



# ANGEL'S PUBLIC SCHOOL

## SAMPLE PAPER

PRE - BOARD – I SESSION 2025 – 26

TIME : 3 HRS CLASS – XII SUBJECT : INFORMATION TECHNOLOGY M.M:60

### General Instructions:

1. Please read the instructions carefully.
2. This Question Paper consists of **24 questions** in two sections – Section A & Section B.
3. Section A has Objective type questions whereas Section B contains Subjective type questions.
4. **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.**
5. All questions of a particular section must be attempted in the correct order.
6. **SECTION A - OBJECTIVE TYPE QUESTIONS (30 MARKS):**
  - i. This section has 06 questions.
  - ii. There is no negative marking.
  - iii. Do as per the instructions given.
  - iv. Marks allotted are mentioned against each question/part.
7. **SECTION B – SUBJECTIVE TYPE QUESTIONS (30 MARKS):**
  - i. This section contains 18 questions.
  - ii. A candidate has to do 11 questions.
  - iii. Do as per the instructions given.
  - iv. Marks allotted are mentioned against each question/part.



## **SECTION A: OBJECTIVE TYPE QUESTIONS**

<b>Q. 1</b>	<b>Answer any 4 out of the given 6 questions on Employability Skills (1 x 4 = 4 marks)</b>	
i.	A _____ is the type of sentence which expresses strong feelings and emotions. a) Declarative sentences b) Interrogative sentences c) Imperative sentences d) Exclamatory sentences	1
ii.	Which of the following is true for Extrinsic motivation? a) It leads to frustration when lacking. b) It leads to better decision making. c) It focuses on the outcome or reward associated with the activity. d) It stems from internal satisfaction or enjoyment of an activity.	1
iii.	Ravi often feels superior to others, exaggerates his achievements, and constantly seeks admiration. He gets upset when people do not give him special treatment and tends to disregard others' feelings.  Which of the following personality disorders best describes Ravi's condition? a) Narcissistic personality disorder b) Borderline personality disorder c) Dependent personality disorder d) None of the above	1
iv.	_____ rearranges the data in ascending or descending order. a) Filtering b) Sorting c) Protecting d) Formatting	1
v.	What Should be a typical approach of an entrepreneur doing a business to solve a problem? a) Ignoring the problem altogether. b) Coming up with an innovative Solution. c) Accepting problem as unsolvable. d) Waiting for someone else to solve it.	1
vi.	Arti replaced her old smartphone with a new one. What should she do with the old phone? a) Throw it away in the dustbin b) Sell it for recycling or exchange c) Burn it to get rid of it d) Keep it unused in a drawer	
<b>Q. 2</b>	<b>Answer any 5 out of the given 7 questions (1 x 5 = 5 marks)</b>	
i.	Rohit wrote <code>int x = 5; x += 3;</code> in his Java program. What is the new value of x?	1
ii.	Name any two primitive data types supported by Java?	1

