PULSATILE FLOW OF BLOOD THROUGH STENOSED TUBES IN CAPILLARIES OF SMALL EXPONENTIAL DIVERGENCE WITH MICRO-ORGANISMS

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Abstract

This paper presents an analytical study pulsatile flow of blood with microorganisms through stenosed tubes in capillaries of small exponential divergence. The velocity expressions for both blood and microorganisms have been obtained in Bessel-Fourier series form, by applying the Laplace and finite Hankel transforms. Further by assuming blood as couple stress fluid and dusty particles as microorganisms, analytical expressions are obtained for velocities of blood and microorganisms. The changes in the velocity profiles are shown graphically.

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