

To  
The Board of Studies,  
S.D.Mahila Mahavidyalya,  
Narwana.

**Sub: Approval for "Basic Components of Physics" Certificate course..**

Respected Madam,

We want to start a certified offline course "Basic Components of Physics"(30 Hours) in our campus. A Certificate is an education goal for many students who want to improve their visibility among aggressive job applications. Certificates may help to provide students with increased skills and experience. Syllabus of "Basic Components of Physics" is attached with this application. Please kindly approve this certified course. We shall be thankful to you for this.

Enclosed: Syllabus of the Certificate Course.

Yours Faithfully

Ms.Nisha Nisha  
Asstt. Prof. of Physics

*Dev.*  
Officiating Principal  
S.D. Mahila Mahavidyalya  
NARWANA  
*br*

## Skill oriented course

### Syllabus

Topic = Basic component of Physics

#### 1. Introduction

##### 1.1 Basic Components

- Transistor
- Diode
- Resistor
- LED
- Potentiometer
- Relay
- Capacitor
- Inductor.
- PCB
- Bread board

#### 2. Use of Multimeter

#### 3. How to make an electric extension board

#### 4. How to repair water pump in an electric cooler.

#### 5. How to use soldering iron

#### 6. How to make COB LED (Chip ON Board)

#### 7. Uses and applications of Basic components.

## Theory

M.M-20

Time - 1:00 hour

Note:- Paper Setter will set 5 question in all. Question No. 1 Comprising of 4 short types Questions carrying 1 Marks each is compulsory. It Covers the entire syllabus. Candidate is required to attempt all questions carrying 4 marks each.

## "Practicals"

MM-20

Time- 1:00 hour

Note-Do any one experiment (Program) from the five (Program)

\* The Practical examination will be held in a Single Session of 1 hour.

Distribution of Marks:

Experiments- 15 marks

Viva Voice- 05 marks

Total- 20 marks

.....  
Ms. Nisha  
Asst. Prof. of Physics

Ms. Mahima  
Asst. Prof. of Physics

Subject: Approval for "**Basic Components of Physics**" by the Board of Studies

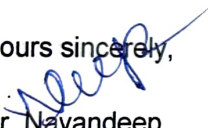
Dear Ms. Nisha & Mahima,

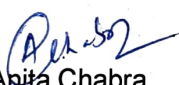
I am pleased to inform you that after careful consideration and review by the Board of Studies, has approved "**Basic Components of Physics**" which spans over 30+ hours of instruction.


This course has been evaluated thoroughly to ensure its alignment with our institution's academic standards and objectives. We believe that it will significantly contribute to the academic enrichment of our students and align with our commitment to providing high-quality education.

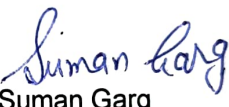
Thank you for your interest and support in our academic endeavors.


Yours sincerely,

  
Dr. Nayandeep  
Assoc. Prof. in Eco.  
Convener

  
Dr. Anita Chabra  
Asst. Prof. in Hindi  
Member

  
Dr. Shalini Sachdeva  
Asst. Prof. in Hist.  
Member

  
Suman Garg  
Asst. Prof. in Eng.  
Member

  
Nisha  
Asst. Prof. in Physics  
Member

  
Officiating Principal  
S.D. Malvi Mahavidyalaya  
**NARWANA**



Ph. No. 01684-240161




**S D MAHILA MAHAVIDYALYA**  
**NARWANA-126116 ( JIND ) HARYANA**

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Dated:- 4/11/2021

**Notice**

बी एस सी द्वितीय वर्ष की सभी छात्राओं को सूचित किया जाता है कि 06.11.2021 से महाविद्यालय में Basic Component of physics पर 30 घंटे का सर्टिफिकेट कोर्स करवाया जाएगा और कोर्स के अंत में परीक्षा ली जाएगी और छात्राओं को प्रमाण पत्र दिए जाएंगे।

  
Officiating Principal  
S D. Mahila Mahavidyalaya  
NARWANA





**S.D MAHILA MAHAVIDYALAYA NARWANA**



## **DEPARTMENT OF SCIENCE**

**PROUDLY OFFERS**

# **ADD ON CERTIFICATE COURSE IN BASIC COMPONENTS OF PHYSICS**

**STARTING FROM 6 NOV 2021**

**DURATION - 30 HOURS**

**MODE- OFFLINE**

**The primary objective of the "Fundamentals of Physics: Exploring Basic Components" certificate course is to provide BSc students with a comprehensive understanding of essential concepts in physics and their applications. By the end of the course, students should be able to:**

**Understand Fundamental Principles**

**Apply Physical Laws**

**Analyze Systems**

**Perform Laboratory Experiments**

**Demonstrate Problem-Solving Skills**

**MS. NISHA  
CONVENOR**

**MS. MAHIMA  
CO-CONVENOR**

**DR. ANJANA LOHAN  
PRINCIPAL**



**Skill oriented certificate course**

**Topic- Basic components of Physics**

Session - 2021-2022.

M.M= 20.

