

**TIME TABLE FOR THE SHORT TERM CERTIFICATE COURSE  
(04/10/2014 to 07/12/2014)**

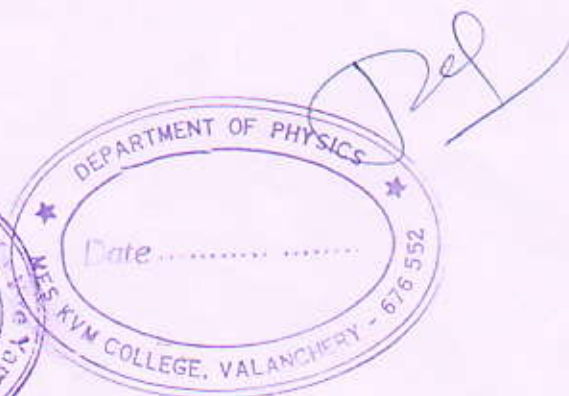
| Date       | Day       | Name of the faculty | Time        |
|------------|-----------|---------------------|-------------|
| 04-10-2014 | Saturday  | AMPH                | 10:00-11:00 |
| 04-10-2014 | Saturday  | US                  | 12:00-1:00  |
| 06-10-2014 | Monday    | MPU                 | 3:30-4:30   |
| 08-10-2014 | Wednesday | SS                  | 3:30-4:30   |
| 10-10-2014 | Saturday  | AMPH                | 10:00-11:00 |
| 10-10-2014 | Saturday  | MPU                 | 12:00-1:00  |
| 12-10-2014 | Monday    | SS                  | 3:30-4:30   |
| 14-10-2014 | Wednesday | AMPH                | 8:30-9:30   |
| 16-10-2014 | Thursday  | MPU                 | 3:30-4:30   |
| 17-10-2014 | Friday    | US                  | 8:30-9:30   |
| 18-10-2014 | Saturday  | US                  | 10:00-11:00 |
| 18-10-2014 | Saturday  | AMPH                | 12:00-1:00  |
| 03-11-2014 | Monday    | MPU                 | 8:30-9:30   |
| 06-11-2014 | Thursday  | AMPH                | 3:30-4:30   |
| 14-11-2014 | Friday    | SS                  | 8:30-9:30   |
| 15-11-2014 | Saturday  | AMPH                | 10:00-11:00 |
| 15-11-2014 | Saturday  | US                  | 12:00-1:00  |
| 18-11-2014 | Tuesday   | SS                  | 3:30-4:30   |
| 20-11-2014 | Friday    | MPU                 | 3:30-4:30   |
| 21-11-2014 | Saturday  | US                  | 10:00-11:00 |
| 21-11-2014 | Saturday  | AMPH                | 12:00-1:00  |
| 25-11-2014 | Wednesday | AMPH                | 8:30-9:30   |
| 27-11-2014 | Saturday  | MPU                 | 10:00-11:00 |
| 27-11-2014 | Saturday  | AMPH                | 12:00-1:00  |
| 03-12-2014 | Wednesday | US                  | 3:30-4:30   |
| 06-12-2014 | Saturday  | US                  | 10:00-11:00 |
| 06-12-2014 | Saturday  | AMPH                | 12:00-1:00  |

MPU -Dr. MP Unnikrishnan (6hr)

AMPH -Prof. AMP Hamza (10hr)

US -Dr. Sailaja U (8hr)

SS -Prof. Sreejalakshmi (6hr)

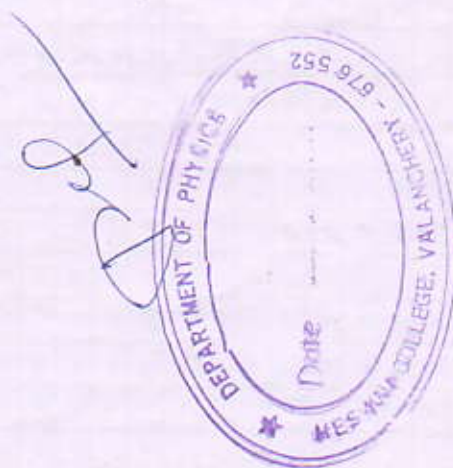




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|                     |        |                |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |  |
|---------------------|--------|----------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|--|
| 28                  | 130414 | AFEFA.T.P      | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X |  |
| 29                  | 130415 | ATHIRA M       | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X |  |
| 30                  | 130416 | BIJNA BALAN CT | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X |  |
| Sign of invigilator |        |                |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |  |





Name: .....

Roll. No. ....

## MES KEVEEYAM COLLEGE VALANCHERY

### Manufacturing of Light Emitting Diodes (LED) (CC/PHY/04)

2014-2015

Time :  $1\frac{1}{2}$  Hrs

Maximum Marks: 40

#### PART A

Answer all questions

(5 × 2 = 10)

1. What is an LED?
2. Write two examples for Indicator lights and illumination
3. Give two applications of LEDs.
4. Write any two types of LED drivers.
5. What is the difference between Indicator lights and illumination?

#### PART B

Answer all questions

(4 × 5 = 20)

6. How SMPS Power supply works?
7. What is LED drive? Explain the LED driver.
8. What is SMPS?
9. What is the difference between Indicator lights and illumination?

#### PART C

Answer any one of the following questions

(1 × 10 = 10)

10. Write a note on applications of LED.

OR

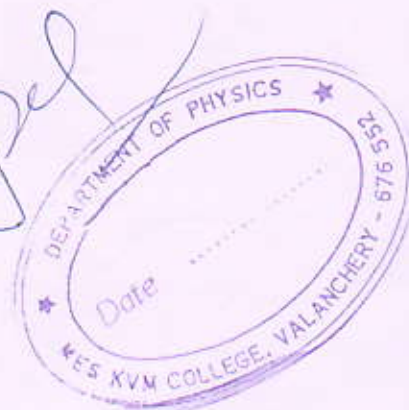
11. Write note Different types of LED drivers.





## Grade Card 2014-15

| Roll no | Name                   | Written(40) | Practical(20) | Total(60) | Grade |
|---------|------------------------|-------------|---------------|-----------|-------|
| 140401  | ABDUSSAMAD. P          | 32          | 18            | 50        | A     |
| 140402  | MOHAMMED BASHEER. K    | 33          | 16            | 49        | A     |
| 140403  | MUHAMMED ASLAM. P      | 35          | 18            | 53        | A     |
| 140404  | MUHAMED SHABEEB. P     | 28          | 17            | 47        | B     |
| 140405  | FAIHA. P               | 34          | 16            | 50        | A     |
| 140406  | FARSANA. T.K           | 35          | 17            | 52        | A     |
| 140407  | RAHMATH. N             | 33          | 18            | 51        | A     |
| 140408  | SUNAIBILA. A.K         | 30          | 14            | 44        | B     |
| 140409  | MOHAMMED SHIHAB. E.K   | 36          | 18            | 54        | A     |
| 140410  | PRANAV. K.P            | 37          | 17            | 54        | A     |
| 140411  | CHITRA. T.P            | 27          | 14            | 41        | B     |
| 140412  | HASNATH THASNEEM M     | 38          | 19            | 57        | A     |
| 140413  | NIMITHA. K.T           | 36          | 19            | 55        | A     |
| 140414  | ABHINAND. K            | 37          | 18            | 55        | A     |
| 140415  | AKHEESH BABU. N.P      | 30          | 14            | 44        | B     |
| 130401  | MOHAMMED FASIL M       | 36          | 19            | 55        | A     |
| 130402  | MOHAMMED SHAIJAL M     | 37          | 18            | 56        | A     |
| 130403  | MUFEEDA VP             | 34          | 16            | 50        | A     |
| 130404  | FATHIMA RASHIDA.A.V    | 25          | 14            | 39        | B     |
| 130405  | FATHIMATH ASLAMI KP    | 37          | 18            | 55        | A     |
| 130406  | HAFSATH NASILA K       | 36          | 16            | 52        | A     |
| 130407  | HASBIYA MUSTHAF.A.K..V | 33          | 17            | 50        | A     |
| 130408  | JASMIN KB              | 30          | 15            | 45        | B     |
| 130409  | SHABEERA.K.P           | 35          | 19            | 53        | A     |
| 130411  | SHIFA KK               | 33          | 18            | 51        | A     |
| 130412  | ABDUL SAMAD PC         | 38          | 19            | 57        | A     |
| 130413  | SHAHANAS.T.P           | 25          | 17            | 42        | B     |
| 130414  | AFEEFA.T.P             | 33          | 16            | 49        | A     |
| 130415  | ATHIRA M               | 30          | 18            | 48        | A     |
| 130416  | BIJINA BALAN CT        | 34          | 18            | 52        | A     |



