

Bel sample electronics solves question paper

1. Which one of the following is provided by a data dictionary ?

- (A) User data
- (B) Functional data

(C) Database structure data - Answer

- (D) Sorted data

2. Which one of the following is a direct benefit of database normalization ?

- (A) higher query processing efficiency
- (B) smaller number of tables
- (C) reduced I/O for most queries

(D) reduced data redundancy- Answer

3. What is the result of the following SQL statement ?

```
SELECT A.Employee_Name, B.Spouse_Name  
FROM Employee A LEFT OUTER JOIN Spouse B  
ON A.Employee_ID = B.Employee_ID
```

(A) A list of all employee's names, including the name of their spouse if they have one- Answer

- (B) A list of all employees that have spouses, with spouse names included in the list
- (C) A list of employee's spouses
- (D) Two lists : One list of employees, the other of spouses.

4. The ability to modify the conceptual schema without causing any change to the application program is known as :

- (A) Physical data independence

(B) Logical data independence- Answer

- (C) External data independence
- (D) Static data

5. A field or a combination of fields that has a unique value is called :

- (A) Secondary key
- (B) Foreign key

(C) Primary key - Answer

- (D) Alternate key

6. Relational operator that yields all values from all rows in a table is known as

- (A) difference
- (B) product
- (C) select
- (D) project

7. Referential integrity controls relationships between :

- (A) attributes in a table
- (B) operations of an object
- (C) instances of a class

(D) tables in a database.- Answer

8. What will be suitable criteria that should be entered for a query to search for Employee Names beginning with M ?

- (A) Start with M
- (B) Like M
- (C) Like 'M?'

(D) Like 'M*'

9. What rows will this select statement return ?

```
SELECT * FROM products WHERE ordernumber > = 1000
```

(A) All rows in the products table whose order number is greater than or equal to 1000- Answer

(B) All rows in the products table whose order number is less than or equal to 1000

(C) The first 1000 rows of the product table

(D) All rows in the products table whose order number is greater than 1000

10. A television broadcast is an example of _____ transmission.

(A) Simplex - Answer

(B) half-duplex

(C) full-duplex

(D) automatic

11. _____ is the protocol suite for the Internet which we use presently :

(A) TCP/IP - Answer

(B) NCP

(C) UNIX

(D) ACM

12. _____ switching is well suited for voice communication while _____ switching is better suited for data and other non-voice communication.

(A) Message; circuit

(B) Circuit; message

(C) Packet; circuit

(D) Circuit; packet- Answer

13. Forty-five physical channels link _____ devices arranged in a mesh topology.

(A) NINE (9)

(B) TEN (10)- Answer

(C) FORTY (40)

(D) FORTY-FIVE (45)

14. The most frequently used UTP connector is _____ .

(A) category 5 connector

(B) EIA 232

(C) RJ45- Answer

(D) JR45

15. The natural mask for class C IP address is _____ .

(A) 255.255.255.0 - Answer

(B) 255.255.0.0

(C) 255.0.0.0

(D) 255.255.255.255

16. The Internet began as an experimental network called

(A) Intranet

(B) ARPANET- Answer

(C) ARPA

(D) DoDNET

17. Clock speed is measured in

- (A) Bits per second
- (B) Baud
- (C) Bytes

(D) Hertz- Answer

18. Cache memory enhances

- (A) Memory capacity
- (B) Memory access time- Answer**
- (C) Secondary storage capacity
- (D) Secondary storage access time

19. A user complains that he has created a shell script 'myuse' that will report his usage of disk space by a directory in UNIX, but when he executes the script he only receives the message : myuse : cannot execute. What is the probable cause of the error described above ?

- (A) The file 'myuse' contains syntax errors
- (B) The file 'myuse' cannot be located because the user has not set his PATH properly
- (C) The user does not have permission to read his directory

(D) The file mode for the owner of 'myuse' is not executable- Answer

20. Three players A, B, C are in a race. A is twice as likely to win as B and B is twice as likely to win as C. Then the probability that B wins =

- (A) 1/2
- (B) 2/3
- (C) 1/3

(D) 2/7- Answer

21. In following Java code snippet, what will be the output of following :

```
int var 1 = 5, var 2 = 7;  
System.out.println("Result=" + var 1 * var 3);
```

- (A) Result = 35
- (B) Result = 57
- (C) Result = 3

(D) Error- Answer

22. Consider the following segment of a Java program,

```
int num, alpha = 10;  
num = 4;  
switch (num)  
{  
case 3 : alpha++; break;  
case 4 :  
case 6 : alpha = alpha + 3;  
case 8 : alpha = alpha + 4; break;  
default : alpha = alpha + 5;  
}
```

```
System.out.println (alpha);
```

What will the output be when the above segment is executed as a program ?

- (A) 15
- (B) 16

(C) 17 - Answer

- (D) 18

23. The region of memory sufficiently large to hold all pixels of the display is called a

(A) Frame buffer - Answer

- (B) RAM
- (C) ROM
- (D) Cache Memory

24. Which of the following statements is correct regarding Bitmap images ?

- (A) They are based on lines and curves
- (B) They are best for real-world images like Photography and Painted pictures- Answer
- (C) They have a small data size
- (D) One does not need to compress the file for transferring.

25. is a process model used to show the flow of data through a system and the work or processing performed by the system :

- (A) Document Flow Diagram
- (B) Data Flow Diagram- Answer**
- (C) Entity Relationship Diagram
- (D) Use Case Diagram.

