**Abstract**

Modal fabric is a cent percent bio-based rather than natural made from the spun reconstituted cellulose of beech trees. Modal fabrics resist fading, shrinking and the buildup of hard water mineral deposits even after repeated washing. Clothing today is expected to be insect repellent and antimicrobial to protect human beings from infection, UV light, chemical and biological agents. In this study, woven and knitted modal (100%), cotton (100%), and modal / cotton (50 : 50) blended fabrics were dyed with (kum kum, indigo and barberry) and synthetic dyed (reactive (H & M), and sulphur) dyes. They are then subjected for assessing antibacterial property, anti odor behavior, and UV protection performance.