Time= 1 hour

All candidates are required to attempt any four questions from Question 2 to Question 6. Question 1 is compulsory.

Ques1. (a) What is diode?

(b) What is capacitor?

(c) What is inductor?

(d) What is the full form of PCB.

1×4= 4

Ques 2. What is bread board? Difference between protoboard and bread board?

Ques 3. What is multimeter? How to use it?

Ques 4. Write the name of 8 basic electronic components with symbol?

Ques 5. What is PCB? Where is it used?

Ques 6. What is transistor? Explain the different types of transistors?

4×4= 16



Session - 2021-2022

# S.D. MAHILA MAHAVIDYALYA, NARWANA

Roll No. 12A191011003 Class B.Sc II<sup>nd</sup> Sec. .... Subject Physics .....

Date .....

Signature Jyoti .....

19  
20 → Nisha

Q.1

Ans. (a) Diode → An electrical component that only enables current to travel in a single path.

(b) Capacitor → A small rechargeable battery that stores energy in the form of an electrical charge.

(c) Inductor → It is a passive two terminal electrical component that stores energy in a magnetic field when electric current flows through it.

(d) PCB → Printed circuit board.

Q.2

Ans.

Bread board → A bread board consists of plastic block holding a matrix of electrical sockets of a size suitable for gripping thin connecting wires, component wires or the pins of transistors and

# S.D. MAHILA MAHAVIDYALYA, NARWANA

Session - 2021-22

Roll No. 12019101105 Class B.Sc. II<sup>nd</sup> Sec. .... Subject Physics .....

Date .....

14/20 Nisha

Signature Pinku .....

Qst-1 (a) Ans- Diode:- An electronic device in which the electric current flows in one direction only.

(b) Ans- Capacitor:- A capacitor is a two-terminal electrical device that can store energy in the form of an electric charge.

(c) Ans- Inductor:- An inductor is a passive component that is used in most power electronic circuits to store energy in the form of magnetic energy when electricity is applied to it.

(d) Ans- PCB - Printed Circuit Board

Qst-2 Ans- BreadBoard:- A breadboard is a temporary test platform used to prototype and test electronic circuits.

	Protoboard		Breadboard
(1)	In protoboard, there is stable and durable connections.	(1)	Breadboard is less stable.

Result of Certificate Course  
class - B.Sc II<sup>nd</sup> year  
Session - 2021-2022

Topic - Basic Components of Physics

S.No.	Roll No.	Name	Theory (20)	Practical (20)	Total (40)
1.	120191011001	Gurpreet	16	14	30
2.	120191015001	Ravina	17	19	36
3.	120191015002	Preeti	16	15	31
4.	120191015003	Jyoti	19	17	36
5.	120191015005	Sakshna	13	15	28
6.	120191015006	Nisha Rani	14	16	30
7.	120191015007	Ankita	17	18	35
8.	120191015008	Sumita	14	13	27
9.	120191015009	Anjali	18	17	35
10.	120191015010	Alish	15	18	33
11.	120191015012	Pooja	16	16	32
12.	120191015013	Balvinder	15	16	31
13.	120191015014	Diksha	19	13	32
14.	120191015015	Pinku	14	15	29
15.	120191015016	Khushi	15	15	30
16.	120191015017	Priya	16	15	31
17.	120191015018	Muskan	20	14	34
18.	120191015019	Amandeep	19	14	33
19.	120191015021	Anju	14	16	30
20.	120191015022	Vandana	14	15	29
21.	120191015023	Tamanna	15	17	32
	Present	21			
	Absent	0			
	Total	21			

## Overview

### Skill Oriented Course on Basic component of Physics Session:- 2021-22

The Certificate Course on Basic Component of physics Offered by the Department of Physics, Mrs. Nisha S.D.MM.V Narwana has conducted from 06 November 2021 to 11 December, 2021 with a batch of 21 students and 21 Students successfully completed the course. The students gain knowledge for transistor, LED, Breadboard, Multimeter, Capacitor etc. During this certificate Course Mrs Nisha and Mahima gave the mechanical skill like, How to make an electric extension board, Repairing of Water pump in an electric cooler, soldering iron, How to make COB LED. Principal Dr Anjana Lohan, Dr Nayandeep, Dr Shalu Sachdeva, Poonam, Seema, Mahima were present at this event.

#### Learning outcomes

- \*. Gain knowledge of Basic Component of Physics.
- \*. Operate soldering iron, Multimeter.
- \*. Develop mechanical skill.
- \*. How to make an extension board.
- \*. Knowledge to repair water pump in an electric cooler.
- \*. How to make COB LED
- \*. Learning how to repair Physics practical apparatus.

All students successfully completed this Course. By gaining knowledge of this course, they become self independent and will start their own Start up in future to make earning.

