National Institute for Health Specialties
United Arab Emirates

NIHS Guidelines for Emirati Board Written Examinations

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Modification History

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Contents

1. Purpose

These Guidelines are a foundational framework for developing, structuring, and administering high-stakes written assessments in postgraduate medical education. They are designed to ensure that all examination components align with best practices in medical assessment, uphold academic rigor, and support the objective evaluation of candidates' competencies.

2. Examination Format

Parameters	Part One Examination	Final Written Examination
Number of Papers	1	2
Number of Questions	150 Single Best Answer (SBA) MCQs	Each paper contains 100 single-best-answer (SBA) MCQs

3. Item Structure and Content Design

Component	Guidelines
Question Format	Single Best Answer (SBA) format.
Content Relevance	Questions must align with the examination blueprint and reflect course objectives.
Cognitive Level	Focus on higher-order thinking and application of knowledge rather than rote memorization.
Clinical Vignette (Stem)	• Presents a realistic clinical scenario. • Should be concise yet contain enough detail for test-takers to analyze (age, gender, pertinent history, physical exam findings, relevant lab/imaging results).
Lead-in Questions	Lead-ins should be clear, closed-ended, and specific enough to be answerable without viewing options.
Distractors	Options should be plausible and homogenous in format. Avoid technical flaws like grammatical mismatches or vague terms.
Topics Covered	Broad content sampling from significant domains.
Complexity Management	Items should avoid irrelevant complexity while maintaining clinical realism.

4. Core Features of Single Best Answer (SBA) Questions

Focused Question
 a. Directly follows the vignette, asking for a single best action, diagnosis, next step, or interpretation.

      b. Must be unambiguous (e.g., "What is the most likely diagnosis?" or "What is the best initial step in management?").

Answer Options

      c. Typically, 4 plausible options

      d. Only one best (most correct) answer; the rest are "distractors" that are reasonable but not correct in this specific scenario.

      e. Each distractor should test a different concept or common misunderstanding rather than being random or obviously wrong.

Validity & Reliability

      f. Must test knowledge or clinical reasoning at an appropriate level for the exam.

      g. Should align with recognized guidelines or standard practices.

      h. Avoid requiring "local" or regional knowledge that others wouldn't have.

5. Technical Requirements for Item Writing

Do	Don't
Follow logical sequencing: Demographics → Symptoms → History → Examination → Results.	Avoid using "None of the above" or "All of the above" as options.
Include all necessary details in the vignette to eliminate ambiguity.	Avoid excessive focus on rare or trivial conditions.
• **Write in an active voice where possible.** • **Keep grammar and style consistent.** • **Ensure only one genuinely correct solution based on the information provided.**	• Avoid clues in options (e.g., length mismatches, repeated terms from the stem). • Don't include irrelevant labs that only match one possible answer.
• **A content expert should review all items for technical flaws and alignment with educational goals.** • **Use homogenous formatting**	• Don't insert extraneous details that do not serve to differentiate between distractors • avoid technical flaws like grammatical mismatches.

6. Suggested Vignette-Writing Template

Below is a step-by-step outline you can follow to construct a clear, high-quality SBA vignette:

A. Demographics & Context

    1. **Patient Age & Sex**
       o e.g., "A 35-year-old woman…" "A 50-year-old man…"

2. **Setting**
   - o Outpatient clinic, ER, hospital ward, etc.
   - o e.g., "…presents to the emergency department with..."

B. Chief Complaint & Duration

1. **Main Symptom**
   - o e.g., "...complaining of chest pain for the past 2 hours."
2. **Pertinent Timeline**
   - o Onset, progression, severity, frequency.
   - o e.g., "The pain started suddenly and has been worsening."

C. Relevant History

1. **Medical History**
   - o Chronic illnesses, recent hospitalizations, surgeries.
2. **Medications & Allergies**
   - o Current medications and relevant allergies.
3. **Social History & Lifestyle**
   - o Smoking, alcohol, drug use, occupation, or other lifestyle factors, if relevant.
   - o E.g., He has a 15-year history of hypertension and smokes 1 pack per day."
4. **Family History**
   - o If it's pertinent to the likely differential (e.g., hereditary conditions).

D. Physical Examination

1. **Vital Signs,** e.g., "Blood pressure 160/95 mm Hg, pulse 98/min, RR 18/min, temperature 37.2°C."
2. **Focused Physical Findings**
   - o Relevant positives and negatives (e.g., heart/lung sounds, focal deficits, edema, etc.).

E. Diagnostic Results (if applicable)

1. **Labs & Imaging**
   - o Provide critical or discriminative findings (CBC, BMP, ECG, X-ray, etc.).
   - o Include only results that help differentiate among potential answers.

F. Transition / Conclusion Sentence

- Summarize or highlight the key clinical question:
- e.g., "Given these findings, what is the most likely diagnosis?" or "Which of the following is the best next step in management?"

7. Formulating the (Lead-In) Question

- Use a **single, clearly stated** question:

- o "What is the most likely diagnosis?"
  - o "Which of the following is the best initial step in management?"
  - o "What is the most appropriate next step in diagnosis?"
- Ensure the test-taker knows exactly what you are asking. Avoid vague or multi-step questions.

