

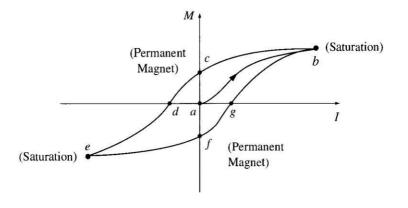
MINISTRY OF EDUCATION, CULTURE, RESEARCH AND TECHNOLOGY UNIVERSITAS NEGARA JAKARTA FACULTY MATHEMATICS AND KNOWLEDGE KNOWLEDGE NATURAL

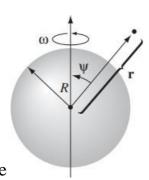
MAJOR PHYSICS & EDUCATION PHYSICS

Campus A UNJ Rawamangun, G-d. Hasjim Asj'arie Lt. 5 Jl. Rawamangun Advance No. 1 Jakarta 13220 Tel. 021-29266285/29266284

EXAM END SEMESTER 118	
Electricity Magnets	
Date and time	Tuesday, 13 June 2023
O'clock	10.00 - 11.40 WIB
Study Program	Physics & Physics Education
Characteristi c Exam	Open Note (A4)
Lecturer	Prof. Dr. I Made Astra, M.ScDr. Umiatin, M.Sc
	Dr. Hadi Nasbey, M.Sc Upik Rahma Fitri, M.Pd

- 1. A solid spherical conductor has charge densities ρ and radius R. The ball rotates about the z axis with speed angular ω . Determine on distance r from ball magnitude and direction his:
 - a. Vector potential magnet (A)
 - b. Medan magnet (B)
- 2. Something atom hydrogen own electron Which orbit core the with speed v, fingers atom R, And mass electron m.
 - a. Make it count big moment magnetic Which owned atom the.
 - b. If a uniform magnetic field B is applied in the direction parallel axis z so electron will experience the change in movement speed becomes v'. Make it count big change speed Which in natural electrons.
 - c. Make it count big change moment magnet Which experienced electron consequence given Medan magneton z axis.
 - d. If Medan magnet uniform given on direction axis x, so explain change Which happen on moment magnet atom.
- 3. Explain the meaning of magnetic hysteresis US in figures below which includesevery steps in point a–g. (**Explain in English!**)





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