**S D Mahila Mahavidyalya, Narwana**  
**Student Feedback Performa**

Name	Vandana			
Class	B.Sc II nd			
Roll Number	120191011023			
Email Address				
Session	2021-2022			
Phone No.				
	Excellent	Very Good	Good	Average
The content was easy to understand.	✓			
It was well organised.		✓		
It engaged the participants in learning.			✓	
The Teacher was able to explain the activity.	✓			
The level of communication of teacher with students			✓	
The event made progress in accomplishing its goal.	✓			
I found this event experience to be worthwhile.				✓
<b>Suggesion</b>	यह कोर्स अत्यंत लाभदायक रहा। पीजी को घर ही बनाया जा सकता है। अतः इस प्रकार के कोर्स निरंतर चलते रहने चाहिए ताकि बच्चे प्रेरित रहे।			

Vandana  
Signature

Date

**S D Mahila Mahavidyalya, Narwana**  
**Student Feedback Performa**

Name	Alish			
Class	B.Sc II <sup>nd</sup> year			
Roll Number	120191011010			
Email Address				
Session	2021-2022			
Phone No.				

	Excellent	Very Good	Good	Average
The content was easy to understand.	✓			
It was well organised.			✓	
It engaged the participants in learning.		✓		
The Teacher was able to explain the activity.	✓			
The level of communication of teacher with students	✓			
The event made progress in accomplishing its goal.		✓		
I found this event experience to be worthwhile.			✓	

**Suggestion**  
महाविद्यालय में आयोजित किए गए सभी courses अत्यंत प्रेरणादायक थे। इससे हमें बहुत कुछ सीखने का मौका जो हमविषय में काम आएगी। आशा करते हैं हमविषय में भी ऐसे courses हों।

*Alish*  
Signature

Date

**S D Mahila Mahavidyalya, Narwana**  
**Student Feedback Performa**

Name	Diksha			
Class	B.Sc II nd			
Roll Number	120191011014			
Email Address				
Session	2021-2022			
Phone No.				

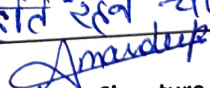
	Excellen nt	Very Good	Good	Average
The content was easy to understand.		✓		
It was well organised.	✓			
It engaged the participants in learning.			✓	
The Teacher was able to explain the activity.	✓			
The level of communication of teacher with students		✓		
The event made progress in accomplishing its goal.			✓	
I found this event experience to be worthwhile.	✓			

**Suggestion**  
 महाविद्यालय में आयोजित सभी courses अत्यंत लाभदायक थे तथा ये भाविष्य में भी चलते रहने चाहिए।

*Diksha*  
Signature

Date

## S D Mahila Mahavidyalya, Narwana Student Feedback Performa

Name	Amaudeep			
Class	B.Sc II <sup>nd</sup>			
Roll Number	120191011019			
Email Address				
Session	2021-2022			
Phone No.				
	Excell ent	Very Good	Good	Average
The content was easy to understand.	✓			
It was well organised.		✓		
It engaged the participants in learning.			✓	
The Teacher was able to explain the activity.	✓			
The level of communication of teacher with students		✓		
The event made progress in accomplishing its goal.			✓	
I found this event experience to be worthwhile.	✓			
<b>Suggesion</b>	जो courses महाविद्यालय में आयोजित किए गए थे, उससे हमें नए idea और शिक्षा मिलती है। इसे हमें Future के लिए प्रेरणा मिल रही है। ऐसे courses ही रहने चाहिए। <div style="text-align: right;">                       Signature                 </div>			

Date



# S.D. MAHILA MAHAVIDYALYA

NARWANA (JIND)

(AFFILIATED TO CH. RANBIR SINGH UNIVERSITY, JIND)

## Certificate of Participation

This is to certify that Miss **NISHA RANI** of **Class B.Sc. II** Participated in **Basic Components of Physics Certificate Course (Session 2021-22)** Course for a duration of 30 hours organized in College Campus by Science Department.



Convener



Co-Convener

:



Principal

# S.D. MAHILA MAHAVIDYALYA

NARWANA (JIND)


(AFFILIATED TO CH. RANBIR SINGH UNIVERSITY, JIND)

## Certificate of Participation

This is to certify that Miss **RAVINA** of **Class B.Sc. II** Participated in **Basic Components of Physics Certificate Course (Session 2021-22)** Course for a duration of 30 hours organized in College Campus by Science Department.



Convener



Co-Convener



Principal

# S.D. MAHILA MAHAVIDYALYA

NARWANA (JIND)


(AFFILIATED TO CH. RANBIR SINGH UNIVERSITY, JIND)

## Certificate of Participation

This is to certify that Miss **ANJALI** of **Class B.Sc. II** Participated in **Basic Components of Physics Certificate Course (Session 2021-22)** Course for a duration of 30 hours organized in College Campus by Science Department.

  
Convener

  
Co-Convener

  
Principal

# S.D. MAHILA MAHAVIDYALYA

NARWANA (JIND)

(AFFILIATED TO CH. RANBIR SINGH UNIVERSITY, JIND)

## Certificate of Participation

This is to certify that Miss **ALISH** of **Class B.Sc. II** Participated in **Basic Components of Physics Certificate Course (Session 2021-22)** Course for a duration of 30 hours organized in College Campus by Science Department.



Convener



Co-Convener



Principal

: