

Five- Year Integrated M. Sc. Examinations 2024

Semester-III

Paper: PHS-2-3-1

(History of Science)

Time: 3 Hours

Full Marks: 40

Questions are of equal values as indicated in the margin

(Answer any four questions)

1. Explain why, according to Aristotle, every movement implies some kind of cosmic disorder and requires a mover to produce it. **10**
2. How did Galileo derive the conclusion that motion is able to persist and conserve itself without a cause? Discuss. **10**
3. Explain how Bacon explicitly admitted the possibility of actions at a distance, but Gilbert and Kepler admitted it implicitly. **10**
4. Discuss Newton's views on 'action at a distance' in the sense of 'robust action at a distance' and 'non-mechanically mediated action at a distance.' **10**
5. Present a short account of Copernicus' theory of planetary motion by which observable celestial motions could be predicted and calculated. **10**
6. Why was the kind of motion postulated by the principle of inertia utterly impossible in Aristotelian physics? Discuss. **10**