



Name: Database Management Systems (DBMS)

Duration: **1:30Hrs**

**INSTRUCTIONS:**

1. Please read all the questions carefully and there are no alternative options.
2. **The answer to the attempted question should be concluded by appropriate steps.** Merely answering the question will not entertain.
3. Do not do any inappropriate activity as you are being recorded and please sit properly in front of your camera. For more information, please read all the guidelines given by the UG Exams Coordinator.
4. Submit a single PDF file containing all the answers to your attempted questions in the Google Classroom.
5. The naming conventions of the PDF file should be as follows: S2020xxxxx\_SET\_B\_2.pdf for SET-A-1.
6. The Exam's time duration is 1:30 Hrs (**45 minutes for quiz+45 minutes for theory**). However, an additional 10 minutes will be given to scan and upload the answer sheets.
7. Note that maximum marks for written exam is 30 marks and 10 marks for viva

**Not following instructions leads to heavy penalty**

**SET-B-2**

Q.1 Consider the following set of Tables

Employee (E)

Employee_ID(eid)	Employee_name	Age
E1	X	18000
E2	X	16000
E3	Y	17000
E4	Z	20000

Project(P)

Project_ID(pid)	Supervisor
P1	Dr. Annushree
P2	Dr. Annushree
P3	Dr. Odelu

Works (W)

Employee_ID(eid)	Project_ID(pid)
E1	P1
E1	P2
E1	P3
E2	P1
E2	P3
E3	P3
E2	P2
E4	P2
E4	P1

1. On the basis of the above tables, evaluate the following queries step by step.  
[12-MARKS]

$$1. \Pi_{employee\_name, salary} (E \bowtie (P \bowtie W))$$

$$2. \Pi_{employee\_name, salary} (E \bowtie (W / P))$$

$$3. \Pi_{employee\_name, salary} (E - (W / P))$$

2. Write a query to retrieve Eid's works for only two projects [2-MARKS]

3. Write a query to retrieve the Eid who gets highest salary [1-MARKS]