

Submit via e-mail (gelderman@wku.edu), due 12:40 on Monday, 22 February 2010

Origins DVD: Back to the Beginning --

1) Neil DeGrasse Tyson points out that for most of human history humans “assumed that the cosmos had always existed, eternal and unchanging. But Like so much received knowledge in science it was ultimately proved wrong. Provide a clear and concise description of how the Nobel-prize winning observations, performed by AT&T engineers, detected the radiated light emitted by the newly formed universe and how it provided strong support for the Big Ban theory.

2) Clearly and concisely explain the advantage that the WMAP satellite’s data provides as compared to the COBE satellite’s data; including how the “seeds” visible in the WMAP data support the current explanation of the physical evolution of our universe.

3) “Primordial Nucleosynthesis” during the first years of the universe’s existence explains the initial abundances of hydrogen, helium, and the trace amounts of lithium, beryllium, boron, and carbon. Provide a clear, complete, yet concise explanation for how the elemental building blocks of life (other than hydrogen) were available in sufficient quantities to initiate the “pre-biotic soup” that may have spawned life.

Origins DVD: How Life Began --

4) The early history of Earth was extremely inhospitable for human life. Provide a clear, complete, yet concise description of how life might have begun despite these hostile conditions and how the onset of simple life would have transformed Earth’s environment into the conditions we currently enjoy.

5) The major impact proposed as the event responsible for our Moon’s existence had major ramifications for the onset of life, probably killing off any existing life but possibly delivering the ingredients for life as we know it. Clearly, completely, but concisely describe the strong and weak points of current “panspermia” theories.