



B.K. BIRLA CENTRE FOR EDUCATION

SARALA BIRLA GROUP OF SCHOOLS
A CBSE DAY-CUM-BOYS' RESIDENTIAL SCHOOL



PERIODIC TEST-I 2025-26 BIOLOGY MARKING SCHEME

Class: XII

Date: 01.07.25

Time: 1 hour

Max Marks: 25

Section A

1. (c) a)–(iii) b)–(iv) c)–(ii) d)–(i) 1
2. c) Monohybrid cross with incomplete dominance. 1
3. a) Green pod 1
4. b) Hormone releasing IUD 1
5. a) Autosomal recessive 1

Section B

6. Amniocentesis is a foetal sex determination test based on chromosomal pattern in the amniotic fluid surrounding the developing embryo. 2
7. Features of an ideal contraceptive: user-friendly, easily available, effective and reversible with no or least side-effects. 1+1
8. "Prevention is better than cure" because: 1+1
 - i) Many STDs have no cure (e.g., HIV, herpes), and managing them can be lifelong.
 - ii) Some STDs can cause serious complications like infertility, cancer, or organ damage if not treated early.
9. i) Down's syndrome: small round head, furrowed tongue. (Any two) 1+1
 - ii) Klinefelter's syndrome: overall masculine development, sterile individuals.
 - iii) Turner's syndrome: rudimentary ovaries, sterile.

Section C

10. Three assisted reproductive technologies (ART) are: 1+1+1
 - a) ZIFT: Zygote intra fallopian tube.
 - b) GIFT: Gamete intra fallopian tube
 - c) ICSI: Intra cytoplasmic sperm injection.
11. a) A man with blood group 'A' has the genotype 'AO'. 2+1

	A	O
A	AA	AO
B	AB	BO

b) ABO blood groups are controlled by the gene *I*. The plasma membrane of the red blood cells has sugar polymers that protrude from its surface and the kind of sugar is controlled by the gene. The gene (*I*) has three alleles *I_A*, *I_B* and *i*.
12. a) Dominance: In a dissimilar pair of factors one member of the pair dominates (dominant) the other (recessive). 1+1+1

b) Co-dominance: co-dominance the F_1 generation resembles both parents. A good example is different types of red blood cells that determine ABO blood grouping in human beings

c) Incomplete dominance: the F_1 had a phenotype that did not resemble either of the two parents and was in between the two. The inheritance of flower colour in the dog flower (snapdragon or *Antirrhinum sp.*) is an example.
13. a) It occurs in pairs. b) Segregate during gamete formation. 1+1+1

c) One pair segregates independently of another pair.