

K23-0593

Assignment #02 Part A Date:

Question: 02

(i) 3 (ii) 0

(iii) S (iv) u and v

(iv) d (vi) K and L

(vii) m,s,t,x,y (viii) abcdefhiklmnotv.

(ix) vnhdal (x) gjlpqrstuwxyz.

Question: 02

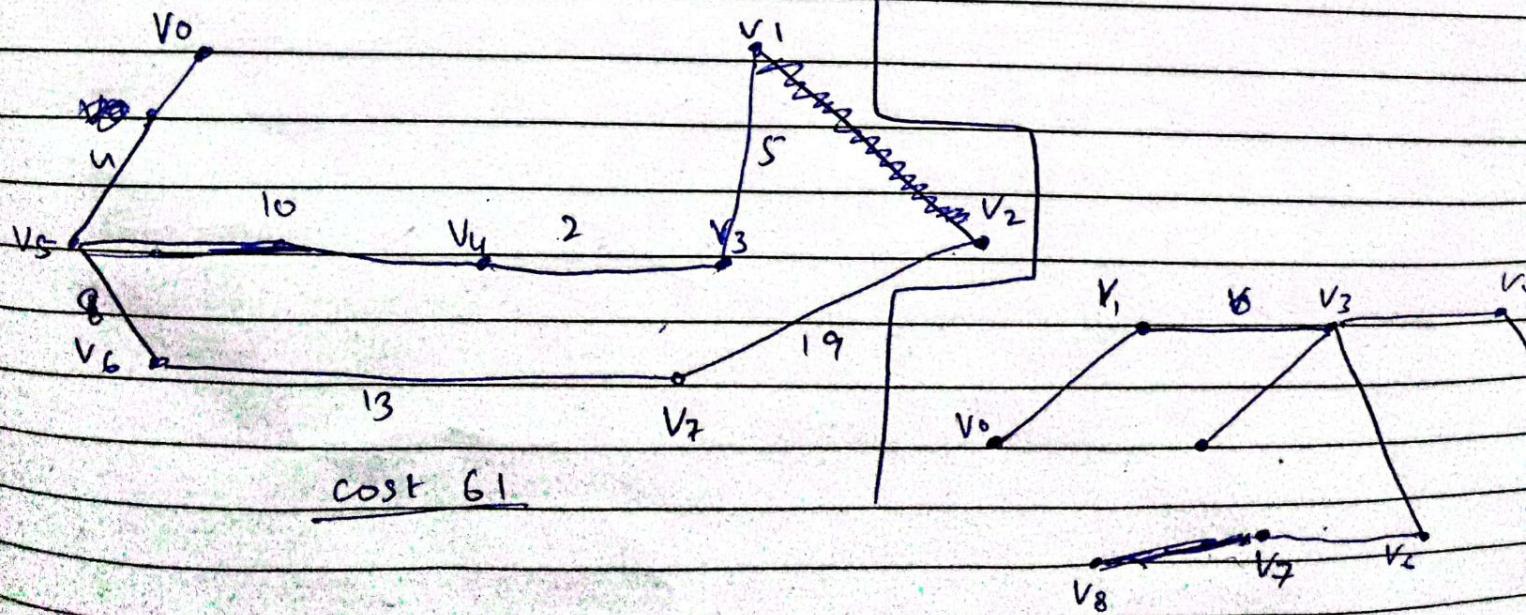
(i)

$(v_0, v_5)$ ,  $(v_5, v_6)$ ,  $(v_5, v_6)$ ,  
 $(v_4, v_3)$ ,  $(v_3, v_1)$ ,  $(v_1, v_2)$ .

with a cost of 47

(ii)

