



NAO-003-001638 Seat No. _____

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

March / April - 2017

Biochemistry : Paper - BC - 603

(Endocrinology, Cancer Biology & Bioinformatics)

Faculty Code : 003

Subject Code : 001638

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

[Total Marks : 70

- 1 Answer the following in brief : (one mark for each question) 20
- (1) Write the biochemical nature of receptor.
 - (2) What is cell-to-cell signalling ?
 - (3) What do you understand by neurotransmitters ?
 - (4) Name the two neurohypophyseal hormones.
 - (5) Which cells synthesize insulin ?
 - (6) Give the hypothalamic hormone that influences ACTH secretion ?
 - (7) Define secondary messenger.
 - (8) Which glucocorticoid hormone controls blood glucose levels in the body ?
 - (9) Write the role of proto oncogenes.
 - (10) Which virus is mainly responsible for the warts on the skin ?
 - (11) How normal cells are different from cancer cells ?
 - (12) Write the examples of biological carcinogenic agents.
 - (13) Give the different methods for DNA sequencing.
 - (14) What is KEGG and Rebase ?
 - (15) Write any two important role of calcium.
 - (16) Define: Genome and proteomics.
 - (17) Name the different submission tool for EMBL.
 - (18) What is FTP and TPA ?
 - (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) Write a note on receptors and its different locations.
 - (2) Name the binding proteins for thyroxine.
 - (3) List the three growth regulators produced by hypothalamus and give their chemical nature.
 - (4) Give the need and types of database.
 - (5) Write the search engine for PDB.
 - (6) What do you mean by direct acting chemical carcinogenesis ?
- (b) Answer any **three** of the following questions : **3×3=9**
- (1) Discuss briefly about follicle stimulating hormone.
 - (2) Write about synthesis of 1,25 DHCC.
 - (3) Write a note on classification of cancer with suitable examples.
 - (4) What do you mean by the term Annotation ?
 - (5) Explain different management system for database.
 - (6) Give short note on FASTA.
- (c) Answer any **two** of the following questions : **5×2=10**
- (1) Write a detailed note on growth hormone.
 - (2) Discuss various second messengers for hormonal action.
 - (3) Explain malignant tumor.
 - (4) Write an essay on Biological Database.
 - (5) Write short note on BLAST.
- 3 (a) Answer any three of the following questions : **2×3=6**
- (1) What do you understand by IDDM ?
 - (2) Write a note on regulation of secretion of cortisol.
 - (3) How normal cell cycle is maintained by the cell ?
 - (4) Define Orthologous sequence.
 - (5) Write about the SRS system in EMBL.
 - (6) Write the two functions of testes.

- (b) Answer any three of the following questions : **3×3=9**
- (1) With one example explain negative feed back.
 - (2) Illustrate role of hormones in spermatogenesis.
 - (3) Explain radiation carcinogenesis.
 - (4) Give the different branches of bioinformatics.
 - (5) Discuss about different links with PDB.
 - (6) Give note on other activities at DDBJ.
- (c) Answer any two of the following questions : **5×2=10**
- (1) Describe about the chemistry, synthesis and functions of glucagon.
 - (2) Discuss about hormones secreted by testes.
 - (3) Explain biological carcinogenesis with examples.
 - (4) Discuss in detail about PubMed.
 - (5) Write note on primary protein sequence database: Swiss prot.
-