iii.	What does this query return? SELECT department, COUNT(*) FROM employees GROUP BY department; a) List of all employees b) Count of employees in each department c) Total number of employees d) Names of departments only	1																																				
iv.	Which constraint ensures that a column cannot have NULL values? a) UNIQUE b) PRIMARY KEY c) NOT NULL d) FOREIGN KEY	1																																				
v.	Which of the following is <b>not</b> mentioned as an alternative payment method for online shopping? a) Net Banking b) Cash on Delivery c) Wire Transfer d) Cheque Payment	1																																				
vi.	In an online shopping site, which feature is similar to a physical shopping basket used in a store? a) User Account b) Login Page c) Shopping Cart d) Registration Form	1																																				
vii.	Which keywords are used to handle exceptions in Java? a) throw, catch b) try, catch c) exception, catch d) final, catch	1																																				
<b>Q. 3 Answer any 6 out of the given 7 questions (1 x 6 = 6 marks)</b>																																						
i.	What does NIC stand for?	1																																				
ii.	String myString = "Hello World"; System.out.println(myString.charAt(6)); What will be the output? a) W b) o c) r d) l	1																																				
iii.	<table border="1"><thead><tr><th>EmpID</th><th>Name</th><th>Dept</th><th>Salary</th><th>City</th><th>JoinDate</th></tr></thead><tbody><tr><td>101</td><td>Mehul</td><td>HR</td><td>50000</td><td>Delhi</td><td>2019-04-12</td></tr><tr><td>102</td><td>Smiha</td><td>IT</td><td>75000</td><td>Mumbai</td><td>2020-01-23</td></tr><tr><td>103</td><td>Arsh</td><td>Finance</td><td>62000</td><td>Chennai</td><td>2021-05-30</td></tr><tr><td>104</td><td>Neeru</td><td>IT</td><td>78000</td><td>Delhi</td><td>2018-11-15</td></tr><tr><td>105</td><td>Amit</td><td>HR</td><td>52000</td><td>Bangalore</td><td>2022-07-10</td></tr></tbody></table> Consider the table: EMPLOYEE Write Query to display name and salary of employees working in the IT department.	EmpID	Name	Dept	Salary	City	JoinDate	101	Mehul	HR	50000	Delhi	2019-04-12	102	Smiha	IT	75000	Mumbai	2020-01-23	103	Arsh	Finance	62000	Chennai	2021-05-30	104	Neeru	IT	78000	Delhi	2018-11-15	105	Amit	HR	52000	Bangalore	2022-07-10	1
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iv.	How can users improve the safety of their passwords when making online payments? a) Using personal info like birthdate b) Using a mix of letters, numbers, and symbols c) Writing the password on paper d) Sharing the password with friends	1																									
v.	Consider the following Tables: <table><tr><th colspan="2">Department Table</th></tr><tr><th>DeptID</th><th>DeptName</th></tr><tr><td>1</td><td>Computer Sci</td></tr><tr><td>2</td><td>Mathematics</td></tr><tr><td>3</td><td>Punjabi</td></tr></table> <table><tr><th colspan="3">Student Table</th></tr><tr><th>StudentID</th><th>Name</th><th>DeptID</th></tr><tr><td>101</td><td>Alisha</td><td>1</td></tr><tr><td>102</td><td>Bhavya</td><td>2</td></tr><tr><td>103</td><td>Gauri</td><td>3</td></tr></table> Identify Primary key and Foreign Key in Student Table	Department Table		DeptID	DeptName	1	Computer Sci	2	Mathematics	3	Punjabi	Student Table			StudentID	Name	DeptID	101	Alisha	1	102	Bhavya	2	103	Gauri	3	1
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DeptID	DeptName																										
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103	Gauri	3																									
vi.	Which pricing benefits do consumers enjoy through online reservations? a) Consumers can compare prices easily online b) Prices are hidden c) Prices are always the same d) Prices are determined by the agent only	1																									
vii.	Which of the following is true about the switch statement in Java? a) The switch statement can only work with integers. b) Each case must end with a break statement, otherwise execution may fall through. c) The default case is mandatory in every switch statement. d) A switch statement cannot be used with characters	1																									
Q. 4	Answer any 5 out of the given 6 questions (1 x 5 = 5 marks)																										
i.	Meena booked a train ticket online late at night and received confirmation immediately without visiting the station. Which benefit of online reservation does this highlight? a) Limited access to services b) Manual booking only c) Convenience and 24/7 availability d) Delayed confirmation	1																									
ii.	What is a constructor in Java? a) A method that performs addition b) A special type of method used to initialize objects c) A method used to destroy objects d) A method to print values	1																									
iii.	Which of the following is a correct way to declare a String variable in Java? a) String name = "John"; b) string name = "John"; c) Str name = "John"; d) String name == "John";	1																									

iv.	State TRUE or FALSE Online shopping provides a limited variety of products compared to traditional stores.	1
v.	The AVG ( ) function works only with: a) Numeric values b) Text values c) Date values d) Boolean values	1
vi.	What is meta-data? a) Data about data b) Data that stores images c) Data that cannot be modified d) Data that is deleted after use	1
<b>Q. 5</b>	<b>Answer any 5 out of the given 6 questions (1 x 5 = 5 marks)</b>	
i.	Which of the following activities is part of the Requirement Definition Phase in web application development? a) Writing the program code for the application b) Testing the application for errors c) Checking technical and economic feasibility of the project d) Deploying the application on a server	1
ii.	In a database table, what is the term used for the number of columns? a) Cardinality b) Degree c) Domain d) Key	1
iii.	Which command is used to display all the databases in MySQL?	1
iv.	Differentiate between System.out.print() and System.out.println() in Java.	1
v.	Which of the following is the correct syntax to define a user-defined method in Java? a) void methodName() { /* code */ } b) methodName void() { /* code */ } c) function methodName() { /* code */ } d) define methodName() { /* code */ }	1
vi.	The bytecode runs on the _____.	1
<b>Q. 6</b>	<b>Answer any 5 out of the given 6 questions (1 x 5 = 5 marks)</b>	
i.	Which of the following is an invalid variable name in Java? a) _temp b) total#value c) \$price d) userName	1
ii.	What is the output of the expression 10 % 3?	1
iii.	What is the main purpose of Project Management? a) To write the program code for the project b) To achieve project objectives within a defined time frame using skills and techniques c) To purchase tools and equipment for the project d) To deploy the final product on a server	1
iv.	In SQL, which clause is used to apply a condition on groups formed by the GROUP BY clause?	1

	a) WHERE b) ORDER BY c) HAVING d) DISTINCT	
v.	Which SQL command is used to remove a table from the database? a) DELETE b) REMOVE c) DROP d) TRUNCATE	1
vi.	In the field of telecommunications, databases are mainly used for: a) Storing songs, movies, and entertainment content b) Storing information about customers, call records, bills, and subscription plans c) Storing only hardware device specifications d) Storing temporary files of internet browsing	1

