CBSE | DEPARTMENT OF SKILL EDUCATION

INFORMATION TECHNOLOGY (SUBJECT CODE-802)

Marking Scheme of Sample Question Paper
Class XII (Session 2020-2021)

Max. Time: 3 Hours   **Max. Marks: 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

Q. 1	Answer any 4 out of the given 6 questions on Employability Skills (1 x 4 = 4 marks)	
i.	Is it important to clearly communicate instructions, ideas and concepts that can help you find success in any career? State True/ False Ans True	1
ii.	All formulae in Spreadsheet begin with _____ sign (i) & (ii) = (iii) @ (iv) # Ans =	1
iii.	_____ work in collaboration with Green Builders to lay the idea of how the building will look like after its completion. They also provide artistic beauty to buildings to make them look innovative and interesting Ans Green Design Professionals	1
iv.	List one benefit of Team Building Ans Boosts morale and leadership skills	1
v.	_____ is feeling extremely nervous and worried because you believe that other people do not like you or are trying to harm you. (i) Paranoid (ii) Antisocial (iii) Narcissistic (iv) Dependent Ans Paranoid	1
vi.	Personality affects all aspects of an individual's performance, enlist any two personality traits. Ans (Any two) (i) Extraversion (ii) Agreeableness (iii) Conscientiousness (iv) Emotional stability	1

Q. 2	Answer any 5 out of the given 7 questions (1 x 5 = 5 marks)	
i	_____ command is used to modify the value of attribute of one or more tuple in a table. i. Update ii. Modify iii. Alter iv. Create Ans Update	1

ii	Keyword used to display the structure of the table
	
	  i. Describe
	  ii. Show
	  iii. Select
	  iv. Display
	
	Ans Describe
		1

iii	_____ method of a String Class returns true if the length of this string is 0
	
	  i. indexAt()
	  ii. length()
	  iii. isEmpty()
	  iv. indexOf()
	
	Ans isEmpty()
		1

iii	_____ Constraint is used to restrict the values of an attribute within a range. Ans Check	1
iv	What are member methods?? Answer methods declared in a class are member methods	1
v	Give one online website of B2C(Business to Consumer) segment. Ans Pepperfry	1
vi	What is the importance of password field on online reservation site. Ans It Keeps the information secure	1

Q. 3	**Answer any 6 out of the given 7 questions (1 x 6 = 6 marks)**	

i	Predict the Output
	
	int x=9, k=0;
	int y=10;
	y=++x;
	x+=y;
	k=x;
	
	What will be the value of k?
	
	Ans 20
		1

ii	_____is an e-commerce application where the customer can purchase goods over the Internet. Ans Online Shopping	1

iii	_____ Phase of Web Application deveopement problem statement for which the web application is to be developed is identified. i. Requirement ii. Design iii. Implementation iv. Test Ans Requirement	1	

iv	select distinct dept_name
	from department;
	
	What does the above query do?
	   a) It gives all the tuples having dept_name
	   b) It gives the dept_name attribute values of all tuples without repetition
	   c) It gives all the dept_name attribute of all the tuples
	   d) It gives all the dept_name attribute of all the tuples
	
	Ans It gives the dept_name attribute values of all tuples without repetition
		1	

v	Define Referential Integrity. Ans Referential Integrity is used to check that data entered in one relation is consistent with the data entered in another relation.	1	

vi	Identify the type of operator used
	If (A >=B)
	      (i) Arithmetic
	      (ii) Relational
	      (iii) Logical
	      (iv) Assignment
	Ans Relational
		1	

vii	E business offers advantages and opportunities, there are also risks and barriers. These include (a) Violation of customer privacy (b) Spikes causing websites to fail at peak times (c) Internet hackers penetrating company security d) All of the above Ans: All of the above	1	

Q. 4	Answer any 5 out of the given 6 questions (1 x 5 = 5 marks)	
i	What is an Object? Answer Object is an instance of a class.	**1**

ii	Predict the output
	
	 `double[]Qty = {346, 142, 103, 26.5, 387.5};`
	
	 `System.out.println(Qty[3]);`
	
	 Answer 103
		1

iii	Define Shopping cart Answer Online shopping stores also provide a shopping cart or basket. You can select the products that you wish to buy and add them to your shopping cart.	**1**

iv	_____ is not an aggregate function
	    a. Sum()
	    b. Count()
	    c. Round()
	    d. Avg()
	 Ans Round()	

v	_____ replaces zero or more number of random character, when used with Like keyword.
	    a. _
	    b. %
	    c. $
	    d. @
	
	 Ans %
		1

vi	_____ is a special method that every Java application must have.
	
	    a. Getter
	    b. Setter
	    c. Main
	    d. Default
	
	 Ans Main
		1

Q. 5	**Answer any 5 out of the given 6 questions (1 x 5 = 5 marks)**	

i	_____ Phase of Web Application development problem statement for which the web application is to be developed is identified.
	
	    v. Requirement
	    vi. Design
	    vii. Implementation
	    viii. Test
	
	Answer Requirement
		1

ii	_____ method of a String Class Return the index of the first occurrence of given substring
	
	    i. indexOf()
	    ii. indexAt()
	    iii. length()
	    iv. isEmpty()
	
	Answer indexOf()
		1

iii	_____command which displays list of databases available on the current server.
	
	    i. Show databases
	    ii. Show tables
	    iii. Create tables
	    iv. Display tables
	
	Answer Show databases.
		1

iv	Define Data Redundancy. Ans Same information is stored in more than one file which result in wastage of space.	**1**
v	_____is a collection of raw facts which have not been processed to reveal useful information. Ans Data	**1**
vi	_____ method test whether this string end with the given suffix Ans endsWith	**1**

Q. 6	Answer any 5 out of the given 6 questions (1 x 5 = 5 marks)	
i	Which SQL keyword is used to sort the result? a) ORDER BY b) SORT c) ORDER d) SORT BY Ans Order By	1

ii	_____ commands deletes the tuples from a Table
	
	    i. Drop
	    ii. Delete
	    iii. Modify
	    iv. None of the above
	
	Answer – Delete
		1

iii	Define JVM Ans. Java Virtual Machine (JVM), translates the bytecode into machine code and then executes it.	1

iv	Which of the following is **not** an example of eGovernance
	
	    a. To file property tax
	    b. To apply for renewal of Passport
	    c. To start an online coding course for 3 months
	    d. To get Voters ID card issued
	
	Ans c. To start an online coding course for 3 months
		1

v	Which of the following is an invalid variable declaration?
	    a) my_string_1
	    b) 1st_string
	    c) my string 1
	    d) _mystring1
	
	    Ans b 1st_string
		1

vi	Name one front end and one Back end application to create Web Applications Ans Front end Java NetBeans Back end MySQL	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.

Q. 7	Sandeep has to appear for his first job interview. Mention at least 2 points he shall keep in mind before appearing. Ans (Any 2 points**)** What to do before an interview • Get a good night's sleep the night before. • Do research. • Eat a good breakfast. • Prepare questions beforehand. • Know who will be interviewing and learn a bit about their background. • Know your strengths and put together a list of them. • Turn off your cell phone • Prepare a solid list of references	**2**
Q. 8	Self-Motivation is significant in building one's personality. Comment Answer Self-motivation is important because • It increases individual's energy and activity. • It directs an individual towards specific goals. • It results in initiation and persistence of specific activities • It affects cognitive processes and learning strategies used for completing similar tasks	**2**
Q. 9	What is Cell referencing in a spreadsheet? Ans A cell reference identifies a cell or a range of cells. Each cell in the worksheet has a unique address formed by the combination of its intersecting row and column. When a cell address is referred to in a formula, it is called cell referencing	**2**
Q. 10	Rohan has a successful startup company. According to him 'Decision Making is considered to one of the important entrepreneurial competency'. Do you agree with Rohan's opinion? Justify. Yes Decision making is one of the important entrepreneurial competency, entrepreneurs often have to take that one decision at the right time which can define the future of their company. And then they also have to quickly act upon their decisions.	**2**
Q. 11	What is the role of Water Quality technician? Water Pollution is in its alarming state. This has given rise to the need of Water Quality Technicians to help monitor the water quality and treat it.	**2**

Answer any 3 out of the given 5 questions in 20 – 30 words each (2 x 3 = 6 marks)

Q. 12	Explain Drop table with Cascade command. Answer Drop Table will be dropped and with the CASCADE option, i.e. all the constraints that refer this table would also be automatically dropped. Example Drop table teacher Cascade;	**2**

Q. 13	The following code has some error(s). Rewrite the correct code underlining all the corrections. Also categorize the loop as Entry / Exit Control Loop.
	
