

<b>KENDRIYA VIDYALAYA SANGATHAN GUWAHATI REGION</b>				
<b>HALF YEARLY EXAMINATION 2019-20</b>				
	<b>CLASS :XI</b>	<b>SUB : COMPUTER SCIENCE</b>	<b>TIME: 3 Hrs</b>	<b>M.M : 70</b>

**General Instruction: General Instruction: -**

*All Questions Are compulsory. Internal choices are given in some questions.*

1. *Programming language used is python. Use appropriate variable names.*
2. *Please check that this question paper contains 2 printed pages.*
3. *Please check that this question paper contains 31 questions.*
4. *Please write down the serial number of the question before attempting it. Indent your program appropriately.*

- |     |   |   |
|-----|---|---|
| 1.  | State the basic architecture/units of a computer system with example?                             | 2 |
|     | OR  |   |
|     | Write down the main components of a Mobile System?  |   |
| 2.  | What is the function of memory? What are its measuring units?                                     | 2 |
| 3.  | Differentiate between the RAM and ROM?  | 2 |
| 4.  | Define the following language processors?   | 3 |
|     | a) Assembler                      b) Compiler                      c) Interpreter                 |   |
| 5.  | Define the various categories of Computer Software with example?                                  | 3 |
| 6.  | What is UNICODE? What is its significance?  | 1 |
| 7.  | Add the following Binary Numbers using binary Addition?   | 2 |
|     | a) 10110111 and 1100101                      b) 1110.110 and 11010.011                            |   |
| 8.  | Convert the following Numbers?  | 3 |
|     | a) $(84.375)_{10} = (?)_2$ b) $(132)_8 = (?)_{10}$ c) $(FACE)_{16} = (?)_8$                       |   |
| 9.  | Which Gates are known as Universal Gates and why?   | 2 |
| 10. | Draw the circuit diagram for the following Boolean Functions:                                     | 2 |
|     | $F(X,Y,Z) = X.Y + X.Z$ (Using NAND Gates only)  |   |
|     | OR  |   |
|     | $F(X,Y,Z) = (X+Y) . (X+Z')$ (Using NOR Gates only)  |   |
| 11. | State the De-Morgan's Theorem? Prove it algebraically?  | 3 |
| 12. | How a process is different from a program?  | 1 |
| 13. | What is Parallel Computing?   | 2 |
|     | OR  |   |
|     | Define the term Cloud Computing.  |   |
| 14. | What are the functions of an Operating System when multiple processes are running simultaneously? | 2 |
| 15. | a) What is cross platform language/software?  | 2 |
|     | b) What are the advantages of python programming language?  |   |
|     | OR  |   |
|     | List out the limitations of python programming language?  |   |
| 16. | Define the different modes of working in python?  | 2 |

