Student Performance Q&A:
2001 AP® Music Theory Free-Response Questions

The following comments are provided by the Chief Faculty Consultant, Joel Phillips, regarding the 2001 free-response questions for AP Music Theory. *They are intended to assist AP workshop consultants as they develop training sessions to help teachers better prepare their students for the AP Exams*. They give an overview of each question and its performance, including typical student errors. General comments regarding the skills and content that students frequently have the most problems with are included. Some suggestions for improving student performance in these areas are also included. Consultants are encouraged to use their expertise to create strategies for teachers to improve student performance in specific areas.

Overall Strategies

- Given the immense time pressures in acquiring the skills needed to perform well on the AP Music Theory Exam, it is important that teachers maximize the use of their students' time. Activities should be integrated as much as possible. For example, students should compose their own melodies for singing, dictation, and melody harmonization.
- Because the aural aspect of the course is critically important, have students listen to and perform everything they write.
- If possible, create a preparatory course that precedes the AP course where students can perfect their rudiments before facing the higher challenges in the AP course.
- Make the knowledge of music theory an important part of your ensemble training. For example, many teachers have students pass certain requirements in music theory in order to audition for leadership positions in the ensemble.

Melodic Dictation

Two very common errors are found in the answers to this type of question:

- Candidates sometimes forget to stem and/or beam the notes. Teachers are urged to have their students make one final visual inspection of their work to ensure that no such easily correctable error appears in their papers.

- For melodies in compound time, students do not adequately grasp the concepts of "metric patterning." On the 2001 exam, Question 1 was in compound duple meter. Remind your students that in this meter, eighth notes are beamed in groups of three and that one beat's duration is a *dotted* quarter note. Emphasize the recognition of the most commonly used beat patterns in compound time (dotted quarter, quarter-eighth, three eighths, dotted eighth-sixteenth-eighth) and revealing other patterns as variations of these simple patterns. Students often have trouble with skips in a melody. Most skips are easy to determine if students listen for scale degree and function in the melody, rather than just intervals. The use of some singing system (scale degree numbers, moveable or fixed do, etc.) can reinforce this concept in all their work. The skip between measures 2 and 3 can be heard as scale degrees 5-1, a very common gesture in tonal music. Many students missed the triad arpeggio in the second half of measure 3. Remind them that two skips in the same direction are frequently members of a chord. Understanding that compositions end with predominant-dominant-tonic sonorities should help students determine that the triad might be IV or ii, and that the skip in measure 4 was from Bb-D, two members of the V chord.

Question 2 on the 2001 exam was a melody in the minor mode. Many students omitted the accidental necessary to create the leading tone in measures 1 and 7. This is the most common of all errors in minor key dictations; reinforcement of this concept should be given at every opportunity in class. Many students shifted the meter in the middle of this tune, shortening the first F# in measure 4. Although faculty consultants could still give credit for correct pitches and rhythm that were metrically shifted in the scoring of this question, we strongly recommend that students learn to conduct as they listen in order to place their barlines just before the metrical accent. Hearing the parallel gesture from mm. 5-6 helped some students achieve a better score.

Harmonic Dictation

Although there is no one best method to answer this question, many of the students' responses demonstrate a "top-down" strategy — that is, first identifying the soprano pitches, then the bass pitches, and finally the chord symbols. A more advantageous strategy is to listen first for the bass pitches, then to determine the chord symbols, and finally to identify the soprano pitches. Because tonal harmony depends so heavily on the motion in the bass, and the bass determines the chord and inversion symbols as well, determining the bass line first puts the most common possibilities at the students' disposal from the outset. Hearing the bass first may be very challenging for students whose voices are high, but the reward in this activity is worth the additional practice.

Another excellent strategy in this activity is to listen for common tonal gestures; for example, the tonic establishment at the beginning of a phrase and the cadential progression at the end of the phrase. These progressions are often two- or three-chord "chunks" which recur from piece to piece and may themselves be practiced as small, intact units of tonal music. Understanding these two examples covers seven of the nine chords in Question 3 and six of the ten chords in Question 4!

Many people work backwards from the cadence to determine the most probable solution to the middle of the phrase. Thus this is the type of question which may be answered in a non-linear manner with great success. Students might ask themselves, "What will likely precede a deceptive resolution?". The answer, of course, is dominant harmony. Then, "What is likely to precede the dominant harmony?". Some type of predominant harmony. Familiar with these probabilities, students can have a reasonable expectation of predominant, dominant, and tonic harmonies in a cadential progression or, as in this question, a tonic substitute, vi. Many cadential progressions feature a typical bass line of scale degrees 4-5-1. Half cadences end on scale degree 5, and deceptive resolutions on scale degree 6. Again, students can reasonably anticipate such bass lines occurring in a common practice cadential progression. Reinforcement of this strategy can add the linear dimension to a student's listening skills.

