

NEW

Part-II 3-Tier

2018

PHYSICS

(General)

PAPER—III

(PRACTICAL)

Full Marks : 100

Time : 6 Hours

The figures in the right-hand margin indicate full marks.

[Instructions to the Examiners.]

1. Each candidate has to perform one experiment from Group—A and one from Group—B only.
2. An experiment may be multiplied not more than twice and this repetition will be permissible if and only if

(Turn Over)

the number of students per day exceeds 14. A list showing distribution of experiments among the students in each day at a centre is to be submitted to the Head Examiner in tabular form after completion of examination. Moreover, **a list of number of experiments performed by each student in each group in a tabular form as per the record of Laboratory Note Book is to be submitted to the Head Examiner.**

3. The programme of Practical Examination of each centre is to be informed to the Head Examiner through e-mail or through whatsapp No 9434146813

Dr. Sukumar Chandra

Head Examiner

E-mail address : sukumarchandra14@gmail.com

Office Address :

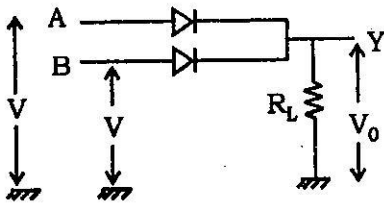
College : Department of Physics,
Sabang Sajanikanta Mahavidyalaya,
P. O. — Lutunia,
District — Paschim Medinipur,
Pin — 721 166

4. The students should be asked to copy the question / practical allotted to him / her; along with the distribution of marks in their answer scripts.
5. At first, split up marks are to be recorded for each experiment in each group somewhere (the second cover page or the place where the student will copy the question along with the distribution of marks or anywhere convenient to the examiner) inside the answer script.
6. Finally the marks should be recorded on the front cover page of the answer script in the manner shown below :

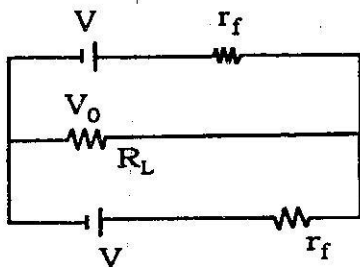
Gr-A	Gr-B	LNB	V.V.	Total
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7. **Examiners are requested to note down relevant data inside the answer scripts and encircle those data with red ink.** For example, radii of the cylinder and the wire and the time period of oscillation in the modulus of rigidity experiment are to be noted beside the corresponding tables and encircled with red ink.
8. Examiners are requested to mention the relevant data and result for their experiment wise and set wise in a question

paper, besides any question, which has to be sent to the Head Examiner along with the answer scripts.

9. Examined answer scripts and award lists are to be sent in separate sealed covers.
10. **Top sheets must be attached to the sealed cover which contain the evaluated answer scripts.**
11. The experiments should be allotted to a student only from the list of experiments he / she has performed during the session in the class and recorded in his / her Laboratory Note Book.
12. Laboratory Note Book should be kept in the custody of the Internal Examiner or college authority till the publication of the University result.
13. While calculating the forward resistance (r_F) of the diode from OR gate circuit in Question No. 20, the formula which may be used is as follows.



For $A=1$, $B=1$, $Y=1$ voltage V_0 at Y can be measured by a voltmeter.



The equivalent circuit can be drawn as shown below when both the input A and B is 1, i.e. V volt.

From this circuit it can be

calculated that,
$$V_0 = \frac{V}{1 + \frac{r_f}{2R_L}}$$

Hence forwarding resistance r_f can be calculated. Here both the diode should be of same type.

Dr. Sukumar Chandra

Head Examiner

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N.B. : Checked answer scripts be sent in any of the above two addresses through messenger only. All the examiners are requested to avoid sending the answer scripts through post or through courier. Answer scripts must be packed with a top sheet showing the no of scripts actually lying inside.