

2016

M.Sc. Part-I Examination

**APPLIED MATHEMATICS WITH
OCEANOLOGY AND COMPUTER PROGRAMMING**

PAPER—IV

Full Marks : 100

Time : 4 Hours

The figures in the margin indicate full marks.

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

Illustrate the answers wherever necessary.

Write the answer to questions of each group in Separate answer booklet.

Group—A

(Principles of Mechanics)

[Marks : 50]

Answer Q. No. 1 and any *three* questions from the rest.

1. Answer any *one* question :

2

- (a) What do you mean by generalised force? Find the expression of it in terms of generalised coordinates.
- (b) Show that the generalised momentum corresponding to a cyclic co-ordinate is a constant of motion.

(Turn Over)

