

The 2006 AP[®] Human Geography Released Exam

Contains:

- Multiple-Choice Questions, Answer Key, and Diagnostic Guide
- Free-Response Questions with:
 - Scoring Guidelines
 - Sample Student Responses
 - Scoring Commentary
- Statistical Information About Student Performance on the 2006 Exam

Materials included in this Released Exam may not reflect the current AP Course Description and exam in this subject, and teachers are advised to take this into account as they use these materials to support their instruction of students. For up-to-date information about this AP course and exam, please download **the official AP Course Description from the AP Central[®] Web site at apcentral.collegeboard.com.**

Chapter I: The AP[®] Process

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This chapter will give you a brief overview of the development and scoring processes for the AP Human Geography Exam. You can find more detailed information at AP Central[®] (apcentral.collegeboard.com).

What Is the Purpose of the AP Human Geography Exam?

The AP Human Geography Exam is designed to allow students to demonstrate knowledge, understanding, and skills equivalent to those gained by students who have successfully completed a college-level introductory course in human geography. The multiple-choice section of the exam is designed to assess the student's ability to understand basic concepts in human geography and to answer questions based on the topics presented in the course description. The free-response section assesses the student's knowledge of selected topics from the course description. In this section, students must write essays that demonstrate their ability to support their analysis of a topic. Qualifying grades on the AP Human Geography Exam can allow students to begin their college careers with credit for an introductory human geography course.

Who Develops the Exams?

The AP Human Geography Development Committee, working with content experts at ETS, develops the exam. This committee is appointed by the College Board and is composed of seven faculty members from secondary schools, colleges, and universities in the United States. The members provide different perspectives: high school teachers offer valuable advice regarding realistic expectations when matters of content coverage, skills required, and clarity of phrasing are addressed. College and university faculty members ensure that the questions are at the appropriate level of difficulty for students planning to continue their studies at colleges and universities. Committee members typically serve for one to four years.

The Chief Reader also aids in the development process. The Chief Reader attends every committee meeting to ensure that the free-response questions selected for the exam can be scored reliably. The expertise of the Chief Reader and the committee members who have scored exams in past years is notable: they bring to bear their valuable experience from past AP Readings and suggest changes to improve the quality and the performance of the questions.

How Is the Exam Developed?

The Development Committee sets the exam specifications, determining what will be tested and how it will be tested. It also determines the appropriate level of difficulty for the exam, based on its understanding of the level of competence required for studying human geography at an introductory level in colleges and universities. Each AP Human Geography Exam is the result of several stages of development that together span two or more years.

Section I—Multiple Choice

1. Development Committee members and outside item writers write and submit multiple-choice questions directed to the major areas outlined in the *AP Human Geography Course Description*.
2. ETS content experts perform preliminary reviews to ensure that the multiple-choice questions are worded clearly and concisely.
3. At the committee meetings, which are held two times a year, the committee members review, revise, and approve the draft questions for use on future exams. They ensure that the questions are clear and unambiguous, that each

question has only one correct answer, and that the difficulty level of the questions is appropriate.

4. From the pool of approved questions, ETS content experts select an appropriate mix of materials for the multiple-choice section of an exam, making sure that the questions are distributed across the content areas as specified by the Development Committee in the *AP Human Geography Course Description*.
5. The committee thoroughly reviews the draft exam in various stages of its development, revising the individual questions and the mix of questions until it is satisfied with the result.

The Development Committee controls the difficulty level of the multiple-choice section by selecting a wide range of questions, a subset of which has been used in an earlier form of the exam.

Section II—Free Response

1. Well in advance of the exam administration, the members of the Development Committee write free-response questions for the exam. These are assembled into a free-response question pool.
2. From this pool, the committee selects an appropriate combination of questions for a particular exam. It reviews and revises these questions at all stages of the development of that exam to ensure that they are of the highest possible quality. The committee considers, for example, whether the questions will offer an appropriate level of difficulty and whether they will elicit answers that allow Readers to discriminate among the responses along the scoring guidelines used for the different questions. An ideal question enables the stronger students to demonstrate their accomplishments while revealing the limitations of less proficient students.

Question Types

The 2006 AP Human Geography Exam contains a 60-minute multiple-choice section consisting of 75 questions and a 75-minute free-response section consisting of 3 questions. The multiple-choice section includes questions that reflect the distribution of the seven topics found in the Topic Outline of the Course Description: *Geography: Its Nature and Perspectives*, *Population*, *Cultural Patterns and Processes*, *Political Organization of Space*, *Agricultural and Rural Land Use*, *Industrialization and Economic Development*, and *Cities and Urban Land Use*. The free-response section consists of three questions that require students to analyze and evaluate geographic concepts. Generally, at least one of the questions requires students to

interrelate different topical areas. The two sections are designed to complement each other and to meet the overall course objectives and exam specifications.

Multiple-choice questions are useful for measuring a student's level of competence in a variety of contexts. In addition, they have three other strengths:

1. They are highly reliable. Reliability, or the likelihood that students of similar ability levels taking a different form of the exam will receive the same scores, is controlled more effectively with multiple-choice questions than with free-response questions.
2. They allow the Development Committee to include a selection of questions at various levels of difficulty, thereby ensuring that the measurement of differences in students' achievement is optimized. For AP Exams, the most important distinctions are between students earning the grades of 2 and 3 and grades of 3 and 4. These distinctions are usually best accomplished by using many questions of middle difficulty.
3. They allow comparison of the ability level of current students with those from another year. A number of questions from an earlier exam are included in the current one, allowing comparisons to be made between the scores of the earlier group of students and those of the current group. This information, along with other data, is used by the Chief Reader to establish AP grades that reflect the competence demanded by the Advanced Placement Program® and that can be legitimately compared with grades from earlier years.

Free-response questions on the AP Human Geography Exam require students to use their knowledge of human geography and analytical and organizational skills to formulate cogent answers. They also allow students to:

1. demonstrate their ability to write a well-informed essay;
2. present novel responses, which nevertheless can be supported by cogent argument; and
3. demonstrate their mastery of human geography.

Scoring the Exams

Who Scores the AP Human Geography Exam?

The multiple-choice answer sheets are machine scored. The teachers who score the free-response section of the AP Human Geography Exam are known as "Readers." The majority of these Readers are experienced faculty members who teach either an AP Human Geography course in a high school or an equivalent course at a college or university. Great care is taken to obtain a broad and balanced group of Readers. Among the factors considered before appointing

someone to the role are school locale and setting (urban, rural, and so on), gender, ethnicity, and years of teaching experience. University and high school human geography teachers who are interested in applying to be a Reader at a future AP Reading can complete and submit an online application via AP Central (apcentral.collegeboard.com/readers) or request more information by e-mailing apreader@ets.org.

In June 2006, 121 human geography teachers and professors gathered at Clemson University in Clemson, South Carolina, to participate in the scoring session for the AP Human Geography Exam. Some of the most experienced members of this group were invited to serve as Exam Leader, Question Leaders, and Table Leaders, and they arrived at the Reading early to help prepare for the scoring session. The remaining Readers were divided into groups, with each group advised and supervised by a Table Leader. Under the guidance of the Chief Reader, the Exam Leader and the three Question Leaders assisted in establishing scoring guidelines, selecting sample student responses that exemplified the guidelines, and preparing for Reader training. The Readers evaluated all of the responses to the three free-response questions on the 2006 AP Human Geography Exam at this single, central scoring session under the supervision of the Chief Reader.

Ensuring Accuracy

The primary goal of the scoring process is to have all Readers score their sets of essays fairly, consistently, and with the same guidelines as the other Readers. This goal is achieved through the creation of detailed scoring guidelines, the thorough training of all Readers, and the various checks and balances that are applied throughout the AP Reading.

How the Scoring Guidelines Are Created

1. As the questions are being developed and reviewed before the Reading, the Development Committee and the Chief Reader discuss the scoring of the free-response questions to ensure that the questions can be scored validly and reliably.
2. During the pre-Reading period, several important tasks are completed. The Chief Reader assigns the Question Leaders the task of producing draft scoring guidelines for the questions assigned to them. Then, the Chief Reader and the Question Leaders review these scoring guidelines and test them by applying them to actual student responses. The guidelines are then revised and adjusted, if necessary, to reflect not only the committee's original intent but also the full range of actual responses that will be encountered by the Readers. Once the

scoring guidelines are set, the Question Leaders train the Table Leaders to follow the guidelines developed during the pre-Reading period. Table Leaders apply the scoring guidelines to a sample of actual student responses, and small adjustments are made if necessary. Table Leaders then train the Readers, using the sample sets of student responses selected during the pre-Reading period.

3. Once the scoring of student responses begins, no changes or modifications in the guidelines are made. Given the expertise of the Chief Reader and the analysis of many student responses by Question Leaders and Table Leaders in the pre-Reading period, these guidelines can be used to cover the whole range of student responses. Each Question Leader and Table Leader devotes a great deal of time and effort during the first day of the Reading to teaching the scoring guidelines for that particular question and to ensuring that everyone evaluating responses for that question understands the scoring guidelines and can apply them reliably.

Training Readers to Apply the Scoring Guidelines

Because Reader training is so vital in ensuring that students receive an AP grade that accurately reflects their performance, the process for Reader training is thorough. The following is an outline of the process:

1. On the first day of the Reading, the Chief Reader provides an overview of the exam and the scoring process to the entire group of Readers. The Readers then break into three groups, with each group working on a particular question for which it receives specific information from the Question Leader. The Readers then break into groups of five to seven, with each of these smaller groups working with a specific Table Leader.
2. Each Table Leader directs a discussion of the assigned question, commenting on the question requirements and student performance expectations. The scoring guidelines for the question are explained and discussed.
3. The Readers are trained to apply the scoring guidelines by reading and evaluating samples of student responses that were selected at the pre-Reading session as clear examples of the various score points and the kinds of responses Readers are likely to encounter. Table Leaders explain why the responses received particular scores.
4. When the Table Leader is convinced the Readers understand the scoring guidelines and can apply them uniformly, the scoring of student responses begins. Readers begin by reading in teams of two. Each team member scores a set of papers and then exchanges the

papers for a second reading. Scores and differences in judgment are discussed until agreement is reached, with the Table Leaders or the Question Leaders acting as arbitrators when needed.

5. After a team shows consistent agreement on its scores, its members proceed to score papers individually. Readers are encouraged to seek advice from each other, the Table Leaders, the Question Leaders, the Exam Leader, or the Chief Reader when in doubt about a score. A student response that is problematic receives multiple readings and evaluations.
6. Throughout the course of the Reading, Readers discuss with their Table Leader any student response that seems problematic or inappropriate.

Maintaining the Scoring Guidelines

Throughout the Reading, the Table Leaders continue to reinforce the use of the scoring guidelines by asking their groups to review sample responses that they have already discussed as clear examples of particular scores, or to score new samples and discuss their scores with them. This procedure helps the Readers adhere to the standards of the group and helps to ensure that a student response will get the same score whether it is evaluated at the beginning, middle, or end of the Reading.

A potential problem is that a Reader could unintentionally score a student response higher or lower than it deserves because that same student performed well or poorly on other questions. The following steps are taken to prevent this so-called halo effect:

- A different Reader scores each question and the student's identity is unknown to the Reader. Thus, each Reader can evaluate student responses without being prejudiced by knowledge about individual students.
- No marks of any kind are made on the students' papers. The Readers record the scores on a form that is identified only by the student's AP number. Readers are unable to see the scores that have been given to other responses in the exam booklet.

Other methods help ensure that everyone is adhering closely to the scoring guidelines.

- Table Leaders backread (reread) a portion of the student papers from each of the Readers in that Leader's group. This approach allows Leaders to guide their Readers toward appropriate and consistent interpretations of the scoring guidelines.
- Readers are paired, so that every Reader has a partner to check for consistency and to discuss problem cases with; Table Leaders are also paired up to help each other.

- Question Leaders backread a selection of student papers from each of the tables for that Leader's assigned question. This approach allows Question Leaders to evaluate the consistency of all the Table Leaders and the Readers for their question.
- These methods are cross-checked using the Reading Management System (RMS) that allows the Exam Leader and the Chief Reader to keep a statistical check on reader progress and reliability. Problems in the process can be quickly identified, and remedial measures are taken by the Table Leaders.

Preparing Students for the Exam

The AP Human Geography course is designed to be comparable to a typical one-semester introductory human geography course taught in a college or university geography or social sciences department. The most important part of the course is to be sure that the material put forth in the course outline is covered in the classroom. There are a number of other preparation tips that can help students as they do the classwork, learn the material, and prepare for the exam. The following is a summary of suggestions that reflect the wisdom and experience of AP Human Geography teachers who have experience in teaching the course, and participating in the Readings, scoring the essay section of the exam using specifically developed scoring guidelines. Some of the comments refer to the course and course material while others address more general points of preparation.

- Students should have the opportunity to become familiar with the types of questions found in the multiple-choice sections of the 2001 and 2006 AP Human Geography Released Exams. Students may be asked to answer these questions in preparation for the multiple-choice section of the exam. It may also be helpful to ask them to write their own multiple-choice questions.
- Focus on the course outline and consult a wide variety of related materials in class preparation to ensure comprehensive coverage.
- Stress interconnections across different sections of the course outline. Understanding the concepts from different sections of the course outline will provide students with more confidence as they read and respond to the multiple-choice questions, and will provide the knowledge to structure more complete essays in the free-response section of the exam.
- Stress the use of geographic terminology when discussing geographic concepts.

- Encourage the use of specific examples to illustrate points.
 - To prepare for the free-response section of the exam, students need frequent practice in writing 20-minute essays in a clear and concise manner. Although most of the writing they do in the AP Human Geography course provides students with opportunities to engage in reevaluation and revision of their work, they also need to develop the ability to write competently under timed conditions.
 - The primary skill remains a competent mastery of the human geography subject matter. Merely providing a laundry list of “facts” does not improve an essay and is not sufficient to achieve a good score on the exam. Students should not draw upon examples without explaining their possible effects. In addition, students should bear in mind that the length of an essay cannot substitute for the quality of the observations made.
 - Encourage students to use 5 minutes per question to outline their responses in a manner consistent with the structure of the question. They then can use 20 minutes to write out their response.
 - Teach students to carefully read the questions in both the multiple-choice section and the free-response section. Occasionally, EXCEPT questions are found in the multiple-choice section for which the student is expected to select the “wrong” choice. In the free-response section, students should use the structure of the question to guide their responses. If the question is structured with different parts (i.e., Parts A, B, and C), students should answer each part, labeling the sections A, B, and C. Instruct students to pay close attention to key prompts (“define,” “briefly discuss three changes,” etc.).
 - Use resources on the AP Central Web site (apcentral.collegeboard.com) to access contemporary teaching materials, case studies, teaching tips, and past exam questions. The “listserve” (AP Human Geography Electronic Discussion Group [EDG]) is also used as an active forum by college and high school faculty for the exchange of ideas about teaching the course.
- Students who succeed on the AP Human Geography Exam have mastered a difficult subject and a demanding course. They have developed skills that allow them to accurately write an essay, to analyze, and to support their analysis by appropriate examples. They provide evidence of highly developed verbal and analytical skills that will serve them well, no matter what direction their future paths may take.

Chapter II: The 2006 AP Human Geography Exam

- Exam Content and Format
- Giving a Practice Exam
- Instructions for Administering the Exam
- Blank Answer Sheet
- The Exam

Exam Content and Format

The 2006 AP Human Geography Exam is two hours and fifteen minutes in length. There are two sections:

- A 60-minute multiple-choice section consisting of 75 questions accounting for 50 percent of the final grade.
- A 75-minute free-response section consisting of 3 questions accounting for 50 percent of the final grade.

2006 AP Human Geography Exam Format	
Multiple Choice (Section I)	
75 questions	60 minutes
Free Response (Section II)	
3 questions	75 minutes

Giving a Practice Exam

The following pages contain the instructions as they appeared in the 2006 *AP Examination Instructions* for administering the AP Human Geography Exam. Following these instructions are a blank 2006 answer sheet and the 2006 AP Human Geography Exam. If you plan to use this released exam to test your students, you may wish to use these instructions to create an exam situation that closely resembles an actual administration. If so, read only the indented, boldface directions to the students; all other instructions are for the person administering the exam and need not be read aloud. Some instructions, such as those referring to the date, the time, and page numbers, are no longer relevant and should be ignored.

Another publication you might find useful is the *Packet of 10*—ten copies of the 2006 AP Human Geography Exam with blank answer sheets. For ordering information, see the Appendix.

Instructions for Administering the Exam

(from the 2006 *AP Examination Instructions* booklet)

- Do not begin the exam instructions below until you have completed the appropriate
- General Instructions for your group.

This exam includes survey questions. The time allowed for the survey questions is in addition to the actual test-taking time. Make sure you begin the exam at the designated time. When you have completed the General Instructions, say:

It is Monday afternoon, May 1, and you will be taking the AP Human Geography Exam. In a moment, you will open the packet that contains your exam materials. By opening this packet, you agree to all of the AP Program's policies and procedures outlined in the 2005-06 *Bulletin for AP Students and Parents*. You may now open your exam packet and take out the Section I booklet, but do not open the booklet or the sealed Section II materials. Put the white seals aside. Read the statements on the front cover of Section I and look up when you have finished. . . .

Now sign your name and write today's date. Look up when you have finished. . . .

Now this is important. If you have never taken an AP Exam, print your full legal name. If you have taken an AP Exam in the past, print your name as listed on your AP Grade Report so that you will not generate multiple grade reports. Are there any questions? . . .

Answer any questions. Then say:

Read the directions on the back cover. Look up when you have finished. . . .

Are there any questions? . . .

Answer any questions. Then say:

Section I is the multiple-choice portion of the exam. You may never discuss these specific multiple-choice questions at any time with anyone, including your teacher and other students. If you disclose these questions through any means, your AP Exam grade will be canceled. Are there any questions? . . .

Answer any questions. Then say:

You must complete the answer sheet using a No. 2 pencil only. Mark all of your responses on your answer sheet, one response per question. Completely fill in the ovals. There are more answer ovals on the answer sheet than there are questions, so you will have unused ovals when you reach the end. Your answer sheet will be scored by machine; any stray marks or smudges could be read as answers. If you need to erase, do so carefully and completely. No credit will be given for anything written in the exam booklet. Scratch paper is not allowed, but you may use the margins or any blank space in the exam booklet for scratch work. Are there any questions? . . .

Answer all questions regarding procedure. Then say:

You have 1 hour for this section. Open your Section I booklet and begin.



Note Start Time here _____. Note Stop Time here _____. You and your proctors should make sure students are marking their answers in pencil on their answer sheets, and that they are not looking at their sealed Section II booklets. After 1 hour, say:

Stop working and turn to page 14. You have 3 minutes to answer questions 76–87. These are survey questions and will not affect your grade. You may not go back to work on any of the exam questions. . . .

Give students approximately 3 minutes to answer the survey questions. Then say:

Close your booklet and put your answer sheet on your desk, face up, with the fold to your left. I will now collect your answer sheet.

After you have collected an answer sheet from each student, say:

Take your seals and press one on each area of your exam booklet marked "PLACE SEAL HERE." Fold them over the open edges and press them to the back cover. When you have finished, place the booklet on your desk with the cover face up and the fold to your left. . . .

I will now collect your Section I booklet.

As you collect the sealed Section I booklets, check to be sure that each student has signed the front cover. There is a 10-minute break between Sections I and II. When all Section I materials have been collected and accounted for and you are ready for the break, say:

Please listen carefully to these instructions before we take a break. Everything you placed under your chair at the beginning of the exam must remain there. You are not allowed to consult teachers, other students, or textbooks about the exam materials during the break. You may not make phone calls, send text messages, check e-mail, or access a computer or any handheld electronic device, such as a PDA or a calculator. Remember, you are not allowed to discuss the multiple-choice section of this exam with anyone at any time. Failure to adhere to any of these rules could result in invalidation of your grade. Please leave your sealed Section II package on top of your desk during the break. You may get up, talk, go to the restroom, or get a drink. Are there any questions? . . .

Answer all questions regarding procedure. Then say:



Let's begin our break. Testing will resume at _____.

After the break, say:

May I have everyone's attention? Place your Student Pack on your desk. . . .

You may now open the sealed Section II package. . . .

Read the bulleted statements on the front cover of the pink booklet. Look up when you have finished. . . .

Now place an AP number label on the shaded box. If you don't place an AP number label on this box, you risk the loss of your free-response booklet. If you don't have any more AP number labels, write your AP number in the box. Look up when you have finished. . . .

Read the last statement. . . .

Printing the first, middle, and last initials of your legal name in the boxes constitutes your signature and your agreement to the conditions stated on the front cover. Using a pen with black or dark blue ink, print your initials and today's date, agreeing to these conditions. . . .

