

**NAVODAYA VIDYALAYA SAMITI**

**Information Technology (Subject Code: 802)**

**CLASS XII (Session: 2021-2022)**

**Pre Board (Term-I)**

**Max. Time Allowed: 1hr 30 min**

**Max. Marks: 30**

**General Instructions:**

1. Please read the instructions carefully
2. This Question Paper is divided into 03 sections, viz., Section A, Section B and Section C.
3. Section A is of 05 marks and has 06 questions on Employability Skills.
4. Section B is of 20 marks and has 25 questions on Subject specific Skills.
5. Section C is of 05 marks and has 07 competency-based questions.
6. Do as per the instructions given in the respective sections.
7. Marks allotted are mentioned against each section/question.
8. All questions must be attempted in the correct order

**SECTION A**

**Answer any 5 questions out of the given 6 questions on Employability Skills**

**(1 x 5 = 5 marks)**

|          |   |          |
|----------|---|----------|
| <b>1</b> | _____ is the most basic type of sentence. Its purpose is to relay information, and it is punctuated with a period.<br><br>a. Interrogative sentences<br>b. Exclamatory sentences<br>c. Imperative sentences<br>d. Declarative sentences | <b>1</b> |
| <b>2</b> | _____ is feeling extremely nervous and worried because you believe that other people do not like you or are trying to harm you.<br><br>a. Paranoid<br>b. Antisocial<br>c. Narcissistic<br>d. Dependent                                  | <b>1</b> |

|          |   |          |
|----------|---|----------|
| <b>3</b> | All formulae in Spreadsheet begin with _____ sign<br><br>a. &<br>b. =<br>c. @<br>d. #   | <b>1</b> |
| <b>4</b> | Which of the following is NOT the stage of active listening?<br><br>a. Receiving<br>b. Discussing<br>c. Understanding<br>d. Remembering   | <b>1</b> |
| <b>5</b> | Srijesh is very talkative and interacts with people in a very friendly manner. The personality trait he possesses is:<br><br>a. Openness<br>b. Extraversion<br>c. Agreeableness<br>d. Consciousness | <b>1</b> |
| <b>6</b> | What will be displayed, if the following formula is entered in cell A2 in a spreadsheet application<br><br>$= 6^2 + 14/3 * 2 - 7$<br><br>a. 38.3333<br>b. 38<br>c. -14<br>d. -38                    | <b>1</b> |

### SECTION B

**Answer any 20 questions out of the given 25 questions.**

**(1 x 20 = 20 marks)**

|          |   |          |
|----------|---|----------|
| <b>7</b> | E-Governance is technology that improves?<br><br>a. Accountability<br>b. Transparency<br>c. Efficiency of government processes<br>d. All of the above | <b>1</b> |
| <b>8</b> | When was the NICNET network launched?<br><br>a. 1984<br>b. 1987<br>c. 1985<br>d. 1986   | <b>1</b> |

| 9      | How many languages does the UMANG app support?<br><br>a. 12<br>b. 12<br>c. 13<br>d. 11  | 1    |      |       |        |      |         |       |       |        |        |       |         |   |
|--------|---|------|------|-------|--------|------|---------|-------|-------|--------|--------|-------|---------|---|
| 10     | Which keyword eliminates the redundant data from a query result?<br>a. Duplicate<br>b. Distinct<br>c. Unique<br>d. Not unique   | 1    |      |       |        |      |         |       |       |        |        |       |         |   |
| 11     | Rajit wants to delete the contents of the table he created but wants to keep the table. What command removes all the rows but not table structure.<br>a. Delete<br>b. Drop<br>c. Remove<br>d. pop   | 1    |      |       |        |      |         |       |       |        |        |       |         |   |
| 12     | What will be the output of a query given below?<br>SELECT person_id, Fname, lname FROM person;<br><br>a. Show only columns (person_id, Fname, lname) and rows related to these columns<br>b. Show only columns (person_id, Fname, lname)<br>c. Show all rows<br>d. Show all columns except (person_id, Fname, lname)  | 1    |      |       |        |      |         |       |       |        |        |       |         |   |
| 13     | Consider a table STAFF:<br><table border="1"><thead><tr><th>Name</th><th>City</th></tr></thead><tbody><tr><td>Akash</td><td>Mumbai</td></tr><tr><td>Ajay</td><td>Chennai</td></tr><tr><td>Banit</td><td>Delhi</td></tr><tr><td>Fauzia</td><td>Mumbai</td></tr><tr><td>Sukal</td><td>Chennai</td></tr></tbody></table><br>Select the command which will count the number of people in each city.<br>a. SELECT COUNT(City), City FROM STAFF WHERE GROUP BY City;<br>b. SELECT COUNT(City), City FROM STAFF GROUP BY City;<br>c. SELECT COUNT(City), City FROM STAFF WHERE ORDER BY City;<br>d. SELECT COUNT(City), City FROM STAFF ORDER BY City; | Name | City | Akash | Mumbai | Ajay | Chennai | Banit | Delhi | Fauzia | Mumbai | Sukal | Chennai | 1 |
| Name   | City  |      |      |       |        |      |         |       |       |        |        |       |         |   |
| Akash  | Mumbai  |      |      |       |        |      |         |       |       |        |        |       |         |   |
| Ajay   | Chennai   |      |      |       |        |      |         |       |       |        |        |       |         |   |
| Banit  | Delhi   |      |      |       |        |      |         |       |       |        |        |       |         |   |
| Fauzia | Mumbai  |      |      |       |        |      |         |       |       |        |        |       |         |   |
| Sukal  | Chennai   |      |      |       |        |      |         |       |       |        |        |       |         |   |