**TIME TABLE FOR THE SHORT TERM CERTIFICATE COURSE  
(07/10/2015to08/12/2015)**

| Date       | Day       | Name of the faculty | Time        |
|------------|-----------|---------------------|-------------|
| 07-10-2015 | Wednesday | AMPH                | 3:30-4:30   |
| 09-10-2015 | Friday    | MPU                 | 3:30-4:30   |
| 14-10-2015 | Saturday  | SS                  | 10:00-11:00 |
| 14-10-2015 | Saturday  | AMPH                | 12:00-1:00  |
| 17-10-2015 | Wednesday | AMPH                | 3:30-4:30   |
| 21-10-2015 | Saturday  | SS                  | 10:00-11:00 |
| 21-10-2015 | Saturday  | AMPH                | 12:00-1:00  |
| 24-10-2015 | Wednesday | AMPH                | 8:30-9:30   |
| 24-10-2015 | Saturday  | MPU                 | 10:00-11:00 |
| 24-10-2015 | Saturday  | US                  | 12:00-1:00  |
| 27-10-2015 | Saturday  | US                  | 10:00-11:00 |
| 27-10-2015 | Saturday  | SS                  | 12:00-1:00  |
| 31-10-2015 | Tuesday   | US                  | 3:30-4:30   |
| 04-11-2015 | Saturday  | MPU                 | 10:00-11:00 |
| 04-11-2015 | Saturday  | AMPH                | 12:00-1:00  |
| 11-11-2015 | Wednesday | AMPH                | 3:30-4:30   |
| 14-11-2015 | Saturday  | SS                  | 10:00-11:00 |
| 14-11-2015 | Saturday  | AMPH                | 12:00-1:00  |
| 16-11-2015 | Monday    | US                  | 3:30-4:30   |
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| 21-11-2015 | Saturday  | US                  | 12:00-1:00  |
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| 28-11-2015 | Saturday  | MPU                 | 10:00-11:00 |
| 28-11-2015 | Saturday  | AMPH                | 12:00-1:00  |
| 02-12-2015 | Wednesday | US                  | 3:30-4:30   |
| 05-12-2015 | Saturday  | US                  | 10:00-11:00 |
| 05-12-2015 | Saturday  | SS                  | 12:00-1:00  |
| 07-12-2015 | Monday    | US                  | 8:30-9:30   |
| 08-12-2015 | Tuesday   | MPU                 | 3:30-4:30   |

MPU -Dr. MP Unnikrishnan (6hr)

AMPH -Prof. AMP Hamza (10hr)

US -Dr.Sailaja U (8hr)

SS -Prof. Sreejalakshmi (6hr)