Turn to the back cover and read Item 1 under "Important Identification Information." Print your identification information in the boxes. Note that you must print the first two letters of your LAST name and the first letter of your FIRST name. Look up when you have finished. . . .

In Item 2, print your date of birth in the boxes. . . .

Read Item 3 and copy the school code you printed on the front of your Student Pack into the boxes. . . .

Read Item 4. . . .

Are there any questions? . . .

Answer all questions regarding procedure. Then say:

I need to collect the Student Pack from anyone who will be taking another AP Exam. If you are taking another AP Exam, put your Student Pack on your desk. You may keep it only if you are not taking any more AP Exams this year. If you have no more AP Exams to take, place your Student Pack under your chair now. . . .

While Student Packs are being collected, read the directions for Section II on the back cover of the pink booklet. Do not open the booklet until you are told to do so. Look up when you have finished. . . .

Collect the Student Packs. Then say:

Are there any questions? . . .

Answer all questions regarding procedure. Then say:

Now open the Section II booklet and tear out the green insert that is in the center of the booklet. In the upper left-hand corner of the cover, print your name, teacher, and school. . . .

Read the directions on the front cover of the green insert. Look up when you have finished. . . .

You have 1 hour and 15 minutes to complete Section II. You are responsible for pacing yourself, and you may proceed freely from one question to the next. You can make notes in the green insert, but you MUST write your answers in the pink booklet using a pen with black or dark blue ink. Are there any questions? . . .

Answer any questions. Then say:

You may begin.



Note Start Time here _____. Note Stop Time here _____. You and your proctors should make sure students are using pens with black or dark blue ink and that they are writing their answers in their pink Section II booklets, not in their green inserts. After 1 hour and 5 minutes, say:

There are 10 minutes remaining.

After 10 minutes, say:

Stop working and close your exam booklet and green insert. Put your pink booklet on your desk, face up, with the fold to your left. Put your green insert next to it. Remain in your seat, without talking, while the exam materials are collected. . . .

Collect a pink Section II booklet and a green insert from every student. Check the front cover of each pink booklet to ensure that the student has placed an AP number label on the shaded box and printed his or her initials and today's date. Check that the student has completed the "Important Identification Information" area on the back cover, and that answers have been written in the pink booklet and not in the green insert. The green inserts must be stored securely for no fewer than two school days. After the two-day holding time, the green inserts may be given to the appropriate AP teacher(s) for return to the students. When all exam materials have been collected and accounted for, say:

Your teacher will return your green insert to you in about two days. You may not discuss the free-response questions with anyone until that time. Remember that the multiple-choice questions may never be discussed or shared in any way at any time. You should receive your grade report in the mail about the third week of July. You are now dismissed.

Exam materials should be put in locked storage until they are returned to the AP Program after your school's last administration. Before storing materials, check your list of students who are eligible for fee reductions and fill in the appropriate oval on their registration answer sheets. To receive a separate *AP Instructional Planning Report* or student grade roster for each AP class taught, fill in the appropriate oval in the "School Use Only" section of the answer sheet. See "Post-Exam Activities" in the 2006 *AP Coordinator's Manual*.

To maintain the security of the exam and the validity of my AP grade, I will allow no one else to see the multiple-choice questions. I will seal the multiple-choice booklet when asked to do so, and I will not discuss these questions with anyone at any time after the completion of the section. I am aware of and agree to the Program's policies and procedures as outlined in the 2005-06 Bulletin for AP Students and Parents - including using extended time only if I have been preapproved by College Board Services for Students with Disabilities.

PLACE AN AP NUMBER LABEL OR WRITE YOUR AP NUMBER HERE AT EVERY EXAMINATION.



B123456789T

A. SIGNATURE

B. LEGAL NAME

Legal Last Name - first 15 letters, Legal First Name - first 12 letters, MI

C. YOUR AP NUMBER

Grid for AP numbers

D. ADMIN. DAY IN MAY

Grid for admin day

E. TIME OF DAY

Grid for time of day

F. AP EXAM I AM TAKING USING THIS ANSWER SHEET

Grid for AP exam selection with list of subjects

STUDENT INFORMATION AREA - COMPLETE THIS AREA ONLY ONCE.

I. SEX, J. CURRENT GRADE LEVEL, K. DATE OF BIRTH, L. SOCIAL SECURITY NUMBER

M. ETHNICITY/RACE, N. EXPECTED DATE OF COLLEGE ENTRANCE

O. WHAT LANGUAGE DO YOU KNOW BEST?, P. Complete ONLY if you are a SOPHOMORE or a JUNIOR.

Q. PARENTAL EDUCATION LEVEL, R. PARENTAL OCCUPATION

SCHOOL USE ONLY, Instructional Planning Report/Student Grade Roster

00003 • 00657 • TF 65E2300 Q3069/06-09 MH05236



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R. This section is for the survey questions in the AP Student Pack. (Do not put responses to exam questions in this section.) Be sure each mark is dark and completely fills the oval.

- | | | |
|-------------------------------|-------------------------------|-------------------------------|
| 1 (A) (B) (C) (D) (E) (F) (G) | 4 (A) (B) (C) (D) (E) (F) (G) | 7 (A) (B) (C) (D) (E) (F) (G) |
| 2 (A) (B) (C) (D) (E) (F) (G) | 5 (A) (B) (C) (D) (E) (F) (G) | 8 (A) (B) (C) (D) (E) (F) (G) |
| 3 (A) (B) (C) (D) (E) (F) (G) | 6 (A) (B) (C) (D) (E) (F) (G) | 9 (A) (B) (C) (D) (E) (F) (G) |

Do not complete this section unless instructed to do so.

S. If this answer sheet is for the French Language, French Literature, German Language, Italian Language and Culture, Spanish Language, or Spanish Literature Examination, please answer the following questions. (Your responses will not affect your grade.)

1. Have you lived or studied for one month or more in a country where the language of the exam you are now taking is spoken? Yes No
2. Do you regularly speak or hear the language at home? Yes No

Indicate your answers to the exam questions in this section. If a question has only four answer options, do not mark option E. Your answer sheet will be scored by machine. Use only No. 2 pencils to mark your answers on pages 2 and 3 (one response per question). After you have determined your response, be sure to completely fill in the oval corresponding to the number of the question you are answering. Stray marks and smudges could be read as answers, so erase carefully and completely. Any improper gridding may affect your grade.

- | | | |
|------------------------|------------------------|------------------------|
| 1 (A) (B) (C) (D) (E) | 26 (A) (B) (C) (D) (E) | 51 (A) (B) (C) (D) (E) |
| 2 (A) (B) (C) (D) (E) | 27 (A) (B) (C) (D) (E) | 52 (A) (B) (C) (D) (E) |
| 3 (A) (B) (C) (D) (E) | 28 (A) (B) (C) (D) (E) | 53 (A) (B) (C) (D) (E) |
| 4 (A) (B) (C) (D) (E) | 29 (A) (B) (C) (D) (E) | 54 (A) (B) (C) (D) (E) |
| 5 (A) (B) (C) (D) (E) | 30 (A) (B) (C) (D) (E) | 55 (A) (B) (C) (D) (E) |
| 6 (A) (B) (C) (D) (E) | 31 (A) (B) (C) (D) (E) | 56 (A) (B) (C) (D) (E) |
| 7 (A) (B) (C) (D) (E) | 32 (A) (B) (C) (D) (E) | 57 (A) (B) (C) (D) (E) |
| 8 (A) (B) (C) (D) (E) | 33 (A) (B) (C) (D) (E) | 58 (A) (B) (C) (D) (E) |
| 9 (A) (B) (C) (D) (E) | 34 (A) (B) (C) (D) (E) | 59 (A) (B) (C) (D) (E) |
| 10 (A) (B) (C) (D) (E) | 35 (A) (B) (C) (D) (E) | 60 (A) (B) (C) (D) (E) |
| 11 (A) (B) (C) (D) (E) | 36 (A) (B) (C) (D) (E) | 61 (A) (B) (C) (D) (E) |
| 12 (A) (B) (C) (D) (E) | 37 (A) (B) (C) (D) (E) | 62 (A) (B) (C) (D) (E) |
| 13 (A) (B) (C) (D) (E) | 38 (A) (B) (C) (D) (E) | 63 (A) (B) (C) (D) (E) |
| 14 (A) (B) (C) (D) (E) | 39 (A) (B) (C) (D) (E) | 64 (A) (B) (C) (D) (E) |
| 15 (A) (B) (C) (D) (E) | 40 (A) (B) (C) (D) (E) | 65 (A) (B) (C) (D) (E) |
| 16 (A) (B) (C) (D) (E) | 41 (A) (B) (C) (D) (E) | 66 (A) (B) (C) (D) (E) |
| 17 (A) (B) (C) (D) (E) | 42 (A) (B) (C) (D) (E) | 67 (A) (B) (C) (D) (E) |
| 18 (A) (B) (C) (D) (E) | 43 (A) (B) (C) (D) (E) | 68 (A) (B) (C) (D) (E) |
| 19 (A) (B) (C) (D) (E) | 44 (A) (B) (C) (D) (E) | 69 (A) (B) (C) (D) (E) |
| 20 (A) (B) (C) (D) (E) | 45 (A) (B) (C) (D) (E) | 70 (A) (B) (C) (D) (E) |
| 21 (A) (B) (C) (D) (E) | 46 (A) (B) (C) (D) (E) | 71 (A) (B) (C) (D) (E) |
| 22 (A) (B) (C) (D) (E) | 47 (A) (B) (C) (D) (E) | 72 (A) (B) (C) (D) (E) |
| 23 (A) (B) (C) (D) (E) | 48 (A) (B) (C) (D) (E) | 73 (A) (B) (C) (D) (E) |
| 24 (A) (B) (C) (D) (E) | 49 (A) (B) (C) (D) (E) | 74 (A) (B) (C) (D) (E) |
| 25 (A) (B) (C) (D) (E) | 50 (A) (B) (C) (D) (E) | 75 (A) (B) (C) (D) (E) |

FOR QUESTIONS 76-151, SEE PAGE 3.

DO NOT WRITE IN THIS AREA.

Be sure each mark is dark and completely fills the oval. If a question has only four answer options, do not mark option E.

- | | | | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| 76 | (A) | (B) | (C) | (D) | (E) | 101 | (A) | (B) | (C) | (D) | (E) | 126 | (A) | (B) | (C) | (D) | (E) |
| 77 | (A) | (B) | (C) | (D) | (E) | 102 | (A) | (B) | (C) | (D) | (E) | 127 | (A) | (B) | (C) | (D) | (E) |
| 78 | (A) | (B) | (C) | (D) | (E) | 103 | (A) | (B) | (C) | (D) | (E) | 128 | (A) | (B) | (C) | (D) | (E) |
| 79 | (A) | (B) | (C) | (D) | (E) | 104 | (A) | (B) | (C) | (D) | (E) | 129 | (A) | (B) | (C) | (D) | (E) |
| 80 | (A) | (B) | (C) | (D) | (E) | 105 | (A) | (B) | (C) | (D) | (E) | 130 | (A) | (B) | (C) | (D) | (E) |
| 81 | (A) | (B) | (C) | (D) | (E) | 106 | (A) | (B) | (C) | (D) | (E) | 131 | (A) | (B) | (C) | (D) | (E) |
| 82 | (A) | (B) | (C) | (D) | (E) | 107 | (A) | (B) | (C) | (D) | (E) | 132 | (A) | (B) | (C) | (D) | (E) |
| 83 | (A) | (B) | (C) | (D) | (E) | 108 | (A) | (B) | (C) | (D) | (E) | 133 | (A) | (B) | (C) | (D) | (E) |
| 84 | (A) | (B) | (C) | (D) | (E) | 109 | (A) | (B) | (C) | (D) | (E) | 134 | (A) | (B) | (C) | (D) | (E) |
| 85 | (A) | (B) | (C) | (D) | (E) | 110 | (A) | (B) | (C) | (D) | (E) | 135 | (A) | (B) | (C) | (D) | (E) |
| 86 | (A) | (B) | (C) | (D) | (E) | 111 | (A) | (B) | (C) | (D) | (E) | 136 | (A) | (B) | (C) | (D) | (E) |
| 87 | (A) | (B) | (C) | (D) | (E) | 112 | (A) | (B) | (C) | (D) | (E) | 137 | (A) | (B) | (C) | (D) | (E) |
| 88 | (A) | (B) | (C) | (D) | (E) | 113 | (A) | (B) | (C) | (D) | (E) | 138 | (A) | (B) | (C) | (D) | (E) |
| 89 | (A) | (B) | (C) | (D) | (E) | 114 | (A) | (B) | (C) | (D) | (E) | 139 | (A) | (B) | (C) | (D) | (E) |
| 90 | (A) | (B) | (C) | (D) | (E) | 115 | (A) | (B) | (C) | (D) | (E) | 140 | (A) | (B) | (C) | (D) | (E) |
| 91 | (A) | (B) | (C) | (D) | (E) | 116 | (A) | (B) | (C) | (D) | (E) | 141 | (A) | (B) | (C) | (D) | (E) |
| 92 | (A) | (B) | (C) | (D) | (E) | 117 | (A) | (B) | (C) | (D) | (E) | 142 | (A) | (B) | (C) | (D) | (E) |
| 93 | (A) | (B) | (C) | (D) | (E) | 118 | (A) | (B) | (C) | (D) | (E) | 143 | (A) | (B) | (C) | (D) | (E) |
| 94 | (A) | (B) | (C) | (D) | (E) | 119 | (A) | (B) | (C) | (D) | (E) | 144 | (A) | (B) | (C) | (D) | (E) |
| 95 | (A) | (B) | (C) | (D) | (E) | 120 | (A) | (B) | (C) | (D) | (E) | 145 | (A) | (B) | (C) | (D) | (E) |
| 96 | (A) | (B) | (C) | (D) | (E) | 121 | (A) | (B) | (C) | (D) | (E) | 146 | (A) | (B) | (C) | (D) | (E) |
| 97 | (A) | (B) | (C) | (D) | (E) | 122 | (A) | (B) | (C) | (D) | (E) | 147 | (A) | (B) | (C) | (D) | (E) |
| 98 | (A) | (B) | (C) | (D) | (E) | 123 | (A) | (B) | (C) | (D) | (E) | 148 | (A) | (B) | (C) | (D) | (E) |
| 99 | (A) | (B) | (C) | (D) | (E) | 124 | (A) | (B) | (C) | (D) | (E) | 149 | (A) | (B) | (C) | (D) | (E) |
| 100 | (A) | (B) | (C) | (D) | (E) | 125 | (A) | (B) | (C) | (D) | (E) | 150 | (A) | (B) | (C) | (D) | (E) |
| | | | | | | | | | | | | 151 | (A) | (B) | (C) | (D) | (E) |

ETS USE ONLY			
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Y. COLLEGE TO RECEIVE YOUR AP GRADE REPORT

Form for college name and address with fields for College Name and Address.

HUMAN GEOGRAPHY

Two hours and fifteen minutes are allotted for this exam: 1 hour for Section I, which consists of multiple-choice questions; and 1 hour and fifteen minutes for Section II, which consists of essay questions. Section I is printed in this exam booklet. Section II is printed in a separate booklet.

SECTION I

Time — 1 hour

Number of questions — 75

Percent of total grade — 50

Section I of this exam contains 75 multiple-choice questions and 12 survey questions. Therefore, please be careful to fill in only the ovals that are preceded by numbers 1 through 87 on your answer sheet. No calculators may be used on this exam.

General Instructions

DO NOT OPEN THIS BOOKLET UNTIL YOU ARE INSTRUCTED TO DO SO.

INDICATE ALL YOUR ANSWERS TO QUESTIONS IN SECTION I ON THE ANSWER SHEET. No credit will be given for anything written in this exam booklet, but you may use the booklet for notes or scratch work. After you have decided which of the suggested answers is best, COMPLETELY fill in the corresponding oval on the answer sheet. Give only one answer to each question. If you change an answer, be sure that the previous mark is erased completely.

Example:

- Chicago is a
- (A) state
 - (B) city
 - (C) country
 - (D) continent
 - (E) village

Sample Answer

(A) ● (C) (D) (E)

Many students wonder whether or not to guess the answers to questions about which they are not certain. In this section of the exam, as a correction for haphazard guessing, one-fourth of the number of questions you answer incorrectly will be subtracted from the number of questions you answer correctly. It is improbable, therefore, that mere guessing will improve your grade significantly; it may even lower your grade, and it does take time. If, however, you are not sure of the best answer but have some knowledge of the question and are able to eliminate one or more of the answer choices as wrong, your chance of answering correctly is improved, and it may be to your advantage to answer such a question.

Use your time effectively, working as rapidly as you can without losing accuracy. Do not spend too much time on questions that are too difficult. Go on to other questions and come back to the difficult ones later if you have time. It is not expected that everyone will be able to answer all of the multiple-choice questions.

HUMAN GEOGRAPHY

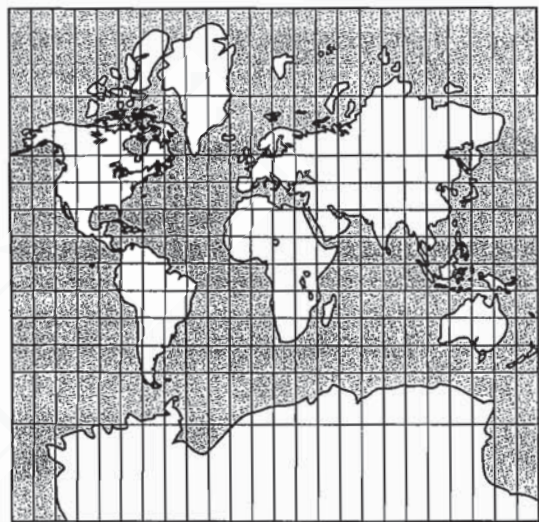
SECTION I

Time—60 minutes

75 Questions

Directions: Each of the questions or incomplete statements below is followed by five suggested answers or completions. Select the one that is best in each case and then fill in the corresponding oval on the answer sheet.

