

KENDRIYA VIDYALAYA SANGATHAN
BENGALURU REGION
SAMPLE QUESTION PAPER – TERM – II: SESSION 2021-22

CALSS: XI
SUBJECT: INFORMATICS PRACTICES (065)

MAX. MARKS:35
TIME: 2 HRS

General Instructions

- The question paper is divided into 3 sections – A, B and C
- Section A, consists of 7 questions (1-7). Each question carries 2 marks.
- Section B, consists of 3 questions (8-10). Each question carries 3 marks.
- Section C, consists of 3 questions(11-13). Each question carries 4 marks.
- Internal choices have been given for question numbers – 1 , 3, 8 and 12

| Section –A Each question carries 2 marks | | |
|---|---|--------------|
| Q. No | Question | Marks |
| Q1 | Differentiate between cardinality and degree. OR Differentiate between char and varchar. | 2 |
| Q2 | Choose DDL, DML among the following: Create, select, update, alter | 2 |
| Q3 | Database reduces redundancy. Comment OR What do you mean by inconsistency in data | 2 |
| Q4 | Give two examples of Artificial intelligence | 2 |
| Q5 | Differentiate between Primary Key and Unique Key | 2 |
| Q6 | Define NOT NULL constraint with example | 2 |
| Q7 | Which command is used to a) Display the list of tables in a database b) Display the structure of a table c) To change the database d) To display records of a table | 2 |

| SECTION – B | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
|--------------------------------------|---|------------------------|----------------|------------|----------|------------|--------------|------|-------------|----------|-------------------|-------------|--------|---------|-------------|------------------------|----|-------|-----------------|----|----|-------|-----------------|----|----|-------|----------|----|----|---|
| Each question carries 3 marks | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Q8 | <p>What is Big data? Write its characteristics.</p> <p style="text-align: center;">OR</p> <p>Write short note on various types of services of cloud computing.</p> | 3 | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Q9 | <p>A departmental store MegaStore is considering to maintain their inventory using SQL to store the data. As a database administrator Reena has decided that:</p> <ul style="list-style-type: none"> • Name of the database – megastore • Name of the table – STORE • The attributes of STORE are as follows: <ul style="list-style-type: none"> ➤ Itemcode – numeric ➤ Itemname – varchar of size 30 ➤ Scode – numeric ➤ Quantity – numeric <p>Table : STORE</p> <table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th>Itemcode</th> <th>Itemname</th> <th>Scode</th> <th>Quantity</th> </tr> </thead> <tbody> <tr> <td>11001</td> <td>Eraser small</td> <td>23</td> <td>10</td> </tr> <tr> <td>11003</td> <td>Sharpener Classic</td> <td>22</td> <td>20</td> </tr> <tr> <td>11005</td> <td>Eraser big</td> <td>23</td> <td>10</td> </tr> <tr> <td>11002</td> <td>Gel Pen Classic</td> <td>24</td> <td>20</td> </tr> <tr> <td>11004</td> <td>Gel Pen Premium</td> <td>24</td> <td>10</td> </tr> <tr> <td>11006</td> <td>Ball Pen</td> <td>21</td> <td>10</td> </tr> </tbody> </table> <p>a) Identify the best suitable attribute to be declared as Primary Key</p> <p>b) What is the cardinality and degree of table STORE</p> <p>c) Insert the following data into the attributes Itemcode,Itemname,Scode,Quantity respectively in the given table Itemcode =11007, Itemname="Scissor", Scode=25, quantity=15</p> | Itemcode | Itemname | Scode | Quantity | 11001 | Eraser small | 23 | 10 | 11003 | Sharpener Classic | 22 | 20 | 11005 | Eraser big | 23 | 10 | 11002 | Gel Pen Classic | 24 | 20 | 11004 | Gel Pen Premium | 24 | 10 | 11006 | Ball Pen | 21 | 10 | 3 |
| Itemcode | Itemname | Scode | Quantity | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 11001 | Eraser small | 23 | 10 | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 11003 | Sharpener Classic | 22 | 20 | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 11005 | Eraser big | 23 | 10 | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 11002 | Gel Pen Classic | 24 | 20 | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 11004 | Gel Pen Premium | 24 | 10 | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 11006 | Ball Pen | 21 | 10 | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Q10 | <p>Write a command to create table named STUDENT with following attributes and constraints:</p> <table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th>Attribute</th> <th>Datatype(Size)</th> <th>Constraint</th> </tr> </thead> <tbody> <tr> <td>RollNo</td> <td>Integer(5)</td> <td>Primary Key</td> </tr> <tr> <td>Name</td> <td>Varchar(30)</td> <td>NOT NULL</td> </tr> <tr> <td>Adhaar</td> <td>Varchar(12)</td> <td>UNIQUE</td> </tr> <tr> <td>Address</td> <td>Varchar(50)</td> <td>Default value "Mumbai"</td> </tr> </tbody> </table> | Attribute | Datatype(Size) | Constraint | RollNo | Integer(5) | Primary Key | Name | Varchar(30) | NOT NULL | Adhaar | Varchar(12) | UNIQUE | Address | Varchar(50) | Default value "Mumbai" | 3 | | | | | | | | | | | | | |
| Attribute | Datatype(Size) | Constraint | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| RollNo | Integer(5) | Primary Key | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Name | Varchar(30) | NOT NULL | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Adhaar | Varchar(12) | UNIQUE | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Address | Varchar(50) | Default value "Mumbai" | | | | | | | | | | | | | | | | | | | | | | | | | | | | |

