Extra sheet

Q1. a. **System Software :-** A computer program that is designed to run a computer's hardware and application programs.

b. **Compiler :-** a program that processes statements into Machine Code

Q2. **System Software :-** A computer program that is designed to run a computer's hardware and application programs.

Application Software :- Any program made for the end-user.

Q3.
```
LDA       Alpha

STA       GAMMA

Alpha     WORD    15
GAMMA     RESW    1
```

Q4.
```
          LDA       65        → Load ASCII code of 'A'

          STA       DELTA     → Store in Delta

          :
```

A → 65   ASCII

Initialization
```
          DELTA     ResB    1
```

Q5.
```
          LDA     Alpha
          MUL     BETA
          ADD     TEN
          STA     Gamma
```

Initialization
```
Alpha   RESW 1
BETA    RESW 1
GAMMA   RESW 1
TEN     WORD
```

Q6.
```
LDA  Alpha
LDS  BETA
mul  S, A
ADD  #16
STO  Gamma
```

Initialization
```
Alpha  RESW1
BETA   RESW1
GAMMA  RESW1
```

Q7
```
        LDX  zero
Save LDch  ST R1, X
      STCh  STR2, X
      TIX  Eleven
      JLT  Save
```

Initialization
```
Alpha  RESW1
Beta   RESW1
Gamma  RESW1
```

Q8.
```
              LDX  #0
CopXSTRING LDch STR2, X
         STch  STR1, STR3
         TIX  #11
         JLT  CopXSTRING
```

Initialization
```
STR2  BYTE  C'Copy STRin
STR3  RESB 11
```

Q9. a) Symbol Table   b) opCodeTable   c) Location Counter

Q10. a) because we only change the address portion of instructions that use direct addressing
not the whole object code

b) because we only change the address portion of instructions that use direct addressing

Q11. a) No, we need to state the start loc.

b) No, that use direct addressing only !

c) No, that use direct addressing only !

) yes, literals can be used as operands

e) No, it is created at the end of the program