TEST BANK

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THOMSON
COURSE TECHNOLOGY

Ruby
Programming
for the absolute beginner

NO EXPERIENCE REQUIRED

"This series shows that it's possible to teach newcomers a programming language and good programming practices without being boring."
—Lou Grinzo,
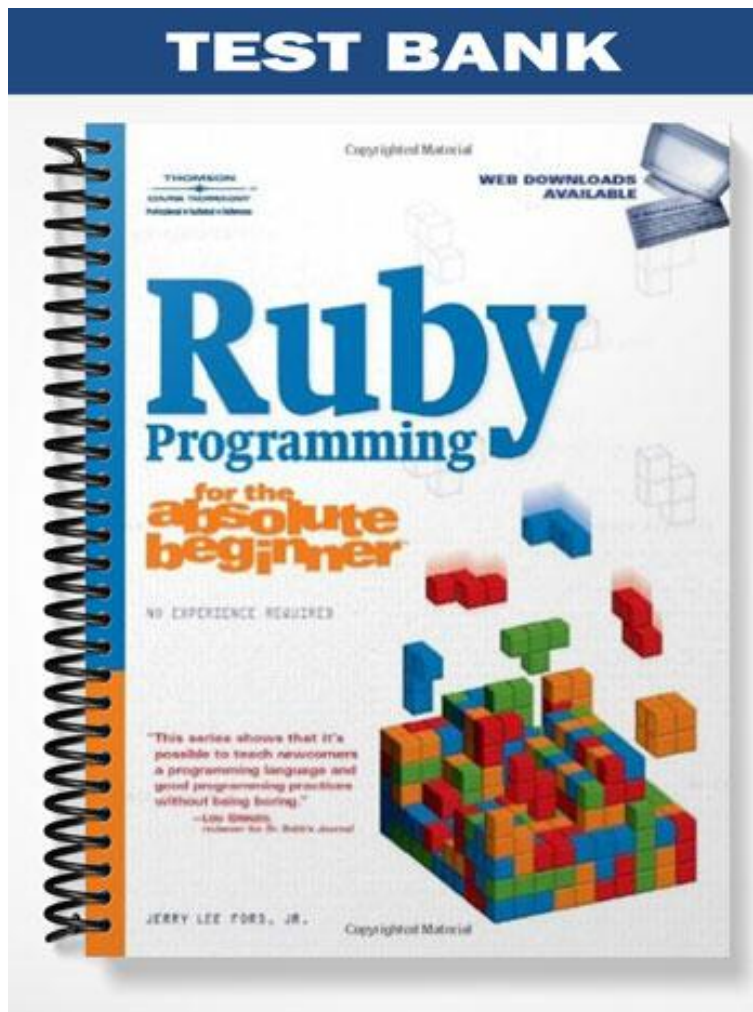reviewer for Dr. Dobb's Journal

JERRY LEE FORD, JR.

TRUE/FALSE

1. Using the IRB you can gain insight as to the way Ruby keyboards, operators, and commands work.

   ANS: T   PTS: 1   REF: 42

2. The `print` method displays a line of text on the screen.

   ANS: T   PTS: 1   REF: 49

3. *Nil* is a value that representing a value of 0.

   ANS: F   PTS: 1   REF: 50

4. Unlike the `print` method the `puts` method displays text strings on separate lines.

   ANS: T   PTS: 1   REF: 50

5. Unlike other programming languages, Ruby does not require programmers to follow any language specific rules.

   ANS: F   PTS: 1   REF: 50

6. An expression is a series of keywords, operators and variables that when processed returns a result.

   ANS: F   PTS: 1   REF: 50

7. A class is a definition or template used as the basis for defining a new object and does not do anything by itself.

   ANS: T   PTS: 1   REF: 52

8. The term IRB stands for Interactive Ruby.

   ANS: T   PTS: 1   REF: 42

9. In order to instantiate a new object you must use the `new` keyword.

   ANS: T   PTS: 1   REF: 52

10. A method is a collection of statements that is predefined within a class that can be used to interact with and control the operation of objects created based on the class.