# SHORT TERM COURSE ON LIGHT EMITTING DIODE (2015-2016)

## STUDENTS ATTENDANCE

|        |          |                    | Oct-16 |   |   |   |   |    |    |    |    |    |    |    |    |    |    | Nov-16 |    |    |    |    |    |    |   |   |   |   |   |   |    |    |    |
|--------|----------|--------------------|--------|---|---|---|---|----|----|----|----|----|----|----|----|----|----|--------|----|----|----|----|----|----|---|---|---|---|---|---|----|----|----|
| Sl No. | Roll No. | Name               | 1      | 3 | 4 | 6 | 8 | 10 | 11 | 12 | 13 | 14 | 16 | 18 | 19 | 20 | 22 | 23     | 24 | 25 | 26 | 27 | 29 | 1  | 2 | 3 | 5 | 7 | 8 | 9 | 10 | 11 |    |
| 1      | 150401   | ABDULLAH K         | X      | X | X | X | X | X  | X  | X  | X  | X  | X  | X  | A  | X  | X  | X      | ab | X  | X  | X  | ab | ab | X | X | X | X | X | X | X  | ab | X  |
| 2      | 150402   | AJSAL NASEEH       | X      | X | X | X | X | a  | X  | X  | X  | X  | X  | X  | a  | A  | X  | X      | X  | X  | X  | X  | ab | ab | X | X | X | X | X | X | X  | X  | X  |
| 3      | 150403   | MOHAMED SUFIYAN KT | X      | X | X | X | X | X  | ab | X  | X  | ab | X  | X  | X  | X  | X  | X      | X  | X  | X  | X  | X  | X  | X | X | X | X | X | X | X  | X  | X  |
| 4      | 150404   | MUHAMMED AFSAL PK  | X      | X | X | X | a | X  | X  | X  | X  | ab | X  | X  | X  | X  | X  | X      | A  | X  | X  | X  | X  | X  | X | X | X | X | X | X | X  | X  | X  |
| 5      | 150405   | SALMANULFARIS V    | X      | X | X | X | X | X  | X  | X  | X  | X  | X  | X  | X  | X  | X  | X      | X  | ab | X  | X  | ab | X  | X | X | X | X | X | X | X  | X  | X  |
| 6      | 150406   | DILNA VP           | X      | X | X | X | X | X  | X  | X  | X  | X  | ab | X  | X  | X  | X  | X      | X  | X  | X  | X  | X  | X  | X | X | X | X | X | X | X  | X  | X  |
| 7      | 150407   | FATHIMA FARHANA    | X      | X | X | X | X | X  | X  | X  | X  | X  | X  | X  | X  | X  | X  | X      | ab | X  | X  | X  | ab | X  | X | X | X | X | X | X | X  | X  | X  |
| 8      | 150408   | HAFSATH N          | X      | X | X | X | X | X  | X  | X  | X  | X  | X  | X  | X  | X  | X  | X      | X  | X  | X  | X  | X  | X  | X | X | X | X | X | X | X  | X  | ab |
| 9      | 150409   | MURSHIDA KPA       | X      | X | X | X | X | X  | X  | X  | X  | X  | X  | X  | X  | X  | X  | X      | X  | X  | X  | X  | X  | X  | X | X | X | X | X | X | X  | X  | X  |
| 10     | 150410   | NAHLA V            | X      | X | X | X | X | a  | X  | X  | X  | X  | X  | X  | X  | X  | X  | X      | X  | X  | X  | X  | X  | X  | X | X | X | X | X | X | X  | X  | X  |
| 11     | 150411   | SHAMLA THASNEEM T  | X      | X | X | X | X | X  | ab | X  | X  | X  | ab | X  | X  | X  | X  | X      | X  | X  | ab | X  | ab | X  | X | X | X | X | X | X | X  | X  | X  |
| 12     | 150412   | THASNEEMA          | X      | X | X | X | X | X  | X  | X  | X  | X  | X  | X  | X  | X  | X  | X      | X  | X  | X  | X  | X  | X  | X | X | X | X | X | X | X  | X  | X  |
| 13     | 150413   | AKSHAY AJITH       | X      | X | X | X | X | X  | X  | X  | X  | X  | X  | X  | a  | X  | X  | X      | X  | X  | X  | X  | X  | X  | X | X | X | X | X | X | X  | X  | X  |
| 14     | 150414   | RAJESH MT          | X      | X | X | X | X | X  | X  | X  | X  | X  | X  | X  | X  | X  | X  | X      | X  | X  | X  | X  | X  | X  | X | X | X | X | X | X | X  | X  | X  |
| 15     | 150415   | SUBIN P            | X      | X | X | X | X | X  | X  | X  | X  | X  | X  | X  | X  | X  | X  | X      | X  | X  | X  | X  | X  | X  | X | X | X | X | X | X | X  | X  | X  |
| 16     | 140416   | AKHILESH KUMAR. K  | X      | X | X | X | X | X  | X  | X  | X  | ab | X  | X  | X  | X  | X  | X      | X  | X  | X  | X  | X  | X  | X | X | X | X | X | X | X  | X  | X  |
| 17     | 140417   | ROHIT. D.P         | X      | X | X | X | X | X  | X  | X  | X  | X  | X  | X  | X  | X  | X  | X      | X  | X  | X  | X  | X  | X  | X | X | X | X | X | X | X  | X  | X  |
| 18     | 140418   | VIJAY. V. P        | X      | X | X | X | X | X  | ab | X  | X  | X  | X  | X  | X  | X  | X  | X      | X  | X  | X  | X  | X  | X  | X | X | X | X | X | X | X  | X  | X  |
| 19     | 140419   | ATHIRA. V. P       | X      | X | X | X | X | X  | X  | X  | X  | X  | X  | X  | A  | X  | X  | X      | X  | X  | X  | X  | X  | X  | X | X | X | X | X | X | X  | X  | X  |
| 20     | 140420   | FARSANA JAMSHI. T  | X      | X | X | X | X | X  | X  | X  | X  | ab | X  | X  | X  | X  | X  | X      | X  | X  | X  | ab | X  | X  | X | X | X | X | X | X | X  | X  | ab |
| 21     | 140421   | GOPIKA. K          | X      | X | X | X | X | X  | X  | X  | ab | X  | X  | X  | X  | X  | X  | X      | A  | X  | X  | X  | X  | X  | X | X | X | X | X | X | X  | X  | ab |
| 22     | 140422   | MUMTHAS            | X      | X | X | X | X | X  | X  | X  | X  | X  | X  | X  | X  | X  | X  | X      | X  | X  | X  | X  | X  | X  | X | X | X | X | X | X | X  | X  | ab |
| 23     | 140423   | NIHALA SHIREEN     | X      | X | X | X | X | X  | X  | X  | X  | X  | X  | X  | X  | X  | X  | X      | X  | X  | X  | X  | X  | X  | X | X | X | X | X | X | X  | X  | ab |
| 24     | 140424   | NUSAIBA. P         | X      | X | X | X | X | X  | ab | X  | X  | X  | X  | X  | X  | X  | X  | X      | X  | X  | X  | X  | X  | X  | X | X | X | X | X | X | X  | X  | X  |
| 25     | 140425   | NUSREENA CHORATH   | X      | X | X | X | X | X  | X  | X  | X  | X  | X  | X  | X  | X  | X  | X      | X  | X  | X  | X  | X  | X  | X | X | X | X | X | X | X  | X  | X  |
|        |          | RAHEESA            | X      | X | X | X | X | X  | X  | X  | X  | X  | X  | X  | X  | X  | X  | X      | X  | X  | X  | X  | X  | X  | X | X | X | X | X | X | X  | X  | X  |
| 26     | 140426   | PONMALATHODI       | X      | X | X | X | X | X  | X  | X  | X  | X  | X  | X  | X  | X  | X  | X      | X  | X  | X  | X  | X  | X  | X | X | X | X | X | X | X  | X  | X  |



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Name: .....

Roll. No.....

## MES KEVEEYAM COLLEGE VALANCHERY

### Manufacturing of Light Emitting Diodes (LED) (CC/PHY/04)

2015-2016

Time :  $1\frac{1}{2}$  Hrs

Maximum Marks: 40

#### PART A

Answer all questions

(5 × 2 = 10)

12. Give two applications of LEDs.
13. Different types of LED drivers.
14. Write different type of LEDs.
15. What is the difference between Indicator lights and illumination?
16. What are the components used in the driver.

#### PART B

Answer all questions

(4 × 5 = 20)

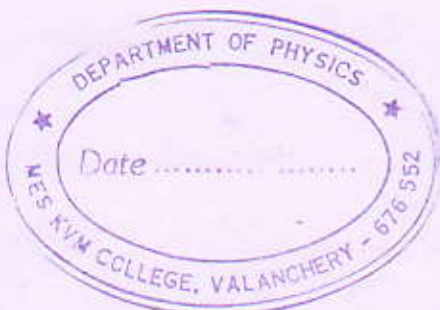
17. Explain SMPS Block Diagram.
18. Explain Type of LEDs with examples.
19. What is LED drive? Explain the LED driver and how LED driver works
20. How SMPS Power supply works.

#### PART C

Answer any one of the following questions

(1 × 10 = 10)

21. Write note on 3W LED AC Lamp Manufacturing.
- OR
22. Write note on Requirement tools need for LED manufacturing.



*[Handwritten signature]*





## Grade Card 2015-16

| Roll no | Name                 | Written(40) | Practical(20) | Total(60) | Grade |
|---------|----------------------|-------------|---------------|-----------|-------|
| 150401  | ABDULLAH K           | 38          | 18            | 56        | A     |
| 150402  | AJSAL NASEEH         | 36          | 17            | 53        | A     |
| 150403  | MOHAMED SUFIYAN KT   | 37          | 18            | 55        | A     |
| 150404  | MUHAMMED AFSAL PK    | 35          | 15            | 50        | B     |
| 150405  | SALMANULFARIS V      | 39          | 17            | 56        | A     |
| 150406  | DILNA VP             | 36          | 18            | 54        | A     |
| 150407  | FATHIMA FARHANA      | 41          | 15            | 56        | A     |
| 150408  | HAFSATH N            | 23          | 17            | 40        | B     |
| 150409  | MURSHIDA KPA         | 31          | 19            | 50        | A     |
| 150410  | NAHLA V              | 37          | 17            | 54        | A     |
| 150411  | SHAMLA THASNEEM T    | 32          | 19            | 51        | A     |
| 150412  | THASNEEMA            | 24          | 14            | 38        | B     |
| 150413  | AKSHAY AJITH         | 33          | 17            | 50        | A     |
| 150414  | RAJESH MT            | 32          | 19            | 51        | A     |
| 150415  | SUBIN P              | 37          | 16            | 53        | A     |
| 140416  | AKHILESH KUMAR. K    | 35          | 12            | 47        | B     |
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| 140418  | VIJAY. V. P          | 38          | 17            | 55        | A     |
| 140419  | ATHIRA. V. P         | 38          | 18            | 56        | A     |
| 140420  | FARSANA JAMSHI. T    | 31          | 12            | 43        | B     |
| 140421  | GOPIKA. K            | 34          | 18            | 52        | A     |
| 140422  | MUMTHAS              | 36          | 17            | 53        | A     |
| 140423  | NIHALA SHIREEN       | 37          | 18            | 55        | A     |
| 140424  | NUSAIBA. P           | 25          | 14            | 39        | B     |
| 140425  | NUSREENA CHORATH     | 34          | 15            | 49        | A     |
| 140426  | RAHEESA PONMALATHODI | 26          | 12            | 38        | B     |
| 140427  | RAHIMA. M            | 25          | 16            | 41        | B     |
| 140428  | RAMSIYA. V           | 37          | 18            | 55        | A     |
| 140429  | SHABANA. T           | 32          | 17            | 49        | B     |
| 140430  | SHABNA. K.K          | 36          | 18            | 54        | A     |