| SECTION – C | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
|--------------------------------------|---|-----------|------------|------------|------------|--------|-------|--------|--------|-----|--------|------------|------|----------|------|-----|---|------------|--------|-------|---------|-----|----|------------|-------|----------|-------|----------|---|------------|------|--------|--------|-----|--------|------------|------------|--------|---------|------------|---|------------|------|----------|------|-------|---------|------------|-----------|------|-------|-------|---|------------|------|----------|-------|---------|---|------------|------|---|
| Each question carries 4 marks | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Q11 | <p>Write SQL commands for the following on the basis of table SPORTS:</p> <p>Table : SPORTS</p> <table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th>StudentNo</th> <th>Class</th> <th>Name</th> <th>Game1</th> <th>Grade1</th> <th>Game2</th> <th>Grade2</th> </tr> </thead> <tbody> <tr> <td>10</td> <td>7</td> <td>Sammer</td> <td>Cricket</td> <td>B</td> <td>Swimming</td> <td>A</td> </tr> <tr> <td>11</td> <td>8</td> <td>Sujit</td> <td>Tennis</td> <td>A</td> <td>Skating</td> <td>C</td> </tr> <tr> <td>12</td> <td>7</td> <td>Kamal</td> <td>Swimming</td> <td>B</td> <td>Football</td> <td>B</td> </tr> <tr> <td>13</td> <td>7</td> <td>Venna</td> <td>Tennis</td> <td>C</td> <td>Tennis</td> <td>A</td> </tr> <tr> <td>14</td> <td>9</td> <td>Archana</td> <td>Basketball</td> <td>A</td> <td>Cricket</td> <td>A</td> </tr> <tr> <td>15</td> <td>10</td> <td>Arpit</td> <td>Cricket</td> <td>A</td> <td>Athletics</td> <td>C</td> </tr> </tbody> </table> <p>(i) Display the names of the students who have grade 'C' in either Game1 or Game2 or both</p> <p>(ii) Display the names of the students who have same game for both Game1 and Game2</p> <p>(iii) Display the games taken up by the students, whose name starts with 'A'</p> <p>(iv) Display the details of students belonging to class 7 in descending order of their names.</p> | StudentNo | Class | Name | Game1 | Grade1 | Game2 | Grade2 | 10 | 7 | Sammer | Cricket | B | Swimming | A | 11 | 8 | Sujit | Tennis | A | Skating | C | 12 | 7 | Kamal | Swimming | B | Football | B | 13 | 7 | Venna | Tennis | C | Tennis | A | 14 | 9 | Archana | Basketball | A | Cricket | A | 15 | 10 | Arpit | Cricket | A | Athletics | C | 4 | | | | | | | | | | | |
| StudentNo | Class | Name | Game1 | Grade1 | Game2 | Grade2 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 10 | 7 | Sammer | Cricket | B | Swimming | A | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 11 | 8 | Sujit | Tennis | A | Skating | C | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 12 | 7 | Kamal | Swimming | B | Football | B | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 13 | 7 | Venna | Tennis | C | Tennis | A | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 14 | 9 | Archana | Basketball | A | Cricket | A | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 15 | 10 | Arpit | Cricket | A | Athletics | C | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Q12 | <p>Consider the table Pet and answer the following queries:</p> <p>Table : Pet</p> <table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th>Name</th> <th>Owner</th> <th>Species</th> <th>Sex</th> <th>Birth</th> <th>Death</th> </tr> </thead> <tbody> <tr> <td>Fluffy</td> <td>Harold</td> <td>Cat</td> <td>F</td> <td>1993-02-04</td> <td>NULL</td> </tr> <tr> <td>Claws</td> <td>Gwen</td> <td>Cat</td> <td>M</td> <td>1994-03-17</td> <td>NULL</td> </tr> <tr> <td>Buffy</td> <td>Harold</td> <td>Dog</td> <td>F</td> <td>1989-05-13</td> <td>NULL</td> </tr> <tr> <td>Fang</td> <td>Benny</td> <td>Dog</td> <td>M</td> <td>1990-08-27</td> <td>NULL</td> </tr> <tr> <td>Bowser</td> <td>Diane</td> <td>Dog</td> <td>M</td> <td>1979-08-31</td> <td>1995-07-29</td> </tr> <tr> <td>Chirpy</td> <td>Gwen</td> <td>Bird</td> <td>F</td> <td>1998-09-11</td> <td>Null</td> </tr> <tr> <td>Whistler</td> <td>Gwen</td> <td>Bird</td> <td>Null</td> <td>1997-12-09</td> <td>Null</td> </tr> <tr> <td>Slim</td> <td>Benny</td> <td>Snake</td> <td>M</td> <td>1996-04-29</td> <td>Null</td> </tr> <tr> <td>Puffball</td> <td>Diane</td> <td>Hamster</td> <td>F</td> <td>1999-03-30</td> <td>Null</td> </tr> </tbody> </table> <p>(i) SELECT * FROM pet WHERE owner LIKE "%e%";</p> <p>(ii) SELECT name,sex FROM pet WHERE birth>='1995-01-01';</p> <p>(iii) SELECT DISTINCT(species) FROM pet where sex='M';</p> <p>(iv) SELECT * FROM pet where birth between '1989-05-13' and '1998-09-11' and sex='F';</p> <p style="text-align: center;">OR</p> <p>Consider the table given below and give the output of the queries (i) to (iv)</p> | Name | Owner | Species | Sex | Birth | Death | Fluffy | Harold | Cat | F | 1993-02-04 | NULL | Claws | Gwen | Cat | M | 1994-03-17 | NULL | Buffy | Harold | Dog | F | 1989-05-13 | NULL | Fang | Benny | Dog | M | 1990-08-27 | NULL | Bowser | Diane | Dog | M | 1979-08-31 | 1995-07-29 | Chirpy | Gwen | Bird | F | 1998-09-11 | Null | Whistler | Gwen | Bird | Null | 1997-12-09 | Null | Slim | Benny | Snake | M | 1996-04-29 | Null | Puffball | Diane | Hamster | F | 1999-03-30 | Null | 4 |
| Name | Owner | Species | Sex | Birth | Death | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Fluffy | Harold | Cat | F | 1993-02-04 | NULL | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Claws | Gwen | Cat | M | 1994-03-17 | NULL | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Buffy | Harold | Dog | F | 1989-05-13 | NULL | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Fang | Benny | Dog | M | 1990-08-27 | NULL | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Bowser | Diane | Dog | M | 1979-08-31 | 1995-07-29 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Chirpy | Gwen | Bird | F | 1998-09-11 | Null | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Whistler | Gwen | Bird | Null | 1997-12-09 | Null | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Slim | Benny | Snake | M | 1996-04-29 | Null | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Puffball | Diane | Hamster | F | 1999-03-30 | Null | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |

| Table: Teacher | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
|--|---|-------------|-------------|--------------|-------------|----------------|----|------------|-----------|---------|--------|------|-----------|-------------|-------------|-------------|-------------|----|------------|-----------|---------|--------|---|-----|--------|--------|------|---|-----------|--------|----------|------|---|-----------|--------|---------|------|---|---------|------|-------|------|---|--------|--------|---------|------|---|
| T_ID | Name | Age | Department | Date_of_join | Salary | Gender | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 1 | Jugal | 34 | Computer Sc | 10/01/2017 | 12000 | M | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 2 | Sharmila | 31 | History | 24/03/2008 | 20000 | F | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 3 | Sandeep | 32 | Mathematics | 12/12/2016 | 30000 | M | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 4 | Sangeeta | 35 | History | 1/07/2015 | 40000 | F | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 5 | Rakesh | 42 | Mathematics | 5/09/2007 | 25000 | M | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 6 | Shyam | 50 | History | 27/06/2008 | 30000 | M | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 7 | Shiv Om | 44 | Computer Sc | 25/02/2017 | 21000 | M | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 8 | Shalakra | 33 | Mathematics | 31/07/2018 | 30000 | F | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| <p>(i) Select name,department,salary from Teacher where salary>20000;</p> <p>(ii) Select * from teacher where gender="M";</p> <p>(iii) Select * from teacher where age between 35 and 45;</p> <p>(iv) Select T_ID,name,department from teacher;</p> | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Q13 | <p>Consider the table EMPLOYEE and its structure given below and perform the following on the same:</p> <p>Structure of table Employee:</p> <table border="1"> <thead> <tr> <th>Name of Column</th> <th>ID</th> <th>First_Name</th> <th>Last_Name</th> <th>User_ID</th> <th>Salary</th> </tr> </thead> <tbody> <tr> <td>Type</td> <td>Number(4)</td> <td>Varchar(30)</td> <td>Varcher(30)</td> <td>Varchar(10)</td> <td>Number(9,2)</td> </tr> </tbody> </table> <p>Table : Employee</p> <table border="1"> <thead> <tr> <th>ID</th> <th>First_Name</th> <th>Last_Name</th> <th>User_ID</th> <th>Salary</th> </tr> </thead> <tbody> <tr> <td>1</td> <td>Dim</td> <td>Joseph</td> <td>jdjdim</td> <td>5000</td> </tr> <tr> <td>2</td> <td>Jagannath</td> <td>Mishra</td> <td>jnmishra</td> <td>4000</td> </tr> <tr> <td>3</td> <td>Siddharth</td> <td>Mishra</td> <td>smishra</td> <td>8000</td> </tr> <tr> <td>4</td> <td>Shankar</td> <td>Giri</td> <td>sgiri</td> <td>7000</td> </tr> <tr> <td>5</td> <td>Gautam</td> <td>Buddha</td> <td>bgautam</td> <td>2000</td> </tr> </tbody> </table> <p>(i) Add column address of datatype varchar and size 50 to the table Employee.</p> <p>(ii) Modify the last name of Employee with ID = 3 to Gautam</p> <p>(iii) Increase the salary by 1000 of those employees whose salary is less than 5000</p> <p>(iv) Delete the employee record having First_Name as Siddharth</p> | | | | | Name of Column | ID | First_Name | Last_Name | User_ID | Salary | Type | Number(4) | Varchar(30) | Varcher(30) | Varchar(10) | Number(9,2) | ID | First_Name | Last_Name | User_ID | Salary | 1 | Dim | Joseph | jdjdim | 5000 | 2 | Jagannath | Mishra | jnmishra | 4000 | 3 | Siddharth | Mishra | smishra | 8000 | 4 | Shankar | Giri | sgiri | 7000 | 5 | Gautam | Buddha | bgautam | 2000 | 4 |
| Name of Column | ID | First_Name | Last_Name | User_ID | Salary | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Type | Number(4) | Varchar(30) | Varcher(30) | Varchar(10) | Number(9,2) | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| ID | First_Name | Last_Name | User_ID | Salary | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 1 | Dim | Joseph | jdjdim | 5000 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 2 | Jagannath | Mishra | jnmishra | 4000 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 3 | Siddharth | Mishra | smishra | 8000 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 4 | Shankar | Giri | sgiri | 7000 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 5 | Gautam | Buddha | bgautam | 2000 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |