Roll Number		

SET **A**

INDIAN SCHOOL MUSCAT
SECOND PRE - BOARD EXAMINATION
INFORMATION TECHNOLOGY(802)

CLASS: XII TERM 2 Max.Marks: 30

18-04-2022

MARKING SCHEME		
QN.NO	VALUE POINTS **SECTION-A (3+2 = 5 Marks)** **Answer any 03 question out of the given 04 questions**	MARKS SPLIT UP
1	An industrial entrepreneur is, essentially, a manufacturer, who identifies the needs of customers and creates products or services to serve them.	1
2	(Explanation of any two): Initiative, Willingness to take risks, Ability to learn from experience, Motivation, Self-confidence, Hard work, Decision making ability.	½ + ½ = 1
3	Green jobs (Any two). Some common green jobs in the agriculture sector are related to water quality testing, water conservation, water management, etc.	½ + ½ = 1
4	(Any two)- • increase the efficiency of energy and raw material. • reduce greenhouse gas emissions. • control waste and pollution. • protect and restore ecosystems. • support adaptation to the effects of climate change.	½ + ½ = 1
	Answer any 01 question out of the given 02 questions	
5	Four qualities: Standard of excellence- An entrepreneur constantly sets high standards and strives to attain the standard of excellence by working hard and showing innovativeness. Uniqueness- For an entrepreneur, one of the most important qualities is to remain unique in everything the person does and the way it is done. Focus on long-term goals- Long-term goals are those that are distant in terms of time period. An entrepreneur focusses more on what is to be achieved in distant future rather than in near future. Need to influence- The entrepreneur perceives one's ideas as revolutionary and expects them to influence the world in a substantial way.	½ x 4 = 2
6	Any four: **Reusing scrap material**-For example, in paper mills, damaged rolls are sent back to the beginning of the production line, i.e., they are added as raw material. **Ensuring quality control**-If the quality of products is maintained, there will be a decrease in rejected products, thus, reducing waste.	½ x 4 = 2

<table>
<tr><td></td><td>Waste exchange- This is where the waste product of one process becomes the raw material for another.
Managing e-waste-With advanced technology, we have also encountered problems in managing e-waste like old mobile phones, laptops and television sets.
Use of eco-friendly material-Scientists have discovered various material, which are eco-friendly, for example, banana leaf and paper plates that are easily disposable, etc.</td><td></td></tr>
<tr><td></td><td>SECTION-B (5 + 6 + 6 = 17 marks)
Answer any 05 questions out of the given 07 questions</td><td></td></tr>
<tr><td>7</td><td>A compiler is a program that translates a high level language program (eg. java) to Machine language.</td><td>1</td></tr>
<tr><td>8</td><td>To display the output , we use the most common pre-built Java output method System.out.println() or System.out.print() .</td><td>1</td></tr>
<tr><td>9</td><td>main() is a special method that every Java application must have. When you run a program, the statements in the main method are the first to be executed.</td><td>1</td></tr>
<tr><td>10</td><td>Object is an instance of a class. An object in OOPS is nothing but a self-contained component which consists of methods and properties to make a particular type of data useful.</td><td>1</td></tr>
<tr><td>11</td><td>(Any two)Education, Banking, Government sector, Hospitals, Companies, Airlines , E-commerce, Railways etc</td><td>½ x ½ = 1</td></tr>
<tr><td>12</td><td>5 times</td><td>1</td></tr>
<tr><td>13</td><td>double [ ] salary = {2000, 1000, 1500, 2500 ,500};</td><td>1</td></tr>
<tr><td></td><td>Answer any 03 questions out of the given 05 questions</td><td></td></tr>
<tr><td>14</td><td>(Any two)
<table>
<tr><th>OPERATOR</th><th>Description</th><th>explanation</th><th>EXAMPLE int a=20 ,b=30)</th><th>Result</th></tr>
<tr><td>==</td><td>equal to</td><td>Returns true if values of a and b are equal, false otherwise</td><td>a==b</td><td>false</td></tr>
<tr><td>!=</td><td>not equal to</td><td>Returns true if values of a and b are not equal, false otherwise</td><td>a!=b</td><td>true</td></tr>
<tr><td>></td><td>greater than</td><td>Returns true if a is greater than b, false otherwise</td><td>a>b</td><td>false</td></tr>
<tr><td><</td><td>less than</td><td>Returns true if a is less than b, false otherwise</td><td>a<b</td><td>true</td></tr>
<tr><td>>=</td><td>greater than or equal to</td><td>Returns true if a is greater than or equal to b, false otherwise</td><td>a>=b</td><td>false</td></tr>
<tr><td><=</td><td>less than or equal to</td><td>Returns true if a is less than or equal to b, false otherwise</td><td>a<=b</td><td>true</td></tr>
</table></td><td>1 + 1 = 2</td></tr>
</table>

