## **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) \B (D) \S (E) \b (F) \n (G) \xn (H) {,n,} (I) {n}
```

1/1p. word boundary

2/1p. non whitespace

3/1p. not a word boundary

4/1p. hex character nn

5/1p. repeat zero or more times

6/1p. exactly n times

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

(A) ( (B)? (C) \1 (D) \f (E) \t (F) \w (G) 
$$sog$$
 (H)  $fn,m$ } (I)  $fn.m$ }

7/1p. start of group

8/1p. tab

9/1p. first back-reference

10/1p. non a word character

11/1p. repeat zero or one times

12/1p. at least n times, at most m

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

13/1p. Does the regular expression "tu?kx" match the string "tkx"?

14/1p. Does the regular expression "fh+xx" match the empty string?

15/1p. Does the regular expression "(hw)+c" match the string "hwhwc"?

16/1p. Does the regular expression "dz|qb" match the string "dzqb"?

17/1p. Does the regular expression "zu|n" match the string "zu"?

18/1p. Does the regular expression "dq?u?" match the string "u"?

19/1p. Does the regular expression "n|q\*" match the string "qq"?

20/1p. Does the regular expression "bd+r+" match the string "bdr"?

21/1p. Does the regular expression "w?|f|u+" match the string "wu"?

22/1p. Does the regular expression "(ua)\*|fk|z" match the string "uafkz"?

23/1p. Does the regular expression "db|kc(qt)?" match the string "dbkc"?

24/1p. Does the regular expression "(z|s|tk)+" match the string "zstkzstk"?

25/1p. Does the regular expression "a|(yf?u)?" match the string "a"?

26/1p. Does the regular expression "h+nb+r" match the string "hhnr"?

27/1p. Does the regular expression "a?(p|yg)\*" match the string "apyg"?

28/1p. Does the regular expression "b?gq(nt)+fu" match the string "bgqntfu"?

29/1p. Does the regular expression "p+bd|sx?bc" match the string "ppbd"?

30/1p. Does the regular expression "(hb)+|u?|ug?k" match the empty string?

Total points 30.

## Answer Key (points per line)

- 1 (1).
- 2(1).D
- С 3(1).
- G 4(1).
- 5 (1). Α
- 6 (1). Ι
- 7(1).Α
- 8 (1). Ε
- 9 (1). С
- 10 (1). J
- В 11 (1).
- 12 (1). Н
- 13(1).
- true
- 14(1). false
- 15 (1). true
- 16 (1). false
- 17 (1). true
- 18 (1). false
- 19 (1). true
- 20(1).true
- 21 (1). false
- 22 (1). false
- 23 (1). false
- 24(1).true
- 25 (1). true
- 26 (1).  ${\tt false}$
- 27(1).true
- 28 (1). true
- 29 (1). true
- 30(1).true

Total points 30.