

()
660303

3

1.

2.

1.

()

2.

()

()

1.

2.

3.

4.

1.

CAD

2.

3.

4.

5.

6.

7.

PLC

PLC

PLC

8.

9.

10.

11.

12.

1.

2		1 2 3	1 2 3
3		1 2 3 ;	1 2
4		1 ; 2 3	1 2 3

		4	
5		1 2 3	1 2
6		1 2 3	1 2 3 4
7	PLC	1 PLC PLC 2 PLC PLC 3 PLC PLC	1 2 3
8		1 2 3	1 2 3
9		1 2 3 4 PLC	1 2 3
10		1 2 3 4 PLC	1 2 3

2.

--	--	--	--

1		1 2 3 4 CAD	1 2 3
2		1 2 3 4 5 6	1 2
3		1 2 3 CAD 4 5 6 CAD 7 PLC 8 PLC 9 PLC 10 PLC 11 PLC 12 PLC	1 2 CAD 3 4
4	PLC	1 PLC 2 3 4 PLC	1 2 3

		5 6 7 8 9 PLC	4
6		1 2 3 4 5 6	1 2 3 4
7		1 2 3 4	1 2 3

3.



1

2

3

4

1

			4	60	60					6		
			48	820								
			6	100		100			6	4		
		CAD	6	96		96				6	2	
		+PLC	12	224		224			28			
			12	224		224				28		
			36	644								
			30	540		540						30
			114	2004								
		+	2	60								
			176	3120								

1.

2.

1.

1

2

3

2.

1

2

3

1.

- 1.
 - 1
 - 2
- 2.
 - 1
 - 2
 - 3
- 3.
 - 1
 - 2
 - 3
 - 4

- 1.
 - 1
 - 2
 - 3
- 2.
 - 1
 - 2
 - 3
- 3.
 - 1
 - 2
 - 3

1.

1

2

3

4

2.

1

2

3

3.

32—36

2

32

2

2

		2
		4
		8
		6
		6
		6
		2
		2
		36

4.

5.

1.

2.

3.

4.

1

1

2

3

2

1

2

1.

1

2

2.

1

2

3

4

3.

4.

1

2

•

1

2

•

•

1

2

•

1

2

•

1

2

3

•

1

2

3

4

5

•

1

2

3

•

()

1.

1

2

3

4

2.

1

2

3.

4.

1

2

5.

32-36

2

32

2

2

		1
		5
		8
		6
		8
		2
		2

1

2

3

4

1.

1

2

3

2.

1

2

3

3.

1

2

3

1.

1

2

2.

1

2

3.

1

2

3

4.

1

2

1.

1

2

3

4

2.

1

2

1.

1

2

2.

1

2

3.

1

2

1.

1

2

3

2.

1

2

3.

1

2

3

1.

1

2

3

2.

3.

4.

5.

32—36

2

32

2

2

		2
		6
		6
		6
		6
		6
		6
		2
		2
		36

1.

2.

3.

4.

1.

1

2

2.

1

, ,

2

3.

1

2



2.

1

2

3.

1

2

1.

1

2

2.

1

2

3.

1

2

1.

1

2

2.

1

2

3.

1

2

1.

1

2

2.

1

2

3.

1

2

1.

1

2

3

2.

3.

4.

1

2

5.

32—36

2

32

2

2

		2
		6

		6
		6
		6
		6
		2
		2
		36

1.

2.

3.

4.

1.
160~180

2.

32~36

3.

1.

3 500

,

2.

1

200

45
3.

10

1.

2.
1

2

3. 4

1.

2.

1

2

45

600

5

3.

		70~80
		16~22
		10
		10
		14~18
		120~140

		8~10
		8~10

		8
		24~28

16 18 1

1.

2.

3.

4.

5.

- 1.
- 2.
- 3.
- 4.

- 1.
- 2.

1.

2.

3.

1.

2.

72

1.

2.

1. 72

	1			8	
					1
					2
					3

	2			8	
					1
					2
$ax+b$	c	c			3

	3			10	
					1

				2
				3

4

10

				1 2 3
$\lg N \quad \ln N \quad \log_a N$				

5

14

				1 2 3
$\tan = \frac{\sin^2 + \cos^2 - \frac{1}{\cos}}{2k + -}$				

2.