**TIME TABLE FOR THE SHORT TERM CERTIFICATE COURSE (01/10/2016 to 11/11/2016)**

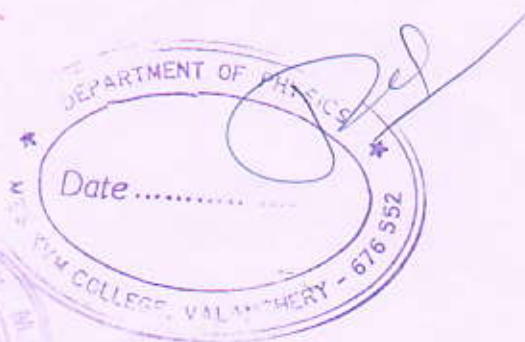
| Date       | Day       | Name of the faculty | Time        |
|------------|-----------|---------------------|-------------|
| 01-10-2016 | Saturday  | AMPH                | 10:00-11:00 |
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| 24-10-2016 | Wednesday | MPU                 | 3:30-4:30   |
| 25-10-2016 | Thursday  | AMPH                | 3:30-4:30   |
| 26-10-2016 | Friday    | US                  | 3:30-4:30   |
| 27-10-2016 | Saturday  | US                  | 10:00-11:00 |
| 29-10-2016 | Monday    | US                  | 8:30-9:30   |
| 01-11-2016 | Tuesday   | AMPH                | 3:30-4:30   |
| 02-11-2016 | Wednesday | AMPH                | 3:30-4:30   |
| 03-11-2016 | Friday    | SS                  | 10:00-11:00 |
| 05-11-2016 | Saturday  | SS                  | 10:00-11:00 |
| 07-11-2016 | Monday    | AMPH                | 3:30-4:30   |
| 08-11-2016 | Tuesday   | SS                  | 3:30-4:30   |
| 09-11-2016 | Wednesday | MPU                 | 10:00-11:00 |
| 10-11-2016 | Friday    | US                  | 8:30-9:30   |
| 11-11-2016 | Saturday  | AMPH                | 3:30-4:30   |

MPU -Dr. MP Unnikrishnan (6hr)

AMPH -Prof. AMP Hamza (10hr)

US -Dr.Sailaja U (8hr)

SS -Prof. Sreejalakshmi (6hr)





