Jharkhand University of Technology, Ranchi

Diploma 1st Semester Examination, 2024 (NEP-2024)

Subject : Fundamental of Computer

Subject Code: CSE-101

Full Marks: 70

Pass Marks: 21

Time Allowed: 3 Hours

Answer in your own words. Answer five questions in which Question No. 1 is compulsory. All questions carry equal marks.

► 1. Choos	e the correct option:			2×7=14
(i)	In binary number system, the base is			
	(a) 8	(b)	2	10,
	(c) 16	(d)	10	
(ii)	ASCII stands for			*
	(a) American Standard Code for Information Interchange			
	(b) American System Code for Information Index			
	(c) American Standard Computing Information Inc			
	(d) Advanced Standard Code for Information Interchange			
(iii)	Which generation of computers used vacuum tubes?			
	(a) First	(b)	Second	
	(c) Third	(d)	Fourth	
(iv) Which of the following is not a type of computer network?				Cil.
	(a) LAN	(b)	MAN	
	(c) CAN	(d)	DON	
(v)	Which memory is fastest?		The Man	
	(a) Hard disk	(b)	RAM	
	(c) Cache	(d)	ROM	
(vi)	Variables in programming			
	(a) store data	(b)	cannot store data	
	(c) only store numbers	(d)	only store text	
(vii)	Flowchart is a			
70	(a) textual representation	(b)	graphical representation	
	(c) mathematical representation	(d).	None of these	

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Ever small astrobetted 86/6 otol olol 200 olol 2 Explain the characteristics of binary, octal, decimal and hexadecimal number systems with examples. (b) Explain the concept of binary arithmetic and its applications in computer systems. (a) Discuss the working of flip-flops and their role in sequential circuits. (b) Explain the concept of encoders and decoders with their applications in digital systems. Discuss the evolution of computers from the first generation to the present generation. Describe the hardware components of a computer system and their functions. (a) Explain the functional units of a computer and their roles in the stored program concept. (b) Discuss the role of cache memory in improving the performance of a computer system. What is an algorithm? Explain the steps involved in writing an algorithm with an example. (b) Explain the concept of variables and constants in programming with examples. 1. Write short notes on any four of the following: $3.5 \times 4 = 14$ (a) Logic gates (b) Demultiplexer (c) LAN Co. Ca. S. C. C. S. C. S (d) BIOS and UEFI (e) Flowcharts