TRIBHUVAN UNIVERSITY

Mahendra Morang Adarsh Multiple Campus

Post Graduate Department of Physics
Biratnagar (Nepal)

Ph.No. 471791 Camp. Chief
471404 Fax
470916 BBA
471436 Management / Human
470437 Library
471438.....
470440 (Science (Physics)

Ref. No.....

Date: 2075/11/08.

Notice

This is to notify all students of M.Sc. Physics 2nd semester that following teachers have been assigned for checking and signing following experiments.

Name of Experiments	Teacher
Study the absorption coefficients of β particles and ϒ radiation and estimate the range of end point energy.	DA
Study the photocell and verify inverse square law. Hence determine Planck's constant.	KPL
Study the resistance versus Temperature curve of the given thermistor material. Also design and study its use as a sensor.	JA
Study the magnetic susceptibility of a given dia- and paramagnetic substances.	RK
Study the Hall coefficient of given n- and p-type materials and obtain the charge carrier density in each case and study the Hall mobility.	DA
Design and study the filters (i) low pass (ii) high pass and (iii) band pass. Compare your results.	PS
Design and study voltage multipliers (i) Doubler (ii) Tripler (iii) Quadrupler circuits.	AD
Design and study Differential amplifier.	JA
Design and study Op-amp (i) inverting and (ii) non-inverting, (iii) unity gain. Also use it as (i) differential (ii) integrator using (a) sine wave (b) square wave input signals.	AKY
Design and study (i) BCD (ii) TSL.	AD
Design and study multiplexer/demultiplexer.	PS
Design and study 1-bit memory and 1-bit comparator.	AKY

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P.G. Department of Physics
M. M. A. M. Campus
Biratnagar

Date: 2075/12/

Notice

This is to notify all students of M.Sc. Physics First Semester that following teachers have been assigned for checking and signi following experiments.

S.N.	Experiment	Teacher
1	To determine the value of e/m for electron by using magnetron.	ISJ
2	To study and find the interference of light by Fresnel's Biprism.	RK
3	To use phenomenon of interference of light to determine the thickness of a thin mica sheet or thin paper by measurement of width of interference fringes in an air wedge.	KPL
4	To use hollow prism to study the variation of refractive index with concentration of sugar solution and compare the refractive index of different liquids like menthol, water, ethanol.	RK
5	To study the natural background radiation in laboratory and outside and discuss the possible sources of sources of natural background radiation in the laboratory and outside.	BP
6	To verify Dirac delta function by writing a computer code.	DA
7	To study and find the interference of light by Michelson interferometer.	DA
8	To design and study the LOGIC gates: NOT, AND, OR, NOR, & NAND using TTL. Also study the power loss in NOT gate..	AD
9	To design and study the flip-flop using Universal gates; (i) RS, and (ii) JK.	JA
10	To design and study multi-vibrators (i) astable (ii) monostable and (iii) bistable. Compare the results/outputs using timer..	PS
11	To design and study the oscillators (i) Wein bridge (ii) Hartley (iii) Colpitt's and (iv) Phase shift.	JN
12	To design and study (i) CE (ii) CC amplifiers.	JA
13	Design and study the regulated variable power supply.	BP
14	To construct and study variable phase angle circu	PB

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