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Code No. 1198

**FACULTY OF PHARMACY****B. Pharmacy IV/IV II – Semester (Supple.) Examination, April 2018****Subject: Pharmacoinformatics****Time: 3 Hours****Max. Marks: 70****Note: Answer all questions. All questions carry equal marks.**

1. a) Define Database? Write about various types of databases. 7  
b) Write about Codd's rules. 7  
OR  
c) Write about database normalization. 7  
d) Write about Phylogenetic analysis? 7
2. a) What is sequence alignment? Explain dynamic programming method for sequence alignment. 14  
OR  
b) Write about storage and retrieval of information. 7  
c) Write about Hidden Markov Models and its applications. 7
3. a) Write about various types of drug information resources available. Explain with examples. 8  
b) Write a note on Barcodes. 6  
OR  
c) What is Pharmacy Automation? Write its application in medication dosage, filling and packaging, medication distribution and inventory control. 10  
d) Write a note on emergency treatment of poisoning. 4
4. a) Write about i) Genbank ii) Cosmid Libraries 6  
b) What are DNA sequencing methods? Write about Maxam Gilbert and Sanger method for DNA sequencing. 8  
OR  
c) Write a note on following protein databases 14  
i) Prosite ii) PDB iii) SCOP iv) CATH
5. a) What is SAR and QSAR? Write in detail about Hansch analysis and Free-Wilson analysis. 9  
b) Write a note on docking. 5  
OR  
c) Explain drug receptor theories with examples. 7  
d) Write a note on i) Energy minimization ii) Bioisosterism 7

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