Name :_____R. No.___ Class/ Sec:_____ Date:_____ Invig. Sign_____

ATOMIC ENERGY CENTRAL SCHOOL, NARORA
CLASS XI MATHS UNIT TEST FIRST 2018-19

MM : 50   TIME : 1 Hr. 30 Min.

General Instructions:
- All questions are compulsory and marks are mentioned in front of each question.
- Electronic devices are prohibited to use in the examination.
- Use Blue or Black Pen only.
- Question number1 carry 2 marks, question number 2 to 4 are 4 marks each and Question number 5 to 10 are 6 marks each

1 A = {0,3,8,15,24} ,write in set builder form.

2 Convert $30^0\ 20'$ into radian.

3 Draw the graph of f(x) = [x] – x ,and find the range

4 R ={ x ,y): $x^2 + y^2$ =100, x, y $\in$ Z} find, domain and range

5 A= { 1,2,3}, B = {3,4,5} , C= {2,4,5 } and U={ 1,2,3,4,5,6} then find (A' - B) U (C- Φ')

6 A = { a, b ,c}, B = {c ,d ,e f } , C= {b ,c ,d},find   (A - B) × (B – C)

7 In a class of 60students, 23 play Hockey, 15 play Basket ball, and 20 play Cricket. 7 play Hockey and Basket ball, 5 play Cricket and Basket ball, 4 plays Hockey and Cricket and 15 student do not play any game.

   (1) how many play at least one of the game

   (2) how may play exactly two games

8 If sin x + sin y = a and cos x + cos y = b find the values of
     (i) tan (x + y) / 2
     (ii) tan (x - y) / 2
9 Find the value of cos 20° . cos 40° . cos 60° .cos 80^0

10 Prove that (sec 8A - 1) / (sec 4 A - 1) = tan 8 A / tan 2A