- Which of the following profiles characterizes the population group that is the most likely to migrate?
 - Married, twenty-five years old
 - Single, twenty-five years old
 - Married, fifty years old
 - Single, fifty years old
 - Married, sixty-five years old
- Production of agricultural products destined primarily for direct consumption by the producer rather than for market is called
 - plantation farming
 - hunting and gathering
 - subsistence agriculture
 - sedentary cultivation
 - shifting-field agriculture



- The map above represents what kind of projection?
 - A Mercator projection with distorted land areas
 - A planar projection with diverging lines at the poles
 - A homolosine projection with continuity of landmasses
 - A Robinson projection with distortions at the equator
 - A gnomonic projection with distortions of bodies of water

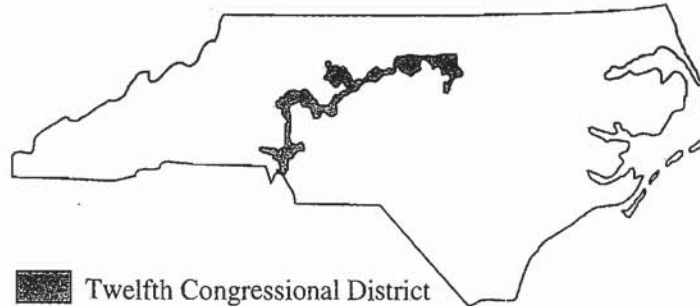
Section I

4. Dramatic increases in global grain production since 1950 have been made possible by
- (A) substantial increases in the amount of land under cultivation
 - (B) global warming
 - (C) an increase in the urban workforce
 - (D) an increase in the agricultural workforce
 - (E) an increase in the use of energy and technology
5. In the United States, the largest concentrations of Amish are found in
- (A) Rhode Island, New York, and West Virginia
 - (B) Tennessee, Arkansas, and Kentucky
 - (C) Minnesota, Michigan, and Illinois
 - (D) Pennsylvania, Ohio, and Indiana
 - (E) Utah, Arizona, and Nevada
6. In which of the following areas was wheat most probably domesticated earliest?
- (A) Southern Italy
 - (B) Northern Libya
 - (C) The plateau of central Mexico
 - (D) Eastern China
 - (E) Southeastern Turkey
7. The literacy rate of any country correlates most closely with which of the following?
- (A) Per capita income
 - (B) Annual precipitation rates
 - (C) Petroleum production
 - (D) General level of intelligence
 - (E) Population density
8. In the early twenty-first century, the largest number of refugees is located on which of the following continents?
- (A) Africa
 - (B) Australia
 - (C) Europe
 - (D) North America
 - (E) South America
9. Traditionally, the Ganges Valley and the Nile Valley have had comparatively high population densities because of their
- (A) tropical climate
 - (B) heavy industrialization
 - (C) in-migration from neighboring arid areas
 - (D) intensive agriculture based on irrigation
 - (E) designation as sacred sites
10. All of the following twentieth-century migration streams were propelled by persecution or open conflict EXCEPT
- (A) Asians leaving Uganda
 - (B) Kosovars leaving Yugoslavia
 - (C) Tutsis leaving Rwanda
 - (D) Hindus leaving Pakistan
 - (E) Mexicans leaving Mexico
11. If four languages have similar words for numbers and the names of fish, but different names for a certain disease, what might be concluded about the time at which the disease first diffused?
- (A) The disease spread among a population that later divided and evolved into four different languages.
 - (B) The population divided and evolved into the four different languages, and then the disease spread.
 - (C) The disease spread to two different populations that later divided into two different languages.
 - (D) The disease and language spread to four different regions at the same time at the same rate.
 - (E) There can be no conclusions drawn about the initial diffusion of the disease based on language.
12. Which of the following correctly lists the usual hierarchy of political-administrative units in order from the largest to the smallest?
- (A) Empire, county, province, nation-state
 - (B) Province, empire, nation-state, county
 - (C) Empire, nation-state, province, county
 - (D) County, nation-state, province, empire
 - (E) Empire, nation-state, county, province

13. International company headquarters, significant global financial functions, and a polarized social structure are defining characteristics of
- (A) primate cities
 - (B) entrepôts
 - (C) forward capitals
 - (D) world cities
 - (E) edge cities
14. With respect to the North American Free Trade Agreement (NAFTA) between the United States, Canada and Mexico, which of the following statements is NOT true?
- (A) It resulted in increased trade among member nations
 - (B) It outlines an eventual supranational governing body for North America
 - (C) It led to a net trade deficit for the United States with Canada and Mexico
 - (D) It facilitated the movement of tertiary-sector industries from the United States to Mexico
 - (E) It eventually may include other Latin American countries
15. Quaternary economic activities are those that
- (A) extract natural resources from the environment
 - (B) transform raw materials into finished products
 - (C) involve the collection, processing, and manipulation of information
 - (D) involve the exchange of goods and the provision of services
 - (E) involve the production of fresh produce for urban markets
16. Which of the following countries consumes the most fossil fuels per capita?
- (A) China
 - (B) India
 - (C) Japan
 - (D) England
 - (E) The United States
17. Which of the following characteristics is currently shared by Switzerland, Canada, and New Zealand?
- (A) Low population-growth rates
 - (B) Primate urban systems
 - (C) High infant-mortality rates
 - (D) Membership in the European Union (EU)
 - (E) More than ten percent of the population involved in sheep farming
18. Why are most South American population centers located at or near the coast?
- (A) The colonial economies were export-oriented.
 - (B) The wars of independence damaged many inland cities.
 - (C) Few Amerindian population centers were located on the coast.
 - (D) Latin American armed forces have extensive plans for the defense of coastal sites.
 - (E) The climate is generally warmer on the coast and cooler in the highlands.
19. Which of the following is true of popular culture?
- (A) It is practiced among a homogeneous group of people in the world.
 - (B) It is more static than folk culture.
 - (C) It incorporates traits that diffuse quickly to a wide variety of places.
 - (D) It spreads primarily by relocation diffusion.
 - (E) It promotes regional diversity.
20. Indonesia is an example of which of the following types of states?
- (A) Prorupted
 - (B) Perforated
 - (C) Compact
 - (D) Fragmented
 - (E) Bifurcated
21. The term Balkanization refers to the
- (A) fragmentation of a region into smaller units
 - (B) introduction of an economic system of free enterprise
 - (C) spread of Slavic languages
 - (D) industrial growth in less-developed nations
 - (E) military and economic alliance of a group of countries

Section I

NORTH CAROLINA, 1992



22. The shape of North Carolina's Twelfth Congressional District, shown above, is most likely the result of
- (A) watershed boundaries
 - (B) gerrymandering
 - (C) county boundaries
 - (D) decentralization
 - (E) amalgamation

23. Which of the following industries will most likely locate closest to its raw material sources?

- (A) Soft-drink bottling
- (B) Brewing
- (C) Nickel smelting
- (D) Baking
- (E) Automobile assembly

24. Prior to 1850 the location of all major North American cities was related, chiefly, to the presence of

- (A) transcontinental highways
- (B) defensive sites
- (C) railroad junctions
- (D) navigable waterways
- (E) water power

25. According to the theory of environmental determinism, which of the following areas would have the most productive settlements?

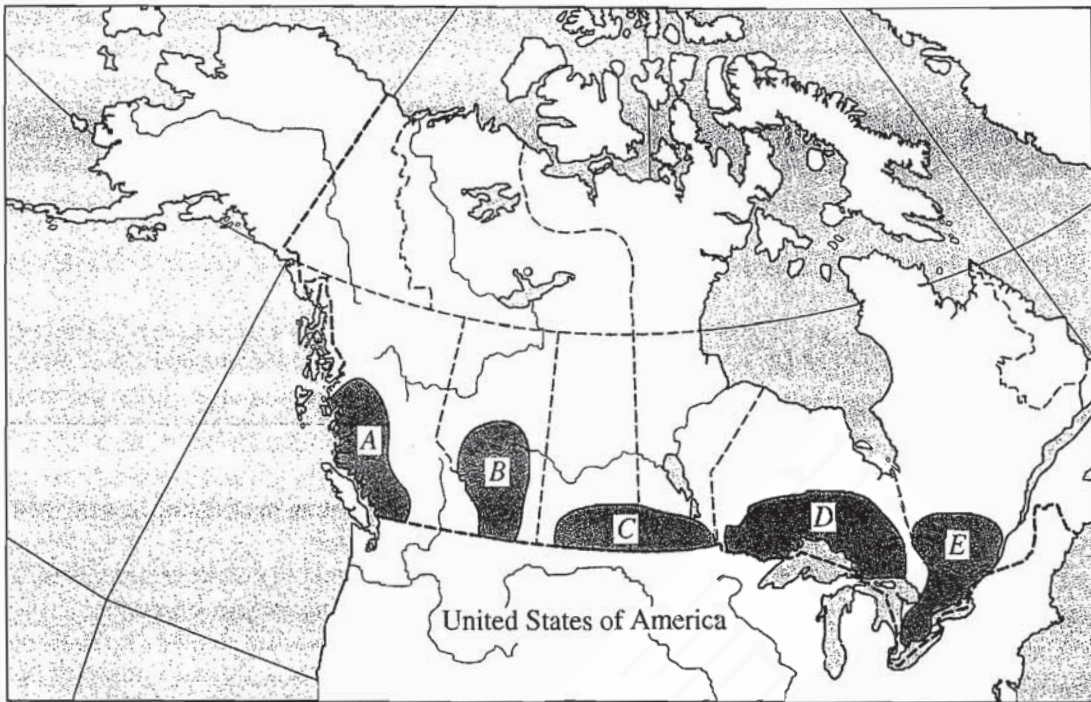
- (A) Tropical regions
- (B) Temperate regions
- (C) Mountainous regions
- (D) Arctic regions
- (E) Arid regions

26. The alignment of ancient Chinese cities toward the cardinal directions (north, south, east, west) best illustrates the importance of which of the following factors in the shaping of these early cities?

- (A) Belief systems
- (B) Topography
- (C) Economics
- (D) Gender
- (E) Technology

27. Which of the following statements best describes the impact of improvements in transportation systems on agriculture?

- (A) Local markets have become more important for dairy farmers.
- (B) Individual farms have become more diversified.
- (C) Corporate farms have gained a greater advantage over family farms.
- (D) Subsistence farmers are given great advantages.
- (E) Cuisines have become more regionalized.



28. On the map above, which letter represents the region of the greatest proportion of the Canadian population?
- (A) A
 - (B) B
 - (C) C
 - (D) D
 - (E) E

Section I

29. The European Union, the Arab League, and the United Nations are all examples of
- (A) pressure groups
 - (B) nation-states
 - (C) centrifugal organizations
 - (D) supranational organizations
 - (E) federations
30. Regionalization is to geography as
- (A) composition is to music
 - (B) description is to literature
 - (C) exploration is to geology
 - (D) periodization is to history
 - (E) characterization is to drama
31. Cultural landscape can be defined as
- (A) the types of art, music, dance, and theater practiced in a particular region
 - (B) the ways that people in differing cultures perceive the environment
 - (C) the forms superimposed on the physical environment by the activities of humans
 - (D) the diversity of distinctive cultures within a particular geographic area
 - (E) a particular area within a geographic region dedicated to cultural activities
32. One would expect to find a population with a relatively young age structure in
- (A) less developed countries
 - (B) highly developed countries
 - (C) countries with a low death rate
 - (D) countries with a low fertility rate
 - (E) countries with a high standard of living
33. During the first half of the twentieth century, which of the following facilitated the transportation of beef over long distances to global markets?
- (A) Commercial canning
 - (B) Irradiation of food
 - (C) Refrigerated ships
 - (D) Airplanes
 - (E) High-speed railroads
34. In which of the following countries is terracing LEAST likely to be used by farming groups to create additional space and minimize erosion on steep slopes?
- (A) Nepal
 - (B) Peru
 - (C) The Philippines
 - (D) Niger
 - (E) Greece
35. All of the following have helped create ghettos in North American cities EXCEPT
- (A) blockbusting and racial steering
 - (B) redlining by financial institutions
 - (C) concentration of public housing and social services
 - (D) fixed school district boundaries
 - (E) Economic Enterprise Zones
36. The world's three major monotheistic religions originated in which of the following regions?
- (A) East Asia
 - (B) Southwest Asia
 - (C) Eastern Europe
 - (D) Western Europe
 - (E) Africa
37. An urban center that is disproportionately larger than the second largest city in a country and that dominates the country's social, political, and economic activities can be best classified as
- (A) a megalopolis
 - (B) a conurbation
 - (C) a primate city
 - (D) an edge city
 - (E) an imperial city
38. A country in which the majority of the population are Shiite Muslims is
- (A) Iran
 - (B) Morocco
 - (C) Saudi Arabia
 - (D) Egypt
 - (E) Indonesia

39. Which of the following modes of transportation is characterized by low terminal cost, high line cost, and high route flexibility?
- (A) Truck
 - (B) Railroad
 - (C) Ship
 - (D) Pipeline
 - (E) Airplane
40. A clustering of doctor's offices and pharmacies near hospitals is BEST explained by the benefits of
- (A) decentralization
 - (B) agglomeration
 - (C) intervening opportunity
 - (D) balkanization
 - (E) enfranchisement
41. Agriculture practiced in California differs from forms practiced in other Mediterranean agricultural regions because in California
- (A) grapes are grown for wine production
 - (B) farms use more irrigation
 - (C) farms are smaller
 - (D) farms rely on local labor
 - (E) wheat is grown in the winter as a cover crop
42. Which of the following has fostered the most significant economic growth by eliminating import tariffs between member states?
- (A) European Union (EU)
 - (B) Organization of Petroleum Exporting Countries (OPEC)
 - (C) North Atlantic Treaty Organization (NATO)
 - (D) Association of Caribbean States (ACS)
 - (E) United Nations (UN)
43. Which of the following is useful for describing a settlement node whose primary function is to provide support for the population in its hinterland?
- (A) Von Thünen's model of land use
 - (B) Concentric zone model
 - (C) Core-periphery model
 - (D) Rostow's model of economic development
 - (E) Christaller's model of central place
44. Which of the following environmental problems is most associated with the African Sahel?
- (A) Desertification
 - (B) Deforestation
 - (C) Air pollution
 - (D) Flooding
 - (E) Water pollution
45. During the nineteenth and twentieth centuries, which of the following types of intraregional migration was the most prominent worldwide?
- (A) Rural to urban
 - (B) Urban to suburban
 - (C) Inland to coastal
 - (D) Highland to lowland
 - (E) Urban to rural

Section I

46. The Internet is reshaping traditional economic arrangements by
- (A) reinforcing the dominance of the central business district for retail sales
 - (B) expanding the importance of express package delivery systems
 - (C) increasing the importance of rail transportation as compared to truck transportation
 - (D) bringing consumers and producers into face-to-face contact
 - (E) creating more enclosed shopping malls
47. In terms of total tonnage, which of the following is currently the leading export crop in the world?
- (A) Coffee
 - (B) Sugar cane
 - (C) Wheat
 - (D) Corn
 - (E) Rice
48. In the century after the arrival of Europeans, which of the following changes occurred to the indigenous population of the Americas?
- (A) It increased dramatically because of new trade routes and industries
 - (B) It increased slowly with the introduction of new crops
 - (C) It remained about the same, since very few Europeans actually moved there
 - (D) It decreased dramatically with the introduction of new diseases
 - (E) It decreased slowly due to increased competition for land
49. Which of the following is most characteristic of societies currently in the last stage of demographic transition?
- (A) Hyperinflation
 - (B) Unemployment
 - (C) Youth dependency
 - (D) Aging population
 - (E) Overpopulation

-
50. Which of the following most closely describes the leading trend in retailing in the United States during the 1950s, 1970s, and 1990s?

1950s	1970s	1990s
(A) Downtown business district	Shopping mall	"Big box" superstore
(B) Downtown business district	"Big box" superstore	Shopping mall
(C) Shopping mall	Downtown business district	"Big box" superstore
(D) "Big box" superstore	Downtown business district	Shopping mall
(E) "Big box" superstore	Shopping mall	Downtown business district

51. Land parcels in the American Midwest tend to be rectilinear because
- (A) the federal survey system adopted in the late eighteenth century imposed a geometric pattern on the landscape
 - (B) Native American settlement patterns were rectangular
 - (C) English-speaking settlers replicated the landscape patterns of England
 - (D) Spanish colonists laid out settlements in a rigid geometric pattern
 - (E) there were no mountains or rivers to use as boundaries
52. Which of the following environmental issues is of most immediate concern to policy-makers in New England?
- (A) Overharvesting of breeding stock by commercial fishers
 - (B) Oil-spill liability
 - (C) Desertification by overgrazing of cattle
 - (D) Intensification of urban heat islands
 - (E) Generation of electric power by wind
53. The popularity of which of the following is an example of the trend toward ecotourism?
- (A) Time-share condominiums on the coast of Spain
 - (B) Ski resorts in Chile
 - (C) National parks in Costa Rica
 - (D) Recreational canals in Florida
 - (E) Artificial lakes in Texas
54. The early stages of the core-periphery model describe the
- (A) relationship between the outward appearance of a place and its internal functioning
 - (B) ways that suburban workers commute to urban workplaces
 - (C) relationship between the underlying structure of a society and its outward expressions
 - (D) social and cultural differences between urban and rural people
 - (E) relationship of power and the transfer of resources from less developed to more developed areas
55. Which of the following terms refers to an area of instability located between regions with opposing political and cultural values?
- (A) Rimland
 - (B) Heartland
 - (C) Shatter belt
 - (D) Enclave
 - (E) Gerrymandered area
56. Violent confrontations in Ambon, Aceh, and East Timor illustrate the problem of holding together the physically and culturally diverse country of
- (A) India
 - (B) Indonesia
 - (C) Brazil
 - (D) South Africa
 - (E) Yugoslavia
57. Isolated farmsteads in the United States evolved as a result of all of the following EXCEPT
- (A) political stability
 - (B) colonization by individual pioneer families
 - (C) agricultural private enterprise
 - (D) government land policy
 - (E) physical barriers preventing communal farm practices
58. Which of the following was NOT a reason for rapid suburbanization in the United States after the Second World War?
- (A) Mass production of the automobile
 - (B) Reduction in long-distance commuting
 - (C) Expansion of home construction
 - (D) Expansion of the interstate highway system
 - (E) Availability of low down payment terms and long-term mortgages
59. Which of the following is an example of an ethnic religion?
- (A) Islam
 - (B) Mormonism
 - (C) Buddhism
 - (D) Judaism
 - (E) Roman Catholicism

Section I

60. According to the rank-size rule, if the largest city in a country has a population of 10 million, the next largest city will have a population of
- (A) 9 million
 - (B) 8 million
 - (C) 7.5 million
 - (D) 5 million
 - (E) 3.5 million
61. Which of the following countries did NOT have a significant, long-lasting colonial presence in Africa after 1920 ?
- (A) Germany
 - (B) Great Britain
 - (C) France
 - (D) Portugal
 - (E) Belgium
- Item 62 was not scored.**
63. Von Thünen emphasized which of the following factors in his model of agricultural land use?
- (A) Labor cost
 - (B) Transportation cost
 - (C) Fertilizer cost
 - (D) Machinery cost
 - (E) Seasonal fluctuations in prices of farm products
64. The provisions of the United Nations Conference on the Law of the Sea give coastal countries navigational and economic sovereignty over which of the following zones?
- (A) Twelve-nautical-mile territorial sea zone
 - (B) Export processing zone (EPZ)
 - (C) 200-nautical-mile exclusive economic zone
 - (D) Empowerment zone
 - (E) Continental shelf
65. The maquiladoras of northern Mexico are
- (A) manufacturing outsourcing plants
 - (B) illegal migrant-labor camps
 - (C) border squatter settlements
 - (D) organic agricultural cooperatives
 - (E) commercial produce farms
66. Which of the following is a characteristic of shifting cultivation?
- (A) Dependency on irrigation
 - (B) Sharecropping
 - (C) Production of cash crops for export
 - (D) Demand for wage laborers
 - (E) Multicropping
67. The “Four Economic Tigers” of East and South-east Asia include
- (A) China, Indonesia, Japan, and Taiwan
 - (B) Hong Kong, South Korea, Singapore, and Taiwan
 - (C) Japan, Philippines, South Korea, and Vietnam
 - (D) Hong Kong, Indonesia, Thailand, and Vietnam
 - (E) China, Philippines, Singapore, and Thailand
68. The term “cultural diffusion” refers to the
- (A) modification of Earth’s surface by human actions
 - (B) integration of behavioral traits within a group
 - (C) spread of an idea or innovation from its source
 - (D) relationship between human cultures and their physical environment
 - (E) assimilation of a minority culture into the host society
69. Of the following, which is the best example of a footloose industry?
- (A) Wine making
 - (B) Steel
 - (C) Furniture
 - (D) Computer chip
 - (E) Tuna canning

70. Why is the traditional classification of agriculture as a primary economic activity a problem when considering the geography of agriculture?
- (A) Modern farmers are engaged in production, research, marketing, and some manufacturing of their products.
 - (B) Agricultural employment is such a small fraction of the labor force in the industrialized countries that agriculture can no longer be thought of as a primary economic activity.
 - (C) Unlike mining, forestry, and other primary activities, agriculture has not been affected by industrialization.
 - (D) Traditional patterns of farming are disappearing.
 - (E) Modern farmers use machinery.
71. Which of the following areas has the greatest linguistic fragmentation?
- (A) Korea
 - (B) Scandinavia
 - (C) Caucasus
 - (D) Argentina
 - (E) Quebec
72. Rostow's modernization model is concerned with which of the following concepts?
- (A) Dependency
 - (B) Structuralism
 - (C) Core-periphery relations
 - (D) Economic development
 - (E) Neocolonialism
73. According to the sector model of North American city structure, members of low-income groups tend to live in which of the following places?
- (A) The inner city only
 - (B) Peripheral temporary settlements
 - (C) Linear residential areas radiating from the center city outward
 - (D) Evenly dispersed throughout the urban area
 - (E) The suburbs and rural areas only
74. Of the following countries, which has the fewest people per unit of arable land?
- (A) Guatemala
 - (B) Bangladesh
 - (C) Argentina
 - (D) Netherlands
 - (E) Egypt
75. The Canadian government created the new territory of Nunavut in order to
- (A) re-create the pre-1912 boundary of Quebec
 - (B) recognize the territorial rights of indigenous people in the area
 - (C) facilitate the exploration of mineral resources in the Northwest Territories
 - (D) grant autonomy to the Cree and Mohawk people living in eastern Canada
 - (E) guarantee Canadian fishing rights in the Atlantic Ocean

END OF SECTION I

Section II

HUMAN GEOGRAPHY

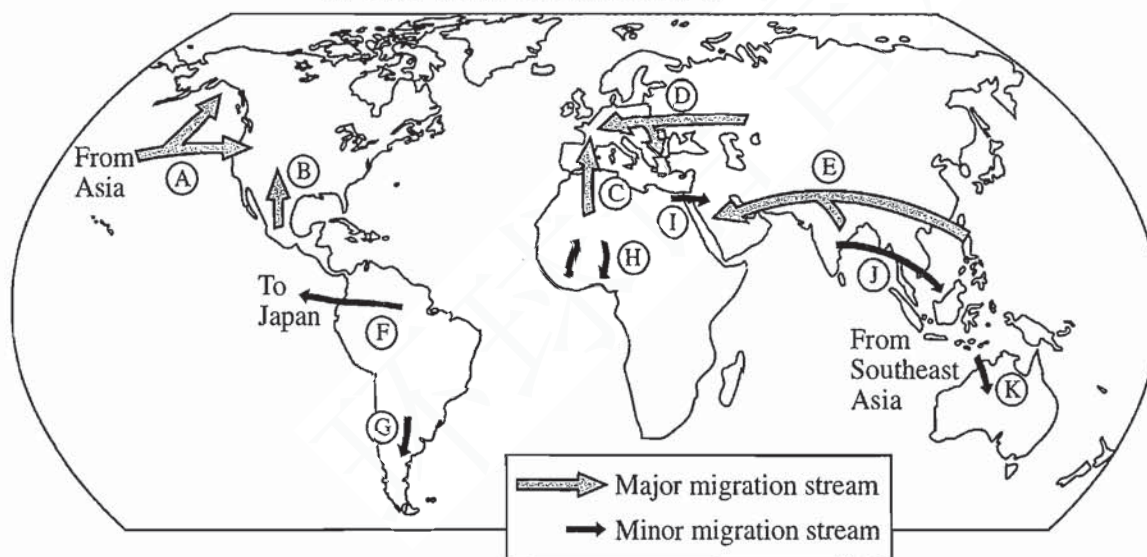
SECTION II

Time—75 minutes

Percent of total grade—50

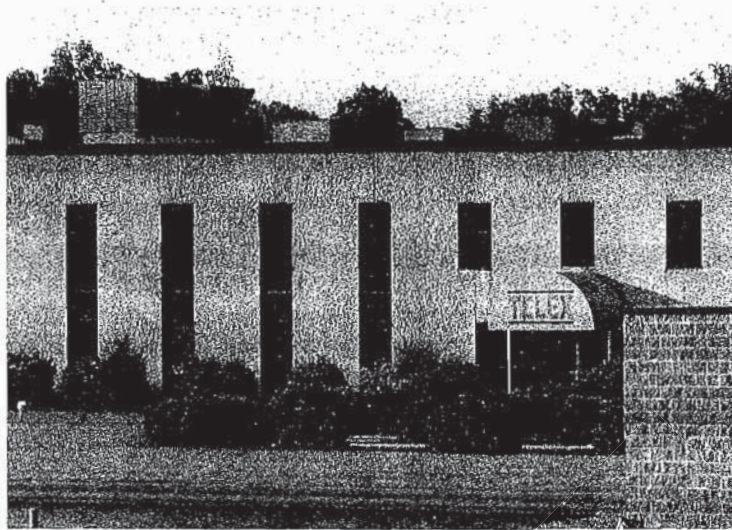
Directions: You have 75 minutes to answer all three of the following questions. It is recommended that you spend approximately one-third of your time (25 minutes) on each question. It is suggested that you take up to 5 minutes of this time to plan and outline each answer. While a formal essay is not required, it is not enough to answer a question by merely listing facts. Illustrate your answers with substantive geographic examples where appropriate. Be sure that you number each of your answers, including individual parts, in the answer booklet as the questions are numbered below.

