AU–77

B.Sc. Part—I Semester—II Examination

2S : BIOINFORMATICS

(Computer Fundamentals and Operating Systems)

Time : Three Hours]   [Maximum Marks : 80

Note :— (1) Attempt all questions.

(2) Question No. 1 is compulsory and carries **8** marks.

1. (A) Fill in the blanks :—   2

(i) DVD stands for _____ .

(ii) ASCII stands for _____ .

(iii) TCP/IP stands for _____ .

(iv) MAN stands for _____ .

(B) Choose the correct alternative :   2

(i) The programs and instructions that help the computer in carrying out their processing are known as :

    (a) Hardware   (b) Software

    (c) Data   (d) None of the above.

(ii) Which of the following is not a type of bus used in the computer system ?

    (a) Data bus   (b) Address but

    (c) Information bus   (d) Control bus

(iii) Which of the following is not a type of magnetic storage system ?

    (a) Magnetic tape   (b) Compact disk

    (c) Hard disk   (d) Floppy disk.

(iv) The 4-bit binary equivalent of the decimal number 6 is :

    (a) 0111   (b) 1000

    (c) 0010   (d) 0110

(C) Answer the following in one sentence each :— 4

   (i) What is meant by optical recognition ?

   (ii) State the characteristics on the basis of which the efficiency of a printer can be measured.

   (iii) What is the weight of digit 5 in the decimal number 9536 ?

   (iv) Name any three types of operating system.

2. (A) Explain how general purpose computers are different from special purpose computers. 4

  (B) What do you understand by tracks and sectors on the surface of a magnetic disk ? 4

  (C) Differentiate between an impact printer and a non-impact printer. Give one example of each. 4

OR

(P) Explain in detail the concept of hexadecimal number system. 4

(Q) Explain the different technologies used in touch screens. 4

(R) Explain how data is transfered from processor to an output device within a computer system. 4

3. (A) Write the steps to change background color of the desktop. 4

  (B) Explain the use of Recycle bin. How the deleted files can be recovered from the recycle bin ? 4

  (C) Explain the use of hyperlink in the Word document. 4

OR

(P) Explain :

   (i) Control Panel

   (ii) Windows Explorer. 4

(Q) Explain spell check and grammar features in MS Word. 4

(R) Write the steps to copy and move a file using Windows Explorer. 4

4. (A) Explain the different ways of starting MS-Excel from computer system. 4

  (B) What is the difference between mathematical formula and functions in MS-Excel ? Give one example of each. 4

  (C) Explain the various advantages of Electronic mail. 4

OR

(P) Write the procedure to create charts in MS-Excel. 4

(Q) Explain :

    (i)   FTP   (ii) HTTP. 4

(R) Explain the features of Internet Explorer. 4

5. (A) Explain the important features of Unix OS. 4

   (B) Explain the commands in Unix with one example each :

     (i)   cd

     (ii) ln. 4

   (C) Explain the process states in Unix OS. 4

OR

(P) Explain the file system in Unix OS. 4

(Q) Explain how to execute and terminate a program in Unix OS. 4

(R) How a memory management task is achieved in Unix OS ? 4

6. (A) Explain design principle of Linux OS. How inter process communication takes place in it ?

                                                                  6

   (B) How process scheduling is done in Linux OS. Discuss in detail. 6

OR

(P) State and explain functions of kernel in Linux OS. How security is implemented in this system ? Explain. 6

(Q) Draw layered structure of Linux. Add a note on process system. 6

7. (A) What is network topology ? Explain. Give difference between Bus topology and Ring topology.

                                                                   6

   (B) Explain client-server architecture in detail. 6

OR

(P) What is the difference between LAN and WAN ? Explain Star topology with suitable diagram. 6

(Q) How the network protocols helps in the communication of menages over the network ? 6