1

1

	1			
				1
				2
				3

1

2

	2			
				1
				2
				3

3

	3			
				1
				2
				3

2

1.

4

72

2.

23 h >Aô ') P%çû wV- 6 9"ã °Caθ°cäaÓ'

6 •)0s1æ€Óà âçç "ã ° 1" Ó "gÆ 9E³å %'1_V- õ ÁŽhÂÁA,•"æ- "æ- 9 ±" • 1" -a s1æ€Óà'1)œ

1. *

96 108

2.
32 36

1.

2.

1.

	*	

	/	
	* * ASCII * BIOS	/

	/	
	* *	

--	--	--

	* *	
	/ *	

	*	
	* *	
	*	

	* *	
	* *	
	*	

	* * *	

--	--	--

	*	
	*	

	*	

	*	
--	---	--

2.

		1.
		2.
		1.
		2.
		1
		2
		3
		4
		5
		6

		1.
		2.
		1
		2
		3
		4
		5
		IP

		1. 2. 1 2 3
		1. 2. 1 2 3
		1. 2. 1 2 3
	DV	1. 2. 1 2 3 4

		1. 2. 1 2 3

		4
		1. 2. 1 2 3

1.

1

1		12	
2		14	
3	Internet	14	
4		22	
5		22	
6		16	
7		8	
		12	
		108 120	

16 18

1

2

3

2.

3.

1.

A

A

A

72

	1	2	3	4
	
	1			

1

3

2

A B

3

2.

B

B

18

B

18

	1	2	3	4

B

1.

50%

50

2.

59

1/10

1.

2.

1.

2.

3.

4.

5.

6.

1.

2.

3.

4.

5.

1.

2.

3.

192

1				2
				2
2				8
3				2
4				8

5				10
6				10
7				10
8				10
9				18

10				14
12				16

13				22
14				16

15				40
				4
				192

1.

2.

3.

4.

5.

1.

2.

3.

word , ppt , SWF ,
CAXA/UG/PROE/SWORKS , dwg ,
rm , (jpg\gif ,

- 1.
- 2.
- 3.
- 4.
- 5.

1. ;
2. ;
3. ;
4. ;
- 5.

:

124

1		<ol style="list-style-type: none"> 1. 2. 3. 	<ol style="list-style-type: none"> 1. 2. 3. 	8
2		<ol style="list-style-type: none"> 1. 2. 3. 4. 5. 6. 	<ol style="list-style-type: none"> 1. 2. 3. 	28
3		<ol style="list-style-type: none"> 1. 2. 3. 		24

		4		
4		1. 2. 3. 4. 5.	1 2 3.	28
5		1. V V 2. 3. 4. 5. 6.	1 2 1 2 3 1 2 4	32

				4
				124

1.

2.

3.

1.

2.

3.

1.

2.

3.

4.

5.

, , , ,

word , ppt , SWF ,
CAXA/UG/PROE/SWORKS , dwg ,
rm , (jpg\gif ,

1

2

3

4

1

2
3

72

5

1		1. 2.	1.	2

1.

1.

2

2.

3.

			4. 5. 6	
4		1. 2 3. 4.	1. 2. 3.	16
5		1. 2.	1. 2.	4
6		1. 2. 3. 4.	1. 2 3. 4.	8
				4
				72

1.

2.

,

3.

1.

2.

1.

2.

3.

word , ppt , SWF ,
CAXA/UG/PROE/SWORKS , dwg ,
rm , (jpg/gif ,

2
3
4
5
6
7

60

1		20
2		10
3		10
4		10
5		8
		2
		60

1		(1) (2) (3) (4) (5) (6) (7) (8) (9)		20
2		(1) (2) (3) (4) RLC (5) RL C (6) (7)		10
3		(1) (2) (3)		10

		(4)		
4		(1) (2) (3) (4)		10
5		(1) (2) (3)		8
				2
				60

1.

2.

3.

4.

1.

2.

3.

4.

- 1.
- 2.
- 3.
- 4.

- 1.
- 2.
- 3.
- 4.

- 1.
- 2.
- 3.

1				4
2				6
3				8
4				6
5				10

6				16
7				8
				2
				60

1.

2.

3.

4.

5.

1.

2.

3.

4.