Figure 125. The dating of the occultations of the stars by planets according to the Almagest. Correct medieval solution, doubtful ancient solution and incorrect "traditional solution"

COROLLARY. *The first solution of the dating problem (see Statement 1) implies that the beginning of the era of Nabonassar (in the chronology of the Almagest) must correspond to 480–490 A.D.*

3. Dating of the Lunar Eclipses

Twenty one lunar eclipses mentioned in the Almagest were observed by different astronomers approximately during the time inteval from 26 to 881 years in the era of Nabonassar. Ptolemy listed the following characteristics of the eclipses:

1) The year of the eclipse in terms of some chronological era, which was given in the ancient document used by Ptolemy. Usually, after this, Ptolemy recalculated this year in the era of Nabonassar. In several remaining cases, this recalculation (to the era of Nabonassar) can be easily done on the basis of the relations between the different eras which are listed in the Almagest.

2) The phase of the eclipse according to the ancient document which is quoted by Ptolemy. Let us recall that the Almagest contains the theory of the moon's motion. But this theory did not allow Ptolemy to calculate the phase of the eclipse.