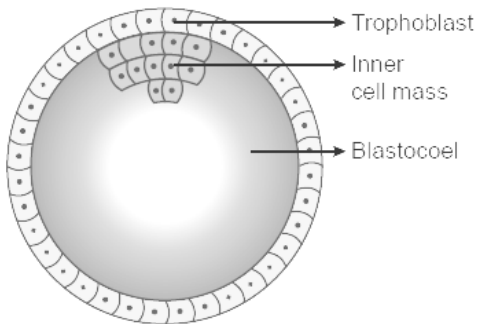


INDIAN SCHOOL MUSCAT

NAME OF THE EXAMINATION	SECOND PERIODIC TEST	CLASS: XII
DATE OF EXAMINATION	31.05.2022	SUBJECT: BIOLOGY
	MARKING SCHEME	

SET	Q.NO	VALUE POINTS	MARK
A	1	Provide energy for the movement of sperm tail.	1
A	2	Sertoli cells are present in seminiferous tubules. They provide nutrition to the germ cells or sperms $\frac{1}{2} + \frac{1}{2}$	1
A	3	Tubectomy involves cutting a piece of the fallopian tube and tying its ends./ This way, the sperms are not able to reach the egg so fertilisation cannot take place./ Thus, it acts as a contraceptive method.	1
A	4	Prevents female foeticide.	1
A	5	'Saheli' is an oral pill used as a contraceptive by females./ Oral pills inhibit ovulation/ and implantation,/ as well as, alter the quality of cervical mucus to prevent or retard entry of sperms. /Thus, fertilisation and further pregnancy is prevented. $4 \times \frac{1}{2}$	2
A	6	Methods: IVF/ ZIFT/ AI	2
A	7	The signal from the fully developed foetus and placenta or the foetal ejection reflex induces mild uterine contraction. The hormone released is oxytocin. $1+1$	2
A	8	The milk produced during the initial few days of lactation is called colostrum. It contains several antibodies/ to develop passive immunity in the new-born babies. $/1+1$	2
A	9	 <p style="text-align: center;">$1+1$</p>	2

A	10	One difference each 1 x 3	3
A	11	<p>Seminiferous tubules → Rete testis → Vasa efferentia → Epididymis → Vas deferens → Ejaