1. Sommerfield's theory suggests orbits for atomic structure.

(a) Spherical (b) circular (c) elliptical (d) dumb-bell

2. In filling u of electrons in orbitals, electrons will pair up only when all the available orbitals have at least one electron each. This is called .

(a) Afbau's principle (b) Pauli's exclusion principle (c) Hund's rule (d) Sommerfield's theory

3. Octet rule is deviated in \_\_\_\_\_.

(a) XeF<sub>4</sub> (b) PCl<sub>4</sub> (c) PCl<sub>5</sub> (d) OsO<sub>4</sub>

4. The imperfect crystallization with a few atoms missed in the crystal lattice is called \_\_\_\_\_.

(a) Sckottky defect (b) Frenkel defect (c) Screw dislocation (d) Fresnel defect

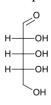
5. A sample of Strontium–90 is found to have decayed to one – eighth of its original amount after 87.3 years. What is the half life of Strontium–90?

(a) 40 years (b) 35.6 years (c) 29.1 years (d) 43.6 years

6. The Arrhenius equation is .

(a) 
$$k = A$$
.  $e^{RT/tQ}$  (b)  $k = A$ .  $e^{RT/Ea}$  (c)  $k = A$ .  $e^{Ea/RT}$  (d)  $k = A$ .  $e^{-Ea/RT}$ 

7. The possible number of stereoisomers for the following compound is . .



(a) 2 (b) 6 (c) 12 (d) 8

8. The IUPAC name of the following compound is \_\_\_\_\_.



(a) 4,5-Dimethylhexan-2-one (b) 1,2-Dimethylhexan-4-one (c) 4,5-Dimethylpentan-2-one (d) 1,2-Dimethylpentan-3-one

9. One of the following compound forms a Schiff's base. Indentify the compound.

(a) Alcohol (b) ether (c) aldehyde (d) ester

10. In Rosenmund reduction, the catalyst used is . .

(a) Pd/Ba(NO<sub>3</sub>)<sub>2</sub> (b) Pd/CuSO<sub>4</sub> (c) Ni/Pt (d) Pd/BaSO<sub>4</sub>

11. The carbonyl group can be converted into a –CH<sub>2</sub>– group by \_\_\_\_\_ reduction.

(a) Catalytic (b) Clemmenson (c) Wolf-Kishner (d) Rosenmund

12.	Carbylamine reaction is associated with	https://previouspaper.in
	(a) Urea (b) aniline (c) benzophenone (d) benzaldehyde	
13.	Aromatic nitrocompounds are  (a) Yellow in color (b) blue in color (c) pleasant in smell (d) highly volatile  Addition of Conc. Sulphuric acid to glucose leads to	
14.		
	cluconic acid (b) glutaric acid (c) charring of glucose (d) explosion the amino acids in the human body are	
15.		