Slip 3

Que 1

A:

Import math

def Newton-Rapson (f, g, x0, e, N):

x0 = float(x0)

e = float(e):

N = int(N)

step = 1

flag = 1

condition = True

while condition:

if g(x0) == 0.0:

print('divide by zero error!')

break

x1 = x0f(x0)/g(x0) print('Iteration-%d, x1=%0.6f and f(x1)=%0.6f' % (step, x1, f(x1)))

condition = abs(f(x1)) > e

x0 = x1

step step + 1

if step > N:

flag = 0

break

if flag == 1:

print('\nRequired root is:%0.8f % x1)

else:

print('\nNot convergent.')

def f(x):

return 3\*x-math.cos(x)

def g(x):

return 3+math.sin(x)

Que 2:

A:

def Tr(a,b,n,f):

h=float(b-a)/n

1=f(a)+f(b)

for i in range(1,n):

1=1+2\* f(a+i\*h)

1 = (h/2)\*1

return I

>>> from math import \*

>>> def f(x):

return 1/(1+x)

>>> Tr(2, 10, 5, f) # function call

B:

num=1

while num<=20:

if num % 2 != 0:

print(f"Square of {num} is {num\*\*2}")

num += 1

output: Square of 1 is 1

Square of 3 is 9

Square of 5 is 25

Square of 7 is 49

Square of 9 is 81

Square of 11 is 121

Square of 13 is 169

Square of 15 is 225

Square of 17 is 289

Square of 19 is 361

Que 3:

A:

def s(s1):

s2=s1

s3=s1[::-1]

if s2==s3:

print("string is palindrome")

else:

print("string is not palindrome")

>>>s("madam")

Output:string is palindrome

>>>s("radha")

Output:string is not palindrome