

Written Examination Review Worksheet

NOTE : 1. BOLD & Italics reflect resolution of comments

- 2. Reviewed by J. Caruso and G. Johnson- all questions reviewed for K/A match and a selected number for detailed technical review.
- 3. Licensee stated that the written question bank is closed and contains about 1,200 questions - 200 of which are NRC exam quality. In addition, it was noted that a high percentage of questions were new for this exam.
- 4. Provided licensee comments on Monday, 5/16/05 on site.
- 5. **BOLDED question numbers** were given a technical verification using plant references
- 6. Final exam received Tuesday 6/7/05 *with all changes incorporated.*

Q#	1. LOK (F/H)	2. LOD (1-5)	3. Psychometric Flaws					4. Job Content Flaws				5. Other		6. U/E/S	7. Explanation	
			Stem Focus	Cues	T/F	Cred. Dist.	Partial	Job-Link	Minutia	#/units	Back-ward	Q=K/A	SRO Only			
1	H	2											Y	N/A	S	
2	H	3											Y	N/A	S	
3	H	3				X							Y	N/A	E	"D" distractor weak. Also spelling of the word "activities". Reviewed references. Licensee improved "D" distractor; fixed spelling.
4	H	3											Y	N/A	E	Verified distractors "c&d" are credible. This question tests plant differences. The becomes particularly easy if P&ID is provided. The P&ID will not be provided to applicants as a reference.
5	F	2											Y	N/A	S	Typo in the stem Fixed typo
6	F	2											Y	N/A	S	Verified references and that "a" distractor is plausible.
7	H	2											Y	N/A	S	
8	F	2											Y	N/A	S	

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			Stem Focus	Cues	T/F	Cred. Dist.	Partial	Job-Link	Minutia	#/units	Back-ward	Q=K/A	SRO Only			
9	F	2											Y	N/A	S	Verified references
10	F	2				X							Y	N/A	E	"a" distractor not plausible also provide references. Reviewed references. Licensee revised "a" distractor to Rad Pro Manager.
11	F	1-2					X						Y	N/A		
12	F	1-2?											Y	N/A	U	very simplistic question - should be enhanced - more challenging doesn't test understanding i.e. adequately discriminate. Replaced question using same K/A.
13	F	2											Y	N/A	S	
14	H	2		X		X							Y	N/A	U	Spelling error 'turnover' in stem. The stem cues the right answer - distractors "a&b" do not appear to be plausible - this is clearly the FHD responsibility particularly given the title of the procedure. Please provide applicable references for answer ans to support distractor choices. Replaced question using same K/A.
15	F	1-2											Y	N/A	S	It is not a higher order question. Licensee agreed - however still met requirement for number of higher order in total exam.
16	H	3											Y	N/A	E	Provide reference procedure and highlight section to support answer. Typo in "b" distractor. Incomplete justification provided for "b". Editorial changes made plus verified technical references.
17	H	3				X							Y	N/A	E	'a' distractor does not appear to be plausible - Loss of RPS and no affect?? "A" distractor revised.
18	H	3											Y	N/A	S	

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			Stem Focus	Cues	T/F	Cred. Dist.	Partial	Job-Link	Minutia	#/units	Backward	Q=K/A	SRO Only			
19	F	2		X		X							Y	N/A	U	Please describe why 'a&c' distractors are plausible and provide references to support? With meter set to zero wouldn't you expect indication to be downscale. This is a duplicate to PB JPM #3049 either replace, modify this question or the JPM. Random sample and draw new K/A and replaced question.
20	H	2		X		X							Y	N/A	E	The correct answer sticks out. Please describe why 'a' distractor is plausible and provide references to support? For example, why for 'a' why would you want to consider bypassing isolations? Revised 'a' distractor.
21	H	2											Y	N/A	S	Verified references to support the answer.
22	F	2											Y	N/A	S	
23	F	2		X									Y	N/A	E	The correct answer sticks out. Verified references to support the answer and distractors. Licensee re-formatted question. Typo in replacement question fixed
24	H	3											Y	N/A	S	Question test site/plant differences.
25	F	2											Y	N/A	E	references verified also spelling error in stem.
26	H	2											N	N/A	U	K/A Mismatch- question is about reactivity, not Shutdown Margin (though they are related). Rich reviewed and agreed. References verified. Question revised to match K/A.
27	H	2											Y	N/A	S	
28	H	2											N?	N/A	E	Verified tests understanding not a direct look-up with TS in hand. Also K/A mismatch-TS question, not adequate core cooling doesn't really test loss of shutdown cooling. Refocus stem to improve K/A match.
29	H	2											Y	N/A	U	This is very similar to one PB JPM #3019. Licensee changed question.
30	H	3											Y	N/A	S	
31	H	2											Y	N/A	E	Also typo in justification (exhausts) Fixed typo
32	H	2											Y	N/A	S	