# SHORT TERM COURSE ON LIGHT EMITTING DIODE (2016-2017)

## STUDENT'S ATTENDANCE

|       |         |                       | Oct-17 |    |    |   |    |    |    |    |    |    |    |    |    |    | Nov-17 |   |   |   |   |    |    |    |    |    | Dec-17 |    |    |    |    |   |    |
|-------|---------|-----------------------|--------|----|----|---|----|----|----|----|----|----|----|----|----|----|--------|---|---|---|---|----|----|----|----|----|--------|----|----|----|----|---|----|
| Sl No | Roll No | Name                  | 3      | 5  | 7  | 9 | 11 | 12 | 14 | 16 | 19 | 21 | 23 | 25 | 27 | 28 | 31     | 1 | 4 | 6 | 8 | 10 | 11 | 13 | 15 | 18 | 20     | 23 | 25 | 27 | 30 | 1 |    |
| 1     | 160401  | MUHAMMED ALI JOUHAR A | X      | X  | X  | X | X  | X  | X  | X  | X  | X  | X  | X  | X  | X  | X      | X | X | X | X | X  | X  | X  | X  | X  | X      | X  | X  | X  | X  | X | ab |
| 2     | 160402  | MUHAMMED SABEEB P T   | X      | X  | X  | X | X  | X  | X  | X  | X  | X  | X  | X  | X  | X  | X      | X | X | X | X | X  | X  | X  | X  | X  | X      | X  | X  | X  | X  | X | X  |
| 3     | 160403  | MUHAMMED YASIR R K    | X      | X  | X  | X | X  | X  | X  | X  | X  | ab | X  | X  | X  | X  | X      | X | X | X | X | X  | X  | X  | X  | X  | X      | X  | X  | X  | X  | X | X  |
| 4     | 160404  | SAVAB E               | X      | X  | X  | X | X  | X  | X  | X  | X  | X  | X  | X  | X  | X  | X      | X | X | X | X | X  | X  | X  | X  | X  | X      | X  | X  | X  | X  | X | X  |
| 5     | 160405  | ASLAHA FARHATH KM     | X      | X  | X  | X | X  | X  | X  | X  | X  | X  | X  | X  | X  | X  | X      | X | X | X | X | X  | X  | X  | X  | X  | X      | X  | X  | X  | X  | X | ab |
| 6     | 160406  | JUMAILATH P           | X      | X  | X  | X | X  | X  | X  | X  | X  | X  | X  | X  | X  | X  | X      | X | X | X | X | X  | X  | X  | X  | X  | X      | X  | X  | X  | X  | X | X  |
| 7     | 160407  | MURSHIDA N.P          | X      | X  | X  | X | X  | X  | X  | X  | X  | X  | X  | X  | X  | X  | X      | X | X | X | X | X  | X  | X  | X  | X  | X      | X  | X  | X  | X  | X | X  |
| 8     | 160408  | NAFILA C P            | X      | ab | X  | X | X  | X  | X  | X  | X  | X  | X  | X  | X  | X  | X      | X | X | X | X | X  | X  | X  | X  | X  | X      | X  | X  | X  | X  | X | X  |
| 9     | 160409  | NIMSIYA E             | X      | X  | X  | X | ab | X  | X  | X  | X  | X  | X  | X  | X  | X  | X      | X | X | X | X | X  | X  | X  | X  | X  | X      | X  | X  | X  | X  | X | X  |
| 10    | 160410  | NISHNI AMANSHA P      | X      | X  | X  | X | X  | X  | X  | X  | X  | X  | X  | X  | X  | X  | X      | X | X | X | X | X  | X  | X  | X  | X  | X      | X  | X  | X  | X  | X | X  |
| 11    | 160411  | SHAMNA C K            | X      | X  | X  | X | X  | X  | X  | X  | X  | X  | X  | X  | X  | X  | X      | X | X | X | X | X  | X  | X  | X  | X  | X      | X  | X  | X  | X  | X | X  |
| 12    | 160412  | SUMAYYA MOL K         | X      | X  | X  | X | X  | X  | X  | X  | X  | X  | X  | X  | X  | X  | X      | X | X | X | X | X  | X  | X  | X  | X  | X      | X  | X  | X  | X  | X | X  |
| 13    | 160413  | THASHREEFA K P        | X      | X  | X  | X | X  | X  | X  | X  | X  | X  | X  | X  | X  | X  | X      | X | X | X | X | X  | X  | X  | X  | X  | X      | X  | X  | X  | X  | X | X  |
| 14    | 160414  | AJAY KRISHNAN B       | X      | X  | X  | X | X  | X  | X  | X  | X  | X  | X  | X  | X  | X  | X      | X | X | X | X | X  | X  | X  | X  | X  | X      | X  | X  | X  | X  | X | X  |
|       |         | MOHAMED SAKKEER       |        |    |    |   |    |    |    |    |    |    |    |    |    |    |        |   |   |   |   |    |    |    |    |    |        |    |    |    |    |   |    |
| 15    | 160415  | HUSSAIN T P           | X      | X  |    | X | X  | X  | X  | X  | X  | X  | X  | X  | X  | X  | X      | X | X | X | X | X  | X  | X  | X  | X  | X      | X  | X  | X  | X  | X | X  |
| 16    | 150417  | YADUKRISHNA K         | X      | X  | X  | X | X  | X  | X  | X  | X  | X  | X  | X  | X  | X  | X      | X | X | X | X | X  | X  | X  | X  | X  | X      | X  | X  | X  | X  | X | X  |
| 17    | 150418  | AFFEEFA PALARA        | X      | X  | ab | X | X  | X  | X  | X  | X  | X  | X  | X  | X  | X  | X      | X | X | X | X | X  | X  | X  | X  | X  | X      | X  | X  | X  | X  | X | X  |
| 18    | 150419  | FASEEHA T.P           | X      | X  | X  | X | X  | X  | X  | X  | X  | X  | X  | X  | X  | X  | X      | X | X | X | X | X  | X  | X  | X  | X  | X      | X  | X  | X  | X  | X | X  |
| 19    | 150420  | MUFEEDA NUSRIN V      | X      | X  | X  | X | X  | X  | X  | X  | X  | X  | X  | X  | X  | X  | X      | X | X | X | X | X  | X  | X  | X  | X  | X      | X  | X  | X  | X  | X | X  |
| 20    | 150421  | AGHIL KRISHNA MP      | X      | X  | X  | X | X  | X  | X  | X  | X  | X  | X  | X  | X  | X  | X      | X | X | X | X | X  | X  | X  | X  | X  | X      | X  | X  | X  | X  | X | X  |
| 21    | 150422  | BAVIJ K               | X      | X  | X  | X | X  | ab | X  | X  | X  | X  | X  | X  | X  | X  | X      | X | X | X | X | X  | X  | X  | X  | X  | X      | X  | X  | X  | X  | X | X  |
| 22    | 150423  | DIPIN V               | X      | X  | X  | X | X  | X  | X  | X  | X  | X  | X  | X  | X  | X  | X      | X | X | X | X | X  | X  | X  | X  | X  | X      | X  | X  | X  | X  | X | X  |
| 23    | 150424  | HARIKRISHNAN PV       | X      | X  | ab | X | X  | X  | X  | X  | X  | X  | X  | X  | X  | X  | X      | X | X | X | X | X  | X  | X  | X  | X  | X      | X  | X  | X  | X  | X | X  |
| 24    | 150425  | JITHIN AK             | X      | X  | X  | X | X  | X  | X  | X  | X  | X  | X  | X  | X  | X  | X      | X | X | X | X | X  | X  | X  | X  | X  | X      | X  | X  | X  | X  | X | X  |
| 25    | 150426  | JITHIN DAS P          | X      | X  | X  | X | X  | X  | X  | X  | X  | X  | X  | X  | X  | X  | X      | X | X | X | X | X  | X  | X  | X  | X  | X      | X  | X  | X  | X  | X | X  |



*Handwritten signature/initials.*









Name: .....

Roll. No. ....

**MES KEVEEYAM COLLEGE VALANCHERY**  
**Manufacturing of Light Emitting Diodes (LED) (CC/PHY/04)**

**2016-2017**

**Time :  $1\frac{1}{2}$  Hrs**

**Maximum Marks: 40**

**PART A**

**Answer all questions**

**(5 × 2 = 10)**

1. What is an LED?
2. Different types of LED drivers.
3. Write different type of LEDs.
4. What is the difference between Indicator lights and illumination?
5. What are the components used in the driver

**PART B**

**Answer all questions**

**(4 × 5 = 20)**

6. How SMPS Power supply works?
7. Explain SMPS Block Diagram.
8. Explain Type of LEDs with examples.
9. What is LED drive? Explain the LED driver and how LED driver works

**PART C**

**Answer any one of the following questions**

**(1 × 10 = 10)**

10. Write a note on applications of LED.
- OR
11. Write note on 3W LED AC Lamp Manufacturing.





Physics Grade Card 2016-17

| Roll no | Name                        | Written(40) | Practical(20) | Total(60) | Grade |
|---------|-----------------------------|-------------|---------------|-----------|-------|
| 160401  | MUHAMMED ALI JOUHAR A       | 37          | 18            | 55        | A     |
| 160402  | MUHAMMED SABEEB P T         | 32          | 15            | 47        | B     |
| 160403  | MUHAMMED YASIR R K          | 38          | 18            | 56        | A     |
| 160404  | SAVAB E                     | 41          | 17            | 58        | A     |
| 160405  | ASLAHA FARHATH KM           | 29          | 16            | 45        | B     |
| 160406  | JUMAILATH P                 | 41          | 17            | 58        | A     |
| 160407  | MURSHIDA.N.P                | 41          | 18            | 59        | A     |
| 160408  | NAFILA C P                  | 31          | 15            | 46        | B     |
| 160409  | NIMSIYA E                   | 31          | 14            | 45        | B     |
| 160410  | NISHNI AMANSHA P            | 40          | 19            | 59        | A     |
| 160411  | SHAMNA C K                  | 40          | 17            | 57        | A     |
| 160412  | SUMAYYA MOL K               | 37          | 18            | 55        | A     |
| 160413  | THASHREEFA K P              | 29          | 14            | 43        | B     |
| 160414  | AJAY KRISHNAN B             | 32          | 18            | 50        | A     |
| 160415  | MOHAMED SAKKEER HUSSAIN T P | 35          | 17            | 52        | A     |
| 150417  | YADUKRISHNA K               | 30          | 14            | 44        | B     |
| 150418  | AFEEFA PALARA               | 31          | 18            | 49        | A     |
| 150419  | FASEEHA.T.P                 | 27          | 15            | 42        | B     |
| 150420  | MUFEEDA NUSRIN V            | 39          | 16            | 55        | A     |
| 150421  | AGHIL KRISHNA MP            | 26          | 14            | 40        | B     |
| 150422  | BAVIJ K                     | 29          | 14            | 43        | B     |
| 150423  | DIPIN V                     | 40          | 18            | 58        | A     |
| 150424  | HARIKRISHNAN PV             | 27          | 16            | 43        | B     |
| 150425  | JITHIN AK                   | 39          | 17            | 56        | A     |
| 150426  | JITHIN DAS P                | 37          | 18            | 55        | A     |
| 150427  | PRAVIN.S.PRASANTH           | 39          | 19            | 58        | A     |
| 150428  | SATHEESH A                  | 30          | 15            | 45        | B     |
| 150429  | ARYA TM                     | 33          | 16            | 49        | A     |
| 150430  | BLESSY VF                   | 24          | 14            | 38        | B     |
| 150432  | HARITHA TG                  | 33          | 19            | 52        | A     |



