**INDIAN SCHOOL AL WADI AL KABIR**

**UNIT TEST -1**

**MARKING SCHEME-class12-Bio**

SECTION A

1.“Cleistogamous flowers are invariably autogamous because”

(a) These flowers do not open at all.

2.A particular species of plant produces light, non-sticky pollen in large numbers and its

stigmas are long and feathery. These modifications facilitate pollination by:

c. Wind

3.Spermiation is the process of the release of sperms from:

a. Seminiferous tubules

4.Which of the following hormones is not secreted by human placenta?

b. Estrogen

5. **Assertion**: Hybrid seeds have to be produced every year

**Reason:** If seeds from hybrids are sown the plants in the progeny will maintain hybrid characters

1. Assertion is true but reason is false.

6. **Assertion**: Human skin colour is a classic example of Polygenic inheritance

**Reason:** In a polygenic trait the phenotype reflects the contribution of each allele and the effect of each allele is additive.

1. Both assertion and reason are true, and the reason is the correct explanation of the assertion.

SECTION B

7.i) Name- Tapetum+ function- nourishment (½+1/2)

(ii) a) 20 b) 5 (½+1/2)

8.a) stage -heart shape (1/2)

b. Draw and name the stage (1.5)

9.X – Trophoblast -implantation and Y – inner cell mass-forms embryo (1+1)

10. Tertiary follicle. -1+ Graafian follicle -1

11. pleiotropic inheritance- one gene controlling more than one trait –(1)+ example-(1)

OR

Linkage-(1) + recombination. –(1)

SECTION C

Hypothalamus

GnRH (1/2)

Pituitary Gland

LH FSH (1/2+1/2)

Leydig cells Sertoli cells (1/2+1/2)

Androgens Nutrition (1/2)

12. A-Estrogen+ B- Progesterone (1/2+1/2)

b. ovary (1/2)

c. Estrogen helps in development and bursting of ovarian follicle (1/2)

d. B- Pregnancy hormone (1/2)

e. if pregnancy takes place (1/2)

13. a) cleistogamous-assured seed set + chasmogamous-variations/ cross pollination (1/2+1/2)

b) different flowers of the same plant hence same DNA (1)

c) two polar nuclei within the central cell. (1/2+1/2)

14. neat diagram-(1)+ any four main labelling- (2)

SECTION D (Case study)

15.a) Mendel’s test cross+ inference -(3)

b) concept of dominance.—(2)

OR

a) six different combinations and the blood groups- (2)+ complete dominance+ codominance (1/2+1/2)

b) genotypes of the parents-(1/2+1/2) + cross showing the possible genotypes of the other offspring’s (1)