* P H - 0 0 3 - 0 0 1 6 3 8 - 5 0 - 3 *

PH-003-001638 Seat No. _____

B. Sc. (Sem. VI) (CBCS) Examination

July - 2018

Endocrinology, Cancer Biology & Bioinformatics : Paper - 603

Faculty Code : 003
Subject Code : 001638

Time : $2\frac{1}{2}$ Hours] [Total Marks : **70**

1 Give the correct answers for the questions : **20**

(1) Why endocrine glands are called ductless glands ?

(2) Name the two coordinating systems of human body.

(3) Give the function and location of adenyl cyclase.

(4) Why T4 can be called as prohormone?

(5) Name the hormone showing circadian rhythm with reference to adrenal gland.

(6) Which cells synthesize insulin and glucagon ?

(7) How testosterone is structurally different from cholesterol ?

(8) What do you understand by Corpus luteum ?

(9) Define the term : Contact Inhibition.

(10) "Benign tumor is treatable" Justify the statement.

(11) Define carcinogenic agents and write two examples.

(12) Write the role of proto oncogenes.

(13) Define: Genome and proteomics.

(14) What is bioinformatics ?

(15) Give the names of different types of database ?

(16) What do you mean by PubMed indexing ?

(17) What is the difference between EST and HTG ?

(18) Which are the primary sequence databases ? Give example.

(19) Name the different matrix for BLAST.

(20) Give the difference between accession no. and PID

2 (A) Answer any **three** of the following questions : **2×3=6**

(1) What do you understand by circadian rhythm in hormones ?

(2) Give the site of location of receptors for estrogen and thyroid hormones.

(3) Write the general principle of hormone synthesis.

(4) What is similarity search tool ? Give example.

(5) What is primary nucleotide database ?

(6) Briefly write the characteristics of benign tumors and Write two examples of commonly occurring benign tumors in humans.

(B) Answer any **three** of the following questions : **3×3=9**

(1) Write a note on receptors and its types.

(2) Write the major actions of glucagon on metabolism.

(3) Give classification of cancer based on its origin.

(4) Give the different branches of bioinformatics.

(5) Give note on other activities at DDBJ.

(6) Give note on TrEMBL.

(C) Answer any **two** of the following questions : **5×2=10**

(1) Describe the mechanism of action of a typical peptide hormone.

(2) With well labelled diagram, discuss anterior pituitary gland.

(3) Write a note on role of immune system in cancer.

(4) Define database. Explain biological database in detail with example.

(5) Describe in detail : GeneBank.

3 (A) Answer any **three** of the following questions : **2×3=6**

(1) What do you understand by exophthalmos ?

(2) What is the difference between aldosterone and corticosterone ?

(3) What are tumor suppressor genes ?

(4) Give the need of database.

(5) Write the search engine for PDB.

(6) With well lebelled diagram explain anatomy of thyroid gland.

(B) Answer any **three** of the following questions : **3×3=9**

(1) Discuss functional anatomy of thyroid gland.

(2) Give the mechanism of action of corticosteroids.

(3) Discuss about hypofunction of thyroid.

(4) What is PubMed indexing ? Give the different citation status.

(5) Which are the retrieval systems in EMBL ?

(6) Give note on HGP.

(C) Answer any **two** of the following questions : **5×2=10**

(1) Describe about the functional anatomy and applied physiology of suprarenal gland.

(2) Write a detailed note on diabetes.

(3) Write a note on metastasis with appropriate illustrations

(4) Write in brief : PubMed

(5) Explain type of database with its advantages and limitations.