    ANS: T   PTS: 1   REF: 52

11. Ruby programmers often use the IRB to test the execution of numeric expression like a calculator.

    ANS: T   PTS: 1   REF: 53

12. Arithmetic expressions are evaluated based on a predetermined order referred to as the *order of examination*.

ANS: F   PTS: 1   REF: 54-55

13. By default, any time two integer numbers are divided in Ruby, the value that is returned is always an integer.

ANS: T   PTS: 1   REF: 56

14. The IRB is started from the operating system command prompt by entering `start irb` and pressing Enter.

ANS: F   PTS: 1   REF: 46

15. You can easily access the documentation for most Ruby class methods via a system referred to as RDoc.

ANS: T   PTS: 1   REF: 56

16. You can access RDoc online at http://www.ruby-doc.org/.

ANS: T   PTS: 1   REF: 57

17. In addition to RDoc, you can view Ruby documentation using either the `ri` or the `vd` command line commands on your computer.

ANS: F   PTS: 1   REF: 57

18. A floating point value is a number that does not include a decimal point.

ANS: F   PTS: 1   REF: 56

19. You can access a special Internet based version of the IRB by visiting http://tryruby.org/.

ANS: T   PTS: 1   REF: 48-49

20. The term instantiation describes a process whereby a new object is created.

ANS: T   PTS: 1   REF: 52

21. Parentheses or quotation marks can be used to override the order of precedence.

ANS: F   PTS: 1   REF: 55

22. Failure to follow Ruby's syntax rules when formulating script statements can result in an error that prevents your script from executing.

ANS: T   PTS: 1   REF: 50

23. The IRB does not provide access to classes, objects or variables more than 5 minutes old.

ANS: F   PTS: 1   REF: 49

24. If you require a greater level of precision when working with numeric data, you must specify floating-point numbers (e.g. numbers with a decimal)

    ANS: T   PTS: 1   REF: 56

25. When working with module methods, you can refer to methods using upper or lower case spelling, just as long as you properly spell the method's name.

    ANS: F   PTS: 1   REF: 54

MULTIPLE CHOICE

1. The IRB _____.
   a. Provides Ruby programmers with command line access to the Ruby parser.
   b. Can be used to test the effects of Ruby statements.
   c. Can be used to load and execute entire scripts.
   d. All of the above.

   ANS: D   PTS: 1   REF: 46

2. Which of the following statements is not true?
   a. All IRB sessions share a common memory space.
   b. Classes, methods and variables that are defined in one IRB are not accessible in another session.
   c. New IRB sessions can be started by opening a new console window and typing IRB.
   d. New IRB sessions cane be started from within an existing irb accessing by typing IRB.

   ANS: A   PTS: 1   REF: 48

3. A misspelled command is an example of what type or error?
   a. Logical   c. Runtime
   b. Syntax   d. None of the above

   ANS: B   PTS: 1   REF: 50

4. If you enter an incomplete Ruby statement into the IRB, it will _____.
   a. Execute the incomplete statements and generate an error
   b. Display a modified command prompt and wait on you to finish entering the statement
   c. Display a warning message and reject your input
   d. None of the above

   ANS: B   PTS: 1   REF: 51

5. When working with the IRB, you can _____.
   a. Pass the IRB a number of statements
   b. Pass the name of a Ruby script you want to execute
   c. Pass the name of a Ruby script along with arguments for that script
   d. All of the above.

   ANS: D   PTS: 1   REF: 51

6. Which of the following statements is not true?
   a. An object is created based on a predefined class template
   b. An object inherits all of the features of the class upon which it is based

c. An object is a template that is used to define a class
d. None of the above

ANS: C   PTS: 1   REF: 52

7. The `*` operator is used to perform ____.
a. Addition   c. Division
b. Multiplication   d. Exponentiation

ANS: B   PTS: 1   REF: 53

8. Which of the following commands display a line of text on the screen?
a. `puts`   c. `print`
b. `display`   d. both a and c

ANS: D   PTS: 1   REF: 49-50

9. In addition to the standard set of mathematical operator methods, Ruby also provides you with access to a collection of mathematical methods stored in which module?
a. Trig   c. Math
b. Calculus   d. Arithmetic

ANS: C   PTS: 1   REF: 54

10. The command `irb -v` ____.
a. Starts the IRB and displays its version number
b. Starts the IRB in a special graphic interface mode
c. Closes the IRB
d. None of the above

ANS: A   PTS: 1   REF: 48

11. What value will the following expression evaluate to ____.

```
irb(main):010:0> 7 * 4 / 3 - 4 % 3 + 8
```
a. 16   c. 4
b. 14   d. 20

ANS: A   PTS: 1   REF: 55

12. The `%` operator is used to perform ____.
a. Addition   c. Division
b. Multiplication   d. Modulus

ANS: D   PTS: 1   REF: 53

13. An IRB session can by terminated by all of the following command except ____.
a. exit   c. irb -v
b. irb_quit   d. irb_exit

