

write a program in C to add five 32 bit numbers available at successive memory locations and to divide the result by sixth number available at next successive location.

```
main()
{ long int i, sum=0,*p;
p=1001; /* assume the numbers are from 1001 location */
for (i=0;i<5;i++)
{ sum= sum+ *p ;
p=p+1;
}
sum=sum/( *p ) ; /* use only *(p) not *p since it may come to comment */
printf (\

#include int my_array[] = { 1,23,-4,5,6,9}; // for example of a random array
int *ptr ; int sum; long tot;
int main(void){ int i; ptr = my_array; //since the name of the array is a pointer
for(i=0; i<5; i++) { printf("\n the value of my_array[%d]is %d and is stored in %p
",i,my_array[i], (void *)&(my_array[i])); printf("\n ptr + %d = %d\t",i, *(ptr+i)); sum = sum
+ *(ptr++); printf("\nthe value of the sum is %d",sum); } tot = sum/( *ptr); printf("\nthe
value of the total is %d\n",tot); return 0; }
```

An array is a way to reference a series of memory locations using the \_\_\_\_\_.

**Skill/Topic:** Array

- A)** Same name
- B)** different name
- C)** Multiple names
- D)** Unique name

**Explanation:** An array is a way to reference a series of memory locations using the same name. Each memory location is represented by an array element. An array element is similar to one variable except it is identified by an index value instead of a name.

Freescall-bit mesra-2006

1. A dual port memory was given with 1 data port connected in the reverse order. Detect the errors. Repeat for single port.
2. input was given as:

Design a logic ckt to get the following o/p

3. two questions related for calculation of max frequency of operations. Setup and hold time ,clock to Q delay, clock skew and combinational logic delays were to be considered.
4. design a state machine for a serial input number to be divisible by 5 (101, 1010,.....) output 1.
5. diode and transistor realization of gates.
6. output voltage waveform of CMOS buffer. P N Mos interchanged.
7. interpretation of a CMOS ckt.
8. What is Body effect.
9.  $A_v$  for CE tras. With  $R_e$ .
- 10  $A_v$  for common sourc amplifier.
- 11.Implemetation of gates using othr gates.

#### SOME QUESTIONS ASKED IN FREESCALE WRITTEN EXAM AND INTERVIEWS

1. the 2's complement number of 110010 is  
ans; none of those
  - 2.Truth table of a logic function  
ans: displays all its input output possibilities
  - 3.The process of varying one signal according to the pattern provided by another signal is  
ans:modulation
  - 4.The octal equivalant of hexa number 123 is  
ans:443
- Determine how many times the given loop is executed
5. $m=3$  while ( $m<18$ ) do { $m=m+2$ ; $m=m-1$ }  
ans:15

6.  $m=1; a=30; \text{while } (m < > 1) \text{ do } \{m=m+1; a=a-1;\}$

7.  $m=1; a=30; \text{while } (e * m - 5 < a) \text{ do } \{m=m+1; a=a-2\}$

ans: 9

in questions 8 to 12 find the values of a and b at the end of the execution of the program segment

8.  $a=2;$

$b=1;$

$x=1;$

$\text{while}(x \leq 4)$

$\text{do } \{a=a+b; x=x+1\}$

ans: (5, 1)

9.  $a=1;$

$b=2; x=1$

$\text{while } (x \leq 5)$

$\text{do } \{b=a+b; x=x+1;\}$

ans: (1, 6)

10.  $a=0;$

$b=0;$

$x=1;$

$\text{while } (x \leq 4)$

$\{a=a+x;$

$b=b-x;$

$x=x+1;\}$

ans: (10, -10)

11. The complexity of bubble sort is  $O(n^2)$ , then k equals

ans: 2

12. In BCD, the decimal number 516 is

ans: 10101110

13. RS 232 is standards for

ans: physical layer

14. which of the following is not true of a DBMS

ans: maintain integrity

15. the method of access used for obtaining a record from a tape is

ans: sequential

16. Which of the following is an universal gate

ans:nor

17.an ASCII text file containing 500 characters will have size approximately

ans:500bytes

18.which of the following is a vector

ans;force

19.The lowest attainable temperature

ans 0k

20.viscosity is most similar to

ans:friciton

21.The elapsed time between the submission of the job and getting the output is

ans:seek time

22.the earliest calculating device still in use is

ans: abacus

23.Qunatits used to bring fields to standards sixe are

ans:pixels

24.the base of a number system is called as

ans:radix

25.An 8kb computer will bave addresses -----

ans:8191

26.Arranging data in a specific form is called

ans: sorting

27.A translator which reads an entire programme written in a high level language and converts

it into machine language code is

ans: interpreter

28.a data hierarchy in assending order is

ans:bit-byte -field-record-file-database

29.a computer generated output that lets programmer follow the execution of the program line by line is

30.data items grouped together for storage form a

31. the most dangerous aspect of computer viruses is their ability to  
ans: change system memory

32. a distributed data processing configuration in which all activities must pass through an centrally located computer is called a  
ans: ring network

33. communication circuits that transmit data in both directions but not at the same time are operating in

34. which of the following is not an application software  
ans: unix

35. For which of the following computer applications is real time processing not essential

36. a data structure with one to many relationship is a  
ans: tree

37. which of the following hardware components is most important to operation of a database management system  
ans: high speed, large capacity disk

38. computer viruses can spread from one system to another by means of  
ans: all the above

39. a front end processor is usually used in  
ans: multi processing

40. a radioactive material of mass 16 grms in 10 years due to radiation. how many years will it take for the material to attain a mass of 1 gm  
ans: 30

41. a block of ice floats on water in a beaker, as the ice melts, the water level in the beaker will  
ans: remain same

42. if  $v_a, v_n, v_s$  are velocities of sound in air, water, and steel then,  
ans:  $v_s > v_n > v_a$

43. in usual computer arithmetic, the value of the integer expression  $22/5*2+8*2/6$

ans:10

44.an acronym for the organisation that publishes programming language standards is

ans:ANSI