Many students did not seem to know how to notate secondary dominant function in their responses to Question 4. Most people notate such a relationship as V/V, meaning *V of V*.

Credit was not awarded for enharmonic equivalents because of the harmonic context in this question. Therefore, C#, not Db, received credit in m. 3 of Question 4. Here is a simple strategy to overcome this common problem: when students hear chromaticism in a line, ask them to determine in which direction the line moves. If it moves up, then the chromatic note should be raised. If the line moves down, the chromatic note is lowered.

Sometimes students write pitch names in the staff, a technique the student probably thinks of as a short-cut strategy. Short cuts such as this are actually very time consuming and should be discouraged in favor of more productive strategies. One such strategy is to use tick marks for note heads so that pitches can be notated in real time.

There is more than one system of Roman numerals in use. The two commonly used systems feature either all upper-case Roman numerals regardless of chord quality or a mixture of upper- and lower-case Roman numerals that help to indicate chord quality. The latter system is more commonly used in colleges at this time. A simple way to remember the case of a given Roman numeral is to think of the quality of the chord's third. If the third is major, the Roman numeral will be upper case. If the third is minor, the Roman numeral will be lower case.

Realizing a Figured Bass

Too many students learn this activity strictly by "eye" and never perceive its connection to real music. Please stress that figured bass notation was a performance practice that occurred in real time, the same way today's jazz musicians read lead sheets. Figured bass examples may also be understood as simplifications of the voice leading found in scores studied in the AP class. Because of this fact these questions should also be performed at the keyboard and/or sung out loud and compared to their more elaborate realizations in composers' music.

In figured bass notation, the notation itself informs musicians when to write (or perform) accidentals. Any sharp, flat, or natural signs, or their variants, such as the "+" symbol in m. 1, must also appear in the notation above (or in the performance). It is a good practice to make a final scan of a written realization, looking only at the chromatic figures, to see if they are reflected in the notation above. Such checks would reward many students with substantial additional credit in mm. 1, 2, and 4 of this problem.

Frequently the leading tone will occur in an outer voice, such as in the fourth chord of the question. It is very important that students learn that they must resolve leading tones up by step any time they appear in outer voices.

Many students learn to write a chord vertically and then attempt to connect it to an adjacent vertically derived chord. Voice leading assumes a secondary role rather than an integrated part of the activity. It is very helpful to learn common chord progressions as a series of linear motions. The progression V^7 to VI is one such pattern, or "chunk." In this progression, the melody in each of the four voices is always the same. Scale degree five will always move to scale degree six in the bass. In one of the upper voices, the leading tone will always move up to the tonic pitch. In the remaining upper voices, scale degree four (the chordal seventh) will always move down to scale degree three, and scale degree two will always move down to the tonic pitch. Learning common progressions in this way stresses the linear nature of the music. When students identify the Roman numerals as a first step in answering this question, they are also identifying the "chunks" that they have learned and can therefore better prepare themselves to successfully realize the figured bass.

This question had a suspension in measure 4. Composing a suspension is easy. The dissonance in the suspension is a chord tone in the chord prior to the suspension. Sustain this tone in the same voice. When the bass note changes, the tone becomes dissonant. Because it is "suspended," allow the dissonant tone to fall by step to the chord tone of its resolution.

Composition Question (Composing a Bass Line and Harmonizing a Melody)

When students have difficulty in this question it is often because they do not plan the goal of the phrase. The Development Committee urges teachers to do more to help students recognize cadence patterning and to have them set the phrase's goal from the outset. Working backwards from the cadence is often a good strategy for creating a logical chord progression. Another suggestion is to further stress the concept of balance in the melodic line, resolving a skip with a step in the opposite direction or avoiding two skips in the same direction unless they outline a triad. Further improvements in the composition of the bass line could be made by creating lines that are rhythmically contrasting to the given melody and that include a balance of contrary motion. Many students continue to use six-four chords with near reckless abandon; restricting them to the three common uses of the six-four (passing, cadential, and pedal) would improve their performance significantly. Students who had difficulty with this question also tended to find considerable use for chords less frequently observed in common practice music, such as

the iii chord. Teachers should caution students that repeating notes or chords across the barline is typically considered a weak melodic gesture.

