

**CLASS- XII**

**CBT QUESTIONS BIOLOGY**

**MONTH-APRIL**

S.N O.	QUESTION	OPTIONS PROVIDED	CORRECT OPTION	EXPLANATION
Q.1	Select the option that has the correct sequence of events of spermatogenesis in human male. (i)Spermatozoa (ii)Spermatogonia (iii)Primary spermatocytes (iv)Secondary spematocytes (v)Spermatids	a) (i)□(ii)□(iii)□(iv)□(v) b) (ii)□ (i)□ (iii)□ (iv)□(v) c) (ii)□(iii)□(iv)□(v)□(i) d) (v) □(i) □(iii)□(iv)□(ii)	(C) (ii)□(iii)□(iv)□(v) □(i)	The correct sequence of events for spermatogenesis in a human male is: (ii) <b>Spermatogonia</b> (iii) <b>Primary spermatocytes</b> (iv) <b>Secondary spermatocytes</b> (v) <b>Spermatids</b> (i) <b>Spermatozoa</b>
Q.2	A female was incapable of producing ovum, but could provide suitable environment for fertilisation. Out of the options given below, select the correct method suggested by the doctors for successful results.	a) Zygote intra fallopian transfer (ZIFT) b) Intra uterine insemination (IUI) c) Gamete intra fallopian transfer (GIFT) d) Intra cytoplasmic sperm injection (ICSI)	(C) Gamete intra fallopian transfer (GIFT)	<b>Gamete Intrafallopian Transfer (GIFT)</b> is specifically recommended for females who are unable to produce an ovum (egg) but have a functional reproductive tract capable of supporting fertilization and fetal development
Q.3	A dicotyledonous plant bears flowers but never produces fruits and seeds. The most probable cause for the above situation is	a) Plant is dioecious and bears only pistillate flowers b) Plant is dioecious and bears both pistillate and staminate flowers c) Plant is monoecious d) Plant is dioecious and bears only staminate flowers	(d) Plant is dioecious and bears only staminate flower	<p>🏠 <b>Dioecious:</b> Male and female flowers are on separate plants.</p> <p>🏠 <b>Staminate Flowers:</b> Male flowers contain stamens (pollen) but no pistils (ovules).</p> <p>🏠 <b>Result:</b> Without pistils, fertilization and fruit/seed</p>

				formation cannot occur
Q.4	A woman has normal levels of Follicle Stimulating Hormone but very low levels of Luteinizing Hormone. Which of the following is most likely affected?	<ul style="list-style-type: none"> <li>a) Follicular development</li> <li>b) Ovulation</li> <li>c) Menstrual bleeding</li> <li>d) Endometrial repair</li> </ul>	(b) Ovulation	<b>Resulting Condition:</b> Very low LH levels typically lead to <b>anovulation</b> (failure to ovulate), as LH surge causes ovulation in normal cycle.
Q.5	Which statement is not correct about IUDs?	<ul style="list-style-type: none"> <li>a) Copper-releasing IUDs increase phagocytosis of sperms.</li> <li>b) They suppress ovulation by inhibiting Luteinizing Hormone surge.</li> <li>c) They decrease sperm motility and fertilizing capacity</li> <li>d) Hormone-releasing IUDs make endometrium unsuitable for implantation</li> </ul>	(b) They suppress ovulation by inhibiting Luteinizing Hormone surge.	Copper-releasing IUDs are non-hormonal and <b>do not</b> affect ovulation. Suppressing ovulation by inhibiting the LH surge is a mechanism of <i>hormonal</i> contraceptives (pills, implants, or hormonal IUDs)
Q.6	Which statement about seed is incorrect?	<ul style="list-style-type: none"> <li>a) Castor is a dicot and non-albuminous.</li> <li>b) Wheat is a monocot and albuminous.</li> <li>c) Pea is a dicot and non-albuminous</li> <li>d) Onion and coconut both are endospermic</li> </ul>	(a) Castor is a dicot and non-albuminous.	Castor is a dicot yet it has endosperm in seed. While many dicots store food in their cotyledons, castor retains a large endosperm as its primary nutrient reserve.

Q.7	Choose the correct statement from the following:	<p>a) Chasmogamous flowers always exhibit geitonogamy</p> <p>b) Cleistogamous flowers always exhibit autogamy</p> <p>c) Cleistogamous flowers always exhibit both autogamy and geitonogamy</p> <p>d) Chasmogamous flowers never exhibit autogamy</p>	(b) Cleistogamous flowers always exhibit autogamy	<p>❌ <b>Incorrect:</b> Chasmogamous flowers have exposed anthers/stigma and are not limited to geitonogamy.</p> <p>✅ <b>b) Correct:</b> Cleistogamous flowers remain closed, ensuring only autogamy occurs.</p> <p>❌ <b>c) Incorrect:</b> Cleistogamous flowers cannot exhibit geitonogamy (pollen transfer between flowers) because they do not open.</p> <p>❌ <b>d) Incorrect:</b> Chasmogamous flowers can and do exhibit autogamy</p>
Q.8	<p>Consider the following statements:</p> <ol style="list-style-type: none"> <li>1. Ovulation is triggered by a surge in Luteinizing Hormone.</li> <li>2. Estrogen levels fall sharply just before ovulation.</li> <li>3. Progesterone is</li> </ol>	(a) 1 (b) 2 (c) 3 (d) 4	(c) 3	<p><b>Statement 2 (Incorrect):</b> Estrogen levels actually <b>peak sharply</b> just before ovulation rather than falling. This high level of estrogen provides the positive feedback to the pituitary gland required to trigger the LH surge</p>

	<p>secreted by corpus luteum.</p> <p>4. Menstrual phase occurs due to decline in progesterone.</p> <p>How many statements are correct?</p>			
Q.9	In a fertilised ovule, n, 2n and 3n conditions occur respectively in	<p>a) Antipodal, zygote and endosperm</p> <p>b) Zygote, nucellus and endosperm</p> <p>c) Endosperm, nucellus and zygote</p> <p>d) Antipodal, synergid and integument</p>	(a) Antipodal, zygote and endosperm	<p><b>Antipodal (n):</b> Haploid cells at the chalazal end.</p> <p><b>Zygote (2n):</b> Diploid product of egg (n) + sperm (n)</p> <p><b>Endosperm (3n):</b> Triploid tissue formed from two polar nuclei (2n) + sperm (n)</p>
Q.10	From among the sets of terms given below, identify and choose that are associated with the gynoecium	<p>a) Stigma, ovule, embryosac, placenta</p> <p>b) Thalamus ,pistil ,style ,ovule</p> <p>c) Ovule, ovary, embryosac, tapetum</p> <p>d) Ovule ,stamen, ovary, embryosac</p>	(a) Stigma, ovule, embryosac, placenta	<p><b>Stigma</b> - Part of the pistil.</p> <p><b>Ovule</b> - Develops into seeds.</p> <p><b>Embryosac</b> - Female gametophyte within the ovule.</p> <p><b>Placenta</b> - Tissue connecting ovules to the ovary.</p> <p>Other options are incorrect because they include components of the</p>

				male reproductive part (stamen, tapetum) or the receptacle (thalamus)
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