

Application

19/06/2023

To,
The Principal
Vasantdada Patil college
Paloda


Sub :- Regarding permission to conduct
certificate course in modern physics.

Respected Sir.


With reference to the subject
cited above the Dept. of physics is going to
conduct a "Certificate course in modern physics"
in this academic year 2023-24 for students

So, please give us permission to conduct the
mentioned course.

Thanking you.



19-6-23


Yours Faithfully
Dr. Dongare A. K.



Certificate Course in modern Physics
list of students.

- ① Devade Pratiksha Shahadev. B
- ② Dhormare Swati Shivaji Swati
- ③ Gorse Nikita Santosh. NS
- ④ Ghumare Mahesh Balasaheb. mahesh
- ⑤ Gite Niranjan Abhiman. Dnyaneshwar
- ⑥ Cahane Madhuri Bhaskar. AK
- ⑦ Lohakre Pratiksha Santosh. Pratiksha
- ⑧ Misal Renuka Laxman. - misal
- ⑨ Sarap Shubham Mittu. Sarap
- ⑩ Sasane Vivek Motiram. Sasane
- ⑪ Shaikh Sohil Pawt. SPS
- ⑫ Shinde Bharti Dnyande. SB
- ⑬ Vasat Omkar Mahadev. - Omkar
- ⑭ Veer Amruta Ashok. Amruta

A
H.O.D

Department of Physics
Vasantdada Patil College
Patoda, Dist. Beed



N.S.S.R.'s

Vasantdada Patil Arts, Science and Commerce College. Patoda.

Tal. Patoda, Dist. Beed

Department of Physics

Certificate Course in Modern Physics

Name of the course: Certificate course in Modern Physics

Course type: Certificate course

Duration: One month (32 Hours)

Eligibility: Xth or 10 equivalent

Medium of course: English

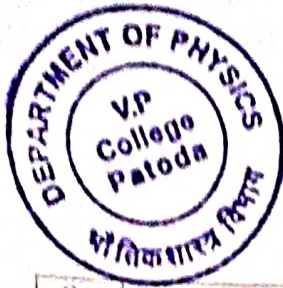
Assessment/Evaluation process: 50 Marks short answer type exam

Objectives:

- Student should be known about basic electronics.
- The students are expected to understand the fundamentals, basic principles, concepts and recent developments in modern physics.
- The relevance of practical with theory is useful to improve the understanding of the concepts.
- Students' base should be preparing for getting deep knowledge in this field.


Learning outcomes:


- Awareness about basic and applications.
- Learning theory to know the properties, characteristics, specifications.
- To develop practical skill to identify, select and know the use of components.



Syllabus:

Sr. No.	Content	Hours
Theory		
1	Units and Measurements: Fundamental and supplementary units, Meter scale, Screw gauge, Vernior caliper. Study of components- Introduction, Active components, passive components, Resistors fixed resistors, carbon composition resistors, wire wound resistors, film resistors, variable resistors, Rheostat. Capacitors function of capacitors, specification of capacitors, classification of capacitors. Inductors function fo inductors, specification of inductors, applications of inductors, classifications of inductors. , Types of diodes, Transformer construction and working, classification of transformer. specifications, applications. Switches types of switches.	8
2	Meters- Introduction, Moving coil Galvanometer, permanent magnet moving coil galvanometer, its advantages and disadvantages, characteristic. Ammeter use and advantages. Voltmeter use and advantages. Ohmmeter use and advantages. Multimeter use as voltmeter and ohm meter. Test Instruments- Introduction Cathode Ray Oscilloscope, Block diagram of C.R.O., function of knobs, vertical amplifier and horizontal amplifier, Time base generator, Different controls. Applications. Signal Generator Block diagram, Types of signal generator, Applications. Frequency counter, Electronic Voltmeter	8
Practical		
1	Meter scale, Least count and measurements. Screw gauge, Least count and measurements., Vernior caliper, Least count and measurements.	4
2	Resistors measurement, Capacitors measurement, Inductors working, Types of diodes identification, Transformer primary and secondary measurement, Switches working.	4
3	Moving coil Galvanometer working, Ammeter measurement, Voltmeter measurement, Ohmmeter measurement, Multimeter measurement.	4
4	Cathode Ray Oscilloscope setting, wave form knowing, measurement of time and amplitude. Signal Generator working, Frequency counter working, Electronic Voltmeter measurement	4
	Total	32


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Department of Physics

Certificate Course in Modern Physics

Time Table

Time / Day	Tuesday	Thursday
2.00 to 4.00 (2 hours)	Theory	Practical

Course Coordinator

Dr. Dongare A. K.

Principal

Prof. Dr. Hange A. S.

