



**PES UNIVERSITY**  
(Established under Karnataka Act No.16 of 2013)  
100-ft Ring Road, BSK III Stage, Bangalore – 560 085  
Department of Computer Science & Engineering  
Minor DBMS Lab Session: Jan- May 2021

**Lab 2**

Draw ER Diagram for the following (20 marks each)

1. The Bannerghatta Biological Zoo has many types of animals. Every type has a unique name. Every animal of the same type has a unique animal ID. Animals in two types may have the same animal ID. Animals also have age and gender. Animals may have diseases. The beginning time and the duration of a disease need to be recorded. A disease has a unique name. A type keeper takes care of only one type of animals. Every type may have many type keepers. A type keeper may or may not be familiar with diseases. But every disease must be handled by at least one type keeper. Type keepers have name, employee ID, ssn, address and phone number. All animals are in cages. Some cage may be empty. Every cage has a cage ID, space and height. A cage keeper may take care of many cages. Every non-empty cage must have at least one cage keeper. Empty cages don't need any cage keepers. Cage keepers have name, employee ID, ssn, address and phone number.

2. A General Hospital consists of a number of specialized wards (such as Radiology, Oncology, etc). Information about ward includes unique name, total numbers of current patients. Each ward hosts a number of patients, who were admitted by a consultant (doctors) employed by the Hospital. On admission, the date and time are kept. The personal details of every patient includes name, Medical Record Number (MRN), set of phone and one address (city, street, code). A separate register is to be held to store the information of the tests undertaken. Each test has unique episode No. , category and the final result of test. Number of tests may be conducted for each patient. Doctors are specialists in a specific ward and may be leading consultants for a number of patients. Each patient is assigned to one leading consultant but may be examined by other doctors, if required.