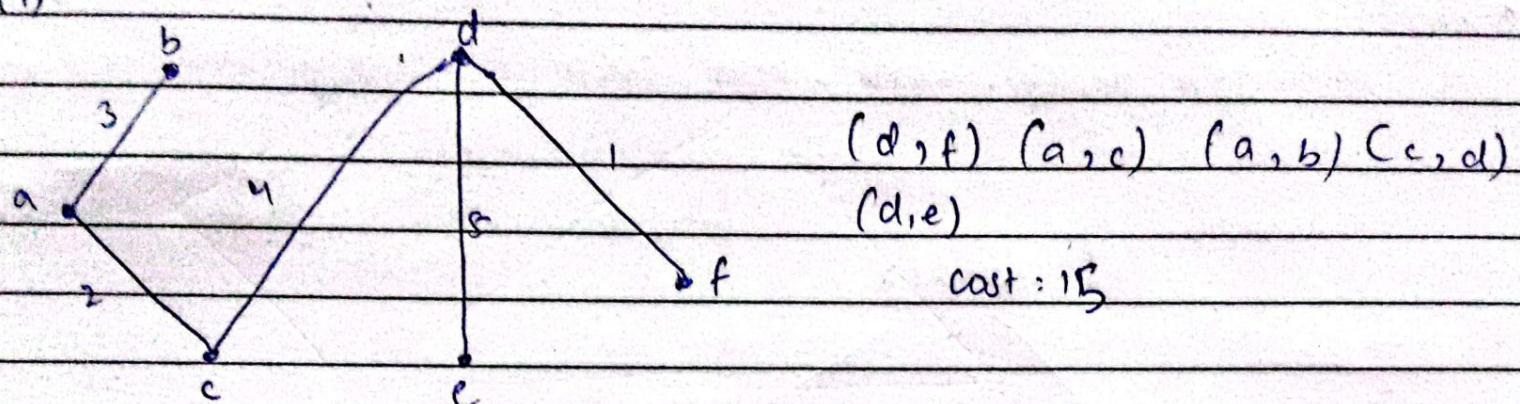
$(v_0, v_1)$ ,  $(v_1, v_3)$ ,  $(v_3, v_2)$ ,  
 $(v_6, v_7)$ ,  $(v_7, v_8)$ ,  $(v_3, v_4)$ ,  
with a cost of 37.



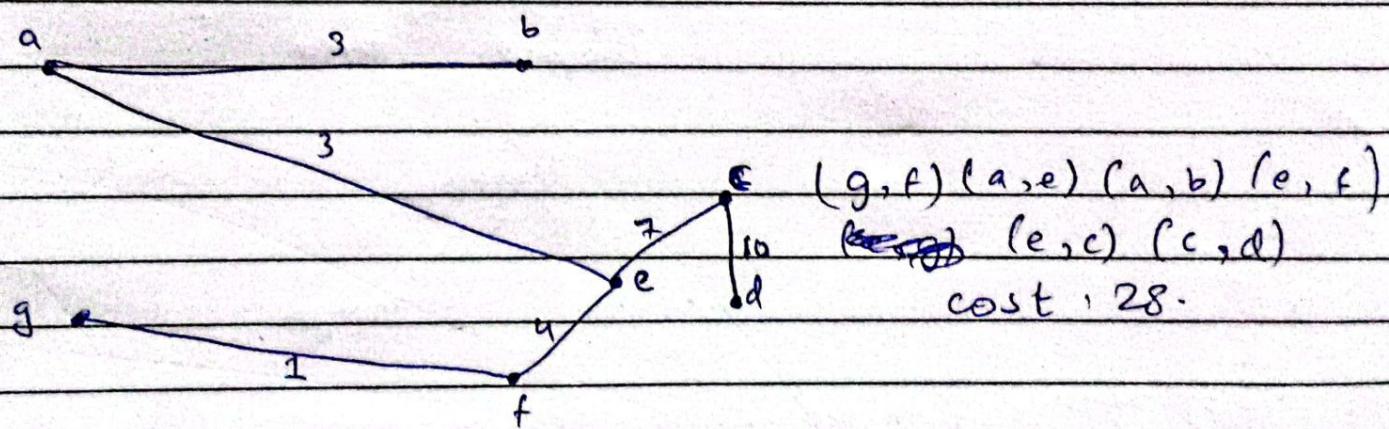
Date: \_\_\_\_\_

QUESTION: 03

(i)



