**VNR VIGNANA JYOTHI INSTITUTE OF ENGINEERING & TECHNOLOGY**

**B.Tech. I Year I Semester – CSE- D**

**MATHEMATICAL FOUNDATION F**

**OR COMPUTER SCIENCE- 18PC1CS01**

***Why am I Learning, What I am Learning***

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| **Roll.No** | **Name** | **Unit – 2 - Set Theory,Relations,Functions.** |
| 18071A05P0 | P.SRAVANTH | Notations, Inclusion and equality sets, Operations on sets, Venn diagrams, Properties of binary Relations, Equivalence, Transitive closure, Compatibility and partial ordering relations, Hasse diagram, Types of Functions, Inverse Function, Composition of functions, Recursive Functions. |
| 18071A05P1 | P.VASAVI |
| 18071A05P2 | P.KARTHIK |
| 18071A05P3 | SINDHUJA PONNURU |
| 18071A05P4 | PRANAVI |
| 19075A05P5 | YASHASWI |
| **What did you learn from this unit** | | |
| The fundamentals that we have learnt through this unit are :   * **Set Theory:** notations, inclusion and equality sets, operations on sets, Venn diagrams. * **Relations:** Properties of binary Relations, equivalence, transitive closure, compatibility and partial ordering relations, Hasse diagram. * **Functions:** Types of Functions, Inverse Function, Composition of functions, recursive Functions.   Image result for set theory relations functions animation | | |
| **Was the application illustrated, clear for understanding the topics covered in this unit** | | |
| All the concepts of the unit are illustrated clearly by the means of the general application-  “**AIRLINE MANAGING SYSTEMS**”.  Whole concept of the unit is clearly explained by functionality of ***search*** button.  The moment we enter the inputs and execute the search operations internally all the search is done based on the truth table all the operations are performaed and only those results are produced which produce truth table as tautology.  When the options are selected our options will be mapped to the desired flight.  Contd… | | |
| **Identify an application, to relate to the content learnt and explain**  We all have a group of some objects, collection of our favorite things, sets of books, a list of cities and countries in our life. These all are sets, and we come to their usage in our daily life.  Sets are the term used in mathematics which means the collection of any objects or collection. More scientifically, **a set is a collection of well-defined objects**.  Apart from their mathematical usage, we use sets in our daily life. Let’s check some everyday life examples of sets.  **1. In Kitchen**  Kitchen is the most relevant example of sets. Our mother always keeps the kitchen well arranged. The plates are kept separate from bowls and cups. Sets of similar utensils are kept separately.  Kitchen-sets  **2. School Bags**  School bags of children is also an example. There are usually divisions in the school bags, where the sets of notebooks and textbooks are kept separately.  **3. Shopping Malls**  When we go shopping in a mall, we all have noticed that there are separate portions for each kind of things. For instances, clothing shops are on another floor whereas the food court is at another part of the mall.  Shopping mall-sets  **4. Universe**  As we all know that there are millions of galaxies present in our world which are separated from each other by some distance. Here, the universe act as a set.  **5. Playlist**  Most of us have a different kind of playlists of songs present in our smartphones and computers. Rock songs are often separated from classical or any other genre. Hence, playlists also form the example of sets.  Playlist-sets  **6. Rules**  Every school or company have different sets of rules which have to follow by every student and employee. There are disciplinary rules, rules for leave, hostel rules, Timing rules, and many others. Hence, all different types of rules are separated from others.  **7. Representative House**  Representative houses are examples of sets. Here the people belonging to various departments have to sit separately from other departments. For example, the legal department and finance department dont sit intermixed with each other. It has the lower house and upper house called Senate, where only senior members sit whereas the juniors sit in the lower house.  **<<THE END>>** | | |