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CERTIFICATE

This is to certify that the thesis entitled, “*spectroscopic and structural studies of substituted polyacetylenes and nonlinear optical materials*”, which is being submitted by *Sapna Pathak* for the award of the degree of *Doctor of Philosophy in Physics* to the *Jaypee University of Engineering and Technology, Guna*, is a bonafide record of research work done under my guidance and supervision.

The thesis has reached the standard fulfilling the requirements of the regulations relating to the degree. The results obtained in the thesis have not been submitted to any other university or institute for the award of any degree or diploma.

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