**SARDAR VALLABHBHAI PATEL INSTITUTE OF TECHNOLOGY, VASAD**

COMPUTER PROGRAMMING AND UTILIZATION

SUBJECT CODE: 2110003

B.E.1st YEAR 2nd SEM

Question Bank for First Mid-Sem Exam

Date: 21/03/2017

Total no. Of Pages: 3(three)

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
|  | Draw Block Diagram of Computer System and Explain its various components. | | | |
|  | Define following:  I. Operating System  II. Compiler  III. Application software  IV. System Software | | | |
|  | Describe the various types of computer languages and mention its advantages and disadvantages. | | | |
|  | Write the difference between compiler and interpreter. | | | |
|  | What is software? List the various categories of software and their use. | | | |
|  | What is Algorithm and flowchart? Explain both with some suitable example. | | | |
|  | Give comparison of: 1) Flow charts and Algorithms 2) Software and hardware. | | | |
|  | Explain Various Symbols used in Flowchart and Draw the Flowchart for finding largest Number out of three given Numbers. | | | |
|  | Write an algorithm and draw the flowchart to accept N numbers and count how many of them are odd and also compute sum of all these odd numbers. | | | |
|  | Write an algorithm to find out factorial of given numbers and draw a flowchart of it. | | | |
|  | Explain in brief the features of C language. | | | |
|  | Justify, “C is middle level language. | | | |
|  | Explain the basic structure of C program in detail. | | | |
|  | Explain the ‘C’ Development life cycle using flowchart in detail. | | | |
|  | Explain the following terms in brief:  Operating System, Compiler, volatile Variable, Header Files | | | |
|  | What are trigraph characters? How are they useful? Explain any five of them. | | | |
|  | Explain the different data types supported in C language | | | |
|  | Explain scanf( ) and printf( ) with syntax. | | | |
|  | Explain in brief the classification of operators in C. | | | |
|  | Explain logical operator and relational operator used in C language. | | | |
|  | Explain operator precedence and associativity in C language. | | | |
|  | Explain sizeof() operators with proper examples. | | | |
|  | Explain ternary operator in C. Write a program using ternary operator to find the minimum number out of three given numbers. | | | |
|  | What is type conversion? Explain the type conversions supported by C language. | | | |
|  | What is Type conversion and Type casting? State difference between them. | | | |
|  | Explain C tokens in detail. | | | |
|  | What is a constants and variables in C. | | | |
|  | Explain any five I/O functions supported by standard library in C language. | | | |
|  | Explain various types of control structures available in C language. | | | |
|  | Explain various decision making statements supported in C language. | | | |
|  | Explain the multiple if (ladder if) with example. Give the example using it. | | | |
|  | Explain switch…case statement in C language with example. | | | |
|  | Explain **goto** statement with example. | | | |
|  | Explain branching and looping in C with example code. | | | |
|  | Explain “ if-else-if ladder” with appropriate flow chart and ‘C’ syntax | | | |
|  | Explain break and continue with example. | | | |
|  | What is looping? Explain Entry control and Exit control loops with appropriate flow chart and syntax. Explain different types of loops in C and compare them. Show how to sum 1 to 10 using each of these loops. | | | |
|  | Explain the nesting of control structures in C language with example. | | | |
|  | What is infinite loop in C? How can you create it? Give an example of situation where you need to use infinite loop? | | | |
|  | Write short notes on following:  (i) Nested if..else statement.  (ii) Use of break and continue statement. | | | |
|  | Write a program to convert given days into years, months and days. | | | |
|  | Write a C program to evaluate the square root for five numbers using the goto statement. | | | |
|  | Write a program to convert given uppercase letter to lowercase letter. (Use getchar() and putchar()). | | | |
|  | Write a C program to check if a given year is leap year or not. A year is leap year if it is evenly divisible by 4 and not with 100, but also divisible by 400. | | | |
|  | Write a C program to determine a given number is ‘odd’ or ‘even’ and print  the following message:  NUMBER IS EVEN  Or  NUMBER IS ODD  (i) Without using else option. (ii) With else option. | | | |
|  | Write a program to take a character as an input and display whether it is a number, alphabet (upper/lower/vowel) or a special character. | | | |
|  | Write a program to make simple calculator using switch case. | | | |
|  | Write a program to print numbers between given limits (lower and upper) and calculate their sum and average. | | | |
|  | Write a program to print first n odd numbers and even numbers and calculate their sum and average. Take n as user input. | | | |
|  | Write a C program to find the sum of N different numbers using goto statement. | | | |
|  | Write a C program to check whether the given number is Prime or not. | | | |
|  | Calculate power of given number without using power function. Take power and base as user input. | | | |
|  | Write a program to input five numbers and print their sum and average. | | | |
|  | Find the maximum and minimum numbers from given n numbers. | | | |
|  | Write a C program to print following pattern: …upto **n** such Lines | | | |
| 1  2 1 2  3 2 1 2 3 | \*  \*\*  \*\*\* | 1  1 3  1 3 5 | |
|  | AAAAA  BBBB  CCC  DD  E | 4 3 2 1  3 2 1  2 1  1 | 1  0 1  1 0 1  0 1 0 1 | |
|  | 3 3 3  2 2  1 | A  BC  DEF  GHIJ | | 1  22  333  4444 |
|  | Write a ‘C’ program to count ODD and EVEN numbers from given 10 numbers. | | | |
|  | Write a program in C for generating sum of first 100 integer numbers. | | | |
|  | Give the meaning and output of following C statements.  a.) x = 1,2,3;  b.) a = (b = 4, c = 5, b+c);  c.) if( x = 5)  printf(“x is even\”);  else  printf(“x is odd\n”); | | | |
|  | Find the Error if any from the following code. If there is no error, then write output.  void main()  {  int x=’A’;  putchar(x);  } | | | |
|  | What will be the output of following program? | | | |
| void main(){  int x = 10, y, z;  z = y = x ;  y - = x-- ;  z - = --x ;  x - = --x – x-- ;  printf(“ y = %d z = %d x = %d” , y, z, x); } | void main() {  int i=1, sum=0;  while(i>=10);  { sum=sum + i;  i++;  }  printf(“sum=%d, i=%d”,sum,i); } | | |
|  | void main(){  int m;  for ( m = 0; m < 3; ++m )  {  printf( “ %d “, (m%2) ? m : m+2);  }  } | void main()  {  int m;  for(m=0;m<10;m++) {  if(m==5) continue;  printf(“%d”,m);  } } | | |
|  | void main() {  int a;  float b;  a=4; b=2;  printf(“%d”,sizeof(a/b)); } | void main() {  int x=4,y,z;  y=--x;  z=x--;  printf(“%d%d%d”,x,y,z); } | | |
|  | void main () {  int x=5,y=7,z=8;  for ( ; 50<100 ; x++, y++) {  while (y>=x) {  printf("\n %d %d %d ", x, y, ++z);  y-- ; }}  if(x == 5) break ;  else continue ; } } | void main() {  int xx=4,yy=5;  int zz=1,pp;  float qq;  pp=xx+yy\*zz%xx++/++yy\*zz;  printf(“pp=%d\n”,pp);  qq=pp/5;  printf(“qq=%f\n”,qq); } | | |