

Govt. Degree College Basohli

Home Assignment Test of Semester IV (Session 2019-20) for Promotion to Semester V

Subject: PHYSICS (Theory)

SEMESTER: 4th

MM: 30

Note: All questions are compulsory. A medium size notebook (separate for each subject) shall be used for writing the assignments relating to one student shall be submitted together in the college in one visit latest by 31/08/2020. (Students shall strictly follow the COVID-19 guidelines issued by the Govt. during their visit to the college such as maintaining social distancing and wearing the face mask)

All Questions are compulsory

Long Answer Type Question (07 Marks each)

Q1. What is Fourier series? Use Fourier theorem for Square wave analysis.

Q2. What is Phase? Define phase velocity and Group velocity and find the relation between them

Q3. Write important method for obtaining coherent sources of light. Discuss the theory of formation of colours in the films in reflected system.

Short Answer Type question (03 marks each)

Q4. In Newton Rings experiment the diameter of 10th dark ring is due to wavelength of 600A in air is 0.5cm, calculate the radius of curvature of the lens.

Q5. The wave equation of stretched string is given by

$Y = 0.04 \sin \pi (100t - 0.005x)$ find the amplitude, frequency, wavelength and speed of wave

Q6. Give difference between odd and even function.

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Govt. Degree College Basohli

Home Assignment Test of Semester IV (Session 2019-20) for Promotion to Semester V

Subject: PHYSICS (Practical)

SEMESTER: 4th

MM: 10

Note: All questions are compulsory. A medium size notebook (separate for each subject) shall be used for writing the assignments relating to one student shall be submitted together in the college in one visit latest by 31/08/2020. (Students shall strictly follow the COVID-19 guidelines issued by the Govt. during their visit to the college such as maintaining social distancing and wearing the face mask)

All Questions are compulsory, each question of 05 marks

Q1. To find the input and output transistor characteristics of common base configuration.

Q2. To find the input and output transistor characteristics of common Emitter configuration.

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