

The following tables might be useful during the event.

| | A | B | C | D | E | F | G | H | I | J | K | L | M | N | O | P | Q | R | S | T | U | V | W | X | Y | Z |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| A | A | B | C | D | E | F | G | H | I | J | K | L | M | N | O | P | Q | R | S | T | U | V | W | X | Y | Z |
| B | B | C | D | E | F | G | H | I | J | K | L | M | N | O | P | Q | R | S | T | U | V | W | X | Y | Z | A |
| C | C | D | E | F | G | H | I | J | K | L | M | N | O | P | Q | R | S | T | U | V | W | X | Y | Z | A | B |
| D | D | E | F | G | H | I | J | K | L | M | N | O | P | Q | R | S | T | U | V | W | X | Y | Z | A | B | C |
| E | E | F | G | H | I | J | K | L | M | N | O | P | Q | R | S | T | U | V | W | X | Y | Z | A | B | C | D |
| F | F | G | H | I | J | K | L | M | N | O | P | Q | R | S | T | U | V | W | X | Y | Z | A | B | C | D | E |
| G | G | H | I | J | K | L | M | N | O | P | Q | R | S | T | U | V | W | X | Y | Z | A | B | C | D | E | F |
| H | H | I | J | K | L | M | N | O | P | Q | R | S | T | U | V | W | X | Y | Z | A | B | C | D | E | F | G |
| I | I | J | K | L | M | N | O | P | Q | R | S | T | U | V | W | X | Y | Z | A | B | C | D | E | F | G | H |
| J | J | K | L | M | N | O | P | Q | R | S | T | U | V | W | X | Y | Z | A | B | C | D | E | F | G | H | I |
| K | K | L | M | N | O | P | Q | R | S | T | U | V | W | X | Y | Z | A | B | C | D | E | F | G | H | I | J |
| L | L | M | N | O | P | Q | R | S | T | U | V | W | X | Y | Z | A | B | C | D | E | F | G | H | I | J | K |
| M | M | N | O | P | Q | R | S | T | U | V | W | X | Y | Z | A | B | C | D | E | F | G | H | I | J | K | L |
| N | N | O | P | Q | R | S | T | U | V | W | X | Y | Z | A | B | C | D | E | F | G | H | I | J | K | L | M |
| O | O | P | Q | R | S | T | U | V | W | X | Y | Z | A | B | C | D | E | F | G | H | I | J | K | L | M | N |
| P | P | Q | R | S | T | U | V | W | X | Y | Z | A | B | C | D | E | F | G | H | I | J | K | L | M | N | O |
| Q | Q | R | S | T | U | V | W | X | Y | Z | A | B | C | D | E | F | G | H | I | J | K | L | M | N | O | P |
| R | R | S | T | U | V | W | X | Y | Z | A | B | C | D | E | F | G | H | I | J | K | L | M | N | O | P | Q |
| S | S | T | U | V | W | X | Y | Z | A | B | C | D | E | F | G | H | I | J | K | L | M | N | O | P | Q | R |
| T | T | U | V | W | X | Y | Z | A | B | C | D | E | F | G | H | I | J | K | L | M | N | O | P | Q | R | S |
| U | U | V | W | X | Y | Z | A | B | C | D | E | F | G | H | I | J | K | L | M | N | O | P | Q | R | S | T |
| V | V | W | X | Y | Z | A | B | C | D | E | F | G | H | I | J | K | L | M | N | O | P | Q | R | S | T | U |
| W | W | X | Y | Z | A | B | C | D | E | F | G | H | I | J | K | L | M | N | O | P | Q | R | S | T | U | V |
| X | X | Y | Z | A | B | C | D | E | F | G | H | I | J | K | L | M | N | O | P | Q | R | S | T | U | V | W |
| Y | Y | Z | A | B | C | D | E | F | G | H | I | J | K | L | M | N | O | P | Q | R | S | T | U | V | W | X |
| Z | Z | A | B | C | D | E | F | G | H | I | J | K | L | M | N | O | P | Q | R | S | T | U | V | W | X | Y |