**SELECTED MIGRATION PATTERNS
IN THE LATE TWENTIETH CENTURY**



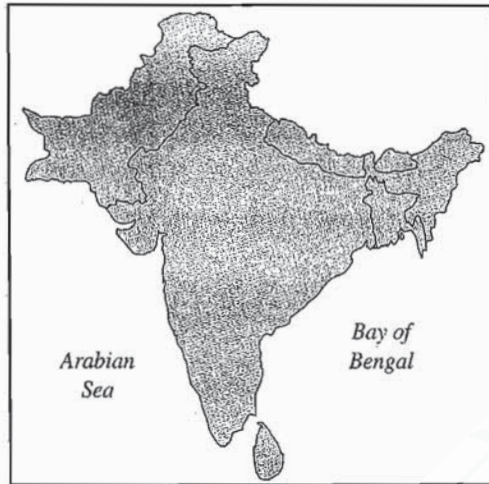
1. International migration in the late twentieth century illustrates many important geographic principles.
 - A. Define each of the following principles.
 1. core-periphery
 2. distance decay
 3. chain migration
 - B. For each principle in part A, select a migration stream identified by letter on the map above, and discuss how the stream you choose illustrates the principle. Note: Each lettered migration stream may be used only once.

GO ON TO THE NEXT PAGE.



2. The photograph above, taken in a small town in Arkansas, shows a customer service call center in a building that until recently was an automotive parts manufacturing plant.
 - A. Identify two reasons why businesses would choose to locate their call centers in small southern towns.
 - B. Discuss three disadvantages in the use of call centers as a local economic development strategy.

Section II



3. The viability of any state depends on a balance between centripetal and centrifugal forces.
- A. Define the concepts “centripetal force” and “centrifugal force.”
 - B. Give a specific example of and explain a centripetal force that affects the viability of any of the states shown on the map above.
 - C. With reference to a different specific example, explain a centrifugal force that affects the viability of any of the states shown on the map above.

STOP

END OF EXAM

Chapter III: Answers to the 2006 AP Human Geography Exam

- Section I: Multiple Choice
 - Section I Answer Key and Percent Answering Correctly
 - Analyzing Your Students' Performance on the Multiple-Choice Section
 - Diagnostic Guide for the 2006 AP Human Geography Exam
- Section II: Free Response
 - Comments from the Chief Reader
 - Scoring Guidelines, Sample Student Responses, and Commentary
 - Question 1
 - Question 2
 - Question 3

Section I: Multiple Choice

Listed below are the correct answers to the multiple-choice questions, the percent of AP students who answered each question correctly by AP grade, and the total percent answering correctly.

Section I Answer Key and Percent Answering Correctly

Item No.	Correct Answer	Percent Correct by Grade					Total Percent Correct
		5	4	3	2	1	
1	B	96	92	87	80	65	83
2	C	98	95	92	88	73	88
3	A	83	75	67	60	48	65
4	E	98	95	91	84	58	83
5	D	80	73	67	57	41	62
6	E	50	33	23	15	8	24
7	A	75	61	54	44	30	51
8	A	69	51	38	29	24	41
9	D	67	62	63	61	48	59
10	E	89	84	79	71	49	73
11	B	95	89	82	72	52	76
12	C	87	78	68	62	46	67
13	D	89	79	71	63	46	68
14	B	46	37	32	28	23	32
15	C	83	72	55	38	25	52
16	E	92	88	82	77	60	78
17	A	93	86	77	63	42	70
18	A	95	89	84	73	53	77
19	C	93	89	83	77	60	79
20	D	94	87	76	65	43	71
21	A	88	71	56	40	28	54
22	B	88	77	63	50	31	59
23	C	89	79	68	59	42	65
24	D	79	68	60	51	34	57
25	B	86	81	75	64	53	70

Item No.	Correct Answer	Percent Correct by Grade					Total Percent Correct
		5	4	3	2	1	
26	A	79	72	65	57	43	62
27	C	85	76	69	58	40	64
28	E	64	51	42	33	19	40
29	D	97	93	88	80	57	81
30	D	83	69	59	50	36	58
31	C	67	56	45	39	26	45
32	A	98	93	86	77	54	80
33	C	59	55	51	48	40	50
34	D	70	55	47	37	22	44
35	E	70	56	47	41	36	49
36	B	87	72	62	47	33	58
37	C	92	79	66	51	33	62
38	A	80	74	70	64	47	65
39	A	51	42	39	31	22	36
40	B	89	78	64	49	29	59
41	B	43	34	30	28	25	31
42	A	84	66	49	35	18	48
43	E	60	36	24	17	12	28
44	A	83	72	64	58	45	63
45	A	91	82	73	65	50	71
46	B	82	74	66	59	40	62
47	C	38	33	33	32	32	33
48	D	93	85	74	61	38	68
49	D	92	82	69	53	30	63
50	A	56	44	35	26	15	34

continued on the next page

Section I Answer Key and Percent Answering Correctly (continued)

Item No.	Correct Answer	Percent Correct by Grade					Total Percent Correct
		5	4	3	2	1	
51	A	71	52	39	28	19	40
52	A	64	55	47	40	26	45
53	C	75	62	48	39	29	49
54	E	72	53	39	28	20	40
55	C	76	57	43	32	21	44
56	B	55	36	26	22	19	30
57	E	42	30	24	21	17	26
58	B	81	65	55	45	31	54
59	D	80	61	47	36	21	47
60	D	81	68	55	43	25	52
61	A	53	43	37	29	19	35
62*	-	-	-	-	-	-	-

* Although 75 multiple-choice items were administered in Section I, Item # 62 was not used in scoring.

Item No.	Correct Answer	Percent Correct by Grade					Total Percent Correct
		5	4	3	2	1	
63	B	96	90	80	68	38	72
64	A	34	32	31	28	17	28
65	A	95	88	75	62	33	68
66	E	61	54	47	40	25	44
67	B	74	58	47	36	25	46
68	C	86	78	74	71	56	72
69	D	58	41	27	20	12	30
70	A	72	56	38	25	15	39
71	C	44	28	22	17	13	24
72	D	87	74	65	53	40	62
73	C	59	46	35	30	24	38
74	C	37	21	15	11	9	18
75	B	64	51	42	34	25	42

Analyzing Your Students' Performance on the Multiple-Choice Section

If you give your students the 2006 exam for practice, you may want to analyze their results to find overall strengths and weaknesses in their understanding of AP Human Geography. The following diagnostic worksheet will help you do this. You are permitted to photocopy and distribute it to your students for completion.

1. In each category, students should insert a check mark for each correct answer.

2. Add together the total number of correct answers for each category.
3. To compare the student's number of correct answers for each category with the average number correct for that category, copy the number of correct answers to the "Number Correct" table at the end of the Diagnostic Guide.

In addition, under each item, the percent of AP students who answered correctly is shown, so students can analyze their performance on individual items. This information will be helpful in deciding how students should plan their study time.

Diagnostic Guide for the 2006 AP Human Geography Exam

Geography: Its Nature and Perspectives (Average number correct = 2.6)

Question #	3	20	25	30
Correct/Incorrect				
Percent of Students Answering Correctly	65	71	70	58

Population (Average number correct = 7.4)

Question #	1	8	9	10	17	18	28	32	45	48	49	74
Correct/Incorrect												
Percent of Students Answering Correctly	83	41	59	73	70	77	40	80	71	68	63	18

Cultural Patterns and Processes (Average number correct = 6.9)

Question #	5	7	11	19	31	36	38	44	53	59	68	71
Correct/Incorrect												
Percent of Students Answering Correctly	62	51	76	79	45	58	65	63	49	47	72	24

Political Organization of Space (Average number correct = 5.6)

Question #	12	14	21	22	29	42	51	55	56	61	64	75
Correct/Incorrect												
Percent of Students Answering Correctly	67	32	54	59	81	48	40	44	30	35	28	42

Agricultural and Rural Land Use (Average number correct = 6.0)

Question #	2	4	6	27	33	34	41	47	57	63	66	70
Correct/Incorrect												
Percent of Students Answering Correctly	88	83	24	64	50	44	31	33	26	72	44	39

Industrialization and Economic Development (Average number correct = 6.4)

Question #	15	16	23	39	40	46	50	52	65	67	69	72
Correct/Incorrect												
Percent of Students Answering Correctly	52	78	65	36	59	62	34	45	68	46	30	62

Diagnostic Guide for the 2006 AP Human Geography Exam (continued)

Cities and Urban Land Use (Average number correct = 5.1)

Question #	13	24	26	35	37	43	54	58	60	73
Correct/Incorrect										
Percent of Students Answering Correctly	68	57	62	49	62	28	40	54	52	38

Number Correct

	Geography: Its Nature and Perspectives	Population	Cultural Patterns and Processes	Political Organization of Space	Agricultural and Rural Land Use	Industrialization and Economic Development	Cities and Urban Land Use
Number of Questions	4	12	12	12	12	12	10
Average Number Correct	2.6 (65.0%)	7.4 (61.7%)	6.9 (57.5%)	5.6 (46.7%)	6.0 (50.0%)	6.4 (53.3%)	5.1 (51.0%)
My Number Correct							

Section II: Free Response

Comments from the Chief Reader

Tim Strauss
Department of Geography
University of Northern Iowa
Cedar Falls, Iowa

Section I of the AP Human Geography Exam is designed to evaluate students' breadth of knowledge using 75 questions distributed across the seven topics of the *AP Human Geography Course Description*. Section II, in contrast, is designed to assess students' depth of knowledge and their ability to analyze, evaluate, apply, and integrate geographic concepts. Despite its focus on depth and a limited number of questions, Section II of the exam covers a variety of topics, using multiple geographic contexts and scales, and several analytical approaches.

In the 2006 exam, the questions in Section II covered material across several topics of the Course Description. Question 1 focused on "Population" and required an understanding of concepts related to "Geography: Its Nature and Perspectives." Question 2 emphasized "Industrialization and Economic Development." Question 3 highlighted "Political Organization of Space," although material from other topics, especially "Cultural Patterns and Processes," was useful for answering this question.

Section II required students to work with several geographic contexts and at several scales. Question 1 focused on international migration at the global scale and involved migration streams of varied volumes, distances, and locations. Question 2 was set in the southern United States, although complete answers to this question required an understanding of local linkages as well as local–national and local–global relations. Question 3 focused on a particular region (South Asia) and required responses at the state, i.e., country, level of analysis.

Section II also demanded that students work with different approaches. Question 1 used stimulus material (a map of migration flows) to prompt students into an analysis of spatial interaction using fundamental geographic concepts. Question 2 emphasized synthesis of course material, integrative thinking skills, and abstract reasoning. Question 3 required an understanding of key concepts in political geography and the ability to apply these concepts in a specific geographic context.

This variety of topics, geographic contexts and scales, and analytical approaches is consistent with the design of

previous exams. Over the years, students have done best, and improved the most, on questions requiring a basic understanding of key terms and concepts. Students have also done relatively well on questions demanding knowledge of empirical geographic patterns and phenomena, or involving the application of geographic concepts in real-world settings. They have been most challenged by questions requiring the ability to integrate information within and across the topics of the Course Description, and that demand more abstract, conceptual reasoning.

This overall pattern is consistent with the results for Section II of the 2006 exam. Students performed best on Question 1, which focused on the application of key terms to analyze empirical patterns of contemporary international migration. In contrast, they found Question 2 to be the most challenging; this question required the highest-level and most abstract cognitive skills to earn full credit. Question 3 fell somewhere in between. (The average scores were lower than expected for Question 3, mostly because a larger-than-expected cohort of students was unfamiliar with the key concepts to be defined in this question; however, of those who knew the concepts, a large percentage could discuss and apply them.)

Several suggestions can be offered to teachers and students based on the results of the 2006 AP Human Geography Exam outlined in this chapter, and on feedback from the Readers who scored the free-response questions. Students need to be familiar with the relevant vocabulary used in the course. They should be taught to define key concepts in their own words. They should become familiar with applying concepts and with analyzing spatial processes and linkages across multiple geographic contexts and at a variety of scales. In particular, they should be instructed to be analytical, to focus on the geographical and spatial aspects of questions, and to develop process-oriented responses when appropriate. Moreover, although AP Human Geography is not a map reading or world geography course, students need a basic level of geographic literacy. (In Question 1, several students incorrectly identified countries or even continents. In Question 3, several students could not identify any of the countries on the map.) To promote students' ability to apply key concepts in specific geographic contexts, teachers might also consider integrating current events into class discussions of course material. Additional suggestions for preparing students are provided at the end of Chapter I.

Scoring Guidelines, Sample Student Responses, and Commentary

For each of the three questions, an overview is provided of the intent of the question, its structure, and its relationship to specific portions of the *AP Human Geography Course Description*. This is followed by a summary of the guidelines used to score the question, general comments on student performance, and actual student responses, with commentary. The students gave permission to have their work reproduced at the time they took the exam. These responses were read and scored by the Question Leaders, Table Leaders, and Readers assigned to each particular question. The actual scores that these students received, as well as a brief explanation why, are indicated.

Question 1—Overview

This question focused on key geographic principles related to the analysis of recent patterns and processes of human spatial behavior. Specifically, it required students to show an understanding of the fundamental principles of core-periphery relations, distance decay relationships, and chain migration, and then apply these principles specifically to patterns of international migration. As stimulus, the question included a map that showed major and minor migration streams at the international scale in the late twentieth century. Each of the migration streams, 11 in all, was identified by letter.

In part (a) students were asked to define each of the principles: core-periphery, distance decay, and chain migration. In part (b) students were then instructed to select a migration stream for each of the three geographic principles and discuss how that stream illustrated the principle. Each migration stream could be used only once.

This question tested knowledge of the “Population” topic found in the *AP Human Geography Course Description*, particularly the “Population movement” item. In addition, the key geographic principles are related to the first topic of the outline, “Geography: Its Nature and Perspectives,” especially the item “Key concepts underlying the geographical perspective.” Material from “Industrialization and Economic Development” (e.g., “Evolution of economic cores and peripheries”) was also useful for answering this question.

In part (a) 3 points were possible, 1 point for defining each of the three principles. For a correct definition of core-periphery, the essay needed to refer to the uneven spatial distribution of economic, political, or cultural power and show a basic understanding of the relationship between more developed and less developed regions of the world. Definitions of distance decay required an understanding of the idea that decreased spatial interaction (or decreased influence or intensity of culture traits and processes) is linked to increased distances between places. Definitions of chain migration needed to include the concept that once migration starts, subsequent migrants will follow earlier migrants.

In part (b) 6 points were possible, 2 points for each of the three principles from part (a). For each principle, the first point required the proper identification of an appropriate migration stream, while the second point required more detailed discussion of the migration stream linked to the geographic principle.

Many students correctly defined one or more of the three geographic principles in part (a). Of these, chain migration proved to be the easiest for students to define; core-periphery was the most difficult. Some students defined and discussed “core-periphery” at the urban scale (e.g., central business districts, suburbs, urban–rural contrasts) rather than at the international scale appropriate to the context of the question. Several students confused the principle of distance decay with the concept of time–space convergence or intervening opportunities. Many students confused the principle of chain migration with intervening opportunities, step migration, or mass migration.

Of the students who correctly defined one or more principles in part (a), several then identified an appropriate migration stream to illustrate them. Fewer students, however, provided complete discussions in part (b). In particular, students often had difficulty applying abstract concepts to real-world geographic phenomena. Overall, students were most familiar with migration flows to North America and, to a lesser extent, Europe. Of the three principles, students seemed most comfortable applying the principle of chain migration to the context of specific migration streams and providing appropriate discussion.

Scoring Guidelines for Question 1

Part A (3 points)

Define each of the following principles.

Principle	Definition
Core-Periphery	<ul style="list-style-type: none">■ Uneven spatial distribution of economic, political, or cultural power.■ Must show basic understanding of the relationship between more-developed and less-developed regions of the world.
Distance Decay	<ul style="list-style-type: none">■ Decreased spatial interaction linked to increased distance.■ Decreased influence or intensity of cultural traits and processes with increased distance.
Chain Migration	<ul style="list-style-type: none">■ Once migration starts subsequent migrants will follow earlier migrants.

Part B (6 points)

For each principle in part (A) select a migration stream identified by letter on the map and discuss how the stream you choose illustrates the principle. Note: Each lettered migration stream may be used only once.

Discussion

- 1 point: Must specifically identify regions or the groups of people involved in the migration, correctly linked to the principle defined in part (A).
- 2 points: Discuss specific reason for the migration pattern.
- | | |
|-----------------|---|
| Core-Periphery | <ul style="list-style-type: none">■ A discussion that shows an understanding of the characteristics of the migration stream relative to the core-periphery principle. |
| Distance Decay | <ul style="list-style-type: none">■ Greater number of migrants settled at the edge of the country closer to the country of origin, compared to the number settled on the opposite edge of the country.■ The diminishing evidence of cultural traits by a group of people, if the explanation clearly shows a link to the fact that due to migration there is less contact between the migrants and their home country.■ Explanatory factor behind distance decay relationship (e.g., travel cost, information availability). |
| Chain Migration | <ul style="list-style-type: none">■ Examples must clearly establish a link/transfer of knowledge between the first group of migrants and subsequent groups OR it should be clear that subsequent migrants are from areas of close proximity to the source area of the early migrants, and that they are migrating to the same destination area. |

Sample Student Responses for Question 1

Student Response 1 (Score: 9)

A. 1. Core-periphery is a theory that describes the relationships between countries. It states that more developed, independent, and economically powerful countries are located in the northern hemisphere, or the core. Less economically developed countries are located in the periphery, or southern hemisphere. Periphery countries are dependent on ~~economic~~^{core} countries.

