

Full Marks:100

GROUP - C

Q7) Write short note on the following topics:

- a) Internal structures for vein and arteries (with diagram). (05)
- b) Collateral circulation and its importance in human physiology (04)
- c) Factors regulating Venous return (05)
- d) Discuss about the function of 'Precapillary sphincters' and 'Sinusoids' (06)

Q8)

- (a) Draw a labeled diagram for the internal structures of human heart (Layers of heart walls. (06)
- (b) Discuss about Heart Sounds and Electrical conduction through heart. (06)
- (c) Write in brief about Cardiac Cycle and Factors affecting "Cardiac Output" (04+04)

Q9)

- a) Discuss in brief about the salient features of "Fetal Circulation". (06)
 - b) Write a short note on " Hypovolaemic Shock", "Arteriosclerosis" and "Varicose vein" (03 X 03)
 - c) Explain the electrical changes of heart that are denoted by ECG tracing. (PQRST) (05)
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