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| **KLS Gogte Institute of Technology, Belagavi**  **Department of Physics** |
| **Open Book Assignment – I**  **Semester:** II **Divisions: G, H, I, J, K, L, M & N**  **Subject: Applied Physics Course Code: 18PHY22**  **Max. Marks: 10 Duration: 1 hr. Date: 19-06-2021** |
| **Note:**  1. Units Covered: Unit-I and Unit-II  2. You are required to write the questions and answers in A4 size white sheets, which can be attached to your pink color assignment book.  3. Scan the A4 size answer sheets, save the file in PDF format with the file name:-  Roll No.\_USN\_Student Name and upload in the Google Classroom in the Assignment-1 folder |
| 1. What do you mean by resolving power of an optical instrument? Deduce an expression for resolving power of a diffraction grating. {[CO1], [PO1, 12], [L2] [3M]} 2. A soap film of refractive index 1.35 spread over water surface is illuminated by the light of wavelength 589.3nm at an angle of incidence 45 degrees. The interference pattern is observed to be completely dark , find thickness of the film. {[CO1], [PO1, 12], [L3] [3M]} 3. Write the Maxwell equations and hence show that electromagnetic waves propagate in vacuum with a velocity 3x108m/s.{[CO2], [PO1, 12], [L3] [4M]} |
| Class Strength :  No. of students submitted :  Signature of faculty member with date Signature of HOD with date |