Name: Saba Shehzad

Section: AI-3C

Arid no: 24-Arid-4081

Submit to: Sir Aftab

Question no1 :-

P=['?a','my','name','is','?*name'] ,I=['Hello','my','name','is','Asif','Ali','khan'] ,B=None

SV=a , SP=['my','name','is','?*name'], SI=['Hello','my','name','is','Asif','Ali','Khan'] ,SB={} ,SS=0

P=['my','name','is','?*name'] ,I['my','name','is','Asif','Ali','Khan'] ,B={'a':['Hello']}

P=my ,I=my ,B={'a':['Hello']}

P=['name','is','?*name'] ,I=['name','is','Asif','Ali','Khan'] ,B={'a':['Hello']}

P=name ,I=name ,B={'a':['hello']}

P=['is','?*name'] .I=['Is','Asif','Ali','Khan'], B={'a':['hello']}

P=['?*name'] ,I=['Asif','Ali','Khan'] ,B={'a':['Hello']}

SV=name ,SP=[] ,SI=['Asif','Ali','Khan'] ,SB={'a':['Hello']} ,SS=0

P=[] ,I=[] ,B={'a':['Hello'],'name'=['Asif','Ali','Khan']}

Final output:-

B={'a':['Hello'],'name'=['Asif','Ali','Khan']}

Question no2 :-

Input:['From','age','divided','by','Robin','height','is','one','ball','of','Kelly','I0']

Rule:['?*a','is','?*b'],['a','=','b']

Binding={'a':['from','age','divided','by','Robin','height'] ,'b':['one','half','of','Kelly','I0']}

Input:[‘from’,’age’,’divided’,’by’,’Robin’,’height’]

Rule:[‘?*a’,’divided’,’by’,’?*b’],[‘a’,’/’,’b’]

Bindings={‘a’:[‘from’,’age’] ,’b’:[‘Robin’,’height’]}

Input:[‘from’,’age’]

Input:[‘Robin’,’height’]

Output:[‘from’,’height’,’/’,’Robin’,’height’]

Input:[‘one’,’half’,’of’,’Kelly’,’I0’]

Rule:[‘half’,?*a’],[‘?a’,’/’,’2’]

Bindings={‘a’:[‘Kelly’,’I0’]}

Input:[‘kelly’,’I0’]

Output:[‘Kelly’,’I0’,’/’,’2’]

Output:[‘age’,’/’,’height’],’=’,[‘Kelly’,’I0’,’/’,’2’]

Input:[‘Kelly’,’I0’,’minus’,’30’,’is’,’Robin’,’height’]

Rule:[‘?*a’,’is’,’?*b’],[‘?a’,’=’,’?b’]

Bindings={‘a’:[‘Kelly’,’I0’,’minus’,’30’], b[‘Robin’,’height’]}

Input:[‘Kelly’,’I0’,’minus’,’30’]

Rule:[‘?*a’,’minus’,’?*b’],{‘?a’,’-‘,’?b’]

Bindings:{‘a’:[‘Kelly’,’I0’],’b’:[‘30’]}

Input:[‘Kelly’,’I0’]

Input:[‘30’]

Output:[‘Kelly’,’I0’,’-‘,’30’]

Input:[‘Robin’,’height’]

Output:[‘Kelly’,’I0’,’-‘,’30’],=,[‘Robin’,’height’]

Input:[‘If’,’Robin’,’is’,’4’,’feet’,’tall’]

Rule:[‘?*a’,’is’,’?*b’],[‘?a’,’=’,’?b’]

Bindings={‘a’:[‘Robin’],’b’[‘4’,’feet’,’tall’]}

Input:[‘Robin’]

Input:[‘4’,’feet’,’tall’]

Output:[‘Robin’],’-‘,[‘4’,’feet’,’tall’]

Input:[‘how’,’old’,’is’,’from’]

Input:[‘?*a’,’is’,’?*b’],[‘?a’,’=’,’?b’]

Bindings={‘a’:[‘old’],’b’=[‘from’]}

Input:[‘old’]

Input:[‘from’]

Output:[‘old’,’=',’from’]

(First)

From age /Robin height=Kelly I0/2

Kelly I0 -30=Robin height

Robin=4 feet tall

Old=from

Selected Robin=4

Isolated Robin=4

Solve Arithmetric Robin=4

Substitution and recursive

Unsolved Equations::-

[from age/4=Kelly I0/2

Kelly I0=30=4

Old=from

]

Solved Equations

[

Robin=4

}

Unsolved Equations

[

From age/4=(34/20

Old=from

]

Solved Equations

[

Robin=4

Kelly I0=34

]

Selected (from0 age/40=34/2

Isolated (from=34*40

Solve Arithmetic (from age=68.0)

Substitution and Recursion call fourth

Unsolved Equations

[

Old-68.0

]

Solved Equations

[

Robin=4

Kelly I0=34

From age=68.0

]

Selected old=68.0

Isolated old=68.0

Solve Arithmetic old=68.0

Substituition and Recursive call fifth

Unsolved Equations

[

]

Solved Equations

[

Robin=4

Kelly I0=34

From age=68.0

Old=68.0

]