Total No. of Questions : 8]

SEAT No. :

P1515

[Total No. of Pages : 2

[5224]-401
M.Sc.
BIOCHEMISTRY
BCH - 470 : Physiological Biochemistry and Endocrinology
(2013 Pattern) (Semester - IV) (Credit System)

Time : 3 Hours] *[Max. Marks : 50*

Instructions to the candidates:

1) ***Answer to both the sections should be written on separate sheets.***
2) ***Question no. 4 and 8 are compulsory.***
3) ***Attempt any two questions from Q. 1 to Q. 3 and any two from Q. 5 to Q. 7.***
4) ***Figures to the right indicate full marks.***

SECTION - I

Physiological Biochemistry

Q1) Answer the following:

a) Write the anatomy of liver. **[3]**

b) Explain the diagnostic tests of kidney. **[3]**

c) What is the role of pepsin? Why is it secreted in an inactive form. **[4]**

Q2) Attempt the following:

a) What are the major parts of a nephron. **[2]**

b) Write the principles of gaseous exchange during respiration. **[4]**

c) What are the digestive functions of the components of pancreatic juice. **[4]**

Q3) Answer the following:

a) What is the major chemical difference between plasma and glomerular filtration. **[3]**

b) How are the major salivary glands distinguished on the basis of location? **[3]**

c) Explain any four functions of the liver. **[4]**

Q4) Attempt any one of the following:

a) Define acidosis & alkalosis. Distinguish among respiratory and metabolic acidosis & alkalosis. **[5]**

b) Describe the overall processes of digestive system. **[5]**

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SECTION - II

Endocrinology

Q5) Attempt the following:

a) What are target cells of hormones? **[2]**

b) Give the classification of anterior pituitary hormones. **[4]**

c) Write short notes on adenyl cyclase and its significance. **[4]**

Q6) Answer the following:

a) What is the function of thyroglobulin? **[2]**

b) Explain the difference between T_3 and T_4. **[3]**

c) What are secondary messengers and explain their role? **[5]**

Q7) Attempt the following:

a) Explain the role of glucagon in carbohydrate metabolism. **[3]**

b) What is ACTH? What happens if ACTH levels increases? **[3]**

c) Write a note on "Hormonal Inter - relationship" with example. **[4]**

Q8) Answer any one of the following:

a) What are hormones? Give their classification based on

i) Their chemical properties

ii) Secretion by different cells

iii) Mode of action. **[5]**

b) Describe the factors involved in the regulation of synthesis of mineralocorticoids. **[5]**

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