8. Constructing the Answer Choices

A. Correct Answer

- Must be unquestionably correct based on standard guidelines/practices.
- Align with the vignette details (i.e., the correct answer is supported by the information given).

B. Distractors

- Should be plausible to someone with partial knowledge.
- Reflect common clinical mistakes, alternate diagnoses, or treatments that are close but not correct for this specific scenario.
- Avoid absurd or trivial distractors—if it's wrong, it doesn't help differentiate test-taker knowledge.

C. Number of Options

- Typically, 4 (A–D)

D. Language & Style

- Keep answer choices parallel in construction (e.g., all are treatments or diagnoses).
- Use standard medical terminology.
- Avoid double negatives or confusing language.

9. Common Criteria

- **Vignette Length**: 70–150 words are usually sufficient (depending on the complexity).
- **No "Teaching Clues"**: Avoid giving away the answer with very obviously leading statements or extraneous lab results that only match one condition.
- **Consistency with Guidelines**: Management answers should align with recognized guidelines (e.g., AHA, WHO, NICE, etc.), and the question should reflect up-to-date medical standards.
- **Level-Appropriate**: The difficulty and scope should match the target candidate population (medical students, post-graduates, specialty boards).
- **Language & Format**:
  - o Use standard medical nomenclature and SI units (where applicable).
  - o If acronyms are used, define them unless they are universally recognized (e.g., ECG or MRI).

- **Avoid Trick Questions**: The aim is to assess knowledge/clinical reasoning, not to mislead or confuse.

10. Final Tips for Item Writing

1. **Keep it Realistic**
   a. Reflect common presentations or important conditions.
   b. Use plausible, standard lab values and clinical details.
2. **Ensure One Best Answer**
   a. The question should be written so that only one option fits best.
   b. If more than one answer feels correct, refine the vignette or question to make the best answer stand out.
3. **Review & Peer Check**
   a. Ask colleagues to review for clarity, correctness, and level-appropriateness.
   b. Cross-check with guidelines and reputable references.
4. **Use Current Standards**
   a. Management or diagnosis questions should conform to widely accepted guidelines or consensus.
   b. NBME questions are updated regularly to reflect current practice.
5. **Reference**: Align answer rationales with authoritative textbooks, guidelines, or reputable medical literature so it's defensible and consistent.

11. Example of Questions

11.1 Category: Clinical Knowledge (Management)

Vignette/Stem:
A 64-year-old man with a 25-year history of type 2 diabetes mellitus presents to the emergency department with severe, sudden-onset pain in his left calf. He describes the pain as sharp and worsening over the past 2 hours. On examination, the left calf is pale and cool to the touch, and peripheral pulses are diminished compared to the right leg. He has a history of peripheral arterial disease and is a current smoker with a 40-pack-year history. Laboratory studies show no significant changes in complete blood count or coagulation profile.

Lead-In Question:

What is the most appropriate next step in management?

Answer Options (One Best Answer):
A. Administer intravenous heparin
B. Order a venous Doppler ultrasound
C. Obtain an arterial Doppler ultrasound (Ankle-Brachial Index)
D. Begin broad-spectrum antibiotics

Correct Answer:

C, obtaining an arterial Doppler ultrasound to evaluate for acute limb ischemia.

Rationale:

The distractors are plausible but not the best next step given the scenario.

11.2 Category: Clinical Knowledge

Vignette/Stem:
A 54-year-old woman comes to the clinic because of a 2-week history of progressively worsening shortness of breath and a nonproductive cough. She has a 30-year smoking history and quit 5 years ago. Physical examination shows bilateral basal crackles. A chest X-ray reveals diffuse reticular opacities, predominantly in the lower lung fields. Pulmonary function tests show a restrictive pattern. There is no evidence of heart failure on the echocardiogram.

Lead-In Question:
Which of the following is the most likely diagnosis?

Options:
A. Asthma
B. Chronic obstructive pulmonary disease (COPD)
C. Idiopathic pulmonary fibrosis
D. Pulmonary embolism

Correct Answer:

C. Idiopathic pulmonary fibrosis.

11.3 **Category:** Clinical Knowledge (e.g., Patient Management)

Vignette/Stem:
A 60-year-old woman is brought to the emergency department because of the sudden onset of left-sided weakness and difficulty speaking. She has a history of hypertension and atrial fibrillation but is noncompliant with her medications. On examination, she is alert but has expressive aphasia and right-sided facial droop. Her blood pressure is 180/110 mmHg, and her heart rate is irregular at 120/min. CT scan of the head reveals no intracranial hemorrhage.

Lead-In Question:
What is the most appropriate next step in the management of this patient?

Options:
A. Administer intravenous thrombolytics
B. Perform an emergent carotid endarterectomy
C. Start aspirin and clopidogrel therapy
D. Initiate long-term anticoagulation with warfarin

Correct Answer:
A. Administer intravenous thrombolytics

Rationale:
The patient presents with acute ischemic stroke symptoms, and thrombolysis is indicated after ruling out hemorrhage.