

**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) \2 (D) \e (E) \i (F) \s (G) \t (H) {,n,} (I) |
- 1/1p. or (alternation)  
 2/1p. tab  
 3/1p. second back-reference  
 4/1p. exactly n times  
 5/1p. the escape character  
 6/1p. repeat zero or more times

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

- (A) ( (B) + (C) < (D) [ (E) \f (F) ] (G) ff (H) sog (I) {
- 7/1p. repeat one or more times  
 8/1p. start of group  
 9/1p. start of character class  
 10/1p. form feed  
 11/1p. end of character class  
 12/1p. start of multiplier

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

- 13/1p. Does the regular expression “dw+q” match the string “dwdwq”?
- 14/1p. Does the regular expression “(hc)+|yw” match the string “hcc”?
- 15/1p. Does the regular expression “w\*gp” match the empty string?
- 16/1p. Does the regular expression “rb?|c” match the string “c”?
- 17/1p. Does the regular expression “(d|wh)?” match the string “d”?
- 18/1p. Does the regular expression “yc?(pq)?” match the string “ycyc”?
- 19/1p. Does the regular expression “a+a+” match the string “a”?
- 20/1p. Does the regular expression “(nn)?” match the string “nn”?
- 21/1p. Does the regular expression “(nx)?|zx(rn)\*” match the string “zxrn”?
- 22/1p. Does the regular expression “(rs+|qt\*)+” match the string “rsq”?
- 23/1p. Does the regular expression “g?q\*fy” match the string “qqfy”?
- 24/1p. Does the regular expression “(nf)+pz(sz)\*” match the string “nfpzsz”?
- 25/1p. Does the regular expression “(n+(ud)+|q)?” match the string “ududq”?
- 26/1p. Does the regular expression “fy?|(c+g)+” match the string “fyfygg”?
- 27/1p. Does the regular expression “f+|st?d” match the string “std”?
- 28/1p. Does the regular expression “(r\*u)\*rr|b” match the string “rrurrb”?
- 29/1p. Does the regular expression “tu?(bk)?t?” match the string “tutubt”?
- 30/1p. Does the regular expression “r?(ry)?c+|z” match the string “ryry”?

Total points 30.

**Answer Key** (points per line)

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

Total points 30.