There are a number of strategies that might improve student responses to this question. Though there is no "best" method to answer the question, contemplating what a skilled musician's thought-process might be in answering this question could be useful to people who are preparing for future examinations. Like other free-response questions, this question may be successfully answered in a non-linear way.

Perhaps the most important initial consideration is to compose a good cadence at the end of each phrase. Students might first determine which cadences are possible at each location and then choose cadences that demonstrate some harmonic variety. The final phrase concludes on the tonic pitch. By custom, this phrase should therefore conclude with a perfect authentic cadence. The cadence of the second phrase concludes on a dominant pitch preceded by its own leading tone. Because raised tones at a cadence signify new temporary keys, students should consider using a perfect authentic cadence in the key of the dominant, the tone modified by the chromatic pitch. The third phrase concluded on the tonic pitch. Because the last phrase does as well, many students composed a deceptive resolution at this cadence.

Beginning with the final cadence, students might sketch the cadential bass progression in each phrase. For example, the last six beats in the last phrase could be composed quickly by using the stereotypical bass line of scale degrees 4-5-1. The cadence in the third phrase could be completed in exactly the same way. Similarly, the cadence of the second phrase could be made from scale degrees 4-5-1 in the temporary key of V.

Once the cadences have been written, there is a destination for the melodic line. At this time students might compose the beginning of each phrase and link it, ideally by step, to the cadential bass progression they just completed.

Whenever a melody moves by third or is a third filled in by step, a voice exchange is possible. Many students took advantage of opportunities to create a voice exchange, such as in the first three beats of the third phrase.

Many students syncopated the harmonic rhythm in the third measure, sustaining the dominant beginning on the second beat. Faculty consultants were often dismayed by students' lack of understanding of harmonic rhythm. In Question 6, for example, which is composed in common practice style, the harmonic rhythm is regular, not syncopated.

Although this year's question did not contain one, students might also determine if there are any melodic sequences within the melody. If students recognize such a feature, they are more likely to choose a sequential harmonic progression as well.

Finishing touches might include comparing the rhythm of the bass line with that of the given melody and ensuring that they are rhythmically distinct. Simple modifications, such as changing two quarter notes into dotted quarter-eighth, or filling in a third with a passing tone, can transform an ordinary line into an excellent line, for example.

Sight-Singing Melodies

Most students seemed better prepared to engage the sight-singing questions. However, a significant number failed to recognize that the second melody was in the minor mode; they sang instead in the parallel major. This problem is also very common among first-year college students whose teachers devote considerable time in class helping students learn to visually recognize keys, to sing key-defining tones or patterns in the key, and only then, to begin to sing the melody.

It is very important for students to use part of their practice time to establish the key of a melody. Teachers are urged to train their students to examine the key signature and the beginning and ending pitches as well as to note the presence of key-defining accidentals. Observing the key signature of three flats, the tonic pitch of C, and the key-defining accidental B-natural should inform students that S2 is in C minor. After determining the key, students should sing a scale, or other key-defining tones or patterns, to help orient themselves in the key before they attempt to sing the melody itself. S2 is a melody based upon the harmonic minor scale and S1 is a melody based upon the major scale. Although it can be helpful to give key-establishing chord progressions in class, at least some of their work should require students to imagine and produce the sound of a key given only the tonic pitch.

A simple tip to give students one more point in their scores is to remind them to sustain the last pitch for its full value. Another tip is to encourage students to keep going; hesitation or restarts cost them one point.

Most college faculty advocate the use of some system to assist students in singing melodies from sight. When used in every aspect of their musical training, systems can make a dramatic difference in how well students perform and understand music.

There is an excellent article in the College Board's *AP Music Theory Teacher's Guide* that demonstrates the preparation required for sight singing. In the article, Michael Rogers describes a step-by-step method that is commonly taught in college courses. The article is exemplary and well worth reviewing each year the course is taught.

Other Important Resources

The *AP Music Theory Teacher's Guide* is one of several excellent College Board publications available to assist AP teachers. Teachers are also strongly encouraged to join the AP Music online discussion group. All members of the AP Music Theory Development Committee, the Chief Faculty Consultant, and the content experts at ETS monitor this list, as do a number of AP teachers and faculty consultants from around the country. Finally, the "Journal of Music Theory Pedagogy" has a number of articles of practical relevance to all teachers of music theory; teachers may wish to have their libraries subscribe to this journal.