

Institute of Hazardous Materials Management



WRITING THE ULTIMATE QUESTIONS

**James Gaidry
Executive Director**

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***Protecting the Environment and the Public's
Health, Safety, and Security for Over 25 Years.***





THE ANSWER IS...

42



42

The Answer to the Ultimate Question of Life, the Universe, and Everything.* (Per *The Hitchhiker's Guide to the Galaxy*)

* Actually they determined that it is the answer to the question posed by Bob Dylan - "How many roads must a man walk down?"



IHMM OVERVIEW

- **Founded in 1984**
- **Mission - Develop and promote professional standards for certification and to Administer credible certification programs for Individuals who practice in disciplines involving the general management of hazardous materials and related areas.**
- **Vision - IHMM recognition will be the global benchmark for identifying competence in hazardous materials management and environmental stewardship.**



IHMM CERTIFICATION PROGRAMS

- **Programs**

- Certified Hazardous Materials Manager (CHMM)
- Certified Hazardous Materials Practitioner (CHMP)
- Hazardous Materials Manager-in-Training (HMMT) Program

- **Recognition**

- Government: NJDEP, DOE, DOD, EPA, FDIC, Army Corps of Engineers
- Corporations: PSE&G, Teris, Boeing Company, General Motors, Shaw Group

- **Accreditation**

- ANSI/ISO/IEC 17024
- Council on Engineering & Scientific Specialty Boards (CESB)



ANSI Accredited Program
PERSONNEL CERTIFICATION





CHMM CREDENTIAL

- **Over 15,000 Credentials Issued**
- **Over 8,500 Active Credentials**
 - Environmental Protection
 - Transportation
 - Occupational Health and Safety
 - Homeland Security
 - Industry
 - Consulting
 - Government
 - Academia
 - Regulators



TABLE DISCUSSION – ONE MINUTE

Why test?



WHY TEST?

Determine whether a person has the knowledge and skills to do a job.



QUESTION FORMATS

- True/False
- Multiple-choice
- Multiple-response
- Matching
- Short answers
- Essay
- Simulations



QUESTION FORMATS

TRUE / FALSE

- Avoid if at all possible.



QUESTION FORMATS

MULTIPLE CHOICE

- One correct answer and three or more distracters.



QUESTION FORMATS

MULTIPLE RESPONSE

- More than one correct answer.
- Provides better measure of proficiency.
- Compares favorable to simulation tests.



QUESTION FORMATS SIMULATIONS

- **Computer simulation or on site activities by which performance of a specific task can be measured.**
- **Evaluated similar to multiple choice questions.**



TABLE DISCUSSION – ONE MINUTE

**Best practices
in testing.**

BEST PRACTICES IN TESTING

- Ease of use
- Keep to the blueprint
- Just enough
- Homogeneous content
- “Easy” up front
- Variety is the spice of life
- Like types together
- Easy on the eyes
- Can YOU do it?





NOT “trick or treat”





TABLE DISCUSSION – ONE MINUTE

**Worse practices
In testing.**



WORSE PRACTICES IN TESTING

- From left field
- Just the facts
- But can you type
- After rotting in the cellar for weeks, my brother brought up some oranges.
- Trimming the sails
- 50/50
- Are you smarter than a 5th grader?
- Play it back
- Only one of the "R's"
- A picture is worth a thousand words
- Just pick "C"



QUESTION CONSTRUCTION

- Short and sweet.
- Just one thing.
- Complete sentences please.
- Stick to the subject.
- Think it through.
- Plain English.
- Nothing grey.
- Shoot straight.



QUESTION CONSTRUCTION (CONTINUED)

- Ask don't tell.
- Don't bury the headline.
- Should / ~~Would~~ / ~~Could~~
- Must / ~~Can~~
- ~~Always~~ / All / ~~Never~~
- Accent the positive.
- NOT / CANNOT / EXCEPT / NEVER
- Don't use no double negatives.



RESPONSE CONSTRUCTION

- Always correct, all the time.
- Never correct iff you choose wisely.
- Stand alone.
- Quality not quantity.
- If you don't know where you are going, any road will get you there.
- Only one.
- At least two.
- ~~Don't know / All of the above / None of the above~~



TYPES OF QUESTIONS

- Get it
- Fix it
- Get creative



TYPES OF QUESTIONS GET IT

- What best defines?
- What is (un)characteristic of?
- What is an example of?



TABLE DISCUSSION – ONE MINUTE

Develop one good “get it” question.

- What best defines?
- What is (un)characteristic of?
- What is an example of?



TYPES OF QUESTIONS

FIX IT

- **What is the nature of the problem?**
- **What is needed to solve the problem?**
- **What will occur from.....?**
- **What is a solution?**
- **If this happens, what should be done?**
- **What is the most effective or efficient solution?**
- **Why is ... the most effective solution?**



TABLE DISCUSSION – ONE MINUTE

Develop one good “fix it” question.

- What is the nature of the problem?
- What is needed to solve the problem?
- What will occur from.....?
- What is a solution?
- If this happens, what should be done?
- What is the most effective or efficient solution?
- Why is ... the most effective solution?



TYPES OF QUESTIONS GET CREATIVE

- **What is the most effective (appropriate) method for?**
- **What is better (or worse)?**
- **What is the most critical step in this procedure?**
- **What is (un)necessary in a procedure?**
- **What would happen if?**
- **Given what is the primary cause?**
- **On the basis of ..., what is the primary cause?**



TABLE DISCUSSION – ONE MINUTE

Develop one good “get creative” question.

- What is the most effective (appropriate) method for?
- What is better (or worse)?
- What is the most critical step in this procedure?
- What is (un)necessary in a procedure?
- What would happen if?
- Given what is the primary cause?
- On the basis of ..., what is the primary cause?



SOME FINAL THOUGHTS...

- Under 10 say it again
- Begin with the show.
- Hit the spot.
- How many?
- Be logical.
- Don't repeat yourself.
- Don't shoot blanks.

THANK YOU FOR YOUR ATTENTION.

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