|           |   |          |
|-----------|---|----------|
| <b>14</b> | <p>In a LIKE clause, you can ask for any 6 letter value by writing:</p> <ol style="list-style-type: none"> <li>LIKE ??????</li> <li>LIKE .{6}</li> <li>LIKE ..... (that's six dots)</li> <li>LIKE _____ (that's six underscore characters )</li> </ol>              | <b>1</b> |
| <b>15</b> | <p>The _____command is used to modify the structure of the table STUDENT in MySQL.</p> <ol style="list-style-type: none"> <li>Modify table STUDENT</li> <li>Alter table STUDENT</li> <li>Alter STUDENT</li> <li>Modify STUDENT</li> </ol>                           | <b>1</b> |
| <b>16</b> | <p>Which operator is used to check whether the expression is “NULL”?</p> <ol style="list-style-type: none"> <li>IS NULL</li> <li>NOT NULL</li> <li>ON</li> <li>None of the mentioned</li> </ol>   | <b>1</b> |
| <b>17</b> | <p>What does acronym for NIC, a government body for e-governance expands to</p> <ol style="list-style-type: none"> <li>Nodal Industrial Center</li> <li>National Industrial Center</li> <li>National Informatics Center</li> <li>Novel Industrial Center</li> </ol> | <b>1</b> |
| <b>18</b> | <p>Which social welfare scheme was launched for children's health and malnutrition?</p> <ol style="list-style-type: none"> <li>MIS</li> <li>ICDS</li> <li>PHC</li> <li>BPEL</li> </ol>  | <b>1</b> |
| <b>19</b> | <p>Which clause is used to sort the result of the SELECT statement?</p> <ol style="list-style-type: none"> <li>SORT BY</li> <li>ORDER BY</li> <li>ARRANGE BY</li> <li>None of the above</li> </ol>  | <b>1</b> |

| 20       | <p>The LastName column of a table “Directory” is given below:</p> <table><tr><th>LastName</th></tr><tr><td>Batra</td></tr><tr><td>Sehgal</td></tr><tr><td>Bhatia</td></tr><tr><td>Sharma</td></tr><tr><td>Mehta</td></tr></table> <p>Rita wants to display a 5-character last name only. Help her to find the correct query that will give expected results.</p> <p>a. Select lastname from directory having lastname=5;<br/>b. Select lastname from directory where lastname contains characters=5;<br/>c. Select lastname from directory where lastname like ‘_____’;<br/>d. Select lastname from directory where lastname like ‘%5’;</p> | LastName | Batra | Sehgal | Bhatia | Sharma | Mehta | 1 |
|----------|---|----------|-------|--------|--------|--------|-------|---|
| LastName |   |          |       |        |        |        |       |   |
| Batra    |   |          |       |        |        |        |       |   |
| Sehgal   |   |          |       |        |        |        |       |   |
| Bhatia   |   |          |       |        |        |        |       |   |
| Sharma   |   |          |       |        |        |        |       |   |
| Mehta    |   |          |       |        |        |        |       |   |
| 21       | <p>Read the following commands carefully.</p> <p>i. Select count(*) from an employee.<br/>ii. Select count(age) from employee.</p> <p>Choose the correct option:</p> <p>a. None of the given.<br/>b. Both i and ii will have the same output if null values are present in the age column.<br/>c. Both i and ii will give different output if null values are present in the age column.<br/>d. Both will i and ii will give different output irrespective of null values are present in age column</p>   | 1        |       |        |        |        |       |   |
| 22       | <p>_____are real time lectures, where users participate, may ask questions, and get their queries answered.</p> <p>a. Interactive tutorials<br/>b. Video tutorials<br/>c. PowerPoint Presentation<br/>d. Webinars</p>   | 1        |       |        |        |        |       |   |
| 23       | <p>There are four main phases of development of a Web Application Project.</p> <p>● Statement 1: The scope of the application is decided in the first phase.<br/>● Statement 2: The data connectivity is established between the Front-End interface and Back-End Database in the implementation phase.</p> <p>Select the correct option:</p> <p>a. Only Statement 1 is correct<br/>b. Only Statement 2 is correct<br/>c. Both Statement 1 and Statement 2 are correct<br/>d. None of the above statements are correct</p>  | 1        |       |        |        |        |       |   |

