VIDYA BHAVAN, BALIKA VIDYAPEETH

SHAKTI UTTHAN ASHRAM, LAKHISARAI, PIN:-811311

SUBJECT:- PHYSICS CLASS:- XTH DATE:23/06/XX

SUBJECT TEACHER:- MR. NEEL NIRANJAN

CHAPTER 4. (LIGHT)

Sign Conventions of Spherical Mirror

- All the distances are measured from the pole of the mirror as the origin.
- Distances measured in the direction of incident rays are taken as positive.
- Distances measured opposite to the direction of incident rays are taken as negative.
- Distances measured upward and perpendicular to the principal axis are taken as positive.
- Distances measured downward and perpendicular to the principal axis are taken as negative.

where f, v and u are focal length, image distance, object distance respectively.

$$\frac{1}{f} = \frac{1}{v} + \frac{1}{u}$$

Linear Magnification: This is the ratio of the height of the image to the height of the object.

$$m = \frac{h'}{h}$$

where m = magnification, h = height of image, h' = height of object