

## Q2

2. arrays and records
5. because floating point calculations could not yet be done by hardware
6. indexing and floating-point instructions in hardware, because it removed a large amount of processing time, and then it became apparent that the processing cost of interpretation was significant
7. fortran design project was begun in 1954
8. scientific computations
9. IBM 704 instructions
10. Independent compilation
11. Logical loop statements, and if-else statements
14. Because they were interested in natural language processing
15. John McCarthy and Marvin Minsky in 1958
20. A lack of routines in its subprogram design
21. Backus-Naur form
22. FLOW-MATIC
23. The COBOL design process began in 1959
24. Records
25. The Department of Defense
36. A nonprocedural language is a language that doesn't explain how to get the result but rather the characteristics and form of the result
37. A Prolog database is populated by fact statements and rule statements
46. Embedded consumer electronic devices
51. Web browsers
52. JavaScript and PHP are both used in web applications with JavaScript being client side and PHP being server side
57. The control expression and the case statements can be strings in C#, and C# disallows the implicit execution of more than one segment
59. The inputs are an XML and an XSLT document
60. The output is an XML document

## Q1 3.20 and 3.21

### 3.20

(mystery '(dancing bear))- this will produce (BEAR DANCING)

(mystery 'dancing 'bear)- this will produce an error for invalid # of arguments

(mystery '(zowie))- this will produce (NIL ZOWIE)

(mystery (list 'first 'second))- this will produce (SECOND FIRST)

### 3.21

(defun speak (x y) (list 'all 'x 'is 'y)) - x and y should not be quoted

(defun speak (x) (y) (list 'all x 'is y)) - parameters listed incorrectly

(defun speak ((x) (y)) (list all 'x is 'y)) - parameters expect two lists. x and y should not be quoted, and "list", "all" and "is" should be quoted