	`    int p`
	`p = 14;`
	`do;`
	`        p = p-2;`
		2

```
                        System.out.displayln(p);
                }while p >= 2
```

Answer int p;
   p = 14;
   <u>do</u>
   <u>{</u>
       p = p-2;

       System.out.println(p);
   <u>}while(p >= 2);</u>

Q. 14	Differentiate between = and == operator in JAVA	2
	Answer = is an assignment operator	
	== is a comparison operator	
	For example int a=10;	
	Will assign a value 10 to variable a	
	Whereas a==10 will check whether the value of a is 10	
Q. 15	Explain Work integrated learning with respect to education sector.	**2**
	Answer	
	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.	
Q. 16	A company is making database of Employees having personal details and Salary details	**2**
	Personal details have columns Empid, Name, Address, BloodGroup.	
	Suggest Columns for Salary Table	
	Answer	
	Empid, Basic. Leave, project_details, deductions, allowances	

Answer any 2 out of the given 3 questions in 30– 50 words each (3 x 2 = 6 marks)

Q. 17	How eGovernance does empowers the citizens. Give 3 points.	3
	Answer	
	E-governance empowers the citizens socially and economically, and enhances their lives by providing them with quality information and better services. It enables citizens to access information directly, without paying any money to a middleman or a tout. It ushers transparency in the system.	
Q. 18	Predict the output of the following code; Also categorize the loop as Entry / Exit Control Loop.	**3**

```
                int j=1,s=0;
                while (j<10)
                {
                        System.out.print(j+"+");
                        s=s+j;
                        j=j+j%3;
                }
                System.out.println("="+s);
```

Answer 1+2+4+5+7+8+=27
Entry Control Loop

| Q. 19 | (i) Mention at least 2 work areas which uses Database Management Systems.

Answer (any two)
School Management
Hotel Management
Railway reservation
Employee management

(ii) Jatin has given the following query from the table Student but he is unable to execute it successfully. Write the correct query after rectifying the error

      Select Name, Marks
      From student Table
      Where Name ="P%"

Ans Select Name, Marks
From Student
Where Name Like 'P%' | (1+2) |
| --- | --- | --- |

Answer any 3 out of the given 5 questions in 50– 80 words each (4 x 3 = 12 marks)

| Q. 20 | Consider the following table and wrtite SQL statements
Table Menu | 4 |
| --- | --- | --- |

ID	Item	Description	Price
P001	Sambar Vada	South Indian	40
P002	Dal Maakhani	North Indian	150
P003	Noodles	Chineese	100
P004	Idli Sabar	South Indian	50
P006	Sarson Saag	North Indian	170
P007	Dosa	South Indian	120
P008	Pizza	Italian	200

    i.   To add a new row with the following data
"P009", "Lemon Rice", "South Indian", 140
    ii.   Display details of all Menu items in the descending order of Price
    iii.   Display Item and Description of those Items whose price is between 100 and 150
    iv.   Add a new column Rating datatype as int to the table Menu

	Answer		

	(i) Insert into Menu values
	       ("P009", "Lemon Rice", "South Indian", 140);
	
	    (ii) Select * from Menu order by Price;
	
	    (iii) Select Item, Description from Menu
	         Where price between 100 and 150;
	
	    (iv) Cardinailty - 7 Degree – 4
	
	    (v) Alter Table Menu Add Rating int;		

Q. 21	How students are benefitted from online learning? What are the various ways of online learning? Name 2 educational websites Answer It provides freedom to the learner to learn at their convenient location, convenient time and at their own pace of learning. Also, there is no discrimination of age, caste, gender, background, or the qualification of the learner. The tutorials may be enriched with audio and video information, which makes learning more enjoyable and attractive. Also, tutorials and tests are available for almost all topics, sometimes in regional languages also. Types of Online Learning Video/slide tutorials where the video or slides of lectures are available. The learner can visit the site and view the tutorials. Interactive tutorials require the user to follow the instructions, perform the desired action and get a feedback. Webinars are real time lectures, where users participate in the lecture, may ask questions, and get their queries answered. Example Khan academy, Udacity.org, courser.org	**4**	

Q. 22	Write a program in Java to display Area of a square.
	        Answer
	        static double square area (double side)
	        { return (side * side);
	        }
	
	Differentiate between return type and method arguments with a suitable example
	
	      Answer return type method name(list of parameters separated by commas)
	
	        { statements return statement }
	
	    static double rectangle_area (double length, double breadth)
	
	    { return (length * breadth);
		4	

Q. 23	Aman wants to shop shoes online. Write detailed Steps/ procedure to be followed while shopping online. Answer Open the shopping site, from where you want to shop online. login with your username and password You can select the products that you wish to buy and add them to your shopping cart. Having selected your products, you can view what you have selected and the total amount to be paid by you. We may delete any product from the shopping cart, or proceed for payment. Read the terms and conditions before making the payment	**4**	

Q. 24	(i) Write a program in Java to display Area of a square.	2+2
	Answer	

```
static double square area (double side)
{ return (side * side);
}
```

(ii)   What are comment entries in Java? Mention two ways to give comments.

Answer

Comments are used in code by programmers to *document* their programs – to provide explanatory notes to other people who read the code. This is especially useful in the real world, where large programs are written by one programmer and maintained by other programmers.

Beginning a comment line with two consecutive forward slashes (//)

Writing the comment between the symbols /* and */