**SET B**

**MCQ (1x30=30)**

Qn1. Gate whose output is 0 only when inputs are different is called

1. XOR
2. XNOR
3. **NOR**
4. NAND

Qn 2. Program which is written originally by programmer is classified as

1. object code
2. machine code
3. **source program**
4. interactive programs

Qn 3. Truth table is used to represent

1. linear expression
2. **Boolean expression**
3. differential expression
4. integral expression

Qn4. When multiple-instructions are overlapped during execution of program, then function performed is called

1. Multitasking
2. Multiprogramming
3. Hardwired control
4. **Pipelining**

Qn5. An instruction that does no operation for changing state is known as

1. Nope
2. No
3. No-op
4. **Nop**

Qn6. Software which controls general operations of computer system is classified as

1. dump programs
2. function system
3. **operating system**
4. inquiry system

Qn 7. Add the two BCD numbers: 1001 + 0100 = ?  
 a) 1101  
 b) 00001101  
 **c) 00010011** d) None of the mentioned

Qn8. Devices that accepts data from outside computer and transfer into CPU are called

1. **input devices**
2. digital devices
3. analogue devices
4. truth table peripherals

Qn 9. An OR gate with schematic “bubbles” on its inputs performs the same functions as a(n)\_\_\_\_\_\_\_\_ gate.

* 1. NOR
  2. OR
  3. NOT
  4. **NAND**

Qn 10. Use Boolean algebra to find the most simplified SOP expression for F = ABD + CD + ACD + ABC + ABCD.

* 1. **F = ABD + ABC + CD**
  2. F = CD + AD
  3. F = BC + AB
  4. F = AC + AD

Qn 11. The NAND or NOR gates are referred to as “universal” gates because either:

* 1. can be found in almost all digital circuits
  2. **can be used to build all the other types of gates**
  3. are used in all countries of the world
  4. were the first gates to be integrated

Qn 12. The minimum number of address lines needed for a 64K memory is \_\_\_\_\_\_\_\_.

* 1. 10
  2. 12
  3. 14
  4. **16**

Qn 13. Type of memory which is used to read data but not to write on it is classified as

1. random only memory
2. read access memory
3. **read only memory**
4. random access memory

Qn 14. The excess-3 code for 597 is given by  
**a) 100011001010**  
b) 100010100111  
c) 010110010111  
d) 010110101101

Qn 15. Dynamic memory cells store a data bit in a \_\_\_\_\_\_\_\_.

* 1. diode
  2. resistor
  3. **capacitor**
  4. flip-flop

Qn 16. Which one is more economical?  
a) ROM  
**b) RAM**  
c) EROM  
d) PROM

Qn 17. A computer program that converts an entire program into machine language at one time   
 is called a/an……………………

* 1. Interpreter
  2. CPU
  3. **Compiler**
  4. Simulator

Qn18. Built-in set of machine code instructions of computer are called

1. **instruction set**
2. transfer of data
3. logical operations
4. logical set

|  |
| --- |
| Qn 19.Boards that are used to connect additional devices to the motherboard are called |
| 1. 1. Bay Cards |  |
| 1. 2.Port Cards |  |
| 1. 3**. Expansions card** |  |
| 1. 4.Bus cards |  |

|  |  |
| --- | --- |
| Qn20**.** | Which of the following handles the interconnection between most of the devices and the CPU? |
|  | 1. **Northbridge** |
|  | 1. RAM |
|  | 1. ROM |
|  | 1. Southbridge |

Qn21. Ensuring that the essential peripheral devices are attached and operational is the \_\_\_\_ Process.

* 1. Configuration.
  2. CMOS
  3. **POST**
  4. ROM

Qn22. 1 kilobyte consists of how many bits

1. 768 bytes
2. 8192 bytes
3. 1024 bytes
4. **8192 bits**

Qn23. On subtracting (01010)2 from (11110)2 using 1’s complements, the output will be  
 a) 010010  
 **b) 010100**  
 c) 101011  
 d) 110011

|  |  |
| --- | --- |
|  | |
|  | |  |
|  | |  |
|  | |  |
|  | |  |
| Qn 24.Which one of the following is not an operating system? | | |
|  | | |
| 1. Mac OS. | | |
| 1. Linux. | | |
| 1. **Norton.** | | |
| 1. Windows XP. | | |

Qn 25. Devices that are controlled by central processing unit but are not a part of it are called

1. **peripheral devices**
2. arithmetic units
3. control unit devices
4. main store devices

Qn 26. Silicon piece with a system circuit on it is termed as

1. **chip**
2. circuit
3. logical gate
4. circuit network

Qn 27. Circuits that employs memory elements in addition to gates is called

1. combinational circuit
2. **sequential circuit**
3. combinational sequence
4. series

Qn 28. Besides NAND gate universal gate is

1. AND gate
2. OR gate
3. **NOR gate**
4. XOR gates

Qn29. Hazards in pipelines can make it necessary to

1. Stop pipeline
2. **Stall pipeline**
3. Pipeline interfering
4. Both a and b

Qn30. Address location in main memory, is referred to as

1. Logical address
2. **Physical address**
3. Static address
4. Block associative

**Short Answer Questions (6x5=30)**

Qn1. Convert the following decimal numbers into their binary and octal equivalents:

1. 64.2
2. 199.3

Chapter 1

Qn2. Explain ISA (Instruction Set Architecture) with basic diagram?

Chapter 9

Qn3. What is system Bus? Explain its types with examples.

Chapter 2

Qn4. What is Cache memory? Explain its types? Why do we need cache memory?

Chapter 3

Qn5. What is SMP? Explain what is the role of IPC in Computing?

Chapter 12

Qn6. What is stack? Explain Push and Pop operation with neat diagram?

Chapter 6

Qn7. What is CPU? Explain the different components of CPU with neat diagram.

Chapter4

Qn 8. What is K-map? Explain it with example?

Chapter7

**Long Answer Questions (10x2=30)**

Qn1.

a. What is Virtual memory? Why do we need virtual memory? Explain how the virtual memory works with neat diagram? (10)

Chapter 13

b. What is Primary memory? What are the characteristics of memory? Draw the memory hierarchy structure? (10)

Chapter 4

Qn2.

1. Explain the different types of memory architecture with neat diagram?(10)

Chapter7

1. What do you mean by distributed system? Why do we need this system? Explain different types of distributed system?(10)

Chapter 10