

APOLLO
STUDY CENTRE
TNPSC GROUP II MAIN EXAM

WARMUP TEST V - PHYSICAL SCIENCE

Total Marks: 300

Time : 3 hrs

Section A

15 x 6 = 90

- i. Answer the following in 50 words each
ii. Answer all the questions

- Define
 - Light year
 - Astronomical unit
- Write a note on Asteroids and Comets
- Explain the working of lightning conductor
- Explain the concept of Anomalous expansion of water
- What is meant by resonance? Mention its application
- Find the size, nature and position of the image formed when an object of size 1 cm is placed at a distance of 15 cm from a concave mirror of focus length 10 cm.

- Write a note on Aurora Borealis and Aurora Australls
- Write the working of a Thermoflask

- Define pH. Calculate the pH of 0.001 Molar solution of HCl
- Write a note on buffer solution
- Differentiate oxidation and reduction
- Answer the following questions
 - State the uses of Ethylene
 - What are hard and soft soaps?

- Answer the following questions
 - Octane and Cetane Number
 - Producer gas
- Write a note on magnetic separation
- Answer the following questions
 - Explain the behaviour of water as acid and base
 - Is water a mixture or a compound?

Section B

10 x 12 = 120

- i. Answer the following in 150 words each (1.5 pages)
ii. Answer all the questions

- Describe the building block of the universe and age of the universe.
- What is Doppler Effect? Write its applications.