2. Distance decay means that the force to migrate ~~is~~ ~~to~~ to another place diminishes as distance from that place increases. In other words, the farther away someone is located from a place, the less likely they are to migrate ~~that~~ there.

3. Chain migration results when a small group of people migrates to a place and friends or relatives follow. In this way, entire families or settlements may gradually migrate to another place.

B. 1. The major migration stream (C) illustrates core-periphery relationship. North Africa is a ~~periphery~~ "periphery" area and Europe is a "core" area. North Africa is less developed and has a large number of poor workers seeking better-paying jobs in the more economically advanced countries of Europe. For example, Moroccans migrate to Spain to work as fruit-pickers for wages higher than they would receive at home, but

lower than the average European is willing to work for.

2. The migration stream (B), ~~from~~ represents the principle of distance decay. Mexicans are strongly motivated to migrate to states like California, Texas, ~~and~~ and New Mexico, because they are closest to Mexico. ~~However~~ Mexicans are less likely to migrate to northern states because they are much farther away. Similarly, few Mexicans migrate to Canada because it is much farther ~~away~~ away than the United States, and fewer ~~more~~ ^{South} Americans migrate to the U.S. than Mexicans because they must travel a greater distance.

3. The migration stream (A) illustrates chain migration. A small number of Asian families migrated initially to Vancouver, which at first seems ~~to be~~ an unlikely destination. These families communicated to friends and relatives still in Asia of the wonderful opportunities available. Families saved money to bring more relatives over, and other families migrated as well. For a sense of comfort and security, later migrants from Asia settled in established Asian communities.

Commentary

This essay earned all 9 points by meeting the expectations of the scoring guidelines. The definition of core-periphery shows a clear understanding of the relationships between countries (“... [the] more developed ... economically powerful countries ... located in the ... core ... Less economically developed countries are located in the periphery [sic] ... Periphery [sic] countries are dependent on core countries”). The student established a connection between distance and interaction to define distance decay (“... the farther away someone is located from a place, the less likely they are to migrate there”). The definition for chain migration established the spatial connection of the initial migrants to those who migrated later (“... results when a small group of people migrates to a place and friends or relatives follow”). In part (b) the essay scored all 6 of the discussion points for appropriate examples and a discussion for each one. The student used Stream C as an example discussing the type of migrant moving from the periphery (Morocco) to the core (Spain), and provided a specific discussion of the advantages of leaving a peripheral area to find work in the core (“North Africa is less developed ... has a large number of poor workers seeking better-paying jobs in ... countries of Europe ... Morroccans [sic] migrate to Spain to work as fruit-pickers for wages higher than they would receive at home”). Stream B was correctly used to illustrate and discuss the concept of distance decay (“Mexicans are strongly motivated to migrate to states like California, Texas, and New Mexico, because they are closest to Mexico ... few Mexicans migrate to Canada because it is much farther away ... fewer South Americans migrate to the U.S. than Mexicans because they must travel a greater distance”). Stream A was used as an example of chain migration and clearly established both transfer of specific information through family members, as well as a specific destination (“... Vancouver, which at first seems an unlikely destination ... families communicated to friends and relatives still in Asia ... other families migrated as well. For a sense of comfort and security, later migrants from Asia settled in established Asian communities”).

Ⓐ 1. The core-periphery relationship shows the connections between the urbanized MDC's such as Anglo-America and Western Europe ~~and~~ which make up the core and the periphery of LDC's such as Latin America and East Asia.

2. The principle of distance decay says that the further away a place is, the less influence that it has and so therefore a person would be more inclined to migrate to a closer area, rather than travel far away.

3. Chain migration occurs when a person migrates to a place because their family or someone of the same culture lives there.

Ⓑ 1. The core-periphery relationship is shown by arrow B. Immigrants from the less developed country Mexico immigrate into the United States in search of better economic opportunities.

2. Distance decay is shown by arrow C. Because the area of France and Spain is close to North Africa, residents of this area are more likely to travel there than other locations such as Anglo-America.

3. The principle of chain migration is shown by arrow A. In previous years, many immigrants from Asia have already come to America. Therefore, more people continue to follow them and settle near people ~~with~~ with homogeneous culture. Because of this, areas such as Chinatown have sprung up in some cities.

Commentary

This essay earned the definition points in part (a) and the identification points in part (b) but did not provide any discussion of the specificity of the migration streams to the concepts. The definitions provided in part (a) were fairly typical of those provided by students who were familiar with the concepts of core-periphery, distance decay, and chain migration. In part (b) the essay correctly links Stream B with core-periphery ("Immigrants from the less developed country Mexico immigrate into the United States in search of better economic opportunities"), Stream C to distance decay ("Because the area of France and Spain is close to North Africa, residents of this area are more likely to travel there than other locations such as Anglo-America"), and Stream A to chain migration ("Therefore, more people continue to follow them and settle near people with homogeneous culture").

Core-periphery refers to how activities in the core of an area can greatly affect the periphery. Distance decay is how with distance between two places increasing, their interaction decreases. Chain migration is when a person or a group of people migrate to a certain location because someone they knew migrated there. An excellent example of chain migration in the map is letter B, which shows a major migration from Mexico to the U.S. Many immigrants from Mexico after their family has done so. An example of core-periphery migration is letter K, a migration from Southeast Asia to Australia. Southeast Asia is an industrial core, whereas Australia is more on the periphery of that area. For an example of distance decay, I choose letter F, which shows a minor migration stream from South America to Japan. Those two places don't have much

interaction, simply because of
their great distance from one another.

Commentary

Two points were earned in this essay for correctly defining distance decay and chain migration. No points were awarded for the incorrect definition of the concept of core-periphery. Similarly, the student did not identify a correct migration stream for this concept. One point was awarded for identifying Stream F as an example of distance decay ("Those two places don't have much interaction, simply because of their great distance from one another"), and another point was awarded for using Stream B as an example of chain migration ("Many immigrants [come] from Mexico after their family has done so").

Question 2—Overview

This question required a synthesis of concepts related to the impacts of current global economic forces on the local level, in a specific geographic context. A photograph of a customer service call center building was used as stimulus. The building, located in a small town in Arkansas, had previously been used as an automobile parts manufacturing center. It thus represented a shift from the secondary (manufacturing) sector to the tertiary (service) sector. Part (a) asked students to identify two reasons why businesses would choose to locate their call centers in small southern towns. Part (b) asked students to identify three disadvantages to using call centers as a local economic development strategy. The question thus required a change in perspective, from the firm's point of view in part (a) to the community's point of view in part (b).

This question required students to apply their knowledge of material in the “Industrialization and Economic Development” section of the topic outline in the *AP Human Geography Course Description*. In particular, students were prompted to integrate, in a real-world context, concepts from several topics in this section, including “Deindustrialization and economic restructuring,” “Local development initiatives,” and “Geographic critiques of models of economic localization.” Students could also incorporate concepts related to globalization (e.g., the relationship between local communities and the global economy).

In part (a) 2 points were possible, 1 point for each valid reason given for why businesses would choose to locate their call centers in small southern towns. Several possible responses were acceptable, including low wage structure, low taxes, low land or site costs, low building costs or the availability of buildings, a large labor pool resulting from the loss of manufacturing jobs, availability of telecommunications infrastructure, and favorable business climate.

In part (b) 6 points were possible, 2 points for each of three valid disadvantages to using call centers as a local development strategy. For each disadvantage, the identification of a core idea was worth 1 point. To earn the second point, students needed to discuss the core idea in some depth, in particular to link the idea explicitly to local economic development. Several core ideas were acceptable as disadvantages, including low wages, low multiplier effects, low skill requirements, and the potentially footloose or short-term nature of the jobs provided.

In part (a) several students identified reasons why businesses would choose to locate call centers in small southern towns. Usually these reasons were related in some way to “low costs” (e.g., low wage structure, low taxes, low land costs, low building costs). A few students identified business climate or the labor pool available because of deindustrialization. Some students provided elaborate answers for part (a) which asked only for an identification, and did not provide full discussions in part (b). On the other hand, many students were altogether unfamiliar with the term “customer service call center” or could not apply their knowledge of the term to the issues raised in the question.

In part (b) students had more difficulty discussing three disadvantages from the community's perspective. Several students could not provide any meaningful disadvantages, and some students did not change the perspective in part (b) from that of the firm to that of the community, as required by the question; instead, they tried to discuss disadvantages to the firm of locating in small southern towns. Students who identified disadvantages frequently cited low wages, the footloose nature of the new business, or the relatively low skill level associated with the new jobs. Many who correctly identified disadvantages in part (b) did not provide sufficient discussion to earn full credit. In particular, many students had a poor understanding of the importance of local economic linkages, local–national linkages, and local–international linkages, in analyzing recent developments of economic systems. However, a few students recognized the importance of linkages at the local level (e.g., impact on the local multiplier effect, level of local investment) and the national or international level (e.g., outside ownership of footloose firms, global competition). The latter students tended to have more complete discussions in part (b).

Scoring Guidelines for Question 2

Part A (2 points: 1 point for each correct reason)

Identify two reasons why businesses would choose to locate their call centers in small southern towns.

- Low wage structure
- Low tax structure, tax incentives
- Low land (site costs) or rent
- Low building costs/buildings available
- Large labor pool (from deindustrialization) and small town/rural area
- Telecommunications in place or easily provided
- Business climate, e.g., right to work, zoning

Part B (6 points: For each of 3 examples—1 point for Core Idea; 1 point for Discussion)

Discuss three disadvantages in the use of call centers as a local economic developmental strategy.

Core Idea(s)	Discussion Points
Low wages	Adds little to local economy through disposable income
Footloose; short term; unstable employer	Corporate mobility facilitated by globalization of language, communications, technology, and minimal local investment Few local resources needs or demands Future technological advances Not a long-term contributor to local economic development
Low multiplier effect Low spin-off development	Not a provider of goods, so a minimal need for associated services, supplies, or local linkages
Amount of labor required is minimal	Small addition of capital to local economy—highly automated
Skill level requirements minimal Part-time employment	Jobs requiring basic in-house training Upward mobility/promotions restricted Limited improvements on education system Limited employment benefits
Global corporation	Separation from parent company headquarters does not encourage loyalty to locality Low investment requirements Longevity in the place depends on corporate success, succession of owners

Sample Student Responses for Question 2

Student Response 1 (Score: 8)

A. Smaller towns often have few job opportunities. Especially in this particular town in Arkansas where an automotive parts manufacturing plant was recently closed, there is likely to be a high unemployment rate. More people would be willing to work for lower salaries than in a large, thriving city. The corporation would save considerable money by employing people in an area where demand for jobs is high. Additionally, renting property in order to house customer service call centers is far more expensive in the central business district. Since call centers do not necessarily need to be located nearby their parent company, it makes sense to put them on less expensive property, which can be found in more remote areas. In this particular case, renting a pre-existing building is preferable to having to erect a new one. Businesses save money on labor and property when locating their call centers in small southern towns.

B. Using call centers as a local economic development strategy is a poor choice. Call centers have very limited options for prospective future agglomeration. They will not motivate other companies into the area with new businesses and job offers. Perhaps the employees of the call center will support grocery stores and other basic businesses, but large corporations will not be moved or open new branches in the area. Also, working in a call center does not usually spur innovation. People go to the same job each day without challenging or inspiring conditions. New ideas will not flourish as a result of the call center with any more frequency than if it weren't there.

There is not much room to move up in a call center, so employees will probably not climb to a higher position in life. Rather, everything will remain stagnant. English is increasingly becoming a global language. This is partially due to English colonialization, the United States' political and economic influence, and the spread of the internet with a primarily English-based world wide web. For a small Arkansas town to assume that the arrival of a call center will create permanent jobs is unwise. Just as it was once more cost effective to move the center into their town, it will someday become more cost effective to move the center into another town. Many countries can now boast of populations that are sufficient enough in English to work for American companies while receiving wages that are a bargain to the American corporation. Using the center to develop the southern economy could be very short-sighted.

Commentary

The student received both identification points for recognizing the importance of low wage structures in small southern towns (“More people would be willing to work for lower salaries than in a large, thriving city”), and for understanding that because many service industries require minimal additions or improvements to infrastructure, they can minimize the space costs in small southern towns with low rents (“... renting property in order to house customer service call centers is far more expensive in the central business district. ... In this particular case, renovating a pre-existing building is preferable to having to erect a new one”). In part (b) 6 discussion points were earned for identifying and discussing three disadvantages in the use of call centers as a local economic development strategy. The first core idea identified and discussed concerns how the low multiplier effect is associated with a service industry that neither demands nor provides additions to the business community for community economic development (“Call centers have very limited options for prospective future agglomeration”). The second core idea is associated with the low skill and educational requirements of the workforce. The student understands that the absence of necessity for additional training/education does little for the local economy and its economic development strategy (“... working in a call center does not usually spur innovation. ...” and “There is not much room to move up in a call center, so employees will probably not climb to a higher position in life. Rather, everything will remain stagnant [*sic*]”). The last core idea in this essay is the discussion of the footloose or unstable employer. The low cost situation in the southern town can be found elsewhere as other regions or countries face deindustrialization, corporate downsizing, changing ownership, etc. Telecommunications has no boundary restrictions (“For a small Arkansas town to assume that the arrival of a call center will create permanent jobs is unwise. Just as it was once more cost effective to move the center into their town, it will someday become more cost effective to move the center into another town. ... Using the center to develop the southern economy could be very short-sighted?”).

Student Response 2 (Score: 5)

a) Businesses would choose to locate their calling centers in small southern town because land is cheap. To rent or pay for this office is much cheaper, than an office area in a city. Also, if the company does explode and does well, they will have room to expand. Another thing is that senses its a small town the income there for most families would be low, so now the owner can pay low wages yet get the help, since there is no competition.

b) The disadvantages of having a call center as a local development strategy is that this company will not attract other companies, making it hard for the town to expand. Also, this job doesn't call for educated people, so the town will end up with the same low-wage jobs they have always had until a new business comes in. Also, the call center would most likely be a low paying company, since all they have to do is answer the phone. This pay would be too low to support a family on, so it would not attract families.

Commentary

This essay earned both identification points in part (a) for identifying that land is less expensive in a small town ("... land is cheap. To rent or pay for this office is much cheaper than an office area in a city... they will have room to expand") and for identifying traditionally low wage structures in small southern towns ("... the income there for most families would be low, so now the owner can pay low wages"). Three points were awarded for identifying three disadvantages to using call centers as an economic strategy, but the essay did not receive any points for discussion.

Student Response 3 (Score: 4)

One reason that a business would choose to locate its call centers in small southern towns is due to the site factor of land. Since call centers do not need to be located near anything specific (markets or ~~resor~~ resources) it is wise to locate those centers on cheap land that is found in more rural ~~land~~ areas, instead of expensive land in urban areas. Another reason for this location is because of deglomeration and cheap labor. Many ~~area~~ industries that once clustered together are ~~moving~~ moving away from each other and dividing up their branches to be located in different places (to take advantage of cheap land) ~~this was done during the twentieth century~~ ~~by many factors~~. Businesses also locate in the South to take advantage of cheap labor found in the non-unionized & rural areas of the South. This was done ^{earlier} during the ~~late~~ twentieth century by many New England factories who sought to lower their labor costs by moving their ~~progr~~ manufacturing areas down to the south where there were no labor unions. This is still true to some degree to this day. ~~Also, there~~ ~~now~~ is more cheap, unskilled labor found

There are three disadvantages in the use of call centers as a local economic development strategy. The first is that call centers do not attract other industries to agglomerate in that region, nor do they attract more investment ~~for~~ for economic development. They are simply stand-alone structures that do not ~~require demand~~ depend on any other industry for success. ^{The final} ~~Another~~ disadvantage is that call centers do not ~~require~~ provide a lot of jobs that would attract migrants and build up the urban area. ~~The final~~ ~~disadvantage is that call centers.~~

Commentary

The essay earned 2 points in part (a) by identifying two reasons a business might relocate to a small southern town. One point was earned for recognizing that rural land is less expensive than urban or suburban land near the home office of most major companies ("... would choose to locate ... due to the site factor of land" and "... locate these centers on cheap land that is found in more rural areas, instead of expensive land in urban areas"). A second point was awarded for understanding the importance of lower wage structures ("Businesses also locate in the South to take advantage of cheap labor found in the non-unionized and rural areas of the South"). The student received 2 points for understanding and discussing the importance of the multiplier effect ("... call centers do not attract other industries to agglomerate in that region, nor do they attract more investment for economic development").

Question 3—Overview

This question required students to show their understanding of important political geography concepts and apply them in a specific geographic context. Specifically, it focused on the concepts of centripetal and centrifugal forces, as used in political geography, in the context of South Asia. A map of South Asia was provided as stimulus. In part (a) students were asked to define the concepts “centripetal force” and “centrifugal force.” In part (b) they were asked to give an example of and explain a centripetal force that affects the viability of any state shown on the provided map. In part (c) they were asked to do the same for centrifugal force.

This question tested students’ knowledge of material from the “Political Organization of Space” section of the topic outline in the *AP Human Geography Course Description*, and their ability to apply that knowledge. Several topics within this section of the outline are related to the question of factors supporting or challenging the viability of a state. Related items include “The nation-state concept,” “Challenges to inherited political-territorial arrangements,” “Fragmentation, unification, alliance,” and “Spatial relationships between political patterns and patterns of ethnicity, economy, and environment.” Depending on the centripetal and centrifugal factors chosen, students could also draw on their knowledge of several other sections of the topic outline, especially “Cultural Patterns and Processes.”

In part (a) 2 points were possible for defining the concepts “centripetal force” and “centrifugal force.” For “centripetal force,” the definition had to refer to forces that unify (strengthen, stabilize, bind together) a state. For “centrifugal force,” a definition had to refer to forces that divide (weaken, destabilize, pull apart) a state. Correct definitions of both concepts earned 2 points. A single point was earned by essays having a correct definition of only one concept, or that lacked an explicit reference to the viability of a state.

In part (b) 2 points were possible. The first point was earned by correctly identifying a centripetal force with reference to a specific country on the map. The second point required specific details. Many possible centripetal forces were acceptable, such as religion (e.g., Hinduism in India, Islam in Pakistan), infrastructure (e.g., railroads in India), charismatic leaders, language, physical geography, and expressions or symbols of national pride.

Similarly, 2 points were possible in part (c): the first point for correctly identifying a centrifugal force with reference to a specific country on the map, and the second point for providing specific details. Many possible centrifugal forces were acceptable, such as religion (e.g., Hindu/Islam conflicts in India, Buddhist/Hindu conflicts in Sri Lanka), language (e.g., variety of languages in India), regionalism, separatist movements, and physical geography.

Many students provided correct definitions of the concepts “centripetal force” and “centrifugal force” in part (a). Many others, however, seemed unfamiliar with the concepts, at least within the context of political geography. Some students reversed the definitions of “centripetal force” and “centrifugal force,” while others provided definitions more relevant to other disciplines, e.g., physics, rather than political geography. Several students confused centripetal and centrifugal forces with push and pull factors of migration.

Responses in parts (b) and (c) depended to a large degree on whether correct definitions had been provided in part (a). Of the essays that earned full credit in part (a) some used the same example for parts (b) and (c), contrary to the directions in the question, while others provided valid examples of centripetal and centrifugal forces but did not relate them to one of the states shown on the map. Some students provided valid examples of social, cultural, or political forces with no explicit connection to the viability of a state, and several discussed centripetal/centrifugal forces at an inappropriate geographic scale, e.g., at the regional level rather than at the state level. In general, however, once an appropriate example was given, a sufficiently strong explanation was given to receive full credit for that part of the question. Overall, students seemed more able to apply the concept of centripetal force to the context of South Asia (in part (b)) than they could apply the concept of centrifugal force (in part (c)).

Scoring Guidelines for Question 3

Part A (2 points)

Define the concepts “centripetal force” and “centrifugal force.”

- 1 point: Generalized definition of centripetal and centrifugal without explicit reference to “viability of a state” OR one correct definition.
- 2 points: Centripetal forces unify a state (provide stability, strengthen, bind together, create solidarity).
Centrifugal forces divide a state (lead to balkanization/devolution, disrupt internal order, destabilize, weaken).

Part B (2 points: 1 point for generalized identification of a force with a country specified; 2 points for identification of a force with country specified and specific details)

Give a specific example of and explain a centripetal force that affects the viability of any of the states shown on the map.

