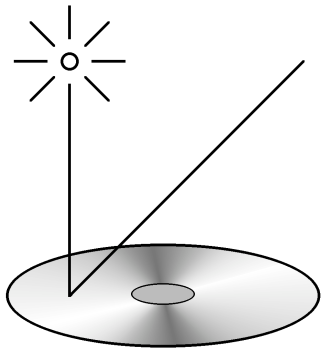

2018

# *Disc Diffraction*

***Aim*** To determine the spacing of tracks on a disc using the diffraction of laser light

***Materials*** 1 Disc 1 Laser 1 Metre Rule

***Method***

- The disc behaves like a diffraction grating.
- Diffracted beams are the result of constructive interference between light waves from tracks on the disc.
- Using geometry and the wavelength of the laser, determine the spacing of the tracks on the disc (give your answer in nm).

***Conditions***

- The laser must not be pointed at anything other than the disc.
- The laser must not be moved. The disc must not be rotated.
- Never stare directly at the laser beam.

***Time limit*** 25 minutes

***Ranking*** The ranking order will be determined by the difference between the distance given by the team and the correct value.

***Team*** _____ ***Result*** _____

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Do not write below line

***Rank*** _____