**TIME TABLE FOR THE SHORT TERM CERTIFICATE COURSE (03/10/2017  
to 01/12/2017)**

| Date       | Day       | Name of the faculty | Time        |
|------------|-----------|---------------------|-------------|
| 03-10-2017 | Tuesday   | AMPH                | 3:30-4:30   |
| 05-10-2017 | Thursday  | DHB                 | 3:30-4:30   |
| 07-10-2017 | Saturday  | SS                  | 10:00-11:00 |
| 09-10-2017 | Monday    | AMPH                | 3:30-4:30   |
| 11-10-2017 | Wednesday | SS                  | 3:30-4:30   |
| 12-10-2017 | Thursday  | AMPH                | 8:30-9:30   |
| 14-10-2017 | Saturday  | DHB                 | 10:00-11:00 |
| 16-10-2017 | Monday    | US                  | 8:30-4:30   |
| 19-10-2017 | Thursday  | US                  | 3:30-4:30   |
| 21-10-2017 | Saturday  | DHB                 | 10:00-11:00 |
| 23-10-2017 | Monday    | AMPH                | 3:30-4:30   |
| 25-10-2017 | Wednesday | US                  | 3:30-4:30   |
| 27-10-2017 | Friday    | SS                  | 3:30-4:30   |
| 28-10-2017 | Saturday  | DHB                 | 10:00-11:00 |
| 31-10-2017 | Tuesday   | US                  | 3:30-4:30   |
| 01-11-2017 | Wednesday | AMPH                | 3:30-4:30   |
| 04-11-2017 | Saturday  | DHB                 | 3:30-4:30   |
| 06-11-2017 | Monday    | AMPH                | 3:30-4:30   |
| 08-11-2017 | Wednesday | US                  | 3:30-4:30   |
| 10-11-2017 | Friday    | US                  | 3:30-4:30   |
| 11-11-2017 | Saturday  | US                  | 10:00-11:00 |
| 13-11-2017 | Monday    | AMPH                | 3:30-4:30   |
| 15-11-2017 | Wednesday | AMPH                | 3:30-4:30   |
| 18-11-2017 | Saturday  | SS                  | 10:00-11:00 |
| 20-11-2017 | Monday    | SS                  | 3:30-4:30   |
| 23-11-2017 | Thursday  | AMPH                | 3:30-4:30   |
| 25-11-2017 | Saturday  | SS                  | 10:00-11:00 |
| 27-11-2017 | Monday    | DHB                 | 8:30-9:30   |
| 30-11-2017 | Thursday  | US                  | 8:30-9:30   |
| 01-12-2017 | Friday    | AMPH                | 3:30-4:30   |

AMPH -Prof. AMP Hamza (10hr)

US -Dr.Sailaja U (8hr)

SS -Prof. Sreejalakshmi (6hr)

DHB -Prof. Dhanya Balachandran (6hr)





|   |   |   |   |   |   |   |
|---|---|---|---|---|---|---|
| X | X | X | X | X | X | X |
|---|---|---|---|---|---|---|

7/10









Name: .....

Roll. No.....

**MES KEVEEYAM COLLEGE VALANCHERY**  
**Manufacturing of Light Emitting Diodes (LED) (CC/PHY/04)**

**2017-2018**

**Time :  $1\frac{1}{2}$  Hrs**

**Maximum Marks: 40**

**PART A**

**Answer all questions**

**(5 × 2 = 10)**

1. Give two applications of LEDs.
2. Explain that LED are semiconductor diodes
3. Different types of LED drivers.
4. What are the components used in the driver.
5. Write two examples for Indicator lights and illumination

**PART B**

**Answer all questions**

**(4 × 5 = 20)**

6. How SMPS Power supply works?
7. What is LED drive? Explain the LED driver.
8. What is SMPS?
9. Explain SMPS Block Diagram.

**PART C**

**Answer any one of the following questions**

**(1 × 10 = 10)**

10. Write a note on applications of LED.

**OR**

11. Write note on Requirement tools need for LED manufacturing.





Physics Grade Card 2017-18

| Roll no | Name                    | Written(40) | Practical(20) | Total(60) | Grade |
|---------|-------------------------|-------------|---------------|-----------|-------|
| 160401  | JAMSHEED. V.P           | 40          | 18            | 58        | A     |
| 160402  | MOHAMED RASHID A K      | 41          | 18            | 59        | A     |
| 160403  | MOHAMMED AFNAN.I        | 27          | 15            | 42        | B     |
| 160404  | MOHAMMED DANISH. K      | 32          | 16            | 48        | A     |
| 160405  | FATHIMA NASRIN N        | 38          | 19            | 57        | A     |
| 160406  | FATHIMATHUL MUFLIHA.P.T | 33          | 17            | 50        | A     |
| 160407  | NAZILA. C               | 31          | 14            | 45        | B     |
| 160408  | NISMA.T                 | 37          | 18            | 55        | A     |
| 160409  | RAHDHA NOUREEN CHOLAYIL | 32          | 14            | 46        | B     |
| 160410  | RASIKA K T              | 36          | 19            | 55        | A     |
| 160411  | SAHALA.T.P              | 32          | 12            | 44        | B     |
| 160412  | SALMA NASRI PATHIYIL    | 37          | 18            | 55        | A     |
| 160413  | SHADIYA K P             | 27          | 15            | 42        | B     |
| 160414  | THESNIM P               | 38          | 18            | 56        | A     |
| 160415  | VASEEMA NARGHEES P      | 27          | 14            | 41        | B     |
| 150417  | ABIDA V                 | 37          | 19            | 56        | A     |
| 150418  | ASLIP                   | 26          | 16            | 42        | B     |
| 150419  | ASNA M                  | 38          | 17            | 55        | A     |
| 150420  | GOPIKA K                | 40          | 18            | 58        | A     |
| 150421  | NISMA K                 | 28          | 15            | 43        | B     |
| 150422  | NUSBATH O               | 39          | 18            | 57        | A     |
| 150423  | SANIYA M KUTTY          | 36          | 18            | 54        | A     |
| 150424  | ZAINABAHENNA S          | 26          | 16            | 42        | B     |
| 150425  | ARUN JAYARAJ            | 34          | 16            | 50        | A     |
| 150426  | DILSHAD RASAL.C         | 25          | 15            | 40        | B     |
| 150427  | MOHAMED RILUVAN ET      | 36          | 19            | 55        | A     |
| 150428  | NAJEEB T                | 38          | 18            | 56        | A     |
| 150429  | NIDHIN M                | 40          | 17            | 57        | A     |
| 150430  | PRAVEEN P P             | 34          | 17            | 51        | A     |
| 150432  | VAISHNAV C              | 31          | 18            | 49        | A     |





