

PAPER CODE- 51036

University Institute of Engineering & Technology

*(Recognised Under Section 2(f) and 12B of UGC)*

Kurukshetra University, Kurukshetra

Roll No. - 257801125

|                               |                |
|-------------------------------|----------------|
| THEORY EXAMINATION – DEC 2019 |                |
| B.TECH - ECE                  | SEMESTER – III |

TIME – 3 Hrs.

M.M. - 75

COURSE NO. - ES-201

COURSE TITLE - Essentials of Information Technology

Note: All questions in Part-A and Part-B are compulsory. Attempt any four questions from Part-C selecting at least one from each unit.

**PART-A (15 Marks)**

Q. No. – 1 Answer the following questions.

15x1=15

|        |   |
|--------|---|
| (i)    | Write names of any two popular operating systems.   |
| (ii)   | Enlist the Cloud Computing Characteristics.   |
| (iii)  | Enlist the primary reasons for using parallel computing.  |
| (iv)   | What is the output of bubble sort after 1 <sup>st</sup> iteration of given Sequence 13 9 4 18 5 6 35 40.    |
| (v)    | What is the output of selection sort after 1 <sup>st</sup> iteration of given Sequence 13 9 4 18 5 6 35 40. |
| (vi)   | Enlist the major functions of an operating system.  |
| (vii)  | Source code extension in python is?   |
| (viii) | Function and description of len(list) , list(seq).  |
| (ix)   | Enlist types of plot.   |
| (x)    | What happens is that pdb attempts to execute the pdb n command?   |
| (xi)   | Evaluate the expression.<br>((not (9 == 8)) and ((6+3) !=9)) or (9 > 2.3)                                   |
| (xii)  | Which is unique can't be have null value is called .....Key.  |
| (xiii) | To fill a table in MySQL, use the ..... statement.  |
| (xiv)  | Change the address from "Valley 345" to "Canyon 123": use the .....statement.                               |
| (xv)   | Python is also called ..... Language.   |

**PART-B (20 Marks)**

| UNIT-I   |  |   |
|----------|--|---|
| 2        | Describe data type in python.  | 5 |
| UNIT-II  |  |   |
| 3        | Write down algorithm for histogram plot using python.  | 5 |
| UNIT-III |  |   |
| 4        | Explain the concept of cloud and architecture.   | 5 |
| UNIT-IV  |  |   |
| 5        | Primary Key: A<br>Candidate Key: A & BC<br>Super Key: A, BC, AE, AD & ABC<br>Composite Key: BC<br>Where A, B, C, D, E are the attribute of table. Define relation of attributes. | 5 |

**PART-C (40 Marks)**

| UNIT-I   |   |    |
|----------|---|----|
| 6        | Explain the Conditional statements and control flow statements with example.  | 10 |
| 7        | Explain the operation of list and tuple with example.   | 10 |
| UNIT-II  |   |    |
| 8        | Describe debugging in python in detail.   | 10 |
| 9        | Write down bubble sort and insertion algorithms for given problem.<br>45 2 78 51 98 23 9  | 10 |
| UNIT-III |   |    |
| 10       | Differentiate between:<br>(i) An interpreter and a compiler.<br>(ii) Priority Scheduling and Round Robin Scheduling<br>(iii) Buffering and SPOOLING<br>(iv) Time Sharing and Real Time Operating System | 10 |
| 11       | Define an operating system? Explain the functions of an operating system.   | 10 |
| UNIT-IV  |   |    |
| 12       | Enlist and explain the commands of SQL.   | 10 |
| 13       | Enlist and explain the commands of Mongo DB.  | 10 |