Centripetal force examples	Specific details
Religion	Hinduism in India or Nepal; Islam in Pakistan or Bangladesh; Buddhism in Bhutan
Language	Urdu (official language), Punjabi or English in Pakistan; Hindi or English in India; Bengali in Bangladesh
Expressions of national pride/symbols (generalized: anthem, sports teams, flag...)	Cricket in India; Place name changes in India
Transportation/Communication infrastructure	Railroads in India
Raison d'être/Shared history	History of British imperialism; Creation of states (India, Pakistan, Bangladesh)
External threat	India, Pakistan
Morphology/Compact state	Sri Lanka, Bhutan
Charismatic or strong leader	Absolute monarchy in Nepal; Military leader in Pakistan
Forward capital	Capital of Pakistan moved from Karachi to Islamabad
Disaster response	Earthquake in Pakistan; Cyclones or flooding in Bangladesh; Tsunami in India/Sri Lanka—must reference unifying effect on population
Economic-development programs	Self-sufficiency program in India
Physical geography	Pakistan as a river valley, isolated by mountains and desert
Government	India's representative democracy

Part C (2 points: 1 point for generalized identification of a force with a country specified; 2 points for identification of a force with country specified and specific details)

With reference to a different specific example, explain a centrifugal force that affects the viability of any of the states shown on the map.

Centrifugal force examples	Specific details
Religion	Islam/Hindu in India or Bangladesh; Buddhist/Hindu in Sri Lanka; Sunni/Shiite Muslims in Pakistan; Islam/Hindu in Kashmir; Sikhs/Hindu in India; Jains/Hindu in India
Language	India 14–18 official languages (4 language families); disputes regarding place name changes in India
Federal Government/ Regionalism	Federal system (28 states) in India
Ethnicities/Separatist movements	Sikhs in India; Muslims in Kashmir; Tamil/Sinhalese in Sri Lanka; Maoist rebels in Nepal
Morphology/Fragmented or Prorupt	Bangladesh exclave in India; Prorupt portion of India
External threat	India, Pakistan
Territorial Disputes	Kashmir dispute between Pakistan and India
Multicore state	Several large cities in India
Physical geography	Mountains divide communities in Nepal

WILL NOT ACCEPT:

- Examples with countries not on the map (e.g., Afghanistan, Burma, Madagascar)
- Same force and country for both B and C (MAY use same country with different forces or same force with different countries)

Sample Student Responses for Question 3

Student Response 1 (Score: 6)

A. A centripetal force is a force that acts to pull a country together. An example could be adopting an official language like English, which is external, in a state where linguistic boundaries divide, such as Nigeria. Centrifugal forces pull a country apart. Ethno-nationalism can be seen as a centrifugal force. Each person thinks that their personal nation is better than all others. This can lead to destroying processes like devolution, where a state breaks apart.

B. A centripetal force that affects the region of South Asia and the Subcontinent is religion in ~~India~~ Pakistan. Pakistan is a state created on religious differences from Hindu majority India, and so the majority of people living here practice Islam. The fact that everyone, or at least most, practice the same religion brings Pakistan together.

C. A centrifugal force impacting India, although not the most important, is human territoriality. This is the idea that different nations and ethnic groups each desire their own piece of land. In India it can be noticed with the Sikh minority group. Recently, they have been calling for autonomy and claim over the Punjab region in north-western India. The fact that the Sikhs want their own piece of India could very well break up India if they ever resorted to violence. This wouldn't be the first time, because Pakistan also used to be a part of India.

Commentary

This student earned 2 points in part (a) for correctly defining centripetal and centrifugal forces at the country level (“A centripetal force ... acts to pull a country together” and “Centrifugal forces pull a country apart”). The student also earned all 4 discussion points for discussing and supplying specific examples of centripetal forces (“... religion in Pakistan ... state created on religious differences from Hindu majority India, and so the majority of people living there [in Pakistan] practice Islam ... the same religion brings Pakistan together”) and centrifugal forces in India (“... centrifugal force impacting India ... that different nations and ethnic groups each desire their own piece of land ... [The Sikhs] have been calling for autonomy and claim over the Punjab region ... The fact that the Sikhs want their own piece of India could very well break up India”).

Student Response 2 (Score: 4)

A.) A centripetal force is something that unites the people of a country or region. A centrifugal force is something that pulls people apart or draws out people's differences in a country or region.

B.) Hinduism in India is an example of a centripetal force. The majority of the country practices the same religion, so the people can unite over this shared trait. It sets them apart from most other countries. It makes them feel united and in a way proud of their country in that they follow and agree with the beliefs of the people living in it.

C.) The caste system in India is an example of a centrifugal force. It separates the people into different social groups. It does not unite them; it does the opposite. Some people are not allowed to speak to each other because of their different castes. This pulls the people apart and makes them feel different instead of feeling like they're all "Indians."

Commentary

This student earned both points in part (a) for correctly defining both terms in relation to a country (“... centripetal force is something that unites the people of a country” and “... centrifugal force is something that pulls people apart ... in a country”). The student earned both points for discussion and appropriate examples of centripetal forces in part (b) (“Hinduism in India ... majority of the country practices the same religion ... shared trait ... makes them feel united”) but received no credit for part (c). First, a student cannot cite religion in India as a centripetal force in part (b) and as a centrifugal force in part (c). Second, the caste system (whether taken as a religious argument or not) is not an acceptable centrifugal force.

A centripetal force is a force that unites a state. A centrifugal force is a force that divides a state. A specific example of a centripetal force is shared resources. Shared resources can be a centripetal force because the countries of the same area can unite in order to make more of a profit off of the resources of that area. A centrifugal force is the dramatic difference in religion between India and the surrounding countries. The fact that India is dominantly Hindu and the surrounding countries are not, has potential to cause not only cultural and political conflict, but even economic conflict, because cultural and political conflict may cause a halt or a decline in economic cooperation.

Commentary

The student received both points for correct definitions and appropriate examples of centripetal and centrifugal forces regarding a state ("... centripetal force ... unites a state ... centrifugal force ... divides a state ..."). The essay received no points for examples or discussion of centripetal forces because the student writes about possible uniting factors, but does not provide a country as an example. The essay received no points for examples or discussion of centrifugal forces. Although the student uses religion in India as a possible centrifugal force, there is no discussion about conflict between Hindus and any other group within India.

Chapter IV: Statistical Information

- Table 4.1—Section II Scores
- Table 4.2—Scoring Worksheet
- Table 4.3—Grade Distributions
- Table 4.4—Section I Scores and AP Grades
- How AP Grades Are Determined
- College Comparability Studies
- Reminders for All Grade Report Recipients
- Reporting AP Grades
- Purpose of AP Grades

This chapter presents statistical information about overall student performance on the 2006 AP Human Geography Exam.

Table 4.1 shows and summarizes score distributions for each of the free-response questions. The scoring worksheet presented in Table 4.2 provides step-by-step instructions for calculating AP section and composite scores and converting composite scores to AP grades. Table 4.3 includes distributions for the overall exam grades. The grade distributions conditioned on multiple-choice performance presented in Table 4.4 are useful in estimating a student's AP grade given only the student's multiple-choice score.

College comparability studies, which are conducted to collect information for setting AP grade cut points, are briefly discussed in this chapter. In addition, the purpose and intended use of AP Exams are reiterated to promote appropriate interpretation and use of the AP Exam and exam results.

Table 4.1—Section II Scores

The following table shows the score distributions for AP students on each free-response question from the 2006 AP Human Geography Exam.

Score	Question 1		Question 2		Question 3	
	No. of Students	% at Score	No. of Students	% at Score	No. of Students	% at Score
9	413	2.03				
8	729	3.59	100	.49		
7	1,110	5.46	300	1.48		
6	1,836	9.03	791	3.89	1,128	5.55
5	2,222	10.93	1,215	5.98	1,241	6.10
4	2,648	13.03	2,190	10.77	2,400	11.81
3	2,931	14.42	2,734	13.45	1,761	8.66
2	2,997	14.74	3,936	19.36	2,314	11.38
1	2,569	12.64	4,206	20.69	1,568	7.71
0	2,505	12.32	4,495	22.11	7,833	38.53
No Response	368	1.81	361	1.78	2,083	10.25
Total Students	20,328		20,328		20,328	
Mean	3.32		2.10		1.68	
Standard Deviation	2.39		1.85		1.98	
Mean as % of Maximum Score	37		26		28	

Table 4.2—Scoring Worksheet

Section I: Multiple Choice

$$\left[\frac{\text{Number Correct (out of 74)}}{\text{Number Correct (out of 74)}} - \left(\frac{1}{4} \times \frac{\text{Number Wrong}}{\text{Number Wrong}} \right) \right] \times 0.8108 = \text{Weighted Section I Score}$$

(If less than zero, enter zero; do not round)

Section II: Free Response

Question 1 $\frac{\text{Score}}{\text{(out of 9)}} \times 2.2222 = \text{Score (Do not round)}$

Question 2 $\frac{\text{Score}}{\text{(out of 8)}} \times 2.5000 = \text{Score (Do not round)}$

Question 3 $\frac{\text{Score}}{\text{(out of 6)}} \times 3.3333 = \text{Score (Do not round)}$

Sum = $\text{Sum of weighted scores}$
Weighted Section II Score
 (Do not round)

Composite Score

$$\text{Weighted Section I Score} + \text{Weighted Section II Score} = \text{Composite Score (Round to nearest whole number)}$$

**AP Grade Conversion Chart
Human Geography**

Composite Score Range*	AP Grade
70–120	5
54–69	4
39–53	3
28–38	2
0–27	1

* The students' scores are weighted according to formulas determined in advance each year by the Development Committee to yield raw composite scores; the Chief Reader is responsible for converting composite scores to the 5-point AP scale.

Table 4.3—Grade Distributions

More than 58 percent of the AP students who took this exam earned a qualifying grade of 3 or above.

	Exam Grade	Number of Students	Percent at Grade
Extremely well qualified	5	3,384	16.65
Well qualified	4	4,023	19.79
Qualified	3	4,413	21.71
Possibly qualified	2	3,264	16.06
No recommendation	1	5,244	25.80
Total Number of Students		20,328	
Mean Grade		2.85	
Standard Deviation		1.43	

Table 4.4—Section I Scores and AP Grades

For a given range of multiple-choice scores, this table shows the percentage of students receiving each AP grade. If you have calculated the multiple-choice score (**Weighted Section I Score**) by using the formula shown in Table 4.2, you can use this table to figure out the most likely grade that the student would receive based only on that multiple-choice score.

Multiple-Choice Score	AP Grade					Total
	1	2	3	4	5	
51 to 60	0.0%	0.0%	0.0%	1.2%	98.8%	1.2%
41 to 50	0.0%	0.0%	1.2%	21.8%	77.1%	12.5%
31 to 40	0.0%	1.8%	28.0%	49.4%	20.9%	27.1%
21 to 30	5.9%	34.9%	45.3%	13.1%	0.7%	28.0%
11 to 20	66.7%	27.1%	6.1%	0.2%	0.0%	21.3%
0 to 10	99.3%	0.6%	0.1%	0.0%	0.0%	10.1%
Total	25.8%	16.1%	21.7%	19.8%	16.7%	100.0%

How AP Grades Are Determined

As described in Chapter II, the AP Human Geography Exam has two sections. Section I originally had 75 multiple-choice questions, but one question was not scored (item # 62). As a result, Section I has a possible score ranging from 0 to 74. Section II has 3 essay questions that have possible scores that range from 0 to 9 for Question 1, 0 to 8 for Question 2, and 0 to 6 for Question 3.

For each student, scores on different parts of the exam are combined to produce a composite score that ranges from a minimum possible score of 0 to a maximum possible score of 120 points. In calculating the composite score, scores on different parts are multiplied by weights that are determined by the Development Committee. These weights are designed to place relative emphases on various skills that mirror the emphases in the corresponding college curriculum.

Composite scores are not released to students, schools, or colleges. Instead, the composite scores are converted to AP grades on a 5-point scale and the AP grades are reported. The process of calculating the composite score and converting it to an AP grade involves a number of steps, which are summarized in the Scoring Worksheet (Table 4.2) and described in detail below:

1. **The score on Section I is calculated.** In calculating the score for Section I, a fraction of the number of wrong answers is subtracted from the number of right answers. With this adjustment to the number of right answers, students are not likely to benefit from random guessing. The value of the fraction is $\frac{1}{4}$ for the five-choice questions in the AP Human Geography Exam. The weighted maximum possible score on Section I is 60, and it accounts for 50% of the maximum possible composite score.
2. **The score on Section II is calculated.** The raw scores on the three essay questions are weighted and summed to yield the total weighted Section II score. The weighted maximum possible score on Section II is 60. It accounts for 50% of the maximum possible composite score.
3. **AP grades are calculated.** Composite scores are calculated by adding the weighted Section I and weighted Section II scores together. The AP grades are calculated by comparing the composite scores to the four composite cut-scores selected by the Chief Reader that divide the composite score range into five grades. A variety of information is available to help the Chief Reader determine the cut-scores corresponding to each AP grade:
 - Statistical information based on test score equating

- College/AP grade comparability studies
- The Chief Reader's observations of students' free-response performance
- The distribution of scores on different parts of the exam
- AP grade distributions from the past three years

See Table 4.3 for the grade distributions for the 2006 AP Human Geography Exam.

If you are interested in more detailed information about this process, please visit AP Central (apcentral.collegeboard.com). There you will also find information about how the AP Exams are developed, how validity and reliability studies are conducted, and other data on all AP subjects.

College Comparability Studies

The Advanced Placement Program has conducted college grade comparability studies in all AP subjects. These studies have compared the performance of AP students with that of college students in related courses who have taken the AP Exam at the end of their course. In general, AP cut points are selected so that the lowest AP 5 is equivalent to the average A in college, the lowest AP 4 is equivalent to the average B, and the lowest AP 3 is equivalent to the average C (see below).

AP Grade	Average College Grade
5	A
4	B
3	C
2	D
1	

Research studies conducted by colleges and universities and by the AP Program indicate that AP students generally receive higher grades in advanced courses than do students who have taken the regular freshman-level courses at the institution. Colleges and universities are encouraged to periodically undertake such studies to establish appropriate policy for accepting AP grades and ensure that admissions and placement standards remain valid. It is critical to verify that admissions and placement measures established for a previous class continue for future classes. Summaries of several studies are available at AP Central. Also on the College Board Web site is the free Admitted Class

Evaluation Service™ (www.collegeboard.com/highered/apr/aces/aces.html) that can predict how admitted college students will perform at a particular institution generally and how successful they can be in specific classes.

Reminders for All Grade Report Recipients

AP Exams are designed to provide accurate assessments of achievement. However, any exam has limitations, especially when used for purposes other than those intended. Presented here are some suggestions for teachers to aid in the use and interpretation of AP grades.

- AP Exams in different subjects are developed and evaluated independently of each other. They are linked only by common purpose, format, and method of reporting results. Therefore, comparisons should not be made between grades on different AP Exams. An AP grade in one subject may not have the same meaning as the same AP grade in another subject, just as national and college standards vary from one discipline to another.
- Grade reports are confidential. Everyone who has access to AP grades should be aware of the confidential nature of the grades and agree to maintain their security. In addition, school districts and states should not release data about high school performance without the school's permission.
- AP Exams are not designed as instruments for teacher or school evaluation. Many factors influence AP Exam performance in a particular course or school in any given year. Thus, differences in AP Exam performance should be carefully studied before being attributed to the teacher or school.
- Where evaluation of AP students, teachers, or courses is desired, local evaluation models should be developed. An important aspect of any evaluation model is the use of an appropriate method of comparison or frame of reference to account for yearly changes in student composition and ability, as well as local differences in resources, educational methods, and socioeconomic factors.
- The *AP Instructional Planning Report* is sent to schools automatically and can be a useful diagnostic tool in reviewing course results. This report identifies areas of strength and weakness for the students in each AP course. The information may also provide teachers with guidance for course emphasis and student evaluation.
- Many factors can influence exam results. AP Exam performance can be affected by the degree of agreement between a course and the course defined in the relevant

AP Course Description, use of different instructional methods, differences in emphasis or preparation on particular parts of the exam, differences in curriculum, or differences in student background and preparation in comparison with the national group.

Reporting AP Grades

The results of AP Exams are disseminated in several ways to students, their secondary schools, and the colleges they select.

- College and student grade reports contain a cumulative record of all grades earned by the student on AP Exams during the current or previous years. These reports are sent in July. (School grade reports are sent shortly thereafter.)
- Group results for AP Exams are available to AP teachers in the *AP Instructional Planning Report* mentioned previously. This report provides useful information comparing local student performance with that of the total group of students taking an exam, as well as details on different subsections of the exam.

Several other reports produced by the AP Program provide summary information on AP Exams.

- State, National, and Canadian and Global Reports show the distribution of grades obtained on each AP Exam for all students and for subsets of students broken down by gender and by ethnic group.
- The Program also produces a one-page summary of AP grade distributions for all exams in a given year.

For information on any of the above, please call AP Services at 609 771-7300 or e-mail apexams@info.collegeboard.org.

Purpose of AP Grades

AP grades are intended to allow participating colleges and universities to award college credit, advanced placement, or both to qualified students. In general, an AP grade of 3 or higher indicates sufficient mastery of course content to allow placement in the succeeding college course, or credit for and exemption from a college course comparable to the AP course. Students seeking credit through their AP grades should note that each college, not the AP Program or the College Board, determines the nature and extent of its policies for awarding advanced placement, credit, or both. Because policies regarding AP grades vary, students should consult the AP policy of individual colleges and universities. Students can find information in a college's catalog or Web site, or by using the AP Credit Policy search at www.collegeboard.com/ap/creditpolicy.

Appendix: Professional Development Opportunities, Support, and Resources

- Workshops, Conferences, Seminars, and Summer Institutes
- AP Central—Tools and Resources
- Publications and Resources
- Funding Opportunities

Workshops, Conferences, Seminars, and Summer Institutes

As briefly described below, most College Board workshops range from one to three days and serve:

- Middle and High School Teachers
- Administrators and Coordinators
- Counselors

This professional development directly supports those involved or interested in College Board programs, such as:

- Advanced Placement Program
- Pre-AP®
- PSAT/NMSQT®
- SAT Readiness Program™
- CollegeEd®
- MyRoad™

Further details about these workshops are available from your regional College Board office (see contact information on the inside back cover of this book).

Workshops and Conferences for Middle and High School Teachers

Advanced Placement Program

AP workshops, conferences, and seminars, led by an experienced member of the AP community and/or a College Board–endorsed consultant, guide participants through the skills students must master in the AP classroom and the most innovative teaching practices to help engage students. These events concentrate on specific subject-area topics and offer curricular assistance for the new (0–3 years teaching AP), intermediate (4–7 years teaching AP), and experienced (beyond 8 years teaching AP) teacher. These

professional development events are offered in all AP subject areas: Art History, Biology, Calculus AB, Calculus BC, Chemistry, Chinese Language and Culture, Computer Science A, Computer Science AB, Economics: Macro, Economics: Micro, English Language and Composition, English Literature and Composition, Environmental Science, European History, French Language, French Literature, German Language, Government and Politics: Comparative, Government and Politics: U.S., Human Geography, Italian Language and Culture, Japanese Language and Culture, Latin Literature, Latin: Vergil, Music Theory, Physics B, Physics C: Electricity and Magnetism, Physics C: Mechanics, Psychology, Spanish Language, Spanish Literature, Statistics, Studio Art 2-D Design, Studio Art 3-D Design, Studio Art Drawing, U.S. History, and World History.

Half-Day AP Workshops

These condensed workshops explore updates in Course Descriptions and AP Exams. Teachers also learn effective tools and techniques to enhance critical thinking skills and communicate course content to students. Participants receive AP teacher materials that include course outlines; content-related handouts; and student samples, scoring guidelines, and commentary for the most recent AP Exam free-response questions. These sessions are approximately four hours in length.

One-Day AP Workshops

Participants learn some of the best tools and techniques for helping students acquire the skills needed to excel in the AP classroom, with special emphasis on the development of critical thinking skills. Participants review AP teacher materials that include course outlines; content-related handouts; and student samples, scoring guidelines, and commentary for the most recent AP Exam free-response questions; engage in discussions about appropriate classroom materials; learn specific techniques and content-specific strategies that can be incorporated into the AP classroom to help students prepare to be successful in AP course work; review data related to student performance on AP Exams and the scoring process; and become acquainted with electronic media used to support AP teachers (e.g., AP Central, electronic discussion groups).

Two-Day Specialty Subject Conferences for AP Teachers

A two-day specialty AP subject conference features outstanding presenters who are familiar with AP curriculum development, instruction, and the scoring of the free-response section of the exams. AP teachers will have the opportunity to explore content-related topics in great depth and participate in a professional exchange of ideas and practices. Each conference offers concurrent sessions on a variety of topics, including presentations on beginning an AP course, developing a syllabus, scoring free-response questions, and specific ideas and lessons that can be included in the AP classroom. Some conferences also contain sessions on Pre-AP topics. The strategies and techniques shared during the two days were developed and tested in classrooms by the endorsed consultants leading the conference. Participants will leave with lessons that can immediately be implemented into professional practice and a clear understanding of curriculum development in the specialty subject covered in the workshop. The fee for this conference does not include lodging or travel expenses.