**TIME TABLE FOR THE SHORT TERM CERTIFICATE COURSE (01/10/2018 to 01/12/2018)**

| Date       | Day       | Name of the faculty | Time        |
|------------|-----------|---------------------|-------------|
| 01-10-2018 | Monday    | AMPH                | 3:30-4:30   |
| 03-10-2018 | Wednesday | NMR                 | 3:30-4:30   |
| 04-10-2018 | Thursday  | SS                  | 8:30-9:30   |
| 06-10-2018 | Saturday  | AMPH                | 10:00-11:00 |
| 08-10-2018 | Monday    | SS                  | 3:30-4:30   |
| 10-10-2018 | Wednesday | AMPH                | 8:30-9:30   |
| 12-10-2018 | Friday    | NMR                 | 3:30-4:30   |
| 13-10-2018 | Saturday  | US                  | 10:00-11:00 |
| 16-10-2018 | Tuesday   | US                  | 3:30-4:30   |
| 20-10-2018 | Saturday  | NMR                 | 10:00-11:00 |
| 22-10-2018 | Monday    | AMPH                | 3:30-4:30   |
| 23-10-2018 | Tuesday   | US                  | 3:30-4:30   |
| 27-10-2018 | Saturday  | SS                  | 10:00-11:00 |
| 27-10-2018 | Saturday  | NMR                 | 12:00-1:00  |
| 29-10-2018 | Monday    | US                  | 3:30-4:30   |
| 30-10-2018 | Wednesday | AMPH                | 3:30-4:30   |
| 03-11-2018 | Saturday  | NMR                 | 3:30-4:30   |
| 05-11-2018 | Monday    | AMPH                | 3:30-4:30   |
| 10-11-2018 | Saturday  | US                  | 10:00-11:00 |
| 13-11-2018 | Tuesday   | US                  | 3:30-4:30   |
| 15-11-2018 | Thursday  | US                  | 8:30-9:30   |
| 17-11-2018 | Saturday  | AMPH                | 10:00-11:00 |
| 24-11-2018 | Saturday  | AMPH                | 10:00-11:00 |
| 24-11-2018 | Saturday  | SS                  | 12:00-01:00 |
| 26-11-2018 | Monday    | SS                  | 3:30-4:30   |
| 27-11-2018 | Tuesday   | AMPH                | 3:30-4:30   |
| 28-11-2018 | Wednesday | SS                  | 3:30-4:30   |
| 29-11-2018 | Thursday  | NMR                 | 3:30-4:30   |
| 30-11-2018 | Friday    | US                  | 8:30-9:30   |
| 01-12-2018 | Saturday  | AMPH                | 10:00-11:00 |

AMPH -Prof. AMP Hamza (10hr)

US -Dr. Sailaja U (8hr)

SS -Prof. Sreejalakshmi (6hr)

NMR -Dr. Nabeel Rashin M (6hr)





# SHORT TERM COURSE ON LIGHT EMITTING DIODE (2018-2019)

## STUDENTS ATTENDANCE

SHORT TERM COURSE ON LIGHT EMITTING DIODE (2018-2019)

STUDENTS ATTENDANCE

| Sl No. | Roll No. | Name                | Oct-19 |   |   |   |    |    |    |    |    |    | Nov-19 |    |    |    |   |   |   |    |    |    | Dec-19 |    |    |    |    |    |    |   |   |   |
|--------|----------|---------------------|--------|---|---|---|----|----|----|----|----|----|--------|----|----|----|---|---|---|----|----|----|--------|----|----|----|----|----|----|---|---|---|
|        |          |                     | 1      | 3 | 4 | 9 | 10 | 14 | 16 | 19 | 21 | 23 | 26     | 28 | 30 | 31 | 1 | 4 | 8 | 11 | 13 | 15 | 16     | 20 | 23 | 25 | 27 | 29 | 30 | 2 | 3 | 4 |
| 1      | 180401   | SHAHBAH SHAHIM C H  | x      | x | x | x | x  | x  | x  | x  | x  | x  | x      | x  | x  | x  | x | x | x | x  | x  | x  | x      | x  | x  | x  | x  | x  | x  | x | x | x |
| 2      | 180402   | FAHEEMA V           | x      | x | x | x | x  | x  | x  | x  | x  | x  | x      | x  | x  | x  | x | x | x | x  | x  | x  | x      | x  | x  | x  | x  | x  | x  | x | x | x |
| 3      | 180403   | FATHIMA HASANATH P  | x      | x | x | x | x  | x  | x  | x  | x  | x  | x      | x  | x  | x  | x | x | x | x  | x  | x  | x      | x  | x  | x  | x  | x  | x  | x | x | x |
| 4      | 180404   | HIBA MOL C          | x      | x | x | x | x  | x  | x  | x  | x  | x  | x      | x  | x  | x  | x | x | x | x  | x  | x  | x      | x  | x  | x  | x  | x  | x  | x | x | x |
| 5      | 180405   | JUMANA THASNEEM K   | x      | x | x | x | x  | x  | x  | x  | x  | x  | x      | x  | x  | x  | x | x | x | x  | x  | x  | x      | x  | x  | x  | x  | x  | x  | x | x | x |
| 6      | 180406   | NAFLA C             | x      | x | x | x | x  | x  | x  | x  | x  | x  | x      | x  | x  | x  | x | x | x | x  | x  | x  | x      | x  | x  | x  | x  | x  | x  | x | x | x |
| 7      | 180407   | NASLA K             | x      | x | x | x | x  | x  | x  | x  | x  | x  | x      | x  | x  | x  | x | x | x | x  | x  | x  | x      | x  | x  | x  | x  | x  | x  | x | x | x |
| 8      | 180408   | RALIYA FARSANAH E P | x      | x | x | x | x  | x  | x  | x  | x  | x  | x      | x  | x  | x  | x | x | x | x  | x  | x  | x      | x  | x  | x  | x  | x  | x  | x | x | x |
| 9      | 180409   | SAHANA RAHMATH C P  | x      | x | x | x | x  | x  | x  | x  | x  | x  | x      | x  | x  | x  | x | x | x | x  | x  | x  | x      | x  | x  | x  | x  | x  | x  | x | x | x |
| 10     | 180410   | SALVA E             | x      | x | x | x | x  | x  | x  | x  | x  | x  | x      | x  | x  | x  | x | x | x | x  | x  | x  | x      | x  | x  | x  | x  | x  | x  | x | x | x |
|        |          | SHERIN SANA         | x      | x | x | x | x  | x  | x  | x  | x  | x  | x      | x  | x  | x  | x | x | x | x  | x  | x  | x      | x  | x  | x  | x  | x  | x  | x | x | x |
| 11     | 180411   | PARUTHIKUNNAN       | x      | x | x | x | x  | x  | x  | x  | x  | x  | x      | x  | x  | x  | x | x | x | x  | x  | x  | x      | x  | x  | x  | x  | x  | x  | x | x | x |
| 12     | 180412   | DILSHAD KHAN V      | x      | x | x | x | x  | x  | x  | x  | x  | x  | x      | x  | x  | x  | x | x | x | x  | x  | x  | x      | x  | x  | x  | x  | x  | x  | x | x | x |
| 13     | 180413   | FAYES BAPPUTTY V    | x      | x | x | x | x  | x  | x  | x  | x  | x  | x      | x  | x  | x  | x | x | x | x  | x  | x  | x      | x  | x  | x  | x  | x  | x  | x | x | x |
| 14     | 180414   | MISHAL A P          | x      | x | x | x | x  | x  | x  | x  | x  | x  | x      | x  | x  | x  | x | x | x | x  | x  | x  | x      | x  | x  | x  | x  | x  | x  | x | x | x |
| 15     | 180415   | FIDHA NASNEEN C M   | x      | x | x | x | x  | x  | x  | x  | x  | x  | x      | x  | x  | x  | x | x | x | x  | x  | x  | x      | x  | x  | x  | x  | x  | x  | x | x | x |
| 16     | 170416   | ANAND. T.           | x      | x | x | x | x  | x  | x  | x  | x  | x  | x      | x  | x  | x  | x | x | x | x  | x  | x  | x      | x  | x  | x  | x  | x  | x  | x | x | x |
| 17     | 170417   | MIDHUN .G           | x      | x | x | x | x  | x  | x  | x  | x  | x  | x      | x  | x  | x  | x | x | x | x  | x  | x  | x      | x  | x  | x  | x  | x  | x  | x | x | x |
| 18     | 170418   | MOHAMED MASHOOD. P  | x      | x | x | x | x  | x  | x  | x  | x  | x  | x      | x  | x  | x  | x | x | x | x  | x  | x  | x      | x  | x  | x  | x  | x  | x  | x | x | x |
| 19     | 170419   | P.SIDHARTH SHANKAR  | x      | x | x | x | x  | x  | x  | x  | x  | x  | x      | x  | x  | x  | x | x | x | x  | x  | x  | x      | x  | x  | x  | x  | x  | x  | x | x | x |
| 20     | 170421   | AFERAH. N           | x      | x | x | x | x  | x  | x  | x  | x  | x  | x      | x  | x  | x  | x | x | x | x  | x  | x  | x      | x  | x  | x  | x  | x  | x  | x | x | x |
| 21     | 170422   | ANAGHA . P          | x      | x | x | x | x  | x  | x  | x  | x  | x  | x      | x  | x  | x  | x | x | x | x  | x  | x  | x      | x  | x  | x  | x  | x  | x  | x | x | x |
| 22     | 170423   | ARUNIMA.A           | x      | x | x | x | x  | x  | x  | x  | x  | x  | x      | x  | x  | x  | x | x | x | x  | x  | x  | x      | x  | x  | x  | x  | x  | x  | x | x | x |
| 23     | 170424   | ASWIN. V            | x      | x | x | x | x  | x  | x  | x  | x  | x  | x      | x  | x  | x  | x | x | x | x  | x  | x  | x      | x  | x  | x  | x  | x  | x  | x | x | x |
| 24     | 170425   | NIDA HEMAN. K.P     | x      | x | x | x | x  | x  | x  | x  | x  | x  | x      | x  | x  | x  | x | x | x | x  | x  | x  | x      | x  | x  | x  | x  | x  | x  | x | x | x |
| 25     | 170426   | SHAHANA SHERIN.T.K  | x      | x | x | x | x  | x  | x  | x  | x  | x  | x      | x  | x  | x  | x | x | x | x  | x  | x  | x      | x  | x  | x  | x  | x  | x  | x | x | x |
| 26     | 170427   | SHIBILA. K.P        | x      | x | x | x | x  | x  | x  | x  | x  | x  | x      | x  | x  | x  | x | x | x | x  | x  | x  | x      | x  | x  | x  | x  | x  | x  | x | x | x |
| 27     | 170428   | SHIBILA.E           | x      | x | x | x | x  | x  | x  | x  | x  | x  | x      | x  | x  | x  | x | x | x | x  | x  | x  | x      | x  | x  | x  | x  | x  | x  | x | x | x |
| 28     | 170429   | SHIFA SHEBIN .N     | x      | x | x | x | x  | x  | x  | x  | x  | x  | x      | x  | x  | x  | x | x | x | x  | x  | x  | x      | x  | x  | x  | x  | x  | x  | x | x | x |



