

- (2) **The ALU (Arithmetic Logic Unit) performs:**
a) Only arithmetic operations b) Only logical operations
c) Both arithmetic and logical operations d) Memory management
- (3) **How many inputs and outputs does a Half Adder have?**
a) 1 input, 1 output b) 2 inputs, 1 output
c) 2 inputs, 2 outputs d) 3 inputs, 2 outputs
- (4) **In the octal system, the digit 8 is represented as:**
a) 10 b) 8
c) 11 d) Invalid
- (5) **Which of the following is NOT a valid Boolean law?**
a) $A+0=A$ b) $A \cdot 1=A$
c) $A+A^{\bar{}}=0$ d) $A+A=A$
- (6) **In an RS flip-flop, what happens when both RRR and SSS inputs are 1 simultaneously?**
a) Set state b) Reset state
c) Invalid state d) No change
- (7) **Which of the following is NOT an input device?**
a) Keyboard b) Mouse
c) Printer d) Scanner
- (8) **Which register holds the address of the next instruction to be executed?**
a) Accumulator b) Program Counter (PC)
c) Instruction Register (IR) d) Memory Address Register (MAR)
- (9) **Which of the following is a volatile memory?**
a) ROM b) RAM
c) EEPROM d) Flash Memory
- (10) **Which gate is known as the "universal gate"?**
a) AND gate b) OR gate
c) NAND gate d) XOR gate
- (11) **What is the purpose of virtual memory?**
a) To store frequently accessed data for quick retrieval
b) To increase the effective size of RAM using disk space
c) To store the BIOS settings
d) To act as a replacement for cache memory
- (12) **The Boolean expression $A+B$ is equivalent to which logic gate?**
a) AND gate b) OR gate
c) NAND gate d) NOR gate

**** All the Best ****