| 24      | <p>Keshav is presently working in a database named beast, he now wants to switch to a different database named nice. What command he should use for the same.</p> <ul style="list-style-type: none"><li>a. Use nice</li><li>b. Switch nice</li><li>c. Now nice</li><li>d. Bye beast</li></ul>  | 1       |              |                 |         |                 |    |      |    |   |           |    |        |    |   |           |    |       |     |   |           |    |       |     |   |           |    |       |     |   |           |   |
|---------|--|---------|--------------|-----------------|---------|-----------------|----|------|----|---|-----------|----|--------|----|---|-----------|----|-------|-----|---|-----------|----|-------|-----|---|-----------|----|-------|-----|---|-----------|---|
| 25      | <p>Meenakshi wants to store names in a table called student but is confused about choosing the datatype she wants to use with column name. She wants datatypes that will occupy less space. Help her to choose from the following.</p> <ul style="list-style-type: none"><li>a. Char</li><li>b. Varchar</li><li>c. Int</li><li>d. String</li></ul>   | 1       |              |                 |         |                 |    |      |    |   |           |    |        |    |   |           |    |       |     |   |           |    |       |     |   |           |    |       |     |   |           |   |
| 26      | <p>Consider the following table and answer the question below.</p> <p style="text-align: center;"><b>Table : Student</b></p> <table><tr><th>Roll_No</th><th>Student_Name</th><th>Class</th><th>Section</th><th>Registration_ID</th></tr><tr><td>11</td><td>Raju</td><td>XI</td><td>A</td><td>IP-101-15</td></tr><tr><td>12</td><td>Akshay</td><td>XI</td><td>B</td><td>IP-104-15</td></tr><tr><td>21</td><td>David</td><td>XII</td><td>A</td><td>CS-103-14</td></tr><tr><td>22</td><td>David</td><td>XII</td><td>B</td><td>CS-101-14</td></tr><tr><td>23</td><td>Rakhi</td><td>XII</td><td>B</td><td>CS-101-10</td></tr></table> <p>What is the degree and cardinality of the table Student?</p> <ul style="list-style-type: none"><li>a. 5,4</li><li>b. 4,5</li><li>c. 6,5</li><li>d. 5,5</li></ul> | Roll_No | Student_Name | Class           | Section | Registration_ID | 11 | Raju | XI | A | IP-101-15 | 12 | Akshay | XI | B | IP-104-15 | 21 | David | XII | A | CS-103-14 | 22 | David | XII | B | CS-101-14 | 23 | Rakhi | XII | B | CS-101-10 | 1 |
| Roll_No | Student_Name   | Class   | Section      | Registration_ID |         |                 |    |      |    |   |           |    |        |    |   |           |    |       |     |   |           |    |       |     |   |           |    |       |     |   |           |   |
| 11      | Raju   | XI      | A            | IP-101-15       |         |                 |    |      |    |   |           |    |        |    |   |           |    |       |     |   |           |    |       |     |   |           |    |       |     |   |           |   |
| 12      | Akshay   | XI      | B            | IP-104-15       |         |                 |    |      |    |   |           |    |        |    |   |           |    |       |     |   |           |    |       |     |   |           |    |       |     |   |           |   |
| 21      | David  | XII     | A            | CS-103-14       |         |                 |    |      |    |   |           |    |        |    |   |           |    |       |     |   |           |    |       |     |   |           |    |       |     |   |           |   |
| 22      | David  | XII     | B            | CS-101-14       |         |                 |    |      |    |   |           |    |        |    |   |           |    |       |     |   |           |    |       |     |   |           |    |       |     |   |           |   |
| 23      | Rakhi  | XII     | B            | CS-101-10       |         |                 |    |      |    |   |           |    |        |    |   |           |    |       |     |   |           |    |       |     |   |           |    |       |     |   |           |   |
| 27      | <p>Cardinality of a table is four and degree is three. If two columns and four rows are added to the table what will be the new degree and cardinality of the given table:</p> <ul style="list-style-type: none"><li>a. 5,8</li><li>b. 3,4</li><li>c. 8,5</li><li>d. 4,3</li></ul>   | 1       |              |                 |         |                 |    |      |    |   |           |    |        |    |   |           |    |       |     |   |           |    |       |     |   |           |    |       |     |   |           |   |

