

I PUC MID-TERM EXAMINATION, OCT./NOV.-2024

Time : 3 Hours

COMPUTER SCIENCE (41)

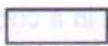
Max. Marks : 70

PART-A

I Answer ALL the questions. Each question carries ONE mark. 20x1=20

Select the correct answer from the choices given:

(Repeated answers will not be considered)

- 1) Who invented Analytical Engine?
a) Herman Hollerith b) Blaize Pascal c) Charles Babbage d) John Von Neumann
- 2) 1 TB =
a) 1024 KB b) 1024 PB c) 1024 MB d) 1024 GB
- 3) _____ is volatile memory.
a) ROM b) RAM c) DVD d) HDD
- 4) Statement (A) : Data capturing is process of gathering data from different sources in digital form.
Statement (B) : Heterogeneity among data sources sometime makes data capturing a complex task.
a) Both A and B are true b) Both A and B are false
c) A is true but B is false d) A is false but B is true
- 5) _____ is developed to incorporate all characters of every written languages of the world.
a) UNICODE b) ASCII c) ISCII d) ENCODE
- 6) The base value of hexadecimal number is _____.
a) 8 b) 2 c) 10 d) 16
- 7) Binary equivalent of $68_{(10)}$ is _____.
a) $100100_{(2)}$ b) $1000110_{(2)}$ c) $1000100_{(2)}$ d) $1100100_{(2)}$
- 8) Machine learning is a subsystem of
a) IOT b) WOT c) Robotics d) AI
- 9) The predictive typing feature is example of _____.
a) NLP b) AR c) VR d) Veracity
- 10) _____ is the process of examining data sets in order to draw conclusions about the information they contain.
a) Data capturing b) Data Analytics c) Data exam d) Data holding
- 11) By analysing problem you will figure out _____.
a) Input and Output b) Testing and Debugging
c) Input and Reading d) Output and Writing
- 12) Given flowchart symbol  is used for _____.
a) Input or Output b) Decision c) Process d) Start or End
- 13) Which of the following is not selection statement _____.
a) While b) If c) If-Esle d) If-Else ladder
- 14) We need to debug because _____.
a) To increase the size of the code
b) To write the algorithm
c) To ensure the program runs without error
d) To develop the problem statement
- 15) What is the extension for python program ?
a) .phy b) .py c) .exe d) .php

(P.T.O)

**II Fill in the blanks choosing the appropriate word/words from given in brackets.
(Flowcharts, Flow of control, Algorithm, Decompose, Pseudocode, Syntax)**

- 16) _____ is defined as step by step procedure designed to perform an operation.
- 17) _____ is another way of representing algorithm.
- 18) _____ depicts flow of events as represented in flow charts.
- 19) The set of rules or grammar that governs formulation of statements is called _____.
- 20) Breaking down complex problem into sub problems called as _____.

PART-B

III Answer any FOUR questions: Each question carries TWO marks. 4x2=8

- 21) Write the difference between primary and secondary memory.
- 22) What are microcontrollers ? Give example.
- 23) Write the major categories of computer programming languages.
- 24) Convert $122_{(8)}$ to Decimal.
- 25) Mention any two applications of Robotics.
- 26) What is Pseudocode ? Write any two keywords used while writing pseudocode.
- 27) What are the keywords in Python ? Give example.

PART-C

IV Answer any FOUR questions. Each question carries THREE marks. 4x3=12

- 28) Define 1) Assembler 2) Compiler 3) Interpreter
- 29) Explain any three functions of the operating system.
- 30) Convert $605.12_{(8)}$ to Decimal.
- 31) Briefly explain cloud services.
- 32) Write any three characteristics of a good algorithm.
- 33) Write an algorithm to find the square of the number.
- 34) What are the rules for naming an identifier in Python ?

PART-D

V Answer any FOUR questions. Each question carries FIVE marks. 4x5=20

- 35) Define microprocessors. Explain the features of microprocessors.
- 36) Explain different types of operating system user interfaces.
- 37) Write a note on ASCII encoding schemes.
- 38) List any five Artificial Intelligence examples used in daily life.
- 39) What are the characteristics of big data ?
- 40) What are the key steps required for solving a problem in a computer ?
- 41) Briefly explain any five features of Python.

PART-E

VI Answer any TWO questions. Each question carries FIVE marks. 2x5=10

- 42) Explain the block diagram of a computer system.
- 43) Convert $23D_{(16)}$ to Decimal, Octal and Binary.
- 44) Draw a neat flowchart to calculate area and perimeter of rectangle.

PART-F

(For Visually challenged students only)

VII 12) Which of the following is not a characteristics of a good algorithm.

- a) Uniqueness b) Primary memory c) Input d) Output
