Printed Pages : 8 EME102

(Following Paper ID and Roll No. to be filled in your Answer Book)

PAPER ID : 4301 Roll No.

B.Tech

(SEM I) ODD SEMESTER THEORY EXAMINATION 2009-10

ENGG. MECHANICS

Time : 3 Hours] *[Total Marks : 100*

***Note** : (i) This paper is in **three** sections. Section **A** carries **20** marks. Section **B** carries **30** marks and Section **C** carries **50** marks.*

*(ii) Attempt **all** questions. Marks are indicated against each question part.*

*(iii) Assume missing **data suitably**, if any.*

SECTION - A

1 You are required to answer **all** the parts : **2×10=20**

Choose correct answer for the following parts :

(a) If number of forces act simultaneously on a particle, it is possible :

(i) not to replace them by a single force

(ii) to replace them by a single force

(iii) to replace them by a single couple

(iv) to replace them by a force and couple

(b) Moment of intertia of a circular area, about an axis perpendicular to the area passing through its centre is given by :

(i) $\pi d^4/8$ (ii) $\pi d^4/16$

(iii) $\pi d^4/32$ (iv) $\pi d^4/64$