AES analysis

No	Key	Text	Time
1	16 bit	8bytes	0.042s
2	16 bit	16bytes	0.045s
3	16 bit	32bytes	0.048s
4	16 bit	64bytes	0.053s
5	16 bit	128bytes	0.067s
6	16 bit	256bytes	0.115s
7	16 bit	512bytes	0.181s
8	16 bit	1024bytes	0.293s
9	16 bit	2048bytes	0.538s
10	16 bit	4096bytes	1.084s

No	Key	Text	Time
1	8bit	10240 bytes	1.458s
2	16bit	10240 bytes	2.598s
3	32bit	10240 bytes	4.632s
4	64bit	10240 bytes	8.821s
5	128bit	10240 bytes	16.921s
6	256bit	10240 bytes	32.341s
7	512bit	10240 bytes	64.198s
8	1024bit	10240 bytes	128.598s
9	2048bit	10240 bytes	256.292s
10	4096bit	10240 bytes	512.911s

DES analysis

No	Key	Text	Time
1	8 bit	8bytes	0.0049s
2	8 bit	16bytes	0.010117s
3	8 bit	32bytes	0.018633s
4	8 bit	64bytes	0.042616s
5	8 bit	128bytes	0.083023s
6	8 bit	256bytes	0.167183s
7	8 bit	512bytes	0.302422s
8	8 bit	1024bytes	0.622472s
9	8 bit	2048bytes	1.162953s
10	8 bit	4096bytes	2.359076s

No	Key	Text	Time
1	8bit	10240 bytes	5.816466s
2	16bit	10240 bytes	10.812134s
3	32bit	10240 bytes	20.123136s
4	64bit	10240 bytes	39.812341s
5	128bit	10240 bytes	76.124451s
6	256bit	10240 bytes	150.113412s
7	512bit	10240 bytes	310.123165s
8	1024bit	10240 bytes	631.342245s
9	2048bit	10240 bytes	1220.231235s
10	4096bit	10240 bytes	2320.416426s

RSA analysis

No	Key_length	Message Length	Time
1	4 byte	2 bytes	`0.027s`
2	8 byte	4 bytes	`0.034s`
3	12 byte	6 bytes	`0.067s`
4	16 byte	8 bytes	`0.127s`
5	20 byte	10 bytes	`0.217s`
6	24 byte	12 bytes	`1.712s`
7	28 byte	14 bytes	`30.027s`
8	32 byte	16 bytes	`160.123s`
9	36 byte	18 bytes	`250.342s`
10	40 byte	20 bytes	`1021.231s`

Conclusion

- Change in single character of input shows drastic changes in output

- AES is the fastest amongst all

- RSA can be used for digital signature and for asymmetric encryption as well

Computation Time

Chart showing Time (Sec) on y-axis (0 to 30) versus File Size on x-axis (32, 64, 128, 256, 512) for DES, AES, and RSA.