FIBER OPTIC KIT

Experiments

1. Measurement of numerical aperture of a fiber.
2. Measurement of attenuation in a single mode fiber.
3. Measurement of bending losses in a fiber.
4. To study the Gaussian mode Field diameter of a fiber.
5. To measure the near field intensity profile of a fiber and hence its refractive index profile.
6. To measure the p;ower loss at a splice between two multi mode fibers.
7. To determine the V parameter, & core radius of a fiber.
8. Coupling of two fibers with the help of two lenses.
9. To demonstrate the transmission of light through a fiber cable.
10. To Polish the ends of a fiber for good transmission.

Items

1. X-Y-Z Translation stage - 1 No.
2. X-Translation stage - 1 No.
3. Fiber Chucks - 2 Nos.
4. Fiber Holder - 2 Nos.
5. Microscopic Objective - 1 No.
6. Detector with pin hole - 1 No.
7. Digital multi-meter - 1 No.
8. Objective holder - 1 No.
9. Base - 2 Nos.
10. Screen - 1 No.
11. Graph paper 10xor 20x - 1 No.
12. Fiber Single mode(1meter)- 1 No.
13. Fiber Multimode(1meter) - 1 No.
14. Bending device - 1 No.
15. Weights - 3 Nos.
16. Measuring Tape - 1 No.
17. Convex lenses - 2 Nos.
18. Polishing cloth - 1 No.
19. Polishing Abrasive - 1 syringe
20. Grinding Paper - 1 No.
21. Fiber cable - 1 No.