



PA-003-1016012 Seat No. _____

Third Year B. Sc. (Sem. VI) (CBCS) (W. E. F. 2016)
Examination

March / April - 2020

MB - 602 : Analytical Techniques And Bioinformatics
(New Course)

Faculty Code : 003
Subject Code : 1016012

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

1 (A) Answer the following questions : **4**

- (1) What is GLP?
- (2) Give lamberts law
- (3) Define quality management
- (4) Define IR spectroscopy

(B) Answer in brief : (Any One) **2**

- (1) What is Mass Spectroscopy?
- (2) Define radioactivity and radioisotope

(C) Answer in detail : (Any One) **3**

- (1) Give disadvantages of IR spectroscopy
- (2) Explain Monochromator

(D) Write a note : (Any One) **5**

- (1) Explain in detail NMR
- (2) Explain Atomic absorption spectroscopy.

2 (A) Answer the following questions : **4**

- (1) Define chromatogram.
- (2) What is R_f Value?
- (3) Give one disadvantages of TLC.
- (4) What is HPLC ?

(B) Answer in brief : (Any One) **2**

- (1) Explain Partition coefficient.
- (2) What is difference between GSC and GLC ?

(C) Answer in detail : (Any One) **3**

- (1) Write down the principle of affinity chromatography.
- (2) Write principle of ion exchange chromatography.

(D) Write a note : (Any One) **5**

- (1) Explain Size exclusion chromatography.
- (2) Explain Paper Chromatography.

3 (A) Answer the following questions : **4**

- (1) What is Electrophoretic mobility?
- (2) Define autoradiography.
- (3) What is capillary electrophoresis?
- (4) Full form of SDS-PAGE.

(B) Answer in brief : (Any One) **2**

- (1) Write about optical biosensor.
- (2) Write about flow cytometry.

(C) Answer in detail : (Any One) 3

- (1) Write about Native gel electrophoresis.
- (2) Write about PFGE.

(D) Write a note : (Any One) 5

- (1) Explain in details about agarose gel electrophoresis.
- (2) Give details about SDS-PAGE.

4 (A) Answer the following questions : 4

- (1) What is Dot Blot technique?
- (2) What is SNP?
- (3) Full form of RFLP and VNTR.
- (4) What is Primer ?

(B) Answer in brief : (Any One) 2

- (1) Give overview of chemical synthesis of DNA.
- (2) What is difference between southern blotting and northern blotting ?

(C) Answer in detail : (Any One) 3

- (1) Explain FISH.
- (2) Explain Western blotting.

(D) Write a note : (Any One) 5

- (1) Explain PCR
- (2) Explain about Maxam and Gilbert procedure for DNA sequencing.

5 (A) Answer the following questions : 4

- (1) Define Bioinformatics.
- (2) Define Proteomics.
- (3) Full form of DBMS.
- (4) What is secondary database?

(B) Answer in brief : (Any One) 2

- (1) Write about gene bank.
- (2) Explain sequence retrieval system.

(C) Answer in detail : (Any One) 3

- (1) Write about SWISS-PROT.
- (2) Write about FASTA.

(D) Write a note : (Any One) 5

- (1) Explain in detail about Phylogenetic analysis.
- (2) Write about Biological databases.
