(i) Please read the instructions carefully.

(ii) This question paper consists of **24** questions in **two** Sections : **Section A** and **Section B**.

(iii) **Section A** has Objective type questions whereas **Section B** contains Subjective type questions.

(iv) Out of the given (6 + 18) = 24 questions, a candidate has to answer (6 + 11) = 17 questions in the allotted (maximum) time of 3 hours.

(v) All questions of a particular section must be attempted in the correct order.

(vi) **Section A** : Objective Type Questions (30 marks) :

    (a) This section has **6** questions.

    (b) There is no negative marking.

    (c) Do as per the instructions given.

    (d) Marks allotted are mentioned against each question / part.

(vii) **Section B** : Subjective Type Questions (30 marks) :

    (a) This section has **18** questions.

    (b) A candidate has to do **11** questions.

    (c) Do as per the instructions given.

    (d) Marks allotted are mentioned against each question / part.

Section A
(Objective Type Questions)   (30 Marks)

1.   Answer any **4** out of the given **6** questions on Employability Skills.   4×1=4

   (i) A _____ is a group of words that communicate a complete meaning.

   (ii) In the acronym 'SMART' to set goals, the letter 'S' implies _____.

   (iii) _____ is a state of feeling upset, annoyed and hopeless.

   (iv) In a spreadsheet, the _____ shows the location of selected cell.

   (v) A/An _____ entrepreneur is a type of entrepreneur who creates a new market for his services or provides a service in an existing market.

   (vi) _____ farming is the process by which we can grow plants in an environmental friendly way.

2. Answer any **5** out of the given **7** questions.   5×1=5

(i)   _____ is produced by processing data.

(ii)   How many primitive data types are supported by Java ?

(iii) Which one of the following commands is used to delete the table from the database ?

   (A) Delete   (B) Drop

   (C) Remove   (D) Pop

(iv)   _____ method in Java is used to concatenate the specified string at the end of the given string.

(v)   NeGD stands for _____.

   (A) National e-Governance District

   (B) National e-Government Draw

   (C) National e-Governance Division

   (D) National e-Government Discord

(vi)   What is the advantage of Java Virtual Machine ?

(vii) In which phase of web based application development, will the feasibility of the project be checked ?

3. Answer any **6** out of the given **7** questions.   6×1=6

(i)   Write any two logical operators in Java.

(ii)   State True or False. "Java is not a portable language."

(iii) The _____ aggregate function in SQL is used to find the average of all the values for an attribute in a table.

   (A) MAX   (B) MIN

   (C) AVG   (D) COUNT

(iv) Name any two educational websites.

(v) In SQL, _____ constraint is used to restrict the values within a range in a relation.

(A) DEFAULT   (B) NOT NULL

(C) KEY   (D) CHECK

(vi) In a web application development process, data connectivity between front-end interface and back-end database happens in the _____ phase.

(A) Design

(B) Testing

(C) Implementation

(D) Requirement Definition

(vii) The _____ statement in Java is used to execute a block of code matching one value out of many possible values.

4. Answer any 5 out of the given 6 questions.   5×1=5

(i) Which of the following ICT enabled services have **not** been set up by the Indian Government ?

(A) Registration of death certificate

(B) Purchase of movie tickets

(C) RTI application submission

(D) Registration of birth certificate

(ii) Sohan has created a table, STUDENT in RDBMS. He now wants to add another field, PERCENTAGE, which is of type integer, to the table. Write the command that will help Sohan to complete his task.

(iii) Name any two ICT tools that can be used for e-Governance.

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(iv) _____ method of Arrays class in Java helps us to search for a specific element in the array.

(A) search()   (B) binary()

(C) binarySearch()   (D) find()

(v) The number of rows in a relation is called the _____ of a relation.

vi) Predict the output :

```
System.out.print("Hello");
System.out.println("Java");
```

5. Answer any **5** out of the given **6** questions.   5×1=5

(i) Name any two domains where database applications may be used.

(ii) To show the structure of created table in the database, _____ command is used.

(iii) _____ keyword is used to create a new class in Java program.

(iv) Write the SQL command to display all the details of teachers from the table 'Teacher' whose salary is greater than 15000.

(v) OOP stands for _____.

(A) Ordinary Object Programming

(B) Oriented Object Programming

(C) Outsource Oriented Processing

(D) Object Oriented Programming

(vi) Which keyword helps to make a data member of a class visible only within the class ?