| 28   | <div>Orders table:</div> <table><thead><tr><th>O_Id</th><th>OrderDate</th><th>OrderPrice</th><th>Customer</th></tr></thead><tbody><tr><td>1</td><td>2009/12/12</td><td>1000</td><td>Harry</td></tr><tr><td>2</td><td>2008/03/23</td><td>1600</td><td>Nancy</td></tr><tr><td>3</td><td>2008/09/02</td><td>700</td><td>Harry</td></tr><tr><td>4</td><td>2008/09/03</td><td>300</td><td>Harry</td></tr><tr><td>5</td><td>2008/08/30</td><td>2000</td><td>Jensen</td></tr><tr><td>6</td><td>2008/03/04</td><td>100</td><td>Nancy</td></tr></tbody></table> <div>We want to find the total sum (total order) of each customer. Which of the below statement should we use:</div> <div><div>a. SELECT Customer,SUM(OrderPrice) FROM Order GROUP BY Customer</div><div>b. SELECT Customer,SUM(OrderPrice) FROM Orders GROUP BY Orders</div><div>c. SELECT Customer,SUM(OrderPrice) FROM Orders GROUP BY Customer</div><div>d. SELECT Customer,SUM(OrderPrice) FROM Orders GROUP BY OrderPrice</div></div> | O_Id       | OrderDate | OrderPrice | Customer | 1 | 2009/12/12 | 1000 | Harry | 2 | 2008/03/23 | 1600 | Nancy | 3 | 2008/09/02 | 700 | Harry | 4 | 2008/09/03 | 300 | Harry | 5 | 2008/08/30 | 2000 | Jensen | 6 | 2008/03/04 | 100 | Nancy | 1 |
|------|--|------------|-----------|------------|----------|---|------------|------|-------|---|------------|------|-------|---|------------|-----|-------|---|------------|-----|-------|---|------------|------|--------|---|------------|-----|-------|---|
| O_Id | OrderDate  | OrderPrice | Customer  |            |          |   |            |      |       |   |            |      |       |   |            |     |       |   |            |     |       |   |            |      |        |   |            |     |       |   |
| 1    | 2009/12/12   | 1000       | Harry     |            |          |   |            |      |       |   |            |      |       |   |            |     |       |   |            |     |       |   |            |      |        |   |            |     |       |   |
| 2    | 2008/03/23   | 1600       | Nancy     |            |          |   |            |      |       |   |            |      |       |   |            |     |       |   |            |     |       |   |            |      |        |   |            |     |       |   |
| 3    | 2008/09/02   | 700        | Harry     |            |          |   |            |      |       |   |            |      |       |   |            |     |       |   |            |     |       |   |            |      |        |   |            |     |       |   |
| 4    | 2008/09/03   | 300        | Harry     |            |          |   |            |      |       |   |            |      |       |   |            |     |       |   |            |     |       |   |            |      |        |   |            |     |       |   |
| 5    | 2008/08/30   | 2000       | Jensen    |            |          |   |            |      |       |   |            |      |       |   |            |     |       |   |            |     |       |   |            |      |        |   |            |     |       |   |
| 6    | 2008/03/04   | 100        | Nancy     |            |          |   |            |      |       |   |            |      |       |   |            |     |       |   |            |     |       |   |            |      |        |   |            |     |       |   |
| 29   | <div>Which clause is similar to the “HAVING” clause in Mysql?</div> <div><div>a. SELECT</div><div>b. WHERE</div><div>c. FROM</div><div>d. None of the mentioned</div></div>  | 1          |           |            |          |   |            |      |       |   |            |      |       |   |            |     |       |   |            |     |       |   |            |      |        |   |            |     |       |   |
| 30   | <div>“COUNT” keyword belongs to which categories in Mysql?</div> <div><div>a. Aggregate functions</div><div>b. Operators</div><div>c. Clauses</div><div>d. All of the mentioned</div></div>  | 1          |           |            |          |   |            |      |       |   |            |      |       |   |            |     |       |   |            |     |       |   |            |      |        |   |            |     |       |   |
| 31   | <div>Finding of Bugs and Fixing them happens in _____.</div> <div><div>a. Design Phase</div><div>b. Testing Phase</div><div>c. Implementation Phase</div><div>d. Requirement Definition Phase</div></div>  | 1          |           |            |          |   |            |      |       |   |            |      |       |   |            |     |       |   |            |     |       |   |            |      |        |   |            |     |       |   |

