

# Exercises about Computer Science

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## 1 Exercises

1. An OR gate has 6 inputs. How many input words are in its truth table?
  - (a) 64
  - (b) 32
  - (c) 16
  - (d) 128
  - (e) None of the above
2. What is the 2's-complement representation of -24 in a 16-bit microcomputer?
  - (a) 0000 0000 0001 1000
  - (b) 1111 1111 1110 0111
  - (c) 1111 1111 1110 1000
  - (d) 0001 0001 1111 0011
  - (e) None of the above
3. Which gate is known as a universal gate?
  - (a) NOT gate
  - (b) AND gate
  - (c) NAND gate
  - (d) XOR gate
  - (e) None of the above
4. What is the abbreviation of "binary digit"?
  - (a) 0 and 1.
  - (b) Byte.

- (c) Bit.
  - (d) Bin.
  - (e) Base.
5. On C programming there is a common used structure defined as (void \*) 0. What is it?
- (a) The NULL pointer.
  - (b) The void pointer.
  - (c) Error.
  - (d) Garbage value stored on RAM.
  - (e) Garbage value stored on disk.
6. If a variable is a pointer to a structure, then which of the following operator is used to access data members of the structure through the pointer variable?
- (a) .
  - (b) %
  - (c) &
  - (d) \*
  - (e) -i
7. What will be the output of the following code?

```
#include<stdio.h>

int main()
{
    char str20 = "Hello";
    char *const p=str;
    *p='M';
    printf("%s\n", str);
    return 0;
}
```

- (a) Hello
- (b) Mello
- (c) HMello
- (d) MHello
- (e) Mehlllo

8. What will be the output of the following code?

```
#include<stdio.h>

int main()
{
    char *str;
    str = "%s";
    printf(str, "K\n");
    return 0;
}
```

- (a) Error.
  - (b) No output.
  - (c) K.
  - (d) %s
  - (e) K \n
9. What will be the output of the program if the size of pointer is 4-bytes?

```
#include<stdio.h>

int main()
{
    printf("%d, %d\n", sizeof(NULL), sizeof(""));
    return 0;
}
```

- (a) 2, 1.
- (b) 1, 2.
- (c) 2, 2.
- (d) 4, 1.
- (e) 4, 2.

## 2 Answers

- 1. A
- 2. C
- 3. C

4. D

5. A

6. E

7. B

8. C

9. D