### **SECTION B: SUBJECTIVE TYPE QUESTIONS**

**Answer any 3 out of the given 5 questions on Employability Skills (2 x 3 = 6 marks) Answer each question in 20 – 30 words.**

<b>Q. 7</b>	State the importance of active listening in communication.	2
<b>Q. 8</b>	Anita was overwhelmed with her workload and was often distracted by her phone and social media. One day, she decided to switch off her phone while studying and set specific goals for each study session. How does this reflect self-management?	2
<b>Q. 9</b>	Rohit noticed that plastic waste was a major issue in his school. He initiated a campaign encouraging students to carry reusable water bottles and lunch boxes.  Which green skill is Rohit promoting through his initiative?	2
<b>Q. 10</b>	List any two advantages of using Presentation Software.	2
<b>Q. 11</b>	Anu observed that people in her town had to travel far to buy organic vegetables. She partnered with local farmers and started a weekly organic vegetable delivery service.  State the entrepreneurial functions performed by Anu in the above case.	2

**Answer any 3 out of the given 5 questions (2 x 3 = 6 marks)**

<b>Q.12</b>	Give the output of the following code segment- int n = 3; for (inti = n; i>= 1; i--) { System.out.print(i * i + " "); }	2
<b>Q.13</b>	Explain candidate key with suitable example.	2
<b>Q.14</b>	Explain Program-Data Independence in context of a DBMS?	2
<b>Q.15</b>	List any four entities involved in creating a Shopping Website	2
<b>Q.16</b>	What are comments in Java programs and why are they important?	2

**Answer any 2 out of the given 3 questions (3 x 2 = 6 marks)**

<b>Q.17</b>	<p>Nitya is creating a Java program to calculate the area of a rectangle. She writes the following code:</p> <pre> class Rectangle {     int length;     int width;      int calculateArea() {         return length * width;     }      public static void main(String[] args) {         Rectangle r1 = new Rectangle();         r1.length = 5;         r1.width = 10;         System.out.println("Area: " + r1.calculateArea());     } } </pre> <p>a) What does the method calculateArea() do in this program?  b) How is the object of the class created?  c) What will be the output of the program?</p>	3
<b>Q.18</b>	If a category has many products, how should they be displayed to customers?	3
<b>Q.19</b>	List any three Advantages of using DBMS approach.	3

**Answer any 3 out of the given 5 questions (4 x 3 = 12 marks)**

<b>Q.20</b>	<p>Write a Java code using String methods to perform the following tasks:  String str = "java programming";  i. Convert all characters to lowercase.  ii. Find the total number of characters in the string.  iii. Append the word "rocks" at the end of the string.  iv. Replace the word "java" with "Python".</p>	4
<b>Q.21</b>	List and briefly explain the four main phases in the development of a web-based application project.	2+1+1
<b>Q.22</b>	What are multithreaded programs in Java? What are the two ways by which these threads can be created?	2+2
<b>Q.23</b>	<p>a) Define arrays.  b) Write a program to:  i) Create a string array Names containing five names.  ii) Display each name using a while loop.  c) What happens if a program tries to access an array element using an index that is</p>	1+2+1



	outside the valid range?																													
<b>Q.24</b>	<p>Consider the following tables –</p> <p>Table: MOVIE</p> <table><tr><th>MID</th><th>MName</th><th>Genre</th><th>Budget</th></tr><tr><td>M01</td><td>Avatar</td><td>Sci-Fi</td><td>500000</td></tr><tr><td>M02</td><td>Dangal</td><td>Sports</td><td>150000</td></tr><tr><td>M03</td><td>Inception</td><td>Thriller</td><td>300000</td></tr></table> <p>Table: ACTOR</p> <table><tr><th>AID</th><th>MID</th><th>ActorName</th></tr><tr><td>A101</td><td>M01</td><td>Sam Worthington</td></tr><tr><td>A102</td><td>M02</td><td>Aamir Khan</td></tr><tr><td>A103</td><td>M03</td><td>Leonardo DiCaprio</td></tr></table> <p>Write SQL queries for the following:</p> <p>a) Find the total number of actors in each movie.</p> <p>b) Add a new record to MOVIE: (M04, '3 Idiots', 'Comedy', 200000).</p> <p>c) Display MName, ActorName, and Genre of all actors.</p> <p>d) Show details of movies whose budget is more than 200000.</p>	MID	MName	Genre	Budget	M01	Avatar	Sci-Fi	500000	M02	Dangal	Sports	150000	M03	Inception	Thriller	300000	AID	MID	ActorName	A101	M01	Sam Worthington	A102	M02	Aamir Khan	A103	M03	Leonardo DiCaprio	4
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