**1**

| int squares(int a)  {  return a\*a;  } |
| --- |

**2**

| char test(int a, double b)  {  //code  } |
| --- |

**3**

| #include <stdio.h>  int gcd(int a, int b){  while (a)  {  int rem\_g = b % a;  b = a;  a = rem\_g;  }  return b;  }  int main(){  int x = 10;  int a[x];  int c = 0;  for (int i = 0; i < x; i++)  {  scanf("%d", &a[i]);  if (i == 1)  c = gcd(a[0], a[1]);  else if (i > 1)  c = gcd(c, a[i]);  }  printf("GCD: %d", c);  } |
| --- |

**4**

| void makeSum(int a, int b, int \*sum)  {  \*sum = a + b;  } |
| --- |

**5**

| 10 20 10  30 20 30  50 10 50  50 10 10  20 100 100 |
| --- |

**6**

| void makeNArray(int n, int squares[])  {  for (int i = 0; i < n; i++)  {  squares[i] = (i + 1) \* (i + 1);  }  } |
| --- |

**7**

| We can return more than one value from a user defined function using pointers.  For example, we can swap two numbers in a user defined function using pointers.  #include <stdio.h>  void swap(int \*x, int \*y){  int temp = \*x;  \*x = \*y;  \*y = temp;  }  int main()  {  int a = 10, b = 20;  printf("%d %d\n", a, b);  swap(&a, &b);  printf("%d %d\n", a, b);  return 0;  } |
| --- |

**8**

| void stringCat(char a[], char b[], char out[])  {  strcpy(out, a);  strcat(out, b);  // printf("%s", out);  }  NB: we will need string.h header file for strcpy and strcat. |
| --- |

**9**

| #include <stdio.h>  int main()  {  int n;  int \*parr;  scanf("%d", &n);  int arr[n];  parr = &arr[0];  for (int i = 0; i < n; i++, parr++)  scanf("%d", parr);  parr = &arr[n - 1];  printf("Elements in reverse order: ");  for (int i = n - 1; i >= 0; i--, parr--)  printf("%d ",\*parr);  return 0;  } |
| --- |

**10**

| The difference between the main function and other user defined functions are:   * A program must have a main function but there may or may not be any user defined functions. * Compiler starts its execution from the main function. It is not dependent on any function call. But user defined functions only work when it is called from any part of the program. * Main function is executed only one time, where user defined functions can be executed any number of times. |
| --- |

**Question Paper:** <https://docs.google.com/document/d/e/2PACX-1vRBQYnU2UmfeC-b1XElcbjMFDWTnoAEYLAG4oYov6SlGYscwkrZxCf13AK_lZlwzEAkLY3Tc1AAAsdg/pub>