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বিদ্যাসাগর বিশ্ববিদ্যালয়
VIDYASAGAR UNIVERSITY
Question Paper

B.Sc. Honours Examinations 2022
(Under CBCS Pattern)
Semester - IV
Subject : PHYSICS
Paper : SEC 2 - P

Full Marks : 15

Time : 3 Hours

Candidates are required to give their answers in their own words as far as practicable.

The figures in the margin indicate full marks.

[COMPUTATIONAL PHYSICS]

Answer any *one* of the following question :

10×1=10

1. (a) Write a Fortran program to print even numbers up to 100. 5
- (b) Write a Fortran program to find minimum from a set of 10 numbers. 5
2. Write a Fortran program to check whether a number is prime or not. 10

Laboratory Note Book 2

Viva-voce 3

P.T.O.

(2)

OR

[BASIC INSTRUMENTATION SKILL]

Answer any *one* of the following questions :

10×1=10

1. Explain the method of measurement of frequency, time period, Rise time and fall time using a CRO. 10
2. Explain the theory and procedure of measurement of R, L, and C using an LCR bridge/universal bridge. 10

Laboratory Note Book

2

Viva-voce

3

OR

[RENEWABLE ENERGY AND ENERGY HARVESTING]

Group-A

Answer any *one* of the following questions :

10×1=10

1. (a) Discuss the major challenges and issues for exploiting wind energy.

(b) What is wind turbine?

(c) Discuss construction and working of wind turbine.

4+2+4

2. (a) What is Piezoelectricity?

(b) Discuss Piezoelectric parameters.

(c) Write down the applications of Piezoelectric energy harvesting.

(d) Write down the name of two Piezoelectric materials.

2+3+3+2

Group-B

Laboratory Note Book

2

Viva-voce

3

P.T.O.

(4)

OR

[APPLIED OPTICS PRACTICAL]

Group-A

Answer any *one* of the following questions :

10×1=10

1. Discuss the method of determination of the grating radial spacing of a compact disc (CD) by reflection using He-Ne or solid-state laser.
2. Discuss the working of a Photovoltaic Cell.

Group-B

Laboratory Note Book

2

Viva-voce

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