**SECTION C**  
**(COMPETENCY BASED QUESTIONS)**

Answer any 5 questions out of the given 7 questions

(1 x 5 = 5 marks)

- 32** Read the following statements carefully about E-governance
- Statement A. It is the use of electronic tools for governance.  
Statement B. It has decreased the transparency in the system.  
Statement C. E-governance empowers the citizens socially and economically.  
Statement D. It enables citizens to access information after paying money.
- Choose the correct option from the following:
- a. Both i and ii are correct
  - b. Both ii and iii are correct
  - c. Both i and iii are correct
  - d. Only iv is correct
- 1**

A School in Delhi uses a database management system to store student details. The school maintains a database 'school\_record' under which there are two tables.

**Student Table** : Maintains general details about every student enrolled in school.

**StuLibrary Table** : To store details of issued books. BookID is the unique identification number issued to each book. Minimum issue duration of a book is one Day

| Student       |             |
|---------------|-------------|
| Field         | Type        |
| StuID         | numeric     |
| StuName       | varchar(20) |
| StuAddress    | varchar(50) |
| StuFatherName | varchar(20) |
| StuContact    | numeric     |
| StuAadhar     | numeric     |
| StuClass      | varchar(5)  |
| StuSection    | varchar(1)  |

| StuLibrary  |         |
|-------------|---------|
| Field       | Type    |
| BookID      | numeric |
| StuID       | numeric |
| Issued_date | Date    |
| Return_date | Date    |

Answer the questions(33-37) considering the tables above.



|    |   |   |
|----|---|---|
| 33 | <p>Identify the SQL Query which displays the data of StuLibrary table in ascending order of Student-ID.</p> <p>Query A. Select * from StuLibrary Order By BookID<br/> Query B. Select * from StuLibrary Order By StuID<br/> Query C. Select * from StuLibrary Order By StuID ASC<br/> Query D. Select * from StuLibrary Order By StuID DESC</p> <p>Choose the correct option:</p> <p>a. Both Query A and D will display the desired data.<br/> b. Both Query A and B will display the desired data.<br/> c. Both Query C and D will display the desired data.<br/> d. Both Query B and C will display the desired data.</p> | 1 |
| 34 | <p>The Alternate Key for Student Table will be .....</p> <p>a. StuName<br/> b. StuContact<br/> c. StuAadhar<br/> d. StuClass</p>  | 1 |
| 35 | <p>The Primary Key for StuLibrary Table is/are .....</p> <p>a. BookID<br/> b. BookID,StuID<br/> c. BookID,Issued_date<br/> d. Issued_date</p>   | 1 |
| 36 | <p>Which of the following SQL Query will fetch ID of those issued books which have not been returned?</p> <p>a. SELECT BookID from StuLibrary where BookID is NULL;<br/> b. SELECT BookID from StuLibrary where StuID is NULL;<br/> c. SELECT BookID from StuLibrary where Issued_date is NULL;<br/> d. SELECT BookID from StuLibrary where Return_date is NULL;</p>  | 1 |
| 37 | <p>Which of the following SQL Query will display dates on which number of issued books is greater than 5?</p> <p>a. SELECT Issued_date from StuLibrary GROUP BY Issued_date where COUNT(*)&gt;5;<br/> b. SELECT Issued_date from StuLibrary GROUP BY Return_date having count(*)&gt;5<br/> c. SELECT Issued_date from StuLibrary GROUP BY Issued_date having count(*)&gt;5<br/> d. SELECT Issued_date from StuLibrary GROUP BY Return_date where COUNT(*)&gt;5</p>  | 1 |

|           |   |          |
|-----------|---|----------|
| <b>38</b> | E-business offers advantages and opportunities, there are also risks and barriers. These include<br><br>a. Violation of customer privacy<br>b. Spikes causing websites to fail at peak times<br>c. Internet hackers penetrating company security<br>d. All of the above | <b>1</b> |
|-----------|---|----------|

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