BIRLA INSTITUTE OF TECHNOLOGY, MESRA, RANCHI
(END SEMESTER EXAMINATION)

CLASS: BCA   SEMESTER : I
BRANCH: BCA   SESSION : MO/2024

SUBJECT: CN107 FUNDAMENTALS OF COMPUTER SCIENCE

TIME: 3 Hours   FULL MARKS: 50

INSTRUCTIONS:
1. The question paper contains 5 questions each of 10 marks and total 50 marks.
2. Attempt all questions.
3. The missing data, if any, may be assumed suitably.
4. Before attempting the question paper, be sure that you have got the correct question paper.
5. Tables/Data hand book/Graph paper etc. to be supplied to the candidates in the examination hall.

			CO	BL
Q.1(a)	Describe the classification of computers in brief.	[5]	1	2
Q.1(b)	Define software and explain different categories of software.	[5]	1	2
Q.2(a)	What is Operating System? Explain the functions of Operating System in a computer.	[5]	2	1
Q.2(b)	Briefly explain Development life cycle of program.	[5]	2	1

Q.3(a)   i)Convert $(567)_8$ into hexadecimal form.   [5]   3   3

ii)Subtract 1010111 from 1110110

iii)Divide 111010 by 10

iv) Calculate 10110111 – 00110010 using two's complement method.

v) Convert $(178.92)_{10}$ into its equivalent octal number.

Q.3(b)   Define Logic gate. Explain different logic gates with diagram and truth tables.   [5]   3   3

Q.4(a)   Explain any four input devices.   [5]   4   1
Q.4(b)   Write short notes on   [5]   4   1
   a) Plotters
   b) Projectors
   c) printers

Q.5(a)   Explain the sub units that make up the CPU and give the function of each of the units.   [5]   5   2
Q.5(b)   What is the function of memory? Explain different types of RAM and ROM.   [5]   5   1

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