ANS: C   PTS: 1   REF: 48

14. You can instruct the IRB to load and execute a script named test.rb in c:\Ruby_Scripts\ using which of the following commands?
a. `load 'c:\Ruby_Scripts\test.rb'`   c. `run 'c:\Ruby_Scripts\test.rb'`

b. copy   d. execute
   'c:\Ruby_Scripts\test.rb'   'c:\Ruby_Scripts\test.rb'

ANS: A   PTS: 1   REF: 51

15. The math module includes many different types of methods that support advanced mathematical operations. Examples of the methods provided by this module include ____.
a. sqrt   c. cos
b. acos   d. All of the above

ANS: D   PTS: 1   REF: 54

16. The following statement shows and incomplete statement entered into the IRB.

      irb(main):003:0> 5 - 1 +

What of the following examples shows the modified command prompt that the IRB will display next?
a. irb(main):004:7:*   c. irb(main):004:0*
b. irb(input):004:0:>   d. irb(multi):004:0:

ANS: C   PTS: 1   REF: 51

17. According to Ruby's order of precedence, arithmetic expressions are resolved in which of the following orders?
a. Exponentiation > multiplication, division, modulus > addition, subtraction
b. Modulus > exponentiation > division, modulus > addition, subtraction
c. Addition, subtraction, division, multiplication > modulus, exponentiation
d. None of the above

ANS: A   PTS: 1   REF: 54-55

18. What value will the following expression evaluate to?

      irb(main):010:0> 4 + 7 * 3 - 7 / 2 + 5 ** 2
a. 45   c. 35
b. 25   d. 47

ANS: D   PTS: 1   REF: 55

19. Ruby supports thousands of methods. You can use the ____ system to access documentation on these methods.
a. ri   c. DocView
b. RDoc   d. a and b

ANS: D   PTS: 1   REF: 56-57

20. Which of the following command line commands will allow you to view information about the Numeric class's round method?
a. ri.numeric.round   c. vd numeric.round
b. ri numeric(round)   d. ri Numeric.round

ANS: D   PTS: 1   REF: 58

21. What value will the following expression evaluate to?

      irb(main):010:0> (4 + 7) * 3 - 7 / (2 + 5) ** 2

a. 45   c. 33
b. 25   d. 47

ANS: C   PTS: 1   REF: 55-56

22. The round method is associated with many different classes, including all of the following except
    ____.
    a. `Numeric`   c. `Float`
    b. `Integer`   d. `String`

ANS: D   PTS: 1   REF: 58

23. A string containing the `\a` escape character instructs Ruby to ____ when the statement that contains it
    executes.
    a. Beep   c. Terminate
    b. Pause   d. Insert a blank line

ANS: A   PTS: 1   REF: 61

24. You can retrieve player input using which of the `STDIN` class's methods?
    a. `puts`   c. `retrieve`
    b. `gets`   d. `catch`

ANS: B   PTS: 1   REF: 61-62

25. Which of the following is a valid way of creating a string within a Ruby statement?
    a. Embed text within an opening `%Q{` and `}` characters.
    b. Embed text within a pair of double quotation marks.
    c. Embed text within a pair of single quotation marks.
    d. Both a and b.

ANS: D   PTS: 1   REF: 64

26. In Ruby variable substitution is performed within a string by placing a variable name within what set
    of characters?
    a. `%Q{` and `}`   c. `%{` and `}`
    b. `#{` and `}`   d. `{` and `}`

ANS: B   PTS: 1   REF: 64

27. Within your Ruby scripts, an escape character is a pair of characters that begin with the ____ character
    followed by a letter.
    a. `#`   c. `!`
    b. `_`   d. `\`

ANS: D   PTS: 1   REF: 61

28. Which of the following statements is not true regarding indentation within your Ruby scripts?
    a. Indenting statements helps to visually organize them
    b. Indenting statements can make them easier to read and understand
    c. Indentation is required for your script to execute properly
    d. Indentation is consider a good programming practice

ANS: C   PTS: 1   REF: 61

29. What does Ruby do when it has operators with the same level or precedence to evaluate?

a. It processes them from left to right
b. It processes them from right to left
c. It processes all multiplication before division and all addition before subtraction
d. It processes all division before multiplication and all subtraction before addition

ANS: A   PTS: 1   REF: 55

30. A method ____.
a.   Is a collection of statements defined within a class
b.   Can be used to interact with objects
c.   Can be used to control the operation of an object
d.   All of the above

ANS: D   PTS: 1   REF: 52