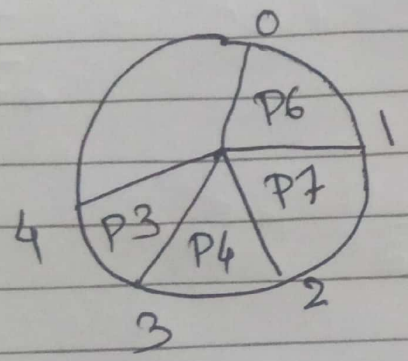
Q1)

A⇒

P1	P2	P3	P4	P5	P6	P7
3	5	20	18	1	6	30
(6)	(5)	(2)	(3)	(7)	(4)	(1)
d_1	d_2	d_3	d_4	d_5	d_6	d_7
1	3	[4]	3	2	1	2

max dedline is 4



= P6 + P7 + P4 + P3

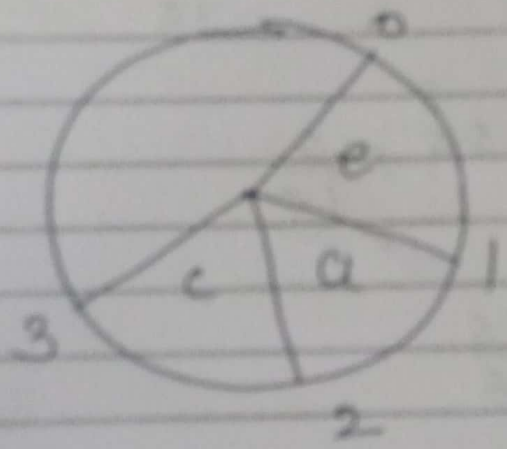
= 6 + 30 + 18 + 20

= 74

1
c)
⇒

Job ID	Deadline	Profit	
a	2	100	①
b	1	19	④ ✗
c	2	27	②
d	1	25	③ ✗
e	3	15	⑤

max = 3



= c+a+e

= 27+100+15

= 142

(8.2) ① ② ③

⇒ $w_1, w_2, w_3 = 18, 15, 10$

$P_1, P_2, P_3 = 25, 24, 15$

$M = 20$

① Greedy for Profit

object	profit	weight
1	25	18
2	24	15
3		

$\sum_{i=0}^{3} = 25 + \frac{24}{15} \times 2$

$= 25 \frac{+16}{5}$

$= 25 + 3.2$

$= 28.2$

② Greedy for weight

Object	profit	weight
3	15	10
2	$24 + \frac{10}{15}$	15

$$\sum_{i=0}^{3} = 25 + 24 \times \frac{10}{15}$$

$$= 15 + \frac{20}{5}$$

$$= 15 + 16$$

$$= 31$$

③ $\frac{P}{w}$

$$= \frac{P1}{w1} = \frac{25}{18} = 1.4 \quad x_1 = 0$$

$$\frac{P2}{w2} = \frac{24}{15} = 1.6 = x_2 = 1$$

$$\frac{P3}{w3} = \frac{15}{10} = 1.5 \quad x_3 = \frac{5}{10}$$

$$\sum_{i=1}^{n} = 24 + 15 \times \frac{15}{10}$$

$$= 24 + 15 + 0.5$$

$$= 31.5$$