CHEMISTRY-11

Chapter#05-First Half (5.1-5.5) Test-3

Name:	Class:	ID:

Date: / /	Marks Total: **30**	Marks Obtained:
Time Allowed: 50 Min.		

Maximum Marks: 10 **(OBJECTIVE TYPE)** Time Allowed: 10 Min.

NOTE: Tick The Correct Option:

1) The wave number of the light emitted by a certain source is 2×10^6 m^{-1}. The wave length of this light will be:

(a) 500 nm (b) 500 m (c) 200 nm (d) 5×10^7 m

2) Neutron was discovered by:

(a) Rutherford (b) Chadwick (c) Goldstein (d) Thomson

3) Cathode rays have a _____ effect.

(a) Oxidizing (b) Reducing (c) Acidic (d) None

4) Slow neutrons move with energy less than:

(a) 1 ev (b) 2 ev (c) 3 ev (d) 4 ev

5) The mass of neutron is:

(a) 1.0073 amu (b) 1.0087 amu (c) 5.4858 amu (d) 9.1095×10^{-31} amu

6) At infinity, the potential energy of the electron is always:

(a) Positive (b) Negative (c) Zero (d) Infinite

7) Line spectrum of sodium consists of _____ yellow lines.

(a) Two (b) Three (c) Five (d) Seven

8) Which spectral series does not lie in I.R region?

(a) Balmer series (b) Bracket series (c) Paschen series (d) Pfund series

9) The spectral lines of Brackett series arise when the electrons in H-atoms jump from higher orbits to:

(a) 1st orbit (b) 2nd orbit (c) 3rd orbit (d) 4th orbit

10) The idea of elliptical orbit was given by:

(a) Bohr (b) Stark (c) Zeeman (d) Sommerfield

Maximum Marks: 20 **(SUBJECTIVE TYPE)** Time Allowed: 40 Min.

SECTION-I

Q.2: Give brief answers to the following questions: (12)

i. How does the bending of cathode rays in electric and magnetic fields show that they are negatively charged?

ii. Why are positive rays also called canal rays?

iii. How were neutrons discovered?

iv. Write main points of Plank's quantum theory. Or Prove that $E = h\nu$.

v. Explain atomic absorption spectrum?

vi. What are the defects in Bohr's model?

SECTION-II

NOTE: Attempt All Questions: (08)

Q.3: Write J. J. Thomson's method to measure the e/m value of electron.

Q.4: What is Bohr's model of atom? Derive an expression for the radius of hydrogen atom.