



PB-003-1016038

Seat No. _____

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

March / April - 2020

**BC - 603 : Endocrinology, Cancer Biology And
Bioinformatics**

Faculty Code : 003

Subject Code : 1016038

Time : $2\frac{1}{2}$ Hours]

[Total Marks : 70

1 Give the correct answer for the questions : 20

- (1) Which are the two major coordinating systems of human body ?
- (2) Give the other name for anterior pituitary and posterior pituitary.
- (3) Name the disease caused during hyper function of thyroid.
- (4) Write the full form of TSH and source of its secretion.
- (5) Give the normal range of calcium in blood.
- (6) Name the two glucocorticoids.
- (7) List the two major functions of ovary.
- (8) Which cells synthesize testosterone?
- (9) Which tumor suppressor gene is located on the long arm of chromosome no. 13?
- (10) Name the body part affected in Xeroderma pigmentosa.
- (11) Define leukemia
- (12) Which dietary factors which are known to have protective functions against cancer.
- (13) When HGP has started and completed?
- (14) What is bioinformatics?
- (15) Give the name of different types of database?
- (16) Give the name of systems require for database management?

- (17) What is full form of SCOP and CATH?
- (18) Which are the primary and secondary databases for protein?
- (19) What is local alignment? Which are alignment search tools?
- (20) Give the difference between accession no. and PID.

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

- (1) Give the difference between dwarfism and acromegaly.
- (2) What is receptor for hormone ?
- (3) What do you understand by goiter ?
- (4) Enlist few methods to diagnose cancer.
- (5) What are the different methods require for DNA sequencing?
- (6) Write about need of database.

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

- (1) Write the general principle of peptide hormone synthesis.
- (2) List the anterior pituitary hormones with their main function.
- (3) Discuss functional anatomy of thyroid gland.
- (4) How DNA damage and repair system is responsible for the development of neoplasia?
- (5) Write the significance of data-base.
- (6) Give the note on TrEMBL.

(C) Answer any **two** of the following questions : **10**

- (1) With well labeled diagram discuss about posterior pituitary gland along with its disorders.
- (2) Discuss in brief about hypothalamus.
- (3) Write a note on physical carcinogenesis.
- (4) Give the different types of databases.
- (5) Give details about nucleotide sequence database maintains by NCBI.

- 3** (A) Answer any **three** of the following questions : **6**
- (1) Write about the synthesis and transport of glucocorticoids.
 - (2) Draw the structure to show different types of cells in Islets of Langerhans.
 - (3) What are primary sex organs?
 - (4) Define benign tumors.
 - (5) Describe ethical issues of HGP.
 - (6) What is accession and ID number?
- (B) Answer any **three** of the following questions : **9**
- (1) Write the functions of calcitriol .
 - (2) Discuss in brief the two distinct parts of adrenal gland.
 - (3) Discuss about types of diabetes.
 - (4) Write in brief about viral carcinogenesis
 - (5) What is PubMed indexing? Give the different citation status.
 - (6) Give short note on FASTA.
- (C) Answer any **two** of the following questions : **10**
- (1) Write a detailed note on calcium regulating hormones.
 - (2) Discuss the functions of mineralocorticoids.
 - (3) Write a detailed note on various genes involved in pathogenesis of cancer.
 - (4) Give short note on application of bioinformatics.
 - (5) Write short note on BLAST.
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