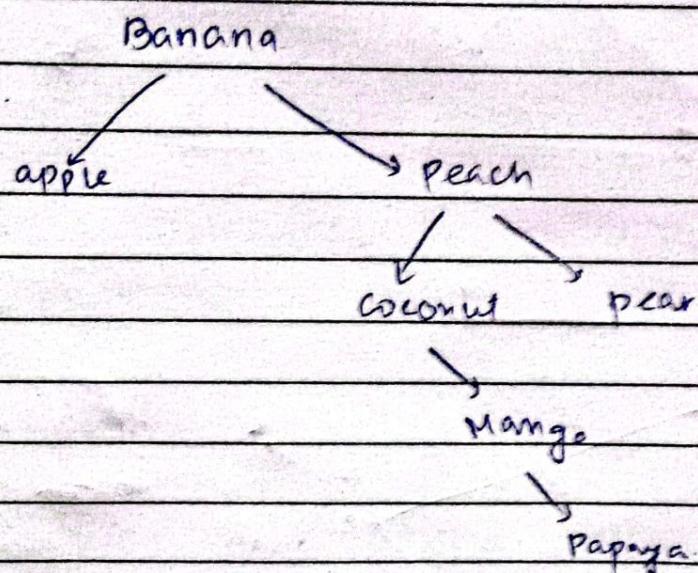
(ii)



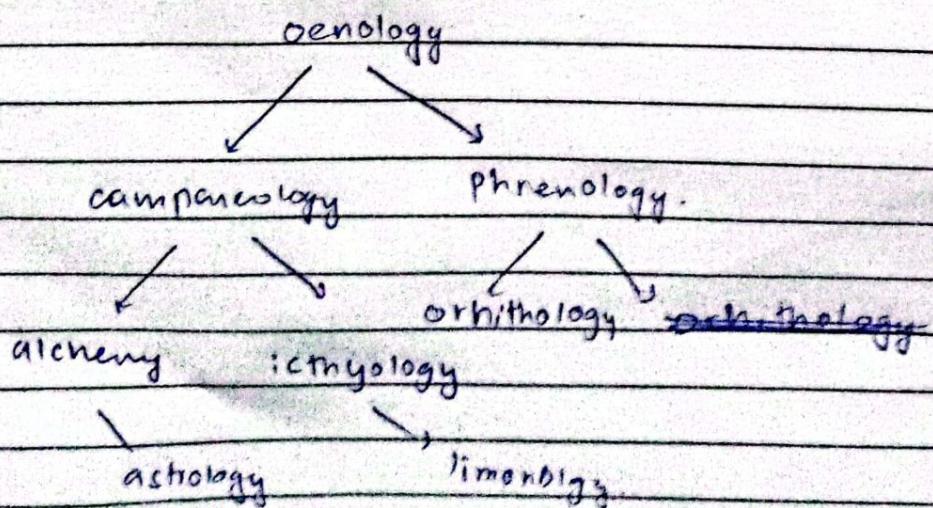
Date: \_\_\_\_\_

4(a)

