

IICRC WRT EXAM 2 LATEST VERSIONS (VERSION A & B) 2023-2024 ACTUAL EXAM 250 QUESTIONS AND CORRECT DETAILED ANSWERS WITH RATIONALES|ALREADY GRADED A+

VERSION A

The greater the temperature of wet materials, the more energy is available for _____ to occur. - ANSWER- **Evaporation**

If a drying chamber is 75 degrees and 40% RH, what is the humidity ratio? (use psychrometric chart) - ANSWER- **52 gpp (grains of moisture per pound of dry air)**

If a drying chamber is 68 degrees and 70% RH, what is the humidity ratio? (use psychrometric chart) - ANSWER- **72 gpp (grains of moisture per pound of dry air)**

If a drying chamber is 70 degrees and 60 gpp, what is the RH? (use psychrometric chart) - ANSWER- **55%**

If the exterior is 42 degrees and 30% RH, what is the humidity ratio? (use psychrometric chart) - ANSWER- **12 gpp (grains of moisture per pound of dry air)**

If a drying chamber is 32% RH and 60gpp, what is the temperature? (use psychometric chart) - ANSWER- 87 degrees

What is the relative humidity if the dew point temperature is 35 degrees and the dry bulb temperature is 70 degrees (use psychometric chart) - ANSWER- 28%

A material that is very weakened when wet, but, if dried properly, regains its original strength is... - ANSWER- Gypsum (drywall, wallboard, sheetrock)

The ability for water vapor to move through materials is known as... - ANSWER- permeability

Classes of water describe - ANSWER- The potential rate of evaporation (evaporation load)

A drying chamber that has the least amount of area affected (less than 5%) of the combined walls, floors and ceiling material is ... - ANSWER- class 1

A class 2 loss is a drying chamber that has a significant amount of moisture affecting _____ of the combined walls, floors and ceiling materials. - ANSWER- 5% - 40%

A drying chamber that has the greatest amount of moisture, affecting over 40% of the combined walls, floors and ceiling materials is... -

ANSWER- **class 3**

A drying chamber that has water bound in materials such as plaster or hardwood resulting in low potential evaporation is a.... - ANSWER- **class 4**

If attempting to dry tile over a wood subfloor... - ANSWER- **Provide dry air flow (low humidity) and Increase heat or thermal energy.**

What safety features does drying equipment need? (air movers, dehumidifiers, etc) - ANSWER- **grounded plug**

What can happen when ducting airflow directly into wall cavities? - ANSWER- **Increase the rate of evaporation**

Dehumidifiers balance the drying system by removing moisture from the air. A balanced drying system is best achieved when the rate of dehumidification

is _____ than or equal to the rate of evaporation. - ANSWER- **greater**

How do refrigerant dehumidifiers remove moisture from the air? - ANSWER- **Condensation**

Refrigerant dehumidifiers are rated for water removal in ... - ANSWER- pints per day (ppd)

Desiccant dehumidifiers remove moisture from the air through principle of ... - ANSWER- absorption

Since desiccant dehumidifiers do not remove water vapor through condensations, they are not limited by... - ANSWER- temperature

In an area that measures 15,000 cubic feet, what is the initial AHAM requirement for a Class 2 loss, using an LGR (refrigerant) dehumidifier? (use factor chart) - ANSWER- $15,000 \text{ cu ft} / 50 = 300 \text{ ppd pints per day}$

A class 3 loss that measures 15' x 35' and has a ceiling height of 9', how many 100-pint LGRs are needed? (refrigerant formula) - ANSWER- 2:
 $(15 \times 30 \times 9 = 4050 \text{ cu ft} / 40 \text{ (from chart)} = 118 \text{ pints per day. we need 2 because our LGR only does 100ppd.}$

A warehouse that measures 35' x 40' x 10' has a class 4 loss, using a desiccant dehumidifier. How many CFM are required? (desiccant formula) - ANSWER- 700:

$35 \times 40 \times 10 = 14,00 \text{ cu ft.} \times 3 \text{ ACH (air changes per hour)} / 60 = 42,000 / 60 = 700 \text{ cfm (cu ft per minute)}$

To control particles in the air you could install... - ANSWER- An air filtration device (AFD)