The following tables might be useful during the event.

	Α	В	С	D	E	F	G	Н	Ι	J	K	L	M	N	0	Р	Q	R	s	Т	Ū	V	W	Х	Y	Z
A	А	В	С	D	Ε	F	G	Н	Ι	J	K	L	М	N	0	Р	Q	R	S	Т	U	V	M	Χ	Y	Z
В	В	С	D	Ε	F	G	Н	Ι	J	K	L	М	N	0	Р	Q	R	S	Т	U	V	W	Χ	Y	Ζ	А
С	С	D	Ε	F	G	Н	I	J	K	L	М	N	0	Р	Q	R	S	Т	U	V	W	Χ	Y	Ζ	А	В
D	D	Ε	F	G	Н	I	J	K	L	М	N	0	Р	Q	R	S	Т	U	V	M	Χ	Y	Ζ	А	В	С
E	Ε	F	G	Н	Ι	J	K	L	М	N	0	Р	Q	R	S	Т	U	V	W	Χ	Y	Ζ	А	В	С	D
F	F	G	Н	I	J	K	L	М	N	0	Р	Q	R	S	Т	U	V	W	Χ	Y	Ζ	А	В	С	D	E
G	G	Н	Ι	J	K	L	М	N	0	Р	Q	R	S	Т	U	V	M	Χ	Y	Ζ	Α	В	С	D	Ε	F
H	Н	Ι	J	K	L	М	N	0	Р	Q	R	S	Т	U	V	W	Χ	Y	Ζ	Α	В	$\cup$	D	Ε	F	G
Ι	Ι	J	K	L	М	N	0	Р	Q	R	S	Т	U	V	M	Χ	Y	Ζ	Α	В	С	D	Ε	F	G	Н
J	J	K	L	М	N	0	Р	Q	R	S	Т	U	V	M	Χ	Y	Z	Α	В	С	D	Ε	F	G	Н	I
K	K	L	М	N	0	Р	Q	R	S	Т	U	V	W	Χ	Y	Ζ	А	В	С	D	Ε	F	G	Н	Ι	J
L	L	М	N	0	Р	Q	R	S	Т	U	V	W	Χ	Y	Z	А	В	С	D	Ε	F	G	Н	Ι	J	K
M	М	N	0	Р	Q	R	S	Т	U	V	M	Χ	Y	Ζ	Α	В	С	D	Ε	F	G	Н	Ι	J	K	L
N	N	0	Р	Q	R	S	Т	U	V	M	Χ	Y	Z	А	В	С	D	Ε	F	G	Н	Ι	J	K	L	М
0	0	Р	Q	R	S	Т	U	V	W	Χ	Y	Z	А	В	С	D	Ε	F	G	Н	Ι	J	K	L	М	Ν
P	Р	Q	R	S	Т	U	V	M	Χ	Y	Z	Α	В	С	D	Ε	F	G	Н	Ι	J	K	L	М	N	0
Q	Q	R	S	Т	U	V	M	Χ	Y	Ζ	Α	В	С	D	Ε	F	G	Н	Ι	J	K	L	М	N	0	Р
R	R	S	Τ	U	V	W	Χ	Y	Z	А	В	С	D	Ε	F	G	Н	Ι	J	K	L	М	N	0	Р	Q
S	S	Τ	U	V	M	Χ	Y	Z	Α	В	С	D	Ε	F	G	Н	Ι	J	K	L	М	N	0	Р	Q	R
Т	Τ	U	V	W	Χ	Y	Z	А	В	С	D	Ε	F	G	Н	Ι	J	K	L	М	N	0	Р	Q	R	S
Ū	U	V	W	Χ	Y	Z	Α	В	С	D	Ε	F	G	Н	Ι	J	K	L	М	N	0	Р	Q	R	S	Т
V	V	W	Χ	Y	Z	Α	В	С	D	Ε	F	G	Н	Ι	J	K	L	М	N	0	Р	Q	R	S	Т	U
W	W	Χ	Y	Z	А	В	С	D	Ε	F	G	Н	I	J	K	L	М	N	0	Р	Q	R	S	Т	U	V
X	Χ	Y	Z	Α	В	С	D	Ε	F	G	Н	Ι	J	K	L	М	N	0	Р	Q	R	S	Т	U	V	M
Y	Y	Z	А	В	С	D	Ε	F	G	Н	Ι	J	K	L	М	Ν	0	Р	Q	R	S	Т	U	V	M	Χ
Z	Z	А	В	С	D	Ε	F	G	Н	Ι	J	K	L	М	Ν	0	Р	Q	R	S	Т	U	V	M	Χ	Y
A	в	С	D	Е	F	G	н	Т	J	к	I	. \	1 1	N	o T	Р	Q	R	S	Т	IJ	v	W	x	Y	Z

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

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

## Sample Test 7

## **Frequency Table of English letters:**

E	12.51%	S	6.54%	С	3.06%	G	1.96%	K	0.67%
T	9.25%	R	6.12%	U	2.71%	M	1.92%	X	0.19%
Α	8.04%	Н	5.49%	M	2.53%	Y	1.73%	J	0.16%
0	7.60%	L	4.14%	F	2.30%	В	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%
Α	12.16%	L	5.24%	P	2.89%	V	1.05%	Ñ	0.17%
0	9.20%	D	4.67%	В	1.49%	G	1.00%	X	0.14%
S	7.20%	Τ	4.60%	Н	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%	С	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-rr-o" and not as four letters "b-u-rr-o."