Handwritten signature/initials.









Name: .....

Roll. No. ....

## MES KEVEEYAM COLLEGE VALANCHERY

### Manufacturing of Light Emitting Diodes (LED) (CC/PHY/04)

2018-2019

Time :  $1\frac{1}{2}$  Hrs

Maximum Marks: 40

#### PART A

Answer all questions

(5 × 2 = 10)

1. Explain that LED are semiconductor diodes
2. Write any four differences between Indicator lights and illumination.
3. Write different type of LEDs with examples.
4. Give two applications of LEDs
5. How does LED differ from an ordinary diode?

#### PART B

Answer all questions

(4 × 5 = 20)

6. Write a note on Sections and Components are used in the SMPS.
7. Why do LEDs need series current-limiting resistor?
8. What is LED drive- explain the LED driver, how LED driver works
9. Different types of LED drivers and explain it.

#### PART C

Answer any one of the following questions

(1 × 10 = 10)

10. What is SMPS? Explain SMPS Block Diagram and how it works.

OR

11. Explain about half wave rectifier circuit and full wave rectifier circuit.



Physics Grade Card 2018-19

| Roll no | Name                      | Written(40) | Practical(20) | Total(60) | Grade |
|---------|---------------------------|-------------|---------------|-----------|-------|
| 180401  | SHAHBAH SHAHIM C H        | 40          | 18            | 58        | A     |
| 180402  | FAHEEMA V                 | 25          | 17            | 42        | B     |
| 180403  | FATHIMA HASANATH P        | 40          | 16            | 56        | A     |
| 180404  | HIBA MOL C                | 32          | 14            | 46        | B     |
| 180405  | JUMANA THASNEEM K         | 41          | 18            | 59        | A     |
| 180406  | NAFLA C                   | 38          | 17            | 55        | A     |
| 180407  | NASLA K                   | 32          | 13            | 45        | B     |
| 180408  | RALIYA FARSANAH B P       | 41          | 17            | 58        | A     |
| 180409  | SAHANA RAHMATH C P        | 41          | 18            | 59        | A     |
| 180410  | SALVA E                   | 40          | 17            | 57        | A     |
| 180411  | SHERIN SANA PARUTHIKUNNAN | 28          | 15            | 43        | B     |
| 180412  | DILSHAD KHAN V            | 36          | 17            | 53        | A     |
| 180413  | FAYES BAPPUTTY V          | 37          | 18            | 55        | A     |
| 180414  | MISHAL A P                | 40          | 16            | 56        | A     |
| 180415  | FIDHA NASNEEN C M         | 38          | 17            | 55        | A     |
| 170416  | ANAND. T.                 | 35          | 17            | 52        | B     |
| 170417  | MIDHUN .G                 | 37          | 18            | 55        | A     |
| 170418  | MOHAMED MASHOOD. P        | 32          | 18            | 50        | A     |
| 170419  | P.SIDHARTH SHANKAR        | 33          | 19            | 52        | A     |
| 170421  | AFERAH. N                 | 28          | 16            | 44        | B     |
| 170422  | ANAGHA . P                | 33          | 16            | 49        | A     |
| 170423  | ARUNIMA.A                 | 41          | 17            | 58        | A     |
| 170424  | ASWIN. V                  | 34          | 19            | 53        | A     |
| 170425  | NIDA HEMAN. K.P           | 25          | 16            | 41        | B     |
| 170426  | SHAHANA SHERIN.T.K        | 37          | 17            | 54        | A     |
| 170427  | SHIBILA. K.P              | 38          | 17            | 55        | A     |
| 170428  | SHIBILA.E                 | 39          | 18            | 57        | A     |
| 170429  | SHIFA SHEBIN .N           | 27          | 15            | 42        | B     |
| 170430  | ASWIN .VP                 | 33          | 17            | 50        | A     |
| 170431  | MOHAMED NAFIH. M.K        | 23          | 17            | 40        | B     |

