

**UNIVERSITY OF PUNE**

**[4363]-19**

**T. E. (PETROLEUM ENGINEERING) Examination 2013**

**DRILLING & PRODUCTION OPERATIONS**

**(2003 Course)**

**[Total No. of Questions:4]**

**[Total No. of Printed pages :1]**

**[Time : 3 Hours]**

**[Max. Marks : 100]**

***Instructions :***

- (1) *Answers any 3 questions from each section*
  - (2) *Answers to the two Sections should be written in separate answer-books*
  - (3) *Neat diagram must be drawn wherever necessary.*
  - (4) *Figures to the right indicate full marks.*
  - (5) *Assume suitable data, if necessary.*
  - (6) *Use of logarithmic tables slide rule, Mollier charts, electronic pocket calculator and steam tables is allowed.*
- 
- 

**SECTION I**

Q.1 Illustrate in detail forces acting on drilling floater rig. [25]

What is the effect of translational and rotational motions on a drillship? what arrangements are to be made for station keeping?

Q.2 Write the step down procedure for lowering of temporary guide base drilling of 36'' hole till lowering of 20'' casing and cementation. [25]

**SECTION II**

Q.3a) Draw and explain concrete gravity platform. Discuss case study of design analysis. [10]

b) Discuss Riser system and design in detail [15]

Q.4a) Draw subsea well control Bop and explain driller method of well control [15]

b) Explain interpretation of DST test [10]