

Interference sample theory questions

- 1) What are the main types of interference? Give examples.
- 2) What is thin film (related to interference)?
- 3) Derive conditions of dark and bright interference for thin parallel transparent film.
- 4) What is the wedge shaped film? How much is the wedge angle?
- 5) Give the formula for dark and bright interference in case of the wedge shaped film. (No derivation)
- 6) Explain the colours observed in the thin film in the sunlight.
- 7) What are Newton's rings? How should the radius of curvature of the surface be used to observe Newton's rings (Small or large)? Why? Draw schematic of the experimental arrangement.
- 8) State with reason whether the centre of Newton's rings will be dark or bright?
- 9) Explain by giving related equations that the portion which appears bright from the reflected side appears dark from transmitted light and vice versa.
- 10) If in interference light plus light some time can give darkness then how energy is conserved? Explain in brief giving the suitable examples and equations.