AP Advanced Topics Seminars

These seminars provide AP teachers and other middle/high school teachers with the opportunity to delve into specific course content, to connect to the discipline's current work in that area, and to feed their passion for the discipline. The focus is on developing further mastery of content in the field, tied to the Course Description, but without the usual emphasis on teaching strategies that are key to the regular workshops and conferences. The regular workshops (see above) emphasize how teachers can work with students on particular course content, strategies, and methods; AP Advanced Topics Seminars emphasize the exciting work in the teacher's discipline—a way to gain further depth in a specific area of interest. AP Advanced Topics Seminars are led by experts in the field, usually a college faculty member, thus providing an opportunity for college faculty to share their interests, passions, and expertise with AP teachers.

An Introduction to the Advanced Placement Program and Pre-AP Professional Development

This one-day workshop has two distinct purposes. The first is to provide introductory information about the College Board's Advanced Placement Program to teachers who are unfamiliar with it. In this workshop, participants will learn about the College Board and its mission of connecting all students to college success, the purpose and benefits of the AP Program, the processes for developing and

administering AP courses and exams, and the preparation students need for the AP Program. The second purpose of the workshop is to introduce participants to Pre-AP Professional Development. Pre-AP focuses on instruction during the years prior to AP courses and college. Workshop participants will learn about the College Board's philosophy for Pre-AP, the connection of Pre-AP to the AP Program, and Pre-AP strategies in English and Mathematics.

AP Summer Institutes

The College Board–endorsed AP Summer Institutes provide teachers with in-depth training in AP courses and teaching strategies. Participants engage in at least 30 hours of training led by College Board–endorsed consultants and receive printed materials, including AP Course Descriptions, sample syllabi, and lesson plans. Many locations offer guest speakers, field trips, and other hands-on activities. Each institute is managed individually by staff at the sponsoring institution under the guidelines provided by the College Board. Please contact the individual locations for detailed information about their course offerings.

AP Annual Conference

The AP Annual Conference is for K–16 educators focusing on equity, access, and academic excellence for all students. The conference provides IACET–endorsed professional development workshops in AP subjects and Pre-AP strategies, taught by expert consultants; discussion sessions about each AP Exam with the Development Committee and the executive directors of the AP Program; sessions on expanding access to the AP Program; nationally recognized keynote and plenary speakers; exhibits; and networking opportunities. Participants take home best practices learned from colleagues across the country, classroom materials, information on resources for AP teachers, and resources to assist in securing funds for AP and Pre-AP professional development.

Online Events and Workshops

AP Central offers online events and workshops to support, enhance, and expand the scope of the professional development opportunities at the College Board. These online sessions are offered to all teachers, counselors, and administrators and include informational events, sessions about topics of interest, and workshops offering CEU credits. Check out the series of innovative online events and workshops available on AP Central at apcentral.collegeboard.com/onlineevents/schedule.

Pre-AP Professional Development

Pre-AP is a suite of K–12 professional development resources and services. The purpose of Pre-AP is to equip all middle and high school teachers with the strategies and tools they need to engage their students in active, high-level learning, thereby ensuring that all middle and high school students develop the skills, habits of mind, and concepts they need to succeed in college. Pre-AP provides professional development to help teachers learn how to prepare students for the challenges of college-level work, such as those found in AP courses. This is done principally in two ways:

- Vertical Teaming—supporting teams of middle and high school teachers; and
- Classroom Strategies—supporting individual teachers with subject-specific approaches that can broaden access to college-level work.

Vertical Teaming

These workshops are designed primarily for new and experienced AP Vertical Teams®—groups of educators from different grade levels in a given discipline who work cooperatively to develop and implement a vertically aligned program aimed at helping students acquire the academic skills and habits of mind necessary for success in college-level work and AP courses. They are also suitable for individual teachers. Participants engage in activities that use content to introduce and illustrate the vertical teams concept and some of its key attributes. Sessions include time for reflection and discussion focused on the group dynamics created by the activity.

Building the AP Vertical Team

Pre-AP: Coaching and Sustaining Successful AP Vertical Teams

This one-day workshop is provided by the College Board and supported by local school districts. Its purpose is to train district-selected individuals to lead district and College Board initiatives in vertical teaming within the district. It is designed to facilitate the process of combining district/state curriculum and structures with those of the College Board so that the two work successfully together to accomplish mutual goals. This workshop will provide a rich learning environment that will enable participants to understand the critical role of an AP Vertical Team coach; use strategies to assist AP Vertical Teams to function effectively; develop or adapt strategic plans that ensure that

all students have equal access to challenging courses such as AP courses; learn ways to develop AP Vertical Team curriculum, goals, and plans that align with national and state standards, district strategic plans, and local school improvement plans; strengthen leadership skills; and establish and maintain relationships with College Board staff and other stakeholders.

Pre-AP: Setting the Cornerstones™ for the AP Vertical Team

This one-day workshop is for organized AP Vertical Teams. Participants will be provided with information about the College Board and the Advanced Placement Program and will learn to engage teams in strategies for establishing coherence, commitment, collegiality, and collaboration among their members. The workshop addresses establishing, maintaining, and evaluating AP Vertical Teams.

English

Pre-AP: Topics for AP Vertical Teams in English

Through a series of hands-on activities and group discussions in this one-day workshop, participants learn how an English AP Vertical Team can be centered around and driven by content, such as strategies for fiction and nonfiction. They will understand the benefits of a streamlined and connected curriculum for both teachers and students. An overview of the AP English Literature and AP English Language Exams will be provided. Topics addressed include: literary analysis, analytic strategies for nonfiction, and team decision making.

Pre-AP: Advanced Topics for AP Vertical Teams in English—Grammar

This one-day workshop draws from cognitive research on language acquisition and examines some of the best practices from traditional grammar instruction, linguistics, writing, and the whole language approach. Experienced English teachers understand that grammar cannot be isolated from other aspects of language arts instruction. They also know that there is no single correct approach to this complex subject. Specific topics include: rules of usage, parts of speech, patterns of words, structure of sentences, and arrangement of sentences. Through activities, participants will examine the role grammar plays in promoting clear communication and close reading skills. When appropriate, discussions of rhetoric and style will be added.

Mathematics

Pre-AP: Topics for AP Vertical Teams in Mathematics

This one-day workshop focuses on articulating a curriculum anchored in the skills, knowledge, and habits needed for AP mathematics courses. Teachers concentrate on what and how they teach, as well as how they communicate with each other. Teachers will learn the benefits and challenges of vertical teaming and gain an arsenal of activities to use with team members. Some of the activities include: “What’s in It for Me?,” “The Least Expensive Cable,” “Defining Our Terms,” and “What Is the Common Thread?”

Pre-AP: Advanced Topics for AP Vertical Teams in Mathematics—Assessment

This one-day workshop teaches middle and high school math teachers techniques of assessment designed to support instruction for students as active learners and problem solvers. Educators increasingly recognize that the purpose of classroom assessment of student achievement is to help teachers make decisions about instruction. Assessments, reliability, validity, scoring guidelines, and performance appraisals are the key topics covered in this workshop.

Music Theory

Pre-AP: Topics for AP Vertical Teams in Music Theory

Because it teaches and reinforces music theory skills and concepts from one grade level to the next, a Vertical Team in music is an ideal way to prepare students for AP Music Theory. This one-day workshop shows how content can drive the collaboration and communication among music teachers (not just music theory teachers, but classroom, band, choir, and orchestra teachers as well) to further music literacy in students and help them develop as musicians. Specific topics addressed will include musical analysis and listening skills. Teachers will gain an understanding of the impact team building within music departments and the district has on the overall learning experience of the student when preparing for the AP Music Theory Exam.

Science

Pre-AP: Topics for AP Vertical Teams in Science

This one-day workshop is for teachers, counselors, and administrators interested in sequencing curricula and instruction to facilitate student preparedness for AP science courses and for college. Topics covered include density junctures, measuring devices, and national science standards. The workshop also addresses teaming activities such as sequencing, goal planning, and action plans.

At the end of the workshop, participants will understand what a Vertical Team is and the process that is necessary to incorporate vertical sequencing into their curricula.

Social Studies

Pre-AP: Topics for AP Vertical Teams in Social Studies

Participants in this one-day workshop will see how an AP Vertical Team can be centered around and driven by content. At the completion of this session, they will understand the benefits of a streamlined and connected curriculum for both teachers and students. The workshop focuses on articulating a middle and high school curriculum anchored in the skills, knowledge, and habits of mind needed for AP social studies courses. Specific topics include the critical question, creating effective essay questions, approaching the essay, and CORE structure.

Pre-AP: Advanced Topics for AP Vertical Teams in Social Studies—Developing Reading Habits

This one-day workshop gives social studies teachers new strategies to develop their students’ ability to read critically. The workshop is based on the premise that a coherent, articulated program of effective strategies will improve student performance in essay writing by giving students a framework that allows them to develop their writing proficiency. Although individual teachers will benefit from the strategies presented here, the power of the strategies is best realized through an AP Vertical Team that spans both middle and high school social studies classes. Topics addressed include reading research, questioning grids, main idea clusters, text charting, reading pods, and utilizing the AP Vertical Team to develop analytical and critical reading skills.

Studio Art

Pre-AP: Topics for AP Vertical Teams in Studio Art

Participants in this one-day workshop will become familiar with the College Board’s mission to provide access and equity. Participants will learn strategies used by AP Studio Art Vertical Teams in developing curricula in 2-D, 3-D, and Drawing courses; learn the content and skills necessary for student success in AP Studio Art; and become familiar with the standards of a vertical curriculum and the role of Pre-AP in helping to develop those standards. Topics addressed include making the case for an AP Vertical Team in Studio Art, depth and concentration, portfolios and portfolio evaluation, strategy development across grade levels, using sketchbooks and journals, and assessment.

World Languages and Cultures

Topics for AP Vertical Teams in World Languages and Cultures

During the course of this one-day workshop, participants will learn about topics related to the creation of strong teams of language educators, within the same school setting and across grades, with the goal of growing effective, advanced programs of language study. Curriculum articulation, the American Council on the Teaching of Foreign Languages Standards, and shared reflective practice will be discussed. Participants will also consider skills articulation across grade levels, and how to build students' fluency for long-term retention and success. This workshop will be presented in English with examples in English.

Classroom Strategies

The classroom strategies workshops provide in-depth discussions and activities for middle and high school educators. Participants will improve their understanding of content, instructional strategies, and pedagogical methods that will help their students succeed in college and rigorous high school courses, such as those offered by the AP Program.

English

Pre-AP: Strategies in English—Beyond Acronyms: Inquiry-Based Close Reading

This one-day workshop is designed to help middle and early high school teachers facilitate inquiry-based practices through close reading in their classrooms. Questioning strategies are used to promote critical thinking, starting at the introductory level. The workshop teaches participants classroom strategies that allow students to ask and generate questions, develop the ability to actively engage with any text, and analyze and document their own thinking while reading. Topics addressed include close reading questioning, critical thinking question stems, dialectical journaling, analytical writing, and holistic assessment.

Pre-AP: Strategies in English—Rhetoric

This one-day workshop is designed to help teachers understand the classical art of rhetoric in its two senses: language as crafted for an audience; and the ability to find, evaluate, and potentially use all of the available tools of language to achieve a purpose or an effect in a given situation. Participants will learn effective techniques by engaging in activities that will enable them to teach their students important rhetorical theory principles—such as the

importance of the unstated assumption in both the creation and analysis of arguments, the nature of arrangement, and relation of style to form—that underlie the effectiveness of excellent writers and support the clear thinking and sound judgment of successful readers.

Pre-AP: Strategies in English—Reading to Write

This three-day workshop is designed to encourage and support teachers as they reflect on the strategies that they can use in the English language arts classroom to create and foster a learning-centered environment. The goals for participants in the workshop are to identify, practice, and reflect on key reading and writing strategies that can be immediately incorporated in the classroom; to recognize and apply the attributes of a “learning-centered” classroom; and to engage in collaborative dialogues with other language arts teachers through online technology and “cognitive coaching” sessions. Topics addressed include lesson planning and cognitive coaching. This is a three-day event; two days face-to-face and one day online.

Pre-AP: Strategies in English—Writing Tactics Using SOAPSTone

The focus of this one-day workshop is on classroom tactics that help students to analyze good writing and to apply this knowledge when creating their own texts. In this one-day workshop, both middle and high school teachers will find activities that can benefit their students. Participants will reflect upon and discuss and understand the concepts underlying these activities, such as the writing process, narrative, the persuasive essay, analytical writing, and assessing student writing.

Pre-AP: Strategies in English—A Serious Approach to Teaching Comedy

This one-day workshop is designed to help middle and high school English teachers build a repertoire of strategies for responding to comic writing. Working with examples that illustrate recurring features of structure, language, and reasoning that are the foundation for studying comedy of any period, participants will build a working vocabulary for describing the genre's patterns, conventions, and effects. The workshop will investigate both the elements of comedy—sight, sound, structure, situation, plot, and character types—and its special modes—farce, parody, satire, and irony. Most important, this workshop will explore techniques teachers can use to encourage students to be analytical about a mode that works because it is quirky.

Strategies in English—Differentiated Instruction for Middle School Language Arts

This one-day workshop will focus on differentiated classroom strategies that allow all students access to high-level language arts content. While the activities can be modified for high school students, the content is more appropriate for a middle school audience. High school teachers who are part of an AP English Vertical Team can benefit from this workshop by modifying the strategies for their students. Administrators might also be interested in the strategies, as they can be applied to all disciplines. At the end of the workshop, participants will be able to apply differentiated instruction strategies to product, process, and content in their language arts curriculum; understand why it is important to build a strong relationship with students; understand the need to assess students continually; understand how to present all students with equally challenging curriculum; and empower students to take charge of their own learning.

Pre-AP: Strategies in English—The Five-S Strategy for Passage Analysis

This one-day workshop introduces strategies that will enable teachers and students to become more systematic in the literary analysis that precedes the writing of analytical compositions. Teachers are shown a loose and adaptable approach that students may reliably use (especially under time constraints) to analyze a passage—whether poetry or prose—by focusing on speaker, situation, key sentences, shifts, and syntax.

Mathematics

Pre-AP: Strategies in Mathematics—Helping Students Learn Mathematics Through Problem Solving

This two-day workshop provides strategies for designing and using meaningful investigations, writing dynamic problems, and enhancing current classroom activities so that students will develop deeper understanding and produce more thoughtful responses. Teachers will gain an understanding of how successful students learn and how to develop those skills in others, as well as how to build relevant, informative assessments that allow teachers to monitor and foster mathematical thinking without interrupting instruction. The general themes of this workshop include designing multiple-access problems, mathematical literacy, and improving mathematical communication.

Pre-AP: Strategies in Mathematics—Analyzing and Describing Data

This one-day workshop enriches the data analysis topics taught in the middle and secondary grades by providing

examples of activities where students collect data, use graphs and numerical summaries to get information from data, and communicate that information. By assuming the role of the student and through discussion, participants will learn engaging strategies to discuss data collection and experimental design issues as they work through exercises and share observations and conclusions. Please note that science educators will also find this workshop beneficial.

Strategies in Mathematics—Developing Algebraic Thinking

This one-day workshop is for mathematics teachers in grades 6–10. It provides teachers with hands-on activities and techniques to help students develop algebraic reasoning. A key feature of this workshop is the use of graphing calculators to help students visualize and explore algebra from graphic, numerical, and analytical perspectives as well as from traditional symbolic representations. Objectives for participants in this workshop include learning to develop techniques by using inquiry learning in teaching algebraic thinking, using patterns to find relationships, using tables in investigating relationships, and describing patterns using both recursive and closed relationships.

Pre-AP: Strategies in Mathematics—Rate

This one-day workshop emphasizes the grade-level-appropriate content, classroom strategies, diagnostic assessment practices, and technology that foster student understanding of rate. Teachers learn highly effective activities to use in the classroom. The focus is on illustrating how content, pedagogy, and embedded assessment can help shape the mathematics curriculum into a seamless strand for students. Specific topics include absolute and relative growth, instantaneous rate, and rate of change.

Pre-AP: Strategies in Mathematics—Accumulation

In this one-day workshop, teachers examine a seamless development of accumulation concepts for grades 6–12 through grade-level-appropriate content, classroom strategies, and technology usage. Teachers experience a guided-exploration approach that they can use in the classroom to build knowledge and further understanding for each student. Teams develop problems, instructional activities, assessment items, and cross-grade lessons for classroom use. Participants learn embedded diagnostic and formative assessment strategies that can be used to develop students' communication skills and allow teachers to monitor and foster mathematical thinking. Specific topics include the concept of area; accumulating distance when speed is constant, changes, or is a function; velocity distinct from speed; and the big picture of accumulation.

Pre-AP: Strategies in Mathematics—Functions

This one-day workshop develops deep content knowledge of function for teachers and discusses grade-level-appropriate content and classroom strategies, including using technology to promote understanding. Teachers will acquire skills that promote methodical thinking and clear communication of thought processes by all of their students. This workshop illustrates a guided-exploration approach as a pedagogical model that emphasizes student thinking as the key to learning and communication as the key to assessing understanding. Specific topics include linear, quadratic, and nonlinear functions.

Pre-AP: Strategies in Mathematics—Chance, Variation, and Probability

This one-day workshop uses recent research on the learning of probability to engage teachers in classroom activities that enable students to analyze and understand chance events. The activities progress through elementary definitions and concepts of probability, culminating in the use of simulation to model probability problems. Participants gain significant knowledge about finding and correcting student misinterpretations about these events and discover ways to improve student understanding through reflection and communication. Teachers learn to develop activities for the classroom that help connect the content to events relevant to students and their lives. Specific topics include classical probability; law of large numbers; and probability rules, distributions, and conditions.

Science

Pre-AP: Strategies in Science—Creating a Learner-Centered Classroom

This two-day workshop is designed to assist science teachers in creating a facilitative classroom that focuses on inquiry; encourages higher levels of thinking for all students; and orchestrates discourse through speaking, writing, and graphic representation. Specific strategies addressed include inquiry-based learning, discussion and discourse techniques, a five-stage instructional model, inductive thinking, discrepant events, brainstorming, assignment of roles in collaborative groups, and graphic organizers. The workshop provides strategies for designing and using meaningful investigations, writing dynamic problems, and enhancing current classroom activities so that students will develop a deeper understanding and produce more thoughtful responses. Teachers will gain a clear

understanding of how successful students learn and how to develop those skills in others, as well as building relevant, informative assessments that allow teachers to monitor and foster scientific thinking without interrupting instruction. Workshop topics include engagement, exploration, explanation, elaboration, and evaluation.

Strategies in Science—Data Collection in Inquiry-Based Biology

This is a two-day workshop in the use of graphing calculators and sensors in middle and high school biology instruction. At the end of this workshop, participants will understand how to integrate technology as an instructional strategy to teach content standards in middle and high school biology curricula; how to provide inquiry-based investigations in biology that enable middle and high school students to apply technological skills and instrumentation needed for college-level and AP Biology course work; and how to provide professional development consistent with the National Education Science Standards.

Pre-AP: Strategies in Science—Energy Systems

This one-day workshop was developed for high school science teachers interested in designing integrated, theme-based instruction to prepare students for AP science courses. The activities and discussions in this workshop are designed to help teachers identify concepts in energy that extend across all science subjects. At the end of the workshop, participants will understand how to identify energy concepts in biology, earth science, chemistry, and physics and how to make curriculum decisions to increase student achievement and better prepare students for AP science courses. Topics addressed include kinetic versus potential energy, heat versus temperature, bonding, and energy transformations in living systems.

Pre-AP: Strategies in Science—Inquiry-Based Laboratories for Middle Schools

This one-day workshop introduces middle school science teachers to inquiry-based laboratory instruction. Through activities and discussions, participants will learn to use inquiry-based laboratories to teach science processing, critical thinking, and problem-solving skills to students and prepare them for the rigorous course work in high school and college. Topics addressed include: laboratory roles, traditional versus inquiry-based laboratory activities, using inquiry-based labs to teach critical thinking skills, and assessing inquiry-based laboratory activities.

Pre-AP: Strategies in Mathematics—Analyzing and Describing Data

This one-day workshop enriches the data analysis topics taught in the middle and secondary grades by providing examples of activities where students collect data, use graphs and numerical summaries to get information from data, and communicate that information. By assuming the role of the student and through discussion, participants will learn engaging strategies to discuss data collection and experimental design issues as they work through exercises and share observations and conclusions. Please note that science educators will also find this workshop beneficial.

