# G3 green gardens group

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## Watershed Wise Landscape Professional
## Sample Test Questions

Given the following, answer the next two questions:
- Metal roof = 1,000 sq ft
- Runoff coefficient =90%
- Average rainfall = 21"

1.      How much total rainwater can be harvested in an average year?

a.      11,718 gallons
b.      21,000 gallons
c.      18,900 gallons
d.      13,020 gallons

2.      How many total cubic feet (cf) of water could be harvested from this roof?

a.      2100 cf
b.      1,567 cf
c.      1,015 cf
d.      18,900 cf

3.      If you were able to gather 10,000 gallons of rainwater from impermeable surfaces and had a 1,000 sf ft landscape area suitable for the holding the rainwater, how deep would you have to dig to create a BMP to capture all of the water?

a.      12 inches
b.      24 inches
c.      8 inches
d.      16 inches

**PASS/FAIL QUESTIONS – if you do not correctly answer the following sequence of seven (7) questions, you will not pass the exam.**

Given the following, answer the next seven (7) questions:
Daily Plant Water Requirement (DWPR) = .025"

Plant root depth = 10"
Clay soil with Available Water Holding Capacity (AWHC) = 0.158"/inch
Infiltration rate =0.20"/hour
MAD = 30%
Distribution Uniformity (DU) = 70%
Precipitation rate = 0.45"/hr

**Show your work.**

4.     What is the Plant Available Water (PAW) in inches?


5.     What is the Allowable Depletion (AD) in inches?


6.     How many days are in the Irrigation Interval between irrigation events
(round to the nearest whole number)?


7.     How much water has been depleted from the soil between irrigation events in
inches?


8.     How much water will need to be Applied during the irrigation event in inches?


9.     What is the Total Irrigation Run Time (TIRT)?


a.     125 minutes
b.     91 minutes
c.     245 minutes
d.     72 minutes

10.    If runoff is occurring at 15 minutes, how many cycles would be required to
complete the TIRT?

**PASS/FAIL QUESTIONS – if you do not correctly answer the following sequence of six (6) questions, you will not pass the exam.**

**Show your work for the following questions:  You've conducted an Irrigation Audit with the following information:**

| CAN # | ML OBSERVED | New Can Order |
|-------|-------------|---------------|
| 1 | 30 | |
| 2 | 20 | |
| 3 | 20 | |
| 4 | 15 | |
| 5 | 15 | |
| 6 | 30 | |
| 7 | 20 | |
| 8 | 15 | |
| 9 | 30 | |
| 10 | 30 | |
| 11 | 20 | |
| 12 | 20 | |
| 13 | 15 | |
| 14 | 15 | |
| 15 | 30 | |
| 16 | 15 | |

Note: for exam purposes, the audit includes only 16 cans.


11.    List the catch cans in the proper order to complete a distribution uniformity analysis.

12.    What is the total catch can average?

13.    What is the Lowest Quarter Average?

14.    What is the $DU_{LQ}$

15.    What is the Lowest Half Average?

16.    What is the $DU_{LH}$?

Calculate the precipitation rate for each zone in inches per hour.  Show your work:

17.    Zone A -    In-line drip, 0.6 gph, 12" apart, row spacing 15", 50 sf


18.    For Zone A, if the soil intake rate is 0.75"/hr, would we get runoff?

Yes/No

19.    Zone B -    Point Source drip, 1.0 gph, (12) 5-gallon plants, 2 emitters/plant, 85 sq ft


20.    For Zone B, if the soil intake rate is 0.75"/hr, would we get runoff?

**Yes/No**


Given the following, answer the next five (5) questions as they pertain to creating water budgets:

Annual ETo for Region = 45"
**Hydrozone 1** = 500 sf
Plant Factor =0.80
IE = 0.55

**Hydrozone 2** = 350 sf
Plant Factor = 0.50
IE = 0.75

Show your work:

21.    What is the landscape water requirement in **gallons** for Hydrozone 1?


22.    What is the landscape water requirement in **gallons** for Hydrozone 2?


23.    How many gallons could be saved if the IE of Zone 1 were raised to 0.85?


24.    What would the landscape water requirement in Gallons be if we also changed the Plant Factor in Zone 1 to 0.5?


25.    How many total gallons could be **saved** if the plant factor of Zone 1 were changed to 0.5, and the IE to 0.85?