(i) Banana, peach, apple, pear, coconut, mango and papaya



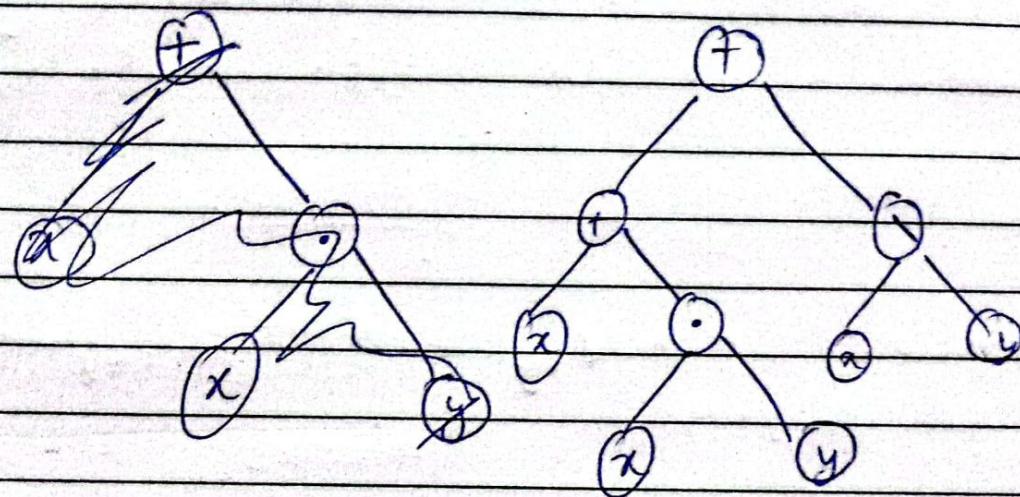
(ii) oenology, phrenology, campanology, ornithology, ichthyology, limnology, alchemy and astrology.



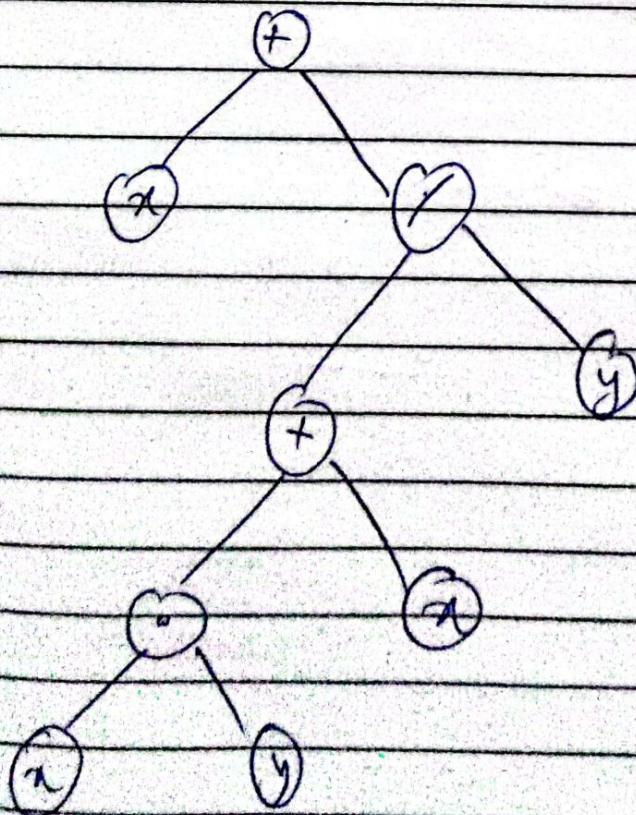
Date: \_\_\_\_\_

(b)

(i)  $(x + xy) + (x/y)$



(ii)  $x + (xy + x) / y$



Date: \_\_\_\_\_

5. (1)

Preorder

a, b, e, k, l, m, f, g, n, r, s  
c, d, h, o, i, j, p, q.

Preorder

a, b, d, e, i, j, m, n, o  
c, f, g, h, r, l, p.

Inorder:

k, e, l, m, b, f, r, n, s, g  
a, c, o, h, i, p, j, q

Inorder:

b

a, b, d, g, i, j, m, :

~~d, k, e~~

d, b, i, e, m, j, n, o, a, f  
c, g, k, h, p, l,

Postorder:

k, l, m, e, f, r, s, n, g, b,  
c, o, h, i, p, q, j, d, a.

Post order:

~~b, d, i, m, n, o, j, e, b,~~  
f, g, k, p, l, h, c, a.

Date: \_\_\_\_\_

Question: 06

(a)  $\rightarrow 1000 - 1 = 999$ .

