Crypto CTF 2019

inspired by Harvard's CS50x Puzzle Day

August 23 – August 29, 2019

- This packet contains 7 puzzles, each of which is independent of the others.

- The answer to each puzzle is a single word or name in English or Bahasa Melayu, unless otherwise specified.

- You may use the Internet and any other resources at your disposal.

- You are encouraged to work on a team, either in person or online. Discussion between teams is however forbidden.

- Have fun and good luck!

#1: Currency Exchange

Your account statement for ¥

0+17, 20

37, 36

0+17, 36, 20, 000+3

Your account statement for £

0+3, 0000, 0+1, 1

10, 7, 00+1, 2, 1, 0+2, 11

4, 0+1, 11

13 ¥ = 11 £
7 ¥ = 7 £

Ad: Convert all your money to € now!
11 € = 3 £
Still thinking? Do! Not redo. The same goes for remorse.

Answer_____

#2: Loop de loop

Alice:

Do you know Julius? He got assassinated! He left all these encrypted messages that no one understands.

Bob:

That was a long time ago. Think about the not so heavy instead. It takes 8 minutes for it to shift to Earth. How much time do you think it is for Venus?

Alice:

Well. At least, I know that bicycles have two tyres.

Bob:

What about a nona-cycle?

Julius:

Ocncaukc hnci ku Lcnwt yjcv?

Answer:_____

#4: Little Star

The answer is in between

"ONE IS TRUE"	Male of Bos Taurus and the short for European barcodes	100109
9.8386542819		A drink with ice cream on the top
International Nautical Territory, India National Theatre similarity	False	The toy kittens love to play

Answer: _____

#3: Pixels and Places

Hungary
14.60

Netherlands	Austria
21.03	1.29

Bulgaria	Russia
-6.21	13.76

Estonia	Germany
11.56	19.76

Luxembourg	Lithuania
4.88	3.14

1 0 0 1 1 1 0 0 1 105.83	1 1 1 0 0 1 0 1 0 100.50	1 0 0 1 1 1 1 0 0 103.85
1 0 1 1 1 1 0 1 0 120.98	0 0 0 1 0 0 1 1 0 96.08	1 1 0 0 1 0 1 0 0 101.69
1 0 0 1 1 1 0 0 1 114.9	0 0 1 1 1 1 0 0 0 104.93	1 1 1 0 1 0 1 0 0 106.80

Answer: _____

#5: Every Square Matters

"Even a poor plan is better than no plan at all." – Mikhail Chigorin

"Those who cannot remember the past are condemned to repeat it." – George Santayana

An activity that one engages in for amusement or fun - **Game**

Undying

1b. Typical answer, nothing special.

2a. Protect His Majesty at all costs…or is it?

6a. My knight in shining armor has come to fend off the enemy!

18a. Are castles and towers important? I guess not! After all, meaningful attacks are better than futile defense.
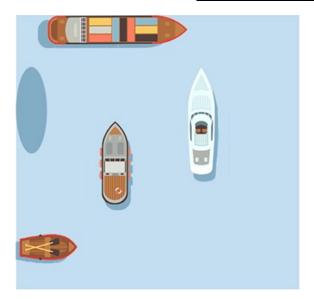
Once in a hundred years

26b. All hope is but lost, but I'll just get an extra piece, yummy.

40a. A last ditch effort to survive?

Answer : _____

#6: Battleship

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

Sneaky ● boat

_____

Royal Caribbean Ship ○

_____

Drax's Ship ●

_____

Nimitz's Ship ●

_____

●

Ship where a tyrannical empire ended

Answer:_____

#7: Twenty Hertz

Flute	+6	Bassoon	+5
Viola	+11	Double Bass	+13
Violin	+12	Cello	-2
Oboe	+18	Piccolo	+9
Piano	0		

_____ Stem Club SSIJB

I don't have perfect pitch. I'm glad I don't have perfect pitch because perfect pitch can drive you crazy.

-Billy Eckstine

Answer:_____