## Sample Test 7

Timed question [100 Points]: Solve this Aristocrat which is a quote by Emile Durkheim. When you have solved it, raise your hand so that the time can be recorded and the solution checked.

VU VI IXVDEXD, ZEJ EMU TDAVNVME, CBVXB BZI UZYNBU

FDE UBZU UBVENI ZTD XMFLADG ZEJ JVRRVXYAU UM

YEJDTIUZEJ.

	A	В	C	D	E	F	G	H	I	J	K	L	M	N	0	P	Q	R	S	T	U	V	W	X	Y	$\mathbf{Z}$
Frequency	3	6	1	7	9	2	1		5	5		1	4	3				2		3	10	9		5	3	7
Replacement																										

1) **[250 Points]** Solve this K1 key encoded Patristocrat which is a quote by Stephen Hawking in "a Brief History of *Time*" and ends with **JOB**.

SHVNT SHZCH BKHCL VWXVZ IVXHI UTWVQ FKZVS QWVSU

IWYKU CUZIV XTFSQ VFCGC UXIHM RVHRV GCBRU RSLVQ

SWWCV ZIKUR CXDIY

<b>K1</b>	A	B	$\mathbf{C}$	D	E	F	G	H	I	J	K	L	M	N	<b>0</b>	P	Q	R	S	T	U	V	W	X	Y	$\mathbf{Z}$
Frequency		2	8	1		3	2	7	7		4	2	1	1			4	5	7	3	7	13	6	5	2	5
Replacement																										

W PSAD O HOBEAHOBWGWOS DEU FOWX 'W XU SUB PSUD OF

HCGE OF LUX. JCB W PSUD OF HCGE OF LUX PSAD OB HV

OLA'.

	A	B	C	D	E	F	G	H	I	J	K	L	M	N	0	P	Q	R	S	T	U	V	W	X	Y	Z
Frequency	4	5	3	5	4	5	3	5		1		3			11	4			6		7	1	6	4		
Replacement																										

<sup>2)</sup> **[120 Points]** Solve this Aristocrat which is a quote from the Canadian writer, journalist, and critic Milton Shulman which has the word **GOD** in it twice.

3) [125 Points] Solve this Aristocrat which is a quote from the famous comic strip character Calvin

AENA'Y AEG TUKSOGW BXAE PNADUG. YKWGAEXPV'Y NOBNIY

YAXPVXPV IKD KU KKCXPV WDJDY KP IKD. OGA'Y VK BNAJE

AM.

 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

 Frequency
 10
 3
 1
 5
 5
 5
 3
 2
 9
 1
 5
 3
 6
 1
 1
 1
 3
 5
 3
 5
 7

 Replacement

IGVJHGJ AEI HZC RJNJOUVHJR NAJOJ VI E RVOJGN
OJQENVZHIAVB SJNCJJH NAJ CEP NAJ SEQQ SZYHGJI EHR
NAJ GZZDVJ GOYUSQJI.

	A	В	C	D	$\mathbf{E}$	F	G	H	Ι	J	K	L	M	N	0	P	Q	R	S	T	U	V	W	X	Y	Z
Frequency	6	1	3	1	6		6	7	6	18				8	5	1	4	4	4		2	7			2	5
Replacement																										

<sup>4) [125</sup> Points] Solve this Aristocrat which is a quote from an anonymous source.

5) **[250 Points]** Solve this K1 key encoded Patristocrat which is a quote by Barbara Tuchman in "*Can History Be Served Up Hot?*" and has the word **THE** in it three times and ends with **HEARD**.

#### JFHVI DHESD LHLBC UJOUI SIHSJ FHDJF CISVD SRLMD

OHILJ FHJDH HOIJF HBDOG HWCRM SDHUJ XFOEF MHRRX

OJFSV JKHOI NFHCD L

K1	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	$\mathbf{V}$	W	X	Y	$\mathbf{Z}$
Frequency		2	4	9	2	9	1	15	7	10	1	5	3	1	7			4	7		3	3	1	2		
Replacement																										

WNZDSVLXI QXL OLVVLX VBQR EL QXL QV QXMVBZLVMW, RNV OLWQSIL WNZDSVLXI QXL IN JNNA QV MV, OSV OLWQSIL EL QXL IN OQA QV MV.

	A	B	C	D	$\mathbf{E}$	F	G	H	Ι	J	K	L	M	N	0	P	Q	R	S	T	U	V	W	X	Y	Z
Frequency	2	2		2	2				6	1		15	4	7	5		12	2	5			14	5	8		3
Replacement																										

<sup>6) [125</sup> Points] Solve this Aristocrat which is a quote from Isaac Asimov in his "Book of Science and Nature Ouotations".