

Selftest : COBOL programming - part 1

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INTRODUCTION SELFTEST : COBOL PROGRAMMING - PART 1

In order to get a reasonable indication for the prerequisites for the course [COBOL programming - Part 1](#) the following questionnaire might help to check your personal knowledge of the various topics discussed in this courses.

In this test, 20 questions are asked. For most questions, there is only one answer possible. If multiple answers are possible, it will be clearly indicated. The question is answered correctly, if and only if all correct answers are given.

There are no real trick questions (at least not intentional) but read question and answer attentively.

You must take into account that this test will take you about 15 minutes.

You can find the right answers and guidelines for the evaluation at the end of this document.

QUESTIONS SELFTEST : COBOL PROGRAMMING - PART 1

1. Which of the following words is NOT a COBOL reserved word?
 - (a) RECORD
 - (b) INDEX
 - (c) VARIABLE
 - (d) FILE
 - (e) CHARACTER

2. Which of the following words can NOT be used to perform calculations in a COBOL program.
 - (a) ASSIGN
 - (b) DIVIDE
 - (c) MULTIPLY
 - (d) ADD
 - (e) COMPUTE

3. A COBOL programmer wants to repeat an instruction 5 times. How can he/she code this?
 - (a) REPEAT 5 TIMES
instruction
END-REPEAT
 - (b) PERFORM 5 TIMES
instruction
END-PERFORM
 - (c) MOVE 1 TO COUNTER
PERFORM UNTIL COUNTER = 5
 COMPUTE COUNTER = COUNTER + 1
 instruction
END-PERFORM
 - (d) REPEAT VARYING COUNTER FROM 1 BY 1 UNTIL COUNTER = 5
instruction
END-REPEAT

4. Which of the following answers gives the divisions of a COBOL program in the right order.
 - (a) Environment - Identification - Data - Procedure
 - (b) Identification - Environment - Data - Procedure
 - (c) Identification - Environment - Procedure - Data
 - (d) Environment - Identification - Procedure - Data

5. Which of the following names for data items are syntactically correct? (2 answers)

- [a] CITY-CODE
- [b] -NR-OF-ITEMS
- [c] TOTAL-NUMBER-OF-LINES-PER-TEST
- [d] PRODUCT NUMBER
- [e] INDEX

6. When is the coding of a period obligatory? (3 answers)

- [a] after each 01 level of a variable declaration
- [b] at the end of each instruction
- [c] at the end of each paragraph
- [d] at the end of the program
- [e] to end an IF instruction
- (f) to end a STOP RUN instruction

7. Which symbol should be coded on position 7 of a line in a COBOL program such that the compiler would ignore that line?

Answer:

8. Take a look at the following COBOL program. Assuming A, B, C, X, and Z are COBOL instructions, in which order will they be executed?

```
START-PROG.  
  PERFORM INITIALIZE-VARS  
  Z  
  PERFORM TERMINATE-PROG  
  Z  
  STOP RUN  
.  
INITIALIZE-VARS.  
  A  
  PERFORM READ-X  
.  
MAIN-LOOP.  
  B  
.  
TERMINATE-PROG.  
  C  
.  
READ-X.  
  X.
```

- (a) A Z B Z X
- (b) A Z C Z X
- (c) A Z X Z C
- (d) A X Z C Z
- (e) Z Z A B C
9. Take a look at the following calculation. If you take the normal priority rules in account, how will this calculation be executed?

```
COMPUTE r = A ** 2 * B / 2 + c - 5
```

- (a) $((A ** 2) * B) / 2 + c - 5$
- (b) $((A ** 2) * (B / 2)) + c - 5$
- (c) $(A ** 2) * (B / (2 + c)) - 5$
- (d) $((A ** (2 * B)) / 2) + c - 5$

10. A COBOL programmer wants to print out a number in his/her program using the following layout. Which of the following variable declarations is best suited for this purpose?

+123.45

(assuming that '.' is the decimal point for the compiler)

- (a) PIC 9(5)
 - (b) PIC +(5).9(2)
 - (c) PIC +9(3)V9(2)
 - (d) PIC -9(3).V9(2)
 - (e) PIC 9(4)V9(2)
11. Take a look at the following variable declarations. What will be the content of RESULT at the end of the series of MOVE instructions?

```
01 VAR-1      PIC X(5) VALUE 'PL/I'.
01 VAR-2      PIC X(10).
01 VAR-3      PIC X(2).
01 RESULT     PIC X(5).
```

```
MOVE 'COBOL' TO RESULT
MOVE VAR-1 TO VAR-2
MOVE VAR-2 TO VAR-3
MOVE VAR-3 TO RESULT
```

- (a) PL____ (where ____ stands for 3 blancs)
 - (b) PL/I_ (where _ stands for 1 blanc)
 - (c) COBOL
 - (d) COBPL
 - (e) PLBOL
12. Which of the following variable declarations are syntactically correct? [3 answers]

- (a) 01 VAR-1 PIC SX(4).
- (b) 01 VAR-2 PIC S9(4).
- (c) 01 VAR-1 PIC V99.
- (d) 01 VAR-1 PIC P99.
- (e) 01 VAR-1 PIC 9(4)S.
- (f) 01 VAR 1 PIC X(4).