Social Studies

Strategies in Social Studies—Using Visual Materials in Middle School Classrooms

This one-day workshop will present middle school teachers with strategies for analyzing and synthesizing nontext sources in middle school history and geography classrooms. The participants will examine models of questioning for works of art, cartoons, quantitative data such as charts or graphs, and photographs. Once these models have been presented, participants will use them to construct thesis statements and written passages about issues affecting middle school social studies courses, with the aim of promoting student skills of source analysis, evaluation, and synthesis.

Pre-AP: Strategies in Social Studies—Writing Tactics Using SOAPStone

This one-day workshop is designed to help middle and early high school social studies teachers address some of the problems students encounter in their writing. When teachers from all grade levels work together to introduce and reinforce critical thinking and analytical writing strategies, students are more likely to acquire the habits of mind and skills of sophisticated writers. Workshop topics include: the writing process, narrative, the persuasive essay, and analytical writing.

Spanish

Pre-AP: Strategies in Spanish—Developing Language Skills

The goal of this one-day workshop is to enable teachers to prepare students for the AP Spanish Language course by fostering development of language skills. The workshop motivates and inspires Spanish teachers to reevaluate their school's foreign language curriculum and familiarize themselves with the basic principles of reading assessments,

writing an essay, brainstorming, vocabulary building, sentence structure, listening, reading, and speaking. Assessment instruments are also discussed.

Pre-AP: Strategies in Spanish—Literary Analysis

The goal of this one-day workshop is to enable teachers to help students develop the reading skills necessary for the AP Spanish Literature course. The focus is on reading comprehension of Spanish text passages. Prereading, reading, and postreading skills are emphasized. Assessment is also discussed.

Pre-AP: Strategies in Spanish—Writing Skills

With the completion of this one-day workshop, participants will gain a better understanding of how to design writing instruction that enhances students' preparedness for AP Spanish Language courses. Topics addressed include writing processes, essays, and assessing writing.

World Languages and Cultures

Strategies in World Languages and Cultures—Building Proficiency

The goal of this one-day workshop is to present world language teaching and learning strategies, grounded in the American Council on the Teaching of Foreign Languages Standards, that build beginning and intermediate students' proficiency in the target language. By examining the best ways to achieve acquisition of new language, target language production, and retention of acquired skills, participants will learn how to prepare their students for more advanced language study. The workshop will focus on communicative and cultural skills integration, designing activities for a variety of learning styles, and building success for new second language learners. This workshop will be presented in English with examples in English.

Interdisciplinary

Pre-AP: Interdisciplinary Strategies—Argumentation and the Writing Process

This one-day workshop is designed to help social studies, English, and humanities teachers address a task challenging many middle and high school students: that of developing a logical and effective argument. This workshop presents strategies for middle and high school teachers that enable students to discover and work with the elements of argumentation. Topics addressed in the workshop include using texts to analyze and construct arguments and assessing written performance.

Pre-AP: Interdisciplinary Strategies for English and Social Studies

This two-day workshop shows English and social studies teachers how to encourage students across grades and at all ability levels to engage in active questioning, analysis, and the construction and communication of arguments—skills that are fundamental to advanced work in both subject areas. Participants will discuss strategies that direct students to ask questions and draw inferences, the SOAPStone technique for critical reading and analytical writing, levels of questioning, dialectical notebooks/journals, the yes/but strategy for analyzing an argument, synthesizing perspectives from different points of view, and construction of good written and verbal arguments.

Instructional Leadership

See descriptions provided on page 76.

SAT Readiness Program™

The foundation of a student's college preparation is a rigorous curriculum of English, mathematics, science, history, and other academic subjects. Students should read extensively and develop good writing skills. SAT Readiness Program workshops teach educators how to promote and reinforce these skills to prepare all students for the SAT® and college success.

Animated Student Writing

This one-day workshop gives English teachers models, lesson plans, and strategies to help students strengthen their argumentative writing skills.

Holistic Scoring Workshop

This one-day workshop provides teachers with practice using holistic scoring, which judges a piece of writing by the overall impression it creates.

Writing Preparation for ESL/ELL Students

This one-day workshop helps teachers prepare students who have recently exited ESL/ELL classes for the writing section of the SAT by using models and hands-on exercises.

School-Based SAT Preparation Workshop

This one-day workshop provides teachers with activities and materials to design school-based SAT preparation sessions. The first half of the workshop brings to life material in *The Official SAT Teacher's Guide™*. Teachers are separated during the second half of the workshop and will focus on English or math content areas.

Workshops for Administrators and Coordinators

Advanced Placement Program

Growing an AP Program: A Workshop for Administrators

This workshop provides an in-depth survey of effective ways to start and support an AP program. Beginning with a review of the benefits of AP for schools, this workshop explores ways that administrators can provide support for their AP teachers and students. In addition, this workshop helps administrators learn how to use data effectively to promote equitable growth and provides tools for assessing strengths and weaknesses of existing AP programs, with an emphasis on areas of future growth. Finally, the workshop covers specific administrative topics, such as models for obtaining financial support from community organizations; effective school policies (grade weighting, setting expectations for exam-taking); and effective use of block schedules to offer AP courses.

Organizing Your AP Exam Administration: A Workshop for AP Coordinators

This half-day workshop provides new and less experienced AP Coordinators with information needed to effectively and successfully manage an AP program. Topics covered in this workshop include ordering AP Exams, conducting a preadministration session, training proctors, setting up off-site testing, administering exams to students with disabilities, administering exams that require audio or visual equipment, maintaining exam security, handling irregularities and disruptions, and returning and paying for AP Exams.

Summer Institute for Administrators

This vital professional development opportunity is for school administrators, district administrators, and AP Coordinators. Participants learn about the latest developments in the Advanced Placement Program before they are announced publicly; network with administrators and Coordinators from around the United States; meet the executive director of the AP Program; ask questions and make suggestions; and attend dynamic sessions featuring speakers with ideas on how to start, improve, or enhance an AP program. Session titles include Expanding Support for AP in My School or District, How Colleges View AP, Optimizing Data and Reports to Inform Instruction, Arranging Off-Site Testing, Recruiting and Retaining AP Students, and Recruiting and Mentoring AP Teachers. This institute is offered during the summer. Please visit apcentral.collegeboard.com for up-to-date information.

Instructional Leadership

Instructional Leadership workshops provide strategies that help integrate professional development into a systemwide process for improving instructional practices and student learning. Specific topics include creating AP Vertical Teams to develop a school culture that improves the teacher's capacity to provide quality instruction in the school and the district; supporting existing practices and creating new settings where learning can occur; providing structure to support systems that transform information into knowledge; and implementing policies to provide academically challenging instruction for all students.

Instructional Leadership Strategies—Inclusion of Special Needs Students in Curriculum That Leads to College

This one-day workshop is for middle school and high school administrators who have building-level or districtwide responsibilities for curriculum and instruction. At the end of the workshop, participants will have the knowledge and skills to plan, implement, and evaluate their school or district's inclusion of students with special needs in courses that lead to college. Participants will explore how their beliefs impact inclusion of students and student performance; develop a working definition of inclusion; define who are students with special needs; gain an understanding of the interconnectedness of legislation, inclusion, and student performance; learn how to use quality indicators in planning, implementing, and evaluating inclusion programs; gain a clearer understanding of test accommodations; and develop a model for schools to meet College Board documentation guidelines (SAT, PSAT/NMSQT, and the AP Program).

Pre-AP: Instructional Leadership Strategies—Using Data to Improve Student Preparation for AP Courses

This one-day workshop is designed for administrators, counselors, and teachers interested in collecting, organizing, analyzing, and using data for continuing school improvement and creating access to AP courses for all students. At the end of the workshop, participants will understand how to use data effectively to make placement and curricular decisions. Topics addressed include destroying achievement myths, using data to close achievement gaps, disaggregating data, and assessing policies and practices.

Pre-AP: Instructional Leadership Strategies—Promoting Excellence and Equity in AP Courses

This one-day workshop is designed for administrators, counselors, and teachers interested in examining issues related to the development of instructional programs that

reflect excellence and equity. The activities and discussions in this workshop are designed to help participants identify excellence and equity concepts that apply to all subject areas and further prepare students for AP courses. At the end of the workshop, participants will understand how to create high-achievement classrooms accessible to all students and make curricular decisions to increase student achievement and access to AP courses.

Pre-AP: Instructional Leadership Through AP Vertical Teams

This one-day workshop is designed for secondary instructional leaders: school board members, superintendents, principals, central office staff, and counselors. Participants learn how Pre-AP professional development, specifically AP Vertical Teams, can be used to create a system that challenges all students to perform at rigorous academic levels. At the end of the workshop, participants will be able to include Pre-AP professional development and AP Vertical Teams in school development plans; organize and develop support systems for AP Vertical Teams; and evaluate the impact of AP Vertical Teams on school improvement.

PSAT/NMSQT

PSAT/NMSQT Connections: Using PSAT/NMSQT Reports to Improve Student Learning

This half-day workshop for teachers of math and English, curriculum coordinators, guidance counselors, and administrators in grades 9 through 11 provides educators with hands-on training in the use of standard and optional reports that are based on annual PSAT/NMSQT results. These reports include the following: Score Report *Plus*, Summary Reports, Summary of Answers and Skills (SOAS), AP Potential, and comprehensive student data on disk. At the end of the workshop, educators will be able to use the valuable data that come out of the PSAT/NMSQT program to shape instructional goals in the classroom; understand how to interpret data effectively to spot disparities between their schools/students and state, national, and comparable groups; and identify curricular and academic strengths and weaknesses.

SAT Readiness Program

See description provided on page 75.

Online Events and Workshops

See description provided on page 68.

Workshops for Counselors

College Advising Basics for School Counselors

This one-day workshop is designed for school counselors with less than three years of experience and is focused on the transition from high school to postsecondary education. Participants leave this workshop with a better understanding of the college admissions and enrollment process and the needs and challenges of students and parents pursuing educational options after high school.

Financial Aid Basics for School Counselors

This half-day workshop is intended to provide participants with a better understanding of the school counselor's role in the financial aid application and eligibility process. The workshop assists school counselors in identifying tools that they can use in helping students and families move through the financial aid process. This workshop also helps counselors understand the concept of need-based financial aid; the application and eligibility process that helps millions of students share billions of dollars in scholarships, grants, loans, and student employment; and the role of the school counselor as a partner in helping students make informed enrollment decisions.

Internet Fundamentals and Presentation Design Technology for Counselors

This workshop is a half-day experience for school counselors that will provide them with technology skills to be used with their school community. Using collegeboard.com and myroad.com as examples, counselors will learn and familiarize themselves with various features of Internet usage so that they can help their students use the Internet for career and college decision making. Other elements that will be taught in the workshop include an integration of Microsoft Office with the above-mentioned Internet sites to produce newsletters and presentations for students and parents. For example, the PowerPoint presentation that the College Board provides for PSAT/NMSQT and/or SAT preparation will be used to learn functions of PowerPoint, and news from collegeboard.com will be included in either a presentation or student/parent newsletter.

School Counselors Navigating the Legal and Ethical Issues of Post Secondary Transitions—National Office for School Counselor Advocacy (NOSCA)

This one-day workshop uses case studies to help participants improve their knowledge and understanding of the ethics of equitable programs, malpractice in academic advising,

legal requirements governing educational records, the legal and ethical practice of writing letters of recommendation, the impact of dual relationships, the responsibilities of professional distance, the complications of confidentiality, and minors' rights to privacy.

Use of Data As a Tool for Systematic Change for School Counselors—National Office for School Counselor Advocacy (NOSCA)

This one-day workshop is for practicing school counselors. Participants will learn how to access, analyze, disaggregate, cross-tabulate, and chart longitudinal data directly linked to student achievement through the use of data sources such as national databases; state, district, and school report cards; and outside sources such as College Board reports. Additionally, participants will learn how to assess their current programs and services to begin the process of developing a data-driven school counseling program.

Fall Counselor Workshops

More than 200 Fall Counselor Workshops are conducted around the country during September and October. These workshops provide thousands of school counselors with updates on College Board programs and services for the new school year. This information will enable counselors to provide an array of services to students in an effective and efficient manner. Every school is sent a calendar of workshops in a separate mailing. To register for a Fall Counselor Workshop near you, go to www.collegeboard.com/meetings.

Instructional Leadership

See descriptions provided on page 76.

PSAT/NMSQT

See description provided on page 76.

SAT Readiness Program

See description provided on page 75.

CollegeEd®

This half-day workshop provides teachers, school counselors, district representatives, and school administrators with the opportunity to explore the many benefits of CollegeEd (3rd edition), as well as the varying teaching methodologies, delivery models, and strategies. By reviewing the *Teacher's Guide and Family Handbook*, participants are able to appreciate the innovative lessons in the six-unit program, which explores careers, academic planning, and applying and paying for college. Participants discuss the optional teaching strategies, assessment rubrics, and lesson preparations to meet their students' needs and their schools' criteria. During the workshop, participants also begin to review the ASCA standards and NCLB strategies and goals aligned with the program and compare them to those at their school or district.

MyRoad™

MyRoad (www.myroad.com) is a Web-based guidance program available free of charge to all students taking the PSAT/NMSQT that is designed to take into account the personal and individual nature of the major, college, and career planning process. This half-day workshop is designed to provide school counselors, career counselors, and guidance administrators with training in the use of MyRoad's in-depth college and career planning features for students and MyRoad's unique student management tools for counselors. Participants will build expertise in the use of this online program through hands-on training and case studies that utilize MyRoad to achieve specific guidance standards and goals.

Online Events and Workshops

See description provided on page 68.

AP Central®—Tools and Resources

AP Central (apcentral.collegeboard.com) is the College Board's official online home for the AP Program and Pre-AP. AP Central offers unique tools and resources as well as the most current AP Program and exam information, such as exam formats, sample free-response questions, scoring guidelines, sample student responses, and scoring commentary. Information about state initiatives, federal funding, and opportunities for professional involvement with the AP Program are also available.

The free and easy registration enables members to personalize their AP Central experience by course and geographic location.

The "Contact Us" tool allows anyone to fill out a form to submit questions about the Program, courses, or exams.

AP and Pre-AP Content

Each AP course has its own Course Home Page on AP Central (apcentral.collegeboard.com/coursehomepages). These pages contain links to general course and exam information, teaching resource materials, syllabi, lesson plans, feature articles, and reviews in the Teachers' Resources section, a database of over 3,000 original reviews of textbooks, software, videos, Web sites, and other teaching materials. This database assesses each resource for its suitability to the AP classroom. Each AP course also has its own e-newsletter—an e-mail announcement of new additions to AP Central for the course. The AP Central staff sends out at least two editions of each e-newsletter every school year. Also, the Teachers' Corner for Pre-AP section is filled with articles and sample workshop materials.

Professional Development Event Search

Use the "Institutes & Workshops" search page to find information about AP and Pre-AP workshops, summer institutes, and professional development events. Information about professional opportunities to become a College Board consultant and an AP Exam Reader is also featured.

The College Board also has a growing online events program that enables participants to join in live professional development events from home or school computers. These online sessions are offered to teachers, counselors, and administrators and include informational events, sessions about topics of interest, and workshops offering CEU credits. Check out the series of innovative online events and workshops available on AP Central at apcentral.collegeboard.com/onlineevents.

AP Community

AP Central hosts an electronic discussion group (EDG) for each AP course (apcentral.collegeboard.com/community/edg). This free resource is a great way to share ideas, syllabi, and teaching techniques, and to discuss other AP issues and topics. Through the Community Contacts feature, members can send e-mail messages to others selected by state, by professional role, by experience level, and by course. Member e-mail addresses will not be shared, until and unless the member chooses to respond.

Publications and Research

The *AP Coordinator's Manual*, Course Descriptions, and many other AP publications are available on the site free of charge. Also available are forms such as the AP Order Form and applications for AP workshops and summer institutes.

AP Central offers statistical information and data including state, national, Canadian, and global reports; minority student participation rates; and AP student performance in college.

Updated News and Information

AP Central is updated regularly with new feature stories written by AP teachers and college faculty about AP-related topics and themes; AP Program, course, and exam updates; new Teachers' Resources reviews; and listings of professional development events.

Publications and Resources

The Advanced Placement Program and the College Board offer numerous resources in support of AP courses and examinations. There are several options for ordering these materials.

Online: The College Board Store

Visit the College Board Store (store.collegeboard.com) to see descriptions of AP publications and to place an order.

Phone and Fax

Credit card orders may be placed by calling 800 323-7155, Monday through Friday, 8 a.m.–9 p.m. ET. Credit card orders and institutional purchase orders above \$25 may be faxed anytime to 888 321-7183.

Mail

To purchase by mail, you need to fill out an AP Order Form. If you need a copy of an order form, you can download one from AP Central (apcentral.collegeboard.com/forms).

Send a completed order form with your check, money order, purchase order, or credit card (payment must accompany all orders) to:

College Board Publications
P.O. Box 869010
Plano, TX 75074

Unless otherwise specified, orders will be filled with the currently available edition; prices are subject to change without notice. Payment must accompany all orders not on an institutional purchase order or credit card. Checks should be made payable to the College Board. Postage will be charged on all orders.

Publications may be returned for a refund (less postage) if they are returned within 30 days of invoice. Software and videos may be exchanged within 30 days if they are opened or returned for a full refund if they are unopened. No collect or C.O.D. shipments are accepted.

Many AP publications, including teaching units, syllabi, and more, are available as PDF files, either for free on AP Central or for purchase in the College Board Store.

Following are descriptions of some of the various AP publications and resources:

Pre-AP Resources

Several guides are available or in development to support AP Vertical Teams:

- *AP Vertical Teams Guide for English*
- *AP Vertical Teams Guide for Studio Art*
- *AP Vertical Teams Guide for Music Theory*
- *AP Vertical Teams Guide for Social Studies*
- *AP Vertical Teams Guide for Science*
- *AP Vertical Teams Guide for Mathematics and Statistics*
- *AP Vertical Teams Guide for World Languages and Cultures*

Course Descriptions

AP Course Descriptions are available for each subject on AP Central for free and for purchase at the College Board Store (store.collegeboard.com). They serve as an AP teacher's primary resource for information on a particular course and exam. The descriptions outline course content, explain the kinds of skills students are expected to demonstrate, and give valuable information about the exams. Sample multiple-choice questions with an answer key are included, as are sample free-response questions.

Released Exams

Released exam books in each AP subject are published periodically. Each book contains a complete copy of a particular exam, including the multiple-choice questions and answers. Released exam books describe the process of scoring the free-response questions, and include examples of students' actual responses, the scoring guidelines, and commentary that explains why the responses received the scores they did. You can purchase released exam books at the College Board Store (store.collegeboard.com).

Sample Syllabi

Sample syllabi for each subject are available on AP Central at apcentral.collegeboard.com/courses/syllabi. The majority of the syllabi have been written by high school AP teachers who teach in public or private schools. Because AP courses are designed to cover material usually taught at the college level, syllabi from college professors are also included. Additional sample syllabi for some courses are available through the College Board Store (store.collegeboard.com).

Teacher's Guides

Developed by AP teachers and college and university faculty, Teacher's Guides are an excellent resource for both new and experienced AP teachers. Each contains sample syllabi, detailed course outlines, lists of recommended resources, and innovative teaching tips.

APCD® CD-ROMs

CD-ROMs are available for AP Calculus AB, English Literature, European History, and U.S. History. They each include actual AP Exams, interactive tutorials, exam descriptions, answers to frequently asked questions, study-skill suggestions, and test-taking strategies. The teacher version of each CD, which can be licensed for up to 50 workstations, enables you to monitor student progress and provide individual feedback. Included is a Teacher's Manual that gives full explanations along with suggestions for utilizing the APCD® in the classroom. More information, including free worksheets to accompany the APCD for Calculus AB, is available on AP Central. APCD CD-ROMs can be purchased through the College Board Store (store.collegeboard.com).

Funding Opportunities

College Board AP Fellows Program

The College Board AP Fellows program is an annual competitive grant program that provides scholarships for secondary school teachers planning to teach AP courses in schools that serve minority and/or low-income students who have been traditionally underrepresented in AP courses. The scholarships assist teachers with the cost of attending an AP Summer Institute. To qualify, a school must have approximately 50 percent or more traditionally underrepresented minority students (African American, Hispanic, or Native American), and/or 50 percent or more students whose average family income level is equivalent to or below the national annual average for a low-income family of four. The summer institutes provide an excellent opportunity for teachers to gain command of a specific AP subject and to receive up-to-date information on the latest curriculum changes. College Board Fellows are offered a scholarship of \$1,000 to attend a College Board–endorsed AP Summer Institute. Please visit apcentral.collegeboard.com/apgrants for more information.