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LUCKNOW REGION
SUBJECT – SCIENCE (CODE-086)
MARKING SCHEME(SET-1)

Q. No.	Answer	Marks
1.	(c) Decomposition reaction	1
2.	(a) Lead	1
3.	(c) Calcination	1
4.	CaSO4.1/2H2O	1
5.	(c) Alkanes	1
6.	(a) positively geotropic	1
7.	(b) leaf	1
8.	(c) both maternal and paternal DNA	1
9.	(a) greater than unity	1
10.	(c) they alone have the capacity to synthesise food using sunlight	1
11.	(b) directly below the wire	1
12.	(a) light is least scattered	1
13.	(d) nature of the material	1
14.	(a) producer → consumer → decomposer	1
15.	(c) osmosis	1
16.	(a) Carbohydrates and fats	1
17.	(d) C2H4	1
18.	(b) Trypsin	1
19.	(b) Both reason and assertion are true but reason is not the correct explanation of assertion.	1
20.	a) resistance	1
21.	Remain same.	2
22.	This is because copper metal is less reactive than zinc metal and hence, cannot displace zinc from its salt solution.	2
23.	Any two differences between binary fission and multiple fission.	2
24.	colour of the flower in F1 progeny will be violet (Vw).	2
25.	Definition. CH3OH and CH3CH2OH.	1+1
26.	CH3COOH is a weak acid because it dissociates partially in the solution.	1+1
27.	Formation of ozone. Protect us from UV radiation. CFC. Any one harmful effect.	1+1/2+1/2+1
28.	Definition. Properties.	1+2
29.	Barrier method, Chemical method, Surgical method, Out of these methods, chemical method is not meant for males.	1+1+1
30.	(i) Carbon attains noble gas configuration only by sharing of electrons (ii) In diamond, each carbon atom is bonded to four other carbon atoms forming a rigid three-dimensional structure.	1+1+1

	(iii) In graphite, each carbon atom is bonded to three other carbon atoms by covalent bonds in the same plane giving a hexagonal array. Thus, only three valence electrons are used for bond formation and hence, the fourth valence electron is free to move.	
31.	Preparation of washing soda. Equation. Permanent Hardness.	1+1+1
32.	(i)2HNO3 + Ca(OH)2 □ Ca(NO)3 + 2H2O (ii)2NaOH + H2SO4 □ Na2SO4 + 2H2O (iii) NaCl + AgNO3 □ AgCl + NaNO3	1+1+1
33.	(i) HNO3 is a strong oxidising agent. It oxidises the H2 produced to water and itself gets reduced to any of the nitrogen oxides (N2O, NO, NO2). (ii)ZnO reacts both with acids as well as bases to form salt and water. Thus, ZnO is an amphoteric oxide. (iii)Metals conduct electricity due to the flow of free electrons present in them.	1+1+1
34.	Kidney, ureter, urethra and urinary bladder.	1+4
35.	ρ = 6.28 × 10-7 Ω m	1+1+1+2
36.	(i) The mirror is concave mirror. (ii) f = – 15 cm (iii) Image formed is real and inverted and of the same size of the object. (iv) Ray diagram	1+2+1+1
37.	1-(a) increases 2-(a) atmospheric refraction 3-(c) atmospheric refraction 4-(c) atmospheric refraction	1+1+1+1
38.	1-(a) Auxin 2-(b) Phototropism 3-(a) The shoot of the plant bend towards light whereas roots bend away 4-(b) Chemical	1+1+1+1
39.	1-(B) males produce two different types of gametes 2-(B) 50% 3-(C) 22 pairs 4-(A) male heterogamy	1+1+1+1