| A | B | C | D | E | F | G | H | I | J | K | L | M | N | O | P | Q | R | S | T | U | V | W | X | Y | Z |
|---|---|---|---|---|---|---|---|---|---|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|
| 0 | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 13 | 14 | 15 | 16 | 17 | 18 | 19 | 20 | 21 | 22 | 23 | 24 | 25 |

| | |
|--------------|-----|
| AAAAA | A |
| AAAAB | B |
| AAABA | C |
| AAABB | D |
| AABAA | E |
| AABAB | F |
| AABBA | G |
| AABBB | H |
| ABAAA | I/J |
| ABAAB | K |
| ABABA | L |
| ABABB | M |

| | |
|--------------|-----|
| ABBAA | N |
| ABBAB | O |
| ABBBA | P |
| ABBBB | Q |
| BAAAA | R |
| BAAAB | S |
| BAABA | T |
| BAABB | U/V |
| BABAA | W |
| BABAB | X |
| BABBA | Y |
| BABBB | Z |

Sample Test 8

Frequency Table of English letters:

| | | | | | | | | | |
|---|--------|---|-------|---|-------|---|-------|---|-------|
| E | 12.51% | S | 6.54% | C | 3.06% | G | 1.96% | K | 0.67% |
| T | 9.25% | R | 6.12% | U | 2.71% | W | 1.92% | X | 0.19% |
| A | 8.04% | H | 5.49% | M | 2.53% | Y | 1.73% | J | 0.16% |
| O | 7.60% | L | 4.14% | F | 2.30% | B | 1.54% | Q | 0.11% |
| I | 7.26% | D | 3.99% | P | 2.00% | V | 0.99% | Z | 0.09% |
| N | 7.09% | | | | | | | | |

Frequency Table of Spanish letters:

| | | | | | | | | | |
|---|--------|---|-------|---|-------|---|-------|---|-------|
| E | 14.08% | I | 5.98% | M | 3.08% | Y | 1.09% | Z | 0.47% |
| A | 12.16% | L | 5.24% | P | 2.89% | V | 1.05% | Ñ | 0.17% |
| O | 9.20% | D | 4.67% | B | 1.49% | G | 1.00% | X | 0.14% |
| S | 7.20% | T | 4.60% | H | 1.18% | F | 0.69% | K | 0.11% |
| N | 6.83% | U | 4.69% | Q | 1.11% | J | 0.52% | W | 0.04% |
| R | 6.41% | C | 3.87% | | | | | | |

For the purposes of cryptograms, it is customary to treat n and ñ as distinct letters, but a and á are the same letter. Likewise, for e and é, and i and í. In other words, all the accent marks get amputated when working with cryptograms. Also, while some older Spanish dictionaries consider ch, ll, and rr, to be their own letters—this has fallen out of modern usage. Accordingly, “burro” is considered as five letters: “b-u-r-r-o” and not as four letters “b-u-rr-o.”

Sample Test 8

- 5) [120 Points] The following headlines appeared in the newspaper but in reality, they are a Baconian encoded message where some letters encode as one character and the others as another in a pattern. You know that the message starts out as **BE BRAVE**. What does the message decode to?

Arise alert, catch early daily plane.

Admit story, shock those prime crowd, argue grand route,
thank lucky video story after child dance stock drama.

Visit stuck track, grant local video.

Treat china paper fiber sleep dress.

Laser glass links track fiber coast.

Olive treat yummy.

Quiet black drama story great stuff.

Ideal party dress shock youth sense, angry adult break
china plate, klutz laugh.

Track prize cross prime truck.

Xrays claim civil story topic.

Sample Test 8

- 6) [120 Points] The following headlines appeared in the newspaper but in reality, they are a Baconian encoded message where some letters encode as one character and the others as another in a pattern. You know that the message starts out as **NO AMOU**. What does the message decode to?

Texas trend might spark clear water arena.

Women speak their topic, force opera guest visit urban crowd.

Guest media links itchy quilt being ideal clean money chain.

Clean today while agent focus green light, allow panel input after.

March pitch grass badly.

Agree Janet among final bench split.

Zappy zebra guess sixty.

Judge needs ocean visit, bench broke.

Birch cream daily shift human teeth.

Apply pitch below layer.

Guest award ocean radio which allow great taxes.