

**Regular Expressions**

Do NOT write on this test. Record all answers on the bubble sheet. **Closed book. No notes.** Work strictly from memory. **No calculators. No time limit. Scratch paper okay.**

Matching: Which Perl regular expression commands have what meaning? (If no match mark J.)

(A) ( (B) > (C) [ (D) \cX (E) \f (F) ff (G) sog (H) { (I) }

- 1/1p. end of multiplier
- 2/1p. start of group
- 3/1p. control X
- 4/1p. form feed
- 5/1p. start of character class
- 6/1p. end of character class

Matching: Which Perl regular expression commands have what meaning? (If no match mark J.)

(A) \* (B) + (C) \B (D) \b (E) \n (F) \r (G) \s (H) \w (I) |

- 7/1p. word character
- 8/1p. second back-reference
- 9/1p. or (alternation)
- 10/1p. newline
- 11/1p. repeat one or more times
- 12/1p. word boundary

True or False: does the string match the regular expression?

- 13/1p. Does the string "txu" match the regular expression "t+|xu"?
- 14/1p. Does the string "cd" match the regular expression "xg\*|cd"?
- 15/1p. Does the string "gcc" match the regular expression "(gc)?c"?
- 16/1p. Does the string "bhh" match the regular expression "(bh)+|u"?
- 17/1p. Does the string "swpp" match the regular expression "(sw|p)??"?
- 18/1p. Does the string "p" match the regular expression "f+p?"?
- 19/1p. Does the string "chk" match the regular expression "ch+|k+"?
- 20/1p. Does the string "gtgtg" match the regular expression "g(tg)??"?
- 21/1p. Does the string "pyh" match the regular expression "(py)+yh|dg"?
- 22/1p. Does the string "pg" match the regular expression "(qd)\*|w\*|pg"?
- 23/1p. Does the string "gsgsgxgsgsgx" match the regular expression "gs?gx?"?
- 24/1p. Does the string "fqnuu" match the regular expression "(fq)\*|gh|(nu)+?"?
- 25/1p. Does the string "saakpk" match the regular expression "((sa)+|t|k|pk)\*"?
- 26/1p. Does the string "pkkrpp" match the regular expression "((pk)?|r|pc?)\*"?
- 27/1p. Does the string "t" match the regular expression "hw|p+|t"?
- 28/1p. Does the string "ug" match the regular expression "p+|ug|(f?)+?"?
- 29/1p. Does the string "tppswtaa" match the regular expression "tp?sw|ta+f\*?"?
- 30/1p. Does the string "kksy" match the regular expression "rq\*|kk(sy)?|tc"?

Total points 30.

**Answer Key** (points per line)

|         |       |
|---------|-------|
| 1 (1).  | I     |
| 2 (1).  | A     |
| 3 (1).  | D     |
| 4 (1).  | E     |
| 5 (1).  | C     |
| 6 (1).  | J     |
| 7 (1).  | H     |
| 8 (1).  | J     |
| 9 (1).  | I     |
| 10 (1). | E     |
| 11 (1). | B     |
| 12 (1). | D     |
| 13 (1). | false |
| 14 (1). | true  |
| 15 (1). | true  |
| 16 (1). | false |
| 17 (1). | false |
| 18 (1). | false |
| 19 (1). | false |
| 20 (1). | false |
| 21 (1). | false |
| 22 (1). | true  |
| 23 (1). | false |
| 24 (1). | false |
| 25 (1). | false |
| 26 (1). | false |
| 27 (1). | true  |
| 28 (1). | true  |
| 29 (1). | false |
| 30 (1). | true  |

Total points 30.