

2003 EXAM WRITING WORKSHOP

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ES-401 Preparing Initial Site-Specific Written
Examinations

APPENDIX B Written Examination Guidelines



Exam Question Content

Select and Develop Questions

- No more than 75% directly from ANY exam question bank without significant modification. (i.e., 56 RO and 19 SRO only). (ES 401 D.2.f)
- Write at least 10 new questions at C/A level. (i.e., 8 RO and 2 SRO only). (ES 401 D.2.f)
- Remaining questions to be significantly modified from ANY bank. (i.e., 11 RO and 4 SRO only). (D.2.f)

Exam Question Content

Select and Develop Questions (cont'd)

- Questions must match randomly selected K/A topics. (ES 401 D.2.a)
- Document changes to exam outline on Form ES 401-4 with Chief Examiner approval. (ES 401 D.1.e)
- Between 50 and 60% (38-45) of questions on RO exam shall be written at the C/A level. (ES 401 D.2.c)

Exam Question Content

Select and Develop Questions (cont'd)

- All questions shall be multiple choice. (ES 401 D.2.e)
- Distractor Analysis is OPTIONAL but increases review efficiency. (ES 401 D.2.g)
 - < Prevents assumptions by NRC/licensee reviewer
 - < Explains why distractor is plausible

Question Development Techniques

Appendix B

- The question should have a direct and important relationship to job performance. (C.1.a)
- The question shall be directly related to a K/A and not necessarily a learning objective. (C.1a)
- State the question as concisely as possible. (C.1.c)

Question Development Techniques

Appendix B (cont'd)

- Do not provide too much information (leads applicant to the answer). (C.1.c)
- Determine the appropriate level of knowledge for the question. (C.1.d)
- Avoid irrelevant or extremely difficult questions. This is subjective and usually noted as a 1 or 5 on ES 401-9. (C.1.e)

Question Development Techniques

Appendix B (cont'd)

- Limit question to one concept or topic. (C.1.f)
- Avoid copying text directly from lesson plan or references. (C.1.g)
- Avoid “backward logic” questions. (C.1.h)

Additional Guidelines

Appendix B

- Do not use ‘none of the above’ / ‘all of the above’ (C.2.b)
- Do not present as true-false statements (C.2.c)
- Avoid using negatively stated stems (C.2.e)
- Use common misconceptions as distractors (C.2.g)

Additional Guidelines

Appendix B (cont'd)

- Make all answers highly plausible (C.2.h)
- Put answers in a logical sequence (C.2.i)
- Vary the location of the correct answer (C.2.l)

QUESTION FORMAT

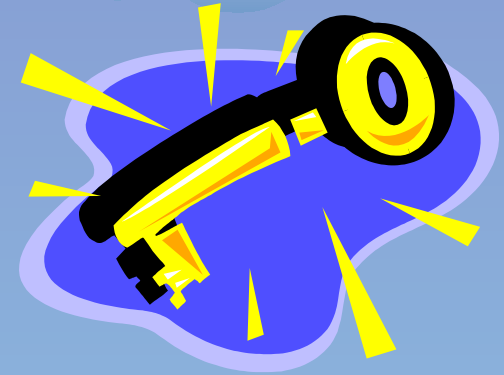
Preferences for Consistency

- Double space between different sections of the stem.
- Use “Which ONE of the following...”
- Answer choices should be capitalized.
- Bold and Underline negative words if their use cannot be avoided.

HELPFUL HINTS

Personal Experience

- Nice and Quiet work area
- No external distractions/interruptions
- Should be the only assigned task that day
- All necessary references available and handy



HELPFUL HINTS

Personal Experience (cont'd)

- Complete distractor analysis
- Read and understand K/A statement
- Use own experiences for ideas and support with reference documents
- Review any available exam banks for appropriate question (modify if desired)



HELPFUL HINTS

Personal Experience (cont'd)

- Review previous tests
- Ask for help/sanity check
- If necessary, pick another K/A topic
- Be aware of Exam Security requirements



QUESTION ANALYSIS

Complete the following sentence from the choices below.

The APRM Simulated Thermal Power (STP %) indication reflects the reactor's current _____ and is obtained by processing the _____ through a _____.

- A. "heat flux %"; measured neutron flux value; time delay circuit
- B. core flow ("w"); jetpump delta- P s; summing circuit
- C. flow-biased scram setpoint; fixed neutron flux %; filtering circuit
- D. flow-biased rod block setpoint; core flow ("w"); nulling circuit

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QUESTIONS / COMMENTS