Attempt to interpret Avicenna’s proof of the Necessary Existent according to strict modern logic

Note: we must understand the underlying logical system presupposed by this proof to a “free” logic, that is, one that allows non-referring names. This is because in the thought of Avicenna, as in the traditions of Aristotelian and Neoplatonic metaphysics in general, being or existence is a property that things can either possess or lack, whereas this is not true in standard logic. In a free logic the quantification rules must be adapted so that from *Everything runs, Michael runs* follows only if Michael exists. Likewise, from *Michael runs, Something runs* follows only if Michael exists.

Definition: x is a contingent being = it is possible that x exists, and it is possible that x does not exist (“x exists” is symbolized as $\exists y \ y = x$)

Explanation: an efficient cause of x is a cause of x’s existence

Definition: z acts in the production of x = z causes x’s existence directly, or there is a y such that it is necessary for z to act for y to cause x’s existence, or there is a y and there is a w such that it is necessary for w to act in order for z to act, and it is necessary for z to act for y to cause x’s existence, etc.

Definition: a series of essentially ordered causes in the production of x = an ordered set of entities \{z\} such that each z in \{z\} acts in the production of x

Definition: y is an intermediate cause in the production of x = there is a third entity z in addition to y and x such that it is necessary for z to act in order for y to act in the production of x

Definition: z is a contingent cause in the production of x = it is possible that z acts in the production of x, and it is possible that z does not act in the production of x

Explanation: in a series of essentially ordered causes, all causes act simultaneously

1. There exists at least one contingent being x. (Premise)
2. A contingent being requires an external (not identical with itself) cause of its existence. (Premise)
3. Thus there is at least one cause y, not identical with x, that acts in the production of x. (1,2)
4. Thus there is a series $S$ encompassing the totality of essentially ordered causes in the production of x. (Definition of “series of essentially ordered causes”)
5. Each cause z in S is either a contingent cause or not. (Logical truth)
6. Each contingent cause y of x requires a distinct cause z to acting in the production of x in order for it itself to act (Premise)
7. Every contingent cause in the production of x is an intermediate cause in the production of x (6, Definitions of contingent and intermediate causes)

8. Assume that all causes in the production of x are contingent causes
   a. Every series of contingent causes of anything can be considered to be a single composite cause (Premise)
   b. If all members of a series S are contingent, then S as a composite cause is contingent (Premise)
   c. S is a contingent cause (8,a,b)
   d. Thus there must be a cause outside S acting on it in the production of x in order for it itself to act (6,c)
   e. Contradiction between 4 and d

9. Therefore not all causes of x are contingent (Steps 8ff)

10. Therefore, there is a necessary cause of x (every cause is either contingent or necessary)

11. Every cause is existent (Premise)

12. Every necessary cause is a Necessary Existent (Logical consequence of 10)

13. Therefore, there is a Necessary Existent (9, 10)
Anselm’s argument

Seemingly this argument must also be framed in terms of a free logic, to avoid having the question begged in Step 1.

Definition: God = that than which nothing greater can be thought

Rhetorical device: “The fool has said in his heart, ‘There is no God.’”

1. God = that than which nothing greater can be thought (Premise)
2. The fool has the thought of God (Premise)
3. In anyone’s having the thought of x, x exists in that person’s understanding. (Premise)
4. God exists in the fool’s understanding. (2,3)
5. It is greater to exist in someone’s understanding and in reality than to exist in the understanding alone (Premise)
6. If God does not exist in reality, then it is thinkable that there be a being exactly like God, except that that being also exist in reality—call this thinkable being God’ (Premise)
7. Assume that God does not also exist in reality
   a. Then it is thinkable that there is a being exactly like God, except that that being also exists in reality—call this thinkable being God’ (6,7)
   b. Then God’ in some thinkable (possible) world is greater than God is in reality (since by supposition, God does not exist in reality) (5,a)
   c. Thus, a greater than God can be thought (b)
   d. Thus God is not that than which nothing greater can be thought (c)
   e. Contradiction between 1 and c
8. Thus God exists (both in the understanding and) in reality. (Steps 7ff)