Part I, II and III: 3 points per correct answer

1. **78**

2. **9**

3. **30 20** (or 30,20) (but 20,30: 1 pt)

4. **785** or 7,8,5 or 7 8 5

5. **45**

6. ****** off! We're the People's Front of Judea !**

7. **D** A plot window showing nothing.

8. **B** Indentation error

9.**Error in line 10: plot(t,x) as arrays have a different length**
Fix: plt.plot(t[:-1],v) or (t[1:],v) or (t , append(v,v[-1])) or any other soltuin creating equal length arrays (even multiple lines are ok, like changing the array size(s)) (multiple line fixes are ok as long as only one original line is changed/removed)
Also ok: **error in line 8**: when one element is added there, it is also ok.

10. a. **t = arange(0,60.01,0.01)** or **t = linspace(0,60,6001)** or **for-loop/list**
b. **u = zeros(t.shape)** or **zeros(6001)** or **0.*t + 3*(t>=2)*(t<4.0)** or **u = zeros(6001)** second line : **u[(t>2)*(t<4)]=3** (use of "and" : 1 [t)

c. **A = array([[0 1 0],[0,0,1],[-3,4,2]])** or **mat("0 1 0;0 0 1;-3 4 2")**

d. **xinit = array([[60],[1],[0]])** or **array([[60,1,0]]).T**
or **matrix("60;1;0")** or **matrix("60 1 0").T**

e. **y[0] or y[0,:]** f. **y[1] or y[1,:]**

Part IV Blue form (based on code partial scores can be awarded)

5 pts — 11. **(0.9840, 2.8312)** x =0.9839614981941849 and y = 2.8313056369289047

10 pts — 12. Primes: [7, 19, 37, 61, 127, 271, 331, 397, 547, 631, 919], sum = **3347**
(also accepted answers: sum is **522** (due to n up to 1000) or **1250** (due to numpy int32 limit, if code otherwise ok

15 pts — 13. **1021** cells in row 1000 (also **1023** = total from row 999 accepted if code ok)

15 pts — 14. MONEY = **10652** (=only solution for unique digits and non-leading zeros)