- [a] a
- [b] b
- [c] c
- [d] d
- [e] e
- [f] f

13. Which of the following PIC definitions can be used in the declaration of a record of a sequential file that will be used as INPUT? [3 answers]

- [a] PIC X(9)
- [b] PIC S9(4) COMP
- [c] PIC Z(4)
- [d] PIC 9(4)V99
- [e] PIC 9(4).99

14. Which tests are allowed with the following declaration? [2 answers]

```
01 END-OF-FILE          PIC X.  
   88 EOF                VALUE 'N'.  
   88 NOT-EOF            VALUE 'Y'.
```

- [a] IF EOF THEN ...
- [b] IF EOF IS TRUE THEN ...
- [c] IF END-OF-FILE = 'Y' THEN ...
- [d] IF END-OF-FILE THEN ...
- [e] IF END-OF-FILE = NOT-EOF THEN ...

15. Assume one wants to print out the following number. How must the display variable be declared in the COBOL program. Suppose that its value is -232.45.

\$___232.45- (where ___ stands for 3 blanks)

- (a) PIC \$Z(6).99-
- (b) PIC \$(7).99-
- (c) PIC \$Z(6)V99-
- (d) PIC -\$Z(6).99
- (e) PIC -(7).99S

16. Which of the following COBOL EVALUATE statements is syntactically **NOT** correct?

(a)

```
EVALUATE A
  WHEN 0      DISPLAY 'A = 0'
  WHEN 5      DISPLAY 'A = 5'
  WHEN OTHER  DISPLAY 'A is not 0 nor 5'
END-EVALUATE
```

(b)

```
EVALUATE TRUE
  WHEN A<0    DISPLAY 'A is negative'
  WHEN A>0    DISPLAY 'A is positive'
  WHEN OTHER  DISPLAY 'A is 0'
END-EVALUATE
```

(c)

```
EVALUATE A
  WHEN A=0    DISPLAY 'A is 0'
  WHEN A=5    DISPLAY 'A is 1'
  WHEN OTHER  DISPLAY 'A is larger than 1'
END-EVALUATE
```

(d)

```
EVALUATE TRUE ALSO TRUE
  WHEN A>0 ALSO A<10 DISPLAY 'A is one digit'
  WHEN A>9 ALSO TRUE  DISPLAY 'A is large'
  WHEN OTHER          DISPLAY 'A is negative'
END-EVALUATE
```

(e)

```
EVALUATE TRUE
  WHEN A>0 AND A<10 DISPLAY 'A is one digit'
  WHEN A>9          DISPLAY 'A is large'
  WHEN OTHER        DISPLAY 'A is negative'
END-EVALUATE
```

17. Take a look at the following COBOL fragment. When will instruction-3 be executed?

```
IF A=B THEN
  instruction-1
ELSE
  instruction-2.
  instruction-3.
```

(a) never

(b) if A is equal to B

(c) if A is different from B

(d) always

18. For each file you want to read in a COBOL program you have to provide a set of declarations and instructions. In which order must they be executed?

- (1) SELECT infile ASSIGN TO xx
- (2) READ infile
- (3) OPEN INPUT infile
- (4) CLOSE infile

- (a) 3, 1, 2, 4
- (b) 1, 3, 2, 4
- (c) 1, 2, 3, 4
- (d) 3, 2, 1, 4

19. Which of the following statements concerning files are true? [2 answers]

- [a] the FD entry in the DATA DIVISION gives a description of the structure of a file.
- [b] the first record is automatically read on opening a file.
- [c] if a file is opened in I-O mode you can use this file for reading as well as for writing.
- [d] you can not read indexed files from a COBOL program.
- [e] in the SELECT clause you have to give a complete description of the exact location of the file.

20. What is the content of RESULT after execution of the following COBOL instruction. The start value of RESULT is 0.

```
PERFORM VARYING C FROM 1 BY 1 UNTIL C = 6
      ADD 1 TO RESULT
END-PERFORM
```

Answer:

EVALUATION.

Here are the correct answers to all questions:

1. c
2. a
3. b
4. b
5. a c
6. a c d
7. *
8. d
9. a
10. b
11. a
12. b c d
13. a b d
14. a c
15. a
16. c
17. d
18. b
19. a c
20. 5

Give yourself 1 point for each correctly answered question (for multiple answer questions, this means that all correct answers must be marked).

If you answered less than 50% of the questions correctly, please follow the course [COBOL programming - part 1](#).

If you answered between 50% and 80% of the questions correctly, you know already some concepts, but you will still learn a lot in the course [COBOL programming - part 1](#).

If you answered more than 80% correctly, then this course is not useful for you any more. You are ready to start the course [COBOL programming - part 2](#).