First Semester FYUGP Computer Science Examination
NOVEMBER 2024 (2024 Admission onwards)
KU1DSCCSC107 (ESSENTIALS OF INFORMATION TECHNOLOGY)
(DATE OF EXAM: 6-12-2024)

Time : 90 min

Maximum Marks : 50

Part A (Answer any 6 questions. Each carries 2 marks)

1. What is the function of the CPU in a computer system? 2

2. Define a computer and list its basic characteristics. 2

3. List any 4 optical devices. 2

4. What is the significance of 1's complement and 2's complement in binary numbers? 2

5. What is system software? Give two examples. 2

6. Name two hardware components of networking. 2

7. Discuss the function of transmission media in digital transmission. 2

8. What is the difference between simplex and duplex transmission modes? 2

Part B (Answer any 4 questions. Each carries 6 marks)

9. Explain the Fetch-Decode-Execute cycle in detail and its importance in CPU operation. 6

10. What are the differences between primary memory and secondary memory? Provide examples of each. 6

11. Convert decimal number 357 to binary, octal and hexadecimal 6

12. Expalin software licensing. 6

13. Explain the key differences between LAN, MAN, and WAN networks. 6

14. Describe the different types of transmission media used in digital transmission. 6

Part C (Answer any 1 question(s). Each carries 14 marks)

15. (a) Convert the decimal number 453 into binary, octal, and hexadecimal number systems. Explain the steps involved in each conversion and the importance of these number systems in computing. 7

(b) Explain various number codes in detail. 7

16. (a) Describe the different types of software, including system software, application software, and operating systems. 7

(b) Explain programme development life cycle in detail. 7