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| **ST. JOSEPH’S COLLEGE (AUTONOMOUS), BANGALORE-27** | | | | | |
| **BCA –I SEMESTER** | | | | | |
| **SEMESTER EXAMINATION: OCTOBER 2021**  **(To be conducted in Jan \_March 2022)**  **CA 1121: Fundamentals of Computers** | | | | | |
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| **Time- 3 hrs.** | |  | **Max Marks-100** | | |

**This paper contains four sections and five printed pages**

**Section A**

**Answer all of the following questions (20\*1marks=20marks)**

1. Vacuum tubes were used in

a. First generation

b. Second generation

c. Third generation

d. None

2. 101010101(2) in decimal number system is

a.172

b164

c.341

d.223

3. The binary equivalent of FACEB (16) is

a.11111010110011101011

b.10101010101010101000

c.10010011001100110011

d.10001110111111110000

4. An assembly level program is converted to machine code using

a. compiler

b. linker

c. loader

d. assembler

5. Which type of data can be stored in the database?

a. Image oriented data  
b. Text, files containing data  
c. Data in the form of audio or video  
d. All of the above

6. Which of the following provides the ability to query information from the database and insert tuples into, delete tuples from, and modify tuples in the database?

a. DML (Data Manipulation Language)

b. DDL (Data Definition Language)

c. Query

d. Relational Schema

7. What is an operating system?  
 a. interface between the hardware and application programs  
b. collection of programs that manages hardware resources  
 c. system service provider to the application programs  
 d. all of the mentioned

8.Machine learning is a field of AI consists of learning algorithms that …………………

a. At executing some tasks

b. overtime with experience

c. Improve their performance

d. All of the above

9. Which Unix command is used for changing the current directory?  
a. pwd  
b. rm  
c.cd  
d.cp

10. An IoT network is a collection of \_\_\_\_\_\_ devices.

a. Signal

b. Machine to Machine

c. Interconnected

d. Network to Network

11. The correct sequence of HTML tags for starting a webpage is -

1. Head, Title, HTML, body
2. HTML, Body, Title, Head
3. HTML, Head, Title, Body
4. HTML, Head, Title, Body

12. A program that is used to view websites is called a

1. Browser
2. Web viewer
3. Spreadsheet
4. Word processor

13. ISP stands for?

1. internet server provider
2. internal server provider
3. internet service provider
4. insta service provider

**14. To create HTML page, you need \_\_\_\_\_**

1. Web browser
2. text editor
3. Both [A] and [B]
4. None of the above

15. What is the name of the first super computer of India?

a. Saga 220

b. PARAM 8000

c. ENIAC

d. PARAM 6000

16. These types of computers are primarily involved in data processing and problem solving for specific programs.

* 1. Compact Computers
  2. Digital computers
  3. Hybrid Computers
  4. Analog Computers

17. Various types of computers are

a. Personal computers

b. Workstations

c. Tablet PC

d. All of the above

18. Servers are computers that provide resources to other computers connected to a.

a. Network

b. Client

c. Mainframe

d. Super computer

19. Personal computers use a number of chips mounted on a main circuit board. What is the common name for such boards?

1. Daughter board
2. Mother board
3. Father board
4. Bread board

20. A …………. is a program that converts the entire source code of a programming language into executable machine code for a CPU at one go.

a. compiler

b. linker

c. loader

d. interpreter

**Section B**

**Answer any SIX of the following question (6\*6marks=36 marks)**

21.Write in detail about the basic characteristics of a computer in detail.

22. Write a note on the concepts of assemblers, compilers and interpreters?

23. With a neat block diagram explain how working of Central processing units.

24. Write in detail about the functions of an operating system.

25.How is file system different from Database management system?

26. how are physical address different from logical address? explain with an example.

27. Write a note on any four HTML tags in detail

28.Give an overview and features of augmented reality and artificial intelligence

**Section C**

**Answer any THREE of the following questions (3\*8 marks =24marks)**

29. Explain the characteristic features of second generation and third generation computers in detail.

30.Write short notes on

i) BCD code

ii)gray code

iii)ASCII code

31.Write in detail about the classification of Operating systems.

32. What are the functions of DBMS? Explain advantages and disadvantages of DBMS.

33.Write a detailed note on classification of digital computers.

**Section D**

**Answer any two of the following questions (2\*10marks =20 marks)**

34.Write an algorithm and a draw a corresponding flowchart to find the largest of three numbers.

35 Write a detailed note on SQL, DML, DDL.

36. illustrate with an example the role of latest technologies like Internet of things and machine learning in detail.