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			Stem Focus	Cues	T/F	Cred. Dist.	Partial	Job-Link	Minutia	#/units	Backward	Q=K/A	SRO Only		
33	H	2										Y	N/A	S	
34	F??	2										Y	N/A	S	
35	H	3										Y	N/A	S	
36	H	2										Y	N/A	U	Similar to JPM 2053 Revise question or JPM. <i>Licensee replaced question</i>
37	H	2										Y	N/A	E	References verified. In stem states mode 4 should be mode 5? <i>Agree made M0de 5</i> <i>Also added to explanation to d "In conjunction with 60 gpm dump"</i>
38	H	2				X						Y	N/A	E	"a" implausible. No interlocks associated with camera. <i>Licensee revised distractor communications rather than camera.</i>
39	H	3										Y	N/A	S	Verified question tests LSRO required knowledge.
40	F	3										Y	N/A	S	
41	F	2										Y	N/A	S	
42	H	2										N	N/A	U	K/A Mismatch. <i>Question replaced</i>
43	H	3										Y	N/A	S	
44	F	3										Y	N/A	S	
45	F	3										Y	N/A	E	Typos in justification for a (pg 2) <i>Typos fixed.</i>
46	H	3										Y	N/A	S	

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			Stem Focus	Cues	T/F	Cred. Dist.	Partial	Job-Link	Minutia	#/units	Backward	Q=K/A	SRO Only			
47	F	2											Y	N/A	S	Not higher order - you need to just recall the set-point Changed to "F" .
48	F	2				X							Y	N/A	E	Please explain why 'c' is credible? Distractor revised.
49	F	2											Y	N/A	S	
50	F	1-2				X							N	N/A	U	K/A mismatch doesn't really ask cause of criticality? The question is really asking the effect not the cause. Also debatably higher order. Please explain rationale for why distractors are credible. Question doesn't appear to discriminate adequately. Rich agreed after review ing that it was a K/A mismatch. Question replaced.

Instructions

Refer to Section D of ES-401 and Appendix B for additional information regarding each of the following concepts.]

- Enter the level of knowledge (LOK) of each question as either (F)undamental or (H)igher cognitive level.
- Enter the level of difficulty (LOD) of each question using a 1 - 5 (easy - difficult) rating scale (questions in the 2 - 4 range are acceptable).
- Check the appropriate box if a psychometric flaw is identified:
 - The stem lacks sufficient focus to elicit the correct answer (e.g., unclear intent, more information is needed, or too much needless information).
 - The stem or distractors contain cues (i.e., clues, specific determiners, phrasing, length, etc).
 - The answer choices are a collection of unrelated true/false statements.
 - ~~One or more~~ ~~than one~~ distractors is not credible.
 - One or more distractors is (are) partially correct (e.g., if the applicant can make unstated assumptions that are not contradicted by stem).
- Check the appropriate box if a job content error is identified:
 - The question is not linked to the job requirements (i.e., the question has a valid K/A but, as written, is not operational in content).
 - The question requires the recall of knowledge that is too specific for the closed reference test mode (i.e., it is not required to be known from memory).
 - The question contains data with an unrealistic level of accuracy or inconsistent units (e.g., panel meter in percent with question in gallons).
 - The question requires reverse logic or application compared to the job requirements.
- Check questions that are sampled for conformance with the approved K/A and those that are designated SRO-only (K/A and license level mismatches are unacceptable).
- Based on the reviewer's judgment, is the question as written (U)nacceptable (requiring repair or replacement), in need of (E)ditorial enhancement, or (S)atisfactory?
- At a minimum, explain any "U" ratings (e.g., how the Appendix B psychometric attributes are not being met).