International Institute of Health Management Research (IIHMR) NEW DELHI

Health care IT Batch- 2017- 19 Supplementary Exam

Time – 3 Hrs Total marks: 70

Bioinformatics HIT - 711

Part A

Answer any eight of the following.

5X8 = 40

- 1. Explain genetic code
- 2. Write short notes on any two: a)PDB b) EMBL c)Swissprot
- 3. Structure of DNA
- 4. Explain global and local sequence alignment
- 5. Explain PAM and BLOSSUM matrices in short
- 6. Write short note on Transcription process
- 7. Human Genome Sequencing
- 8. Concept of homology
- 9. Give a brief on Pubmed Search
- 10. Write short notes on translational research

Part B

Answer the following (No Choice)

30 marks

Given the following sequences a) AGGCTCGC b) GGCTCGCC c) AGCTCGAA

- a) Which of the two sequences are highly similar? Identify using local sequence alignment. Match = +3 Mismatch = 1 gap = 0
- b) Take the above identified highly similar sequence and perform a global alignment between them. Match = +1, Mismatch = 0, gap = -1