



Avinashilingam Institute for Home Science and Higher Education for Women

(Deemed to be University under Category 'A' by MHRD, Estd. u/s 3 of UGC Act 1956)

Re-accredited with 'A+' Grade by NAAC. Recognised by UGC Under Section 12B

Coimbatore - 641 043, Tamil Nadu, India

Master's Degree Examination – June / July 2021

II Semester

Class: I PG

Major: Biochemistry/ Biotechnology / IT

Time : 3 Hours

Max Marks : 100

20MBII01 IDC - Bioinformatics in Health

Part A

10 x 1 = 10

Choose the Correct Answer

- Identify the type of record which has most information from the following. CO1K1
 - Evidence based records
 - Electronic Health records
 - Patient portal
 - File system
- Choose where do careers in biomedical and health informatics exist from the following. CO1K3
 - Clinical care and research
 - Personal health management for patients and consumers
 - Translational science
 - All the above.
- Infer which of the following is not a biomedical data. CO2K2
 - Body Temperature
 - Blood Pressure
 - Hb level
 - Number of siblings
- Select the images used in radiology from the following. CO2K2
 - X-rays
 - Ultrasound scan
 - MRI
 - All the above
- Identify what is KDD from the following. CO3 K1
 - Knowledge Discovery Database
 - Knowledge Discovery Data
 - Knowledge Data definition
 - Knowledge data house
- Name the lowest level of abstraction for medical images. CO3K1
 - Pre-processing
 - Digitization
 - Intensification
 - Clarity
- Select the term used to represent a small molecule with Pharmaceutical response from the following options. CO4K2
 - Ligand
 - Hormone
 - Drug
 - Peptide
- Choose the correct definition of Pharmacophore from the following. CO4K3
 - 3D model of the active residues
 - Pharmacological molecules
 - Active site of an Enzyme
 - Drug binding site
- Identify the correct expansion for SNP from the following. CO5K1
 - Single Nucleotide Polymorphism
 - Sequence Nucleotide Polymorphism
 - Structure Nucleotide Polymorphism
 - Sequence Number Polymorphism
- Evaluate which of the following does not contribute to OMICS study. CO5K5
 - Metabolome
 - Proteome
 - Genome
 - Mineralome

Part B
Answer ALL Questions

5x6=30

Each answer should not exceed 400 words or two pages

- 11.a. Report on the uses of medical informatics. CO1K2
(or)
- 11.b. Explain in brief about healthcare functions. CO1K3
- 12.a. Appraise on the role of Internet in Public health informatics. CO2K4
(or)
- 12.b. Conclude on the methods of managing and disseminating health care Knowledge. CO2K4
- 13.a. Summarize the role of big data analysis in health care and explain in brief. CO3K2
(or)
- 13.b. Explain the format of medical images used in healthcare informatics with an example. CO3K3
- 14.a. Determine the method of finding new drug targets. CO4K4
(or)
- 14.b. Generalize the principles of druggability with examples. CO4K2
- 15.a. Correlate the method of extracting phenotype from massive Omics data. CO5K4
(or)
- 15.b. Defend your thoughts on the advantages of preventive medicine. CO5K5

Part C
Answer ALL Questions

5 x 12 = 30

Each answer should not exceed 800 words or four pages

- 16.a. Describe in detail about Health Informatics technology. CO1K2
(or)
- 16.b. Summarize the role of information Technology in Healthcare informatics in detail. CO1K2
- 17.a. Conclude on the information retrieval methods from digital libraries. CO2K4
(or)
- 17.b. Demonstrate the methods of acquiring, storing and using Biomedical data. CO2K3
- 18.a. Employ the various methods of Biomedical Literature mining and discuss about the advantages and disadvantages. CO3K3
- 18.b. Interpret the principle and techniques behind medical image processing in detail. CO3K3
- 19.a. Defend your views on the role of Pharmacophores in Drug Discovery. CO4K5
(or)
- 19.b. Deduce the techniques used in Quantitative Structure Activity Relationship. CO4K4
- 20.a. Justify the applications of big data analytics in healthcare sector with appropriate examples. CO5K5
(or)
- 20.b. Illustrate the applications of Pharmacogenomics in detail. CO5K3