(b)  $n = m_i + 1 \Rightarrow n = 2(1000) + 1 = 2001$

~~edges = vertices - 1~~ =  $2001 - 1 = \boxed{2000}$

(c)  $n = m_i + 1 \Rightarrow n = 5(100) + 1 = \boxed{501}$

~~edges = vertices + 1 - 500~~

Question: 07

(i)  $(x + xy) + (x/y)$

Prefix:-  $+ + x * xy / xy$ .

Postfix:-  $xxy * + xy / +$

(ii)  $x + ((xy + x)/y)$

Prefix:  $+ x / + * xy$

Post:  $xx*y*+y/y/+$

Date:

Ques No: 08

(b)

(i)  $+ - 732 \ 123 / 6 - 42$

Sol:-

u-2	$+ - \uparrow 32 \uparrow 23 \ 162$
6/2	$+ - \uparrow 32 \uparrow 23 \ 3$
$2^3$	$+ - \uparrow 32 \ 83$
$3^2$	$+ - 983$
9-8	$+ 13$
1+3	4

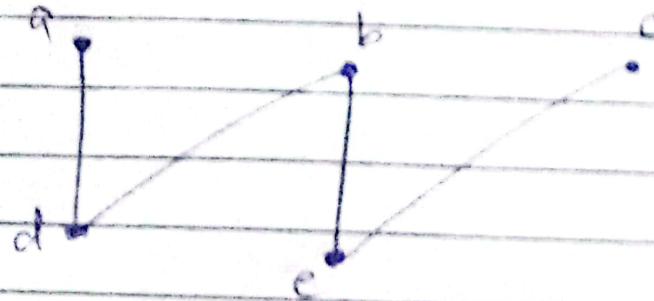
(ii)  $48 + 65 - * 32 - 22 + * 1$

Sol:-

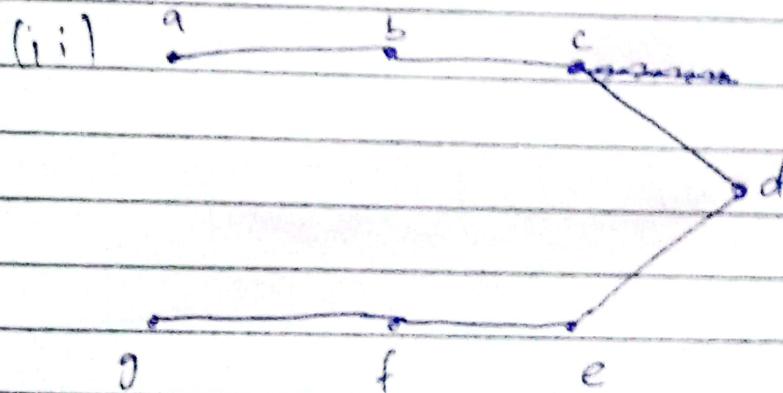
4+8	$12 65 - * 32 - 22 + * 1$
6-5	$12 1 \cancel{0} * 32 - 22 + * 1$
$12 \times 1$	$12 32 - 22 + * 1$
3-2	$12 1 \cancel{0} 22 + * 1$
2-1	$12 1 21 * 1$
1 \times 4	<del>1270010</del> 124 1
12/4	3

Question: 08

(i)



Removed edges:  $\{a, b\}$ ,  $\{b, c\}$ .

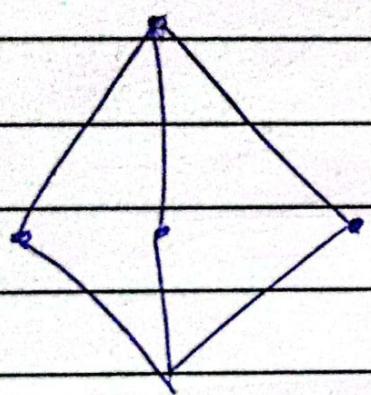


Removed edges:  $\{a, d\}$ ,  $\{g, e\}$ ,  $\{g, d\}$ ,  $\{g, b\}$ ,  
 $\{g, g\}$ ,  $\{e, e\}$ ,  $\{b, f\}$ .

Date: ..

Quesion : 09

(a)



(b) Not Possible.