

**HG(3) — Math (8) Pr. of
Comp. Sc. (Sc. & Arts)**

2020

Time : 3 hours

Full Marks : 70

Pass Marks : 32

*Candidates are required to give their answers in
their own words as far as practicable.*

The questions are of equal value.

Answer any five questions in which

Q. No. 1 is compulsory.

1. Choose the correct answer of the following :

(a) The brain of the computer is :

- (i) Control unit
- (ii) ALU

(iii) CPU

(iv) All of these

(b) Which language is a symbolic language ?

(i) Machine Language

(ii) C

(iii) Assembly Language

(iv) All of these

(c) Which are the Arithmetic Operator is C ?

(i) <, >, <=, >=

(ii) +, -, *, /, %

(iii) =, +=, -=, *=, /= etc

(iv) ?

(d) Printers that use impact printer technology among the following are :

- (i) Daisy Wheel
- (ii) Laser
- (iii) Band
- (iv) Inkjet

(e) Microprocessor is developed by :

- (i) IBM
- (ii) Intel
- (iii) Oracle
- (iv) Wipro

(f) Array is a collection of :

- (i) Dissimilar Data Type
- (ii) Similar Data Type
- (iii) Multiple Data Type
- (iv) None of these

(g) A symbolic representation of a process is :

- (i) Algorithm
- (ii) Flowchart
- (iii) Program
- (iv) Pseudocode

(h) The file that contains all the data relevant for an application is :

- (i) Transaction file

- (ii) Master file
- (iii) Backup file
- (iv) Output file

(i) The part of the computer system in charge of managing the hardware and the utilization of its resources is :

- (i) Application Programs
- (ii) Utility Programs
- (iii) Operating System
- (iv) System Software

(j) Stack is a :

- (i) LIFO
- (ii) FIFO
- (iii) FILO
- (iv) LILO

(k) In a queue, insertion is done at :

- (i) Rear
- (ii) Back

(iii) Front

(iv) Top

(l) Information is :

(i) Facts and Entities relevant for user

(ii) Numbers and Alphabates

(iii) Raw Data

(iv) Processed Data

(m) Which of the following is a word processing package ?

(i) Corel Draw

(ii) Notepad

(iii) Page Maker

(iv) None of these

(n) A binary number system uses :

(i) Only two digits 0 and 1

(ii) Digits from 0 to 9

(iii) Digits from 0 to 7

(iv) None of these

2. What are the role of input and output devices in computer functioning ? Give two examples of input and output devices.

3. What do you mean by computer memory ? Differentiate between primary and secondary memory.

4. Explain the use of a flowchart. Draw a flowchart to choose the largest number from three given numbers.

5. (a) Convert $(1101)_2$ into a decimal number.
(b) Find the sum $(10101011)_2 + (01111111)_2$ and convert the sum into equivalent decimal system.

6. Write a program to sort an array of numbers.

7. What do you mean by stack and queues ? Write a program to calculate the number of items in a queue ?

8. Explain the concept of a tree. Discuss its applications.
9. Write an essay on Artificial Intelligence
10. What is an object oriented programming ?
Explain the features of object oriented programming.

