NBCE
NATIONAL BOARD OF CHIROPRACTIC EXAMINERS

ITEM WRITING GUIDELINES – NBCE

STEM: The stem is the initial portion of the item that asks the question.
DISTRACTOR: A distractor is an incorrect option in a multiple-choice question.
ITEM: One test question consisting of a stem, the correct answer, and three distractors.

The stem must be a complete sentence.

- The stem should be self-contained and present a definitive problem.
- To check the adequacy of the problem statement, cover the answer options and read the stem by itself; the stem should be clear enough to serve as a short answer item.

INCORRECT:
Tendons _____.

A. attach ligaments to muscle
B. attach ligaments to bone
C. attach muscles to bone
D. attach bone to bone

CORRECT:
The function of tendons is to attach _____ to _____.

A. ligaments; muscle
B. ligaments; bone
C. muscles; bone
D. bones; bone

Distractors must be parallel to the correct answer as to type, length, form and structure.

INCORRECT:
Emphysema is a disease process involving which of the following systems?

A. respiratory
B. brain
C. heart
D. kidney *Only the first choice is a system

CORRECT:
Emphysema is a disease process involving which of the following systems?

A. respiratory
B. nervous
C. cardiovascular
D. genitourinary

The correct answer and the distractors should be grammatically parallel.

Each distractor should be:

- plausible
- as attractive as the correct answer
- similar in content to the correct answer
- structurally and grammatically consistent with the stem
- have comparable length, vocabulary, and complexity of thought

Avoid negative stems when possible.
"Which of these is not..." types of stems should be avoided unless it is important to know that the correct response is an important exception.

(Negatively phrased items should be reserved for areas in which wrong information or the wrong procedure could have significant consequences).

Don't refer to the examinee as "you," and don't use two sentences if you can use only one satisfactorily.

INCORRECT: A patient presents to you with neck injuries sustained in an automobile accident. You x-ray him and discover...

CORRECT: Radiographs of a patient with neck injuries sustained in an automobile accident reveal...

Be aware that the stem may allow for more than one correct answer.
During heat exhaustion, the body's core temperature is commonly over _____ degrees Fahrenheit.

A.100
B.102
C.104
D.106

*The intended correct answer is A, but the way the question is worded, B, C and D are also correct.

Avoid answers that overlap.
The normal heart rate is approximately _____ beats per minute.

A.50-70
B.55-65
C.60-80
D.65-85

*Choice B is wholly contained in A.
*Choices C and D both contain the range of 65-80.

Additional guidelines:

- Be certain that the distractors are clearly wrong and that the answer key is clearly the best choice.
- Do not include choices such as "none of the above," "all of the above," or "two of the above."
- Do not write true/false questions.
- Avoid questions that begin with "Which of the following is true about...," or "Which of the following is correct concerning...."
- Stay with commonly known concepts; avoid obscure information, single author opinions, and recent journal information.
- Make certain that every item is referenced from NBCE's Textbook Reference List (see attached).

Part III Chiropractic Technique Questions
Item writers are advised to write items in chiropractic technique with the understanding that examinees from all chiropractic schools will be taking this examination; therefore, please ensure that these items address generally accepted techniques/methods. Subluxations are described on NBCE tests using three methods. The NBCE uses static Medicare vertebral body references, other static vertebral and extremity landmark references, and dynamic motion descriptions. In most cases, we provide both a static and dynamic description of the subluxations.

These methods are described in Bergman and Peterson's *Chiropractic Technique: Principles and Procedures*, 3rd edition.

1. Medicare or vertebral body reference uses terms such as flexion malposition, right lateral flexion malposition, left rotational malposition and retrolisthesis.
2. Static vertebral and extremity landmarks include examples such as the positioning of the spinous process, transverse process, humeral head or the sacral base. Positioning may be described as right rotated spinous, superior transverse process, anterior humeral head or posterior sacral base.
3. Dynamic motion is described as restrictions in joint movement. Examples of motion restriction include extension restriction, right lateral flexion restriction, and left rotation restriction.

Adjusting techniques are described using the following terms: patient position, doctor position, doctor's contact hand, doctor's supportive or indifferent hand, vertebral or other anatomical contact point, line of drive, and type of thrust.

Which of these (segmental contact points/contact hand points/lines of drive/doctor position) is most appropriate for correction of a (static and motion description) of (vertebral level or extremity location).

1. Which of these typically occurs as the right innominate moves posteriorly?
    A. The L5 spinous process rotates to the left.
    B. The L5 spinous process moves anteriorly.
    C. The left L5 transverse process moves posteriorly.
    D. The body of L5 rotates to the left.

    Ref: Bergman and Peterson, *Chiropractic Technique: Principles and Procedures,* 3rd ed., p. 267

2. A palpatory finding of increased interspinous space indicates a/an _____ of the superior vertebra.
    A. extension malposition
    B. flexion malposition
    C. anterolisthesis
    D. retrolisthesis

    Ref. Bergman and Peterson, *Chiropractic Technique: Principles and Procedures*, 3rd ed., p. 48

3. Which of these is the correct contact point when using a supine cervical push to adjust a C4 vertebral body left rotation, spinous process right with a right rotation restriction?
    A. spinous on the left
    B. spinous on the right
    C. right lamina-pedicle junction
    D. left lamina-pedicle junction

    Ref. Bergman and Peterson, *Chiropractic Technique: Principles and Procedures*, 3rd ed., p. 183

NBCE Writing Guide for Part III Case Study

Part III cases are constructed by providing both subjective complaints and objective findings. Not all sub-categories of subjective and objective possibilities are provided in patient information. We supply enough information for the examinee to arrive at the correct diagnosis without making it obvious and without including many unnecessary distractions.

Each Part III case has one multiple choice question from the case study list (see below). Each question has three incorrect answers and two correct answers. Although there are thirteen (13) categories of subjective findings and nine (9) types of objective findings, not every category will contain information for every case.

All information necessary to correctly answer the case questions must be included, but excessive information unrelated to the case should be limited.

Part III Case Template

Gender:	Age:	Height:	Weight:
Pulse:	Resp:	Left BP:	Temp:

Subjective Findings:

Chief Complaint:
Quality of Pain:
Aggravating Factors:
Radiation:
Past Medical History:
Social History:
Other Information:

Onset:
Severity of Pain:
Relieving Factors:
Associated Symptoms:
Medication Use:
Family History:

Objective Findings:

Inspection/Appearance:
Physical Exam Findings:
Active Range of Motion:
Neurological Testing:
Imaging Studies:

Posture/Gait:
Palpatory Findings:
Orthopedic Testing:
Laboratory Studies:

The following is a list of commonly used categories for choosing Part III case study questions.

- Clinical Impression or Diagnosis
- Initial Case Management
- Additional Lab Tests or Imaging needed
- Additional Clinical findings expected
- Complications or Sequelae expected
- Additional Ortho/Neuro tests needed or positive
- Outcome assessments or disability findings
- Red Flags for additional assessment or referral
- Risk factors or causes for this condition
- Radiology findings and/or impressions
- Long-term case management
- Home instructions/work ergonomics
- Passive modalities
- Active rehab exercises