15	Corrected code: Corrections are made bold.
	int sum = 0 ; I = 1 ;
	while **(** I <=5 **)**
	{
	sum = sum + I ;
	I ++ ;
	}
	System.out.println(" SUM= " +sum) ;
		1 + 1 = 2

16	Variable names can begin with either an alphabetic character, an underscore (_), or a dollar sign ($).They can consist of only alphabets, digits, and underscore. Variable names must be one word. Spaces are not allowed in variable names. Underscores are allowed. Eg: Valid variable name: int roll ; Invalid Variable name: double Avg Sal ;	1 + ½ + ½ = 2

17	The switch statement is used to execute a block of code matching one value out of many possible values.
	Eg:
	int ch = 1 ;
	switch (ch) {
	case 1 : System.out.println("Welcome") ;
	break;
	case 2 : System.out.println("to the new shop") ;
	break;
	default : System.out.println("Invalid choice") ;
	
	}
		1 + 1 = 2

18	K= 500	2
	Answer any 02 questions out of the given 04 questions	
19	1 true o	1 + 1+ 1 =3
20	35 50 case 4 will be executed and will display the value in the variable disp(35). Since break statement is missing in case 4 the program control will move down to the next case 5 and will display the value in the variable disp(50). Since there is a break statement in case 5 the program control will come out of the switch statement.	1 + 1 + 1 = 3
21	for(int num = 1; num <= 50; num = num +1) { if(num%5==0) System.out.println(num);} (Any correct logic)	3

22	i) There are two ways to use assert statements First method assert expression; Eg: assert age >= 18; Second method assert expression1 : expression2; Eg: assert age >= 18:"Age not Valid"; ii) A thread is a task in execution. A multithreaded program is one that can perform multiple tasks concurrently so that there is optimal utilization of the computer's resources. iii) Wrapper class for primitive data type double is Double.	1 + 1 + 1 =3
	SECTION C (2 x 4 = 8 marks) **(COMPETENCY BASED QUESTIONS)** **Answer any 02 question out of the given 03 questions**	

23	Syntax:
	return_type method_name(list of parameters separated by commas)
	{
	statements
	return statement
	}
	
	static double Area_Square (double length)
	{
	return (length * length) ;
	}
	
	(1 mark for correct syntax . 3 marks for correct user define method Area())
		1 + 3

24	OOPs in Java organizes a program around the various objects and well-defined interfaces. The OOPs Concepts in Java are abstraction, encapsulation, inheritance, and polymorphism. These concepts aim to implement real-world entities in programs.
	A special method member called the **constructor** method is used to initialize the data members of the class (or any other initialization is to be done at time of object creation).The constructor has the same name as the class, has no return type, and may or may not have a parameter list.
	Eg: (Any correct example)
	Book( )
	{
	title = "C++" ;
	author = "Balaguruswamy ";
	publisher = "Tata McGraw-Hill's " ;
	genre = "Programming" ;
	price = 150 ;
	}
	
	(1 mark for OOPs explanation,1 mark for constructor and 2 marks for example of parameter-less constructor)
		1 + 1 + 2

25	• For storing information such as student details, marks and result. • For storing information about faculty and staff members. • For storing details about school/college such as infrastructure details, department and offered course details. **Table: Flights** **Name** | **Type** | **Remarks** Fid | Varchar(5) | Flight unique number Fname | Varchar(25) | Flight name Sect_id | Varchar(25) | Sector name Starting | Varchar(25) | Starting place name Destination | Varchar(25) | Destination place name Price | Decimal(10,2) | Price of the ticket Schema- Flights(Fid, Fname, Sect_id, Starting, Destination, Price) (1 mark for applications in Education , 2 marks for creating the table with appropriate columns and data type,1 mark for creating the schema)	1 + 2 + 1