26. Consider the following two relations :

A (Students) B

St_Id	Name	Address	St_Id	Name	Address
1000000004	Ratan	Mumbai	1000000001	Mahesh	Gangtok
1000000001	Mahesh	Gangtok	1000000002	Samir	Indore
1000000008	Babita	Delhi	1000000004	Ratan	Mumbai
1000000002	Samir	Indore	1000000008	Babita	Delhi

Applying a certain SQL statement to relation A gives relation B. Which of the following statements could this SQL statement be ?

(A) SELECT * FROM Students ORDER BY St_Id;- Answer

- (B) SELECT * FROM Students ORDER BY Name;
- (C) SELECT * FROM Students ORDER BY St_Id DESC;
- (D) SELECT * FROM Students ORDER BY Name DESC;

27. Consider the code snippet given below : `< H1 > Hello BIT < H1 >` Which of the following is correct in relation to the above code snippet ?

- (A) Hello BIT is displayed as the output with H1 font.
- (B) Hello BIT ; is displayed as the output with H1 font.
- (C) ; is displayed as the output with default font.
- (D) Hellow BIT is displayed as the output.

28. When you are creating a structure in C/C++, you need to use the keyword

- (A) structure
- (B) object
- (C) struct - Answer**
- (D) record

29. $54 _ _ 7 = 5$. Which arithmetic operator can replace the blank to make the statement correct ?

- (A) -
- (B) /
- (C) % - Answer**
- (D) *

30. What is the output of the following code in C ?

```
for (int i = 0; i < 10; i++)
{cout << i% 2 << " ";}
```

- (A) 0 1 2 3 4 5 6 7 8 9
- (B) 0 2 4 6 8 10 12 14 16 18
- (C) 10101010101
- (D) 10 10 10 10 10

31. In C++, if a catch statement is written to catch exception objects of a base class type, it can also catch all _____ derived from that base class.

- (A) Exceptions for objects - Answer**
- (B) Objects of classes
- (C) Arguments
- (D) Errors

32. The design of classes in a way that hides the details of implementation from the user is known as :

- (A) Encapsulation - Answer**
- (B) Information Hiding
- (C) Data Abstraction
- (D) Reusability

33. Can two classes contain member functions with the same name ?

- (A) No.
- (B) Yes, but only if the two classes have the same name
- (C) Yes, but only if the main program does not declare both kinds
- (D) Yes, this is always allowed.- Answer**

34. What is printed when the following sample code of C is executed ?

```
char *ptr;
char my String = "abcdefghijklmnp";
ptr = myString;
printf ("ptr=%s/n", ptr+5);
printf ("ptr = %s", ptr);
```

- (A) ptr = fghijklmnp
- (B) ptr = fghijklmno ptr = fghijklmnp ptr = abcdefghijklmnp- Answer**
- (C) ptr = efghijklmnp
- (D) ptr = efghijklmnp ptr = abcdefghijklmnp ptr = efghijklmnp

35. How many times will the "while" body be executed in the same code above ?

```
int ch = 10;
int ci = 15;
while (ch > ci)
{
cout << ch << endl ;
++ ci; -- ch ;
```

- (A) 0 - Answer**
- (B) 1
- (C) 2
- (D) 3

36. What standard include file is needed to use the exit () function ?

- (A) None
- (B) Stdlib.h- Answer**

- (C) stdio.h
- (D) std.h

37. The processing speed of different computers is compared using :

- (A) RPM
- (B) GHz
- (C) MIPS - Answer**
- (D) CPS

38. Who is associated with the development of 'C' language ?

- (A) Niklaus Wirth
- (B) Donald Knuth
- (C) Dennis M Ritchie- Answer**
- (D) Charles Babbage.

39. Boolean expression for NAND gate with two inputs x and y can be written as :

- (A) $x - y$
- (B) $x + y$
- (C) $x + y$ - Answer**
- (D) $xy + xy$

40. Two's complement of 1011.01 is :

- (A) 0100.10
- (B) 0100.11- Answer**
- (C) 1011.10
- (D) 0100.01

41. A friend function can be used to :

- (A) avoid arguments between classes
- (B) allow access to classes whose source code is unavailable
- (C) allow one class to access an unrelated class- Answer**
- (D) increases the versatility of an overload operator

42. In TCP, which layer is not present ?

- (A) physical layer
- (B) data link layer
- (C) transport layer
- (D) session layer- Answer**

43. The digit F in Hexadecimal system is equivalent to _____ in decimal system.

- (A) 16
- (B) 15- Answer**
- (C) 17
- (D) 8

44. The output of a _____ gate is only 1 when all of its inputs are 1 :

- (A) NOR
- (B) XOR
- (C) AND - Answer**
- (D) NOT

45. $110012 - 100012 =$

- (A) 10000

(B) 01000- Answer

- (C) 00100
- (D) 00001

46. Which is correct :

- (A) $A.A=0$
- (B) $A+1=A-$ Answer**
- (C) $A+A=A'$
- (D) $A'.A' = 0$

47. The basic storage element in a digital system is

- (A) flip flop - Answer**
- (B) counter
- (C) multiplexer
- (D) encoder

48. $AB + AB' =$

- (A) A - Answer**
- (B) B
- (C) 1
- (D) 0

49. In UNIX, which command is used to sort the lines of data in a file in reverse order

- (A) sort
- (B) sh
- (C) st
- (D) sort -r- Answer**

50. The commonly used UNIX commands like date, ls, cat etc. are stored in

- (A) /dev directory
- (B) /bin directory - Answer**
- (C) /tmp directory
- (D) /unix directory