6. Answer any **5** out of the given **6** questions.   5×1=5

(i)   Which of the following is a valid variable declaration ?

    (A) yes no

    (B) yes & no

    (C) yesno

    (D) 1_yesno

(ii) While creating a table in MYSQL database, Sudha wants to set the value for the field Age as 0. This value will be inserted if no value of age is given by the user. Suggest a constraint that Sudha can use to complete her task.

(iii) Name the national portal which provides a single window access to information and services being provided by various government entities.

(iv) What will be the output of the Java code given below ?

```
int a = 20;
int b = 30;
a + = b;
System.out.println(a);
```

(v)   Which one of the following is **not** a DML command ?

    (A) SELECT

    (B) INSERT

    (C) CREATE

    (D) DELETE

(vi) Give any one benefit of online shopping to the consumer.

Section B

(Subjective Type Questions)   (30 Marks)

Answer any 3 out of the given 5 questions on Employability Skills. Answer each question in 20 – 30 words.   3×2=6

7. Write any two ways to maintain positive attitude.   2

8. What are the different stages of active listening ? Write the names of any four stages.   2

9. How can we reduce greenhouse gas emission ?   2

10. Write any two benefits of goal setting by an entrepreneur.   2

11. Write the steps to save a presentation in LibreOffice Impress.   2

Answer any 3 out of the given 5 questions in 20 – 30 words each.   3×2=6

12. Give the output of the following code segment :   2

```
public class test {
    public static void main (string [] args) {
        int num = 5;
        while (num > 1)
        {
            system.out.println("**" + num * num);
            - - num;
        }
    }
}
```

13. What is DBA ? Write any one responsibility of DBA. $1+1$

14. Differentiate between CHAR(n) and VARCHAR(n) data types of MySQL. Give examples to support your answer. $1+1$

15. Aalam wants to create a database to manage the purchase and sale of items in his departmental store. The ITEMS table in the database contains information of all items that he sells in his store. Give details of ITEMS table along with its schema. 2

16. Differentiate between while loop and do while loop in Java. 2

Answer any 2 out of the given 3 questions in 30 – 50 words each. $2 \times 3=6$

17. Complete the following code in JAVA, that prints the number (either 0 or 1) in words : 3

```
public class word {
    public static void main (string [ ] args) {
        int number = 0;
        _____ (number) {
        case 0 :
            system.out.println ("ZERO");
            _____;
        case 1 :
            system.out.println ("ONE");
            break;
        _____:
            system.out.println ("NEITHER ZERO NOR ONE");
        }
    }
}
```

18. **(a)** Vikrant has given the following query but it has errors. Rectify the errors and underline the correction made.

Select name, age from teacher where name = "_a%";

(b) Explain the GROUP BY clause in SQL with an example. 1+2

19. State the applications of database management systems in the field of education. 3

Answer any 3 out of the given 5 questions in 50 – 80 words each. 3×4=12

20. **(a)** Read the given Java code carefully and give the output :

```
public class StringDemo{

public static void main(String[]args) {

String myString = "Welcome Java";

System.out.println (myString.toUpperCase());

System.out.println (myString.indexOf('o'));

System.out.println (myString.contains("come"));

}}
```

(b) Consider the following string in Java :

String quote = "Stay Safe";

Write a statement to replace "Safe" with "Secure". 3+1

21. **(a)** Write a program in Java to display area of a rectangle.

Note : Assign any imaginary values to the variables used in the program.

(b) What is the difference between = and == operator in Java ? Give example to support your answer. 2+2

22. (a) Give one difference between a webinar and a video tutorial.

(b) The organization or company providing the online reservation facility to the users has several advantages. Give any two of these advantages.

(c) Anil wants to book a flight from Delhi to Mumbai through online reservation. He has opened the website for flight reservation and logged in using his userid and password. Write the steps that he should follow now to complete his booking.   *1+1+2*

23. (a) Define the term Array with respect to Java.

(b) Explain the access modifiers and their types in Java.   *1+3*

24. Consider the following and answer the questions.

(a) Write an SQL command to create a table TravelAgency whose description is given below :

AgentCode	Char(4)	Primary Key
AgentName	Varchar(20)	Not Null
Location	Varchar(25)	
Package	Varchar(30)	
Charges	Decimal	

(b) Write the command to add a new row to a table TravelAgency with the following data :

("A005", "Raman", "Grover Travel", "Domestic", 8000)

(c) Write a query to remove the column Package from the table TravelAgency.   *2+1+1*