**Assigmnet:2**

**1. Create an uninitialized data declaration for a 16 bit signed integer?**

Ans: Var1 sword -32768

**2. Create an uninitialized data declaration for a 8 bit unsigned integer?**

Ans: Var1 BYTE “A”

Var2 BYTE 0

Var3 BYTE 255

**3. Create an uninitialized data declaration for a 8 bit signed integer?**

Ans: Var1 SBYTE -128

Var2 SBYTE +128

**4. Create an uninitialized data declaration for a 64 bit integer?**

Ans: quad1 QWORD 123456h

quad2 DQ 1234567h

**5. which data type can hold 32-bit signed integer?**

Ans: SWORD and DWORD data type can hold 32-bit signed integer

**6. Declare a 32-bit signed integer variable an initialized it with the smallest possible negative decimal value?**

Ans: var5 SDWORD-2147483648

**7. Declare and unsigned 16 bit integer variable name wArray that uses three initializers?**

Ans: mylist word 1,2,3,4

**8. Declare a string variable containing the name of your favorite color. Initialize it as a null terminated string.**

Ans: myColor BYTE “blue”,

**09. Declare an uninitialized array of 50 unsigned doublewords named dArray.**

Ans: dArray DWORD 50 DUP(?)

**10. Declare a string variable containing the word “TEST” repeated 500 times**

Ans: dArray DWORD 50 DUP(?)

**11. Declare an array of 20 unsigned bytes named bArray and initialize all elements to zero.**

Ans: bArray BYTE 20 DUP(0)

**12. Show the order of individual bytes in memory (lowest to highest) for the following double word variable:val1 DWORD 87654321h**

Ans: 21h, 43h, 65h, 87h

**Assigmnet:3**

1. **Declare a symbolic constant using the equal-sign directive that contains the ASCII code(08h) for the Backspace key.**

Ans: BACKSPACE=08h

1. **Declare a symbolic constant named SecondsInDay using the equal-sign directive and assign it an arithmetic expression that calculates the number of seconds in a 24-hour period.**

Ans-SecondsInDay=24 \* 60 \* 60

1. **Write a statement that causes the assembler to calculate the number of bytes in the following array, and assign the value to a symbolic constant named Array Size: my Array WORD 20 DUP(?)**

Ans: ArraySize=($-myArray)

1. **Show how to calculate the number of elements in the following array, and assign the value to a symbolic constant named Array Size: myArray DWORD 30 DUP(?)**

Ans: ArraySize=($-myArray) / TYPE DWORD

1. **Use a TEXTEQU expression to redefine “PROC” as “PROCEDURE.”**

Ans: PROCEDURE TEXTEQU <PROC>

1. **Use TEXTEQU to create a symbol named Sample for a string constant, and then uses the symbol when defining a string variable named MyString.**

Ans: Code example:Sample TEXTEQU <"This is a string">MyString BYTE Sample

1. **Use TEXTEQU to assign the symbol SetupESI to the following line of code:mov esi,OFFSET myArray**

Ans: SetupESI TEXTEQU <mov esi, OFFSET myArray>