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<p>(51) International classification :A61L0027160000, C23C0028040000, A61L0027060000, A61L0027100000, A61F0002320000</p> <p>(86) International Application No :NA Filing Date :NA</p> <p>(87) International Publication No : NA</p> <p>(61) Patent of Addition to Application Number :NA Filing Date :NA</p> <p>(62) Divisional to Application Number :NA Filing Date :NA</p>	<p>(71)Name of Applicant : <b>1)Mr. Kapil Gill</b> Address of Applicant :Assistant Professor, Department of Mechanical Engineering, IFTM University, Moradabad, Uttar Pradesh, Pin Code: 244102 -----</p> <p><b>2)Dr. Vaibhav Trivedi</b> <b>3)Mr. Mohammad Javed</b> <b>4)Mr. Vivek Shankhdhar</b> <b>5)Mr. Mayank Bharadvaj</b> Name of Applicant : NA Address of Applicant : NA</p> <p>(72)Name of Inventor : <b>1)Mr. Kapil Gill</b> Address of Applicant :Assistant Professor, Department of Mechanical Engineering, IFTM University, Moradabad, Uttar Pradesh, Pin Code: 244102 -----</p> <p><b>2)Dr. Vaibhav Trivedi</b> Address of Applicant :Professor, Department of Mechanical Engineering, IFTM University, Moradabad, Uttar Pradesh, Pin Code: 244102 -----</p> <p><b>3)Mr. Mohammad Javed</b> Address of Applicant :Assistant Professor, Department of Mechanical Engineering, IFTM University, Moradabad, Uttar Pradesh, Pin Code: 244102 -----</p> <p><b>4)Mr. Vivek Shankhdhar</b> Address of Applicant :Assistant Professor, Department of Mechanical Engineering, IFTM University, Moradabad, Uttar Pradesh, Pin Code: 244102 -----</p> <p><b>5)Mr. Mayank Bharadvaj</b> Address of Applicant :Assistant Professor, Department of Mechanical Engineering, IFTM University, Moradabad, Uttar Pradesh, Pin Code: 244102 -----</p>
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(57) Abstract :

The present invention relates to the wear of different bio materials using pin-on-plate configuration. Three type of analysis were done. Wear debris was also collected from the machine and SEM & EDAX was performed on wear debris. Stainless steel & Titanium used as metal, Alumina as ceramic and Ultra High Molecular Weight Polyethylene (UHMWPE) & Teflon as polymer, and 5 different material combination were used. Wherein the Each Material Combination Was Run In Five Different Environments such as Air, Saline solution, Distilled Water, Ringer's Solution and Simulated Body fluid (SBF). Results showed that the Wear factors of Alumina with UHMWPE, Titanium with UHMWPE & Stainless steel with UHMWPE were high in every condition. As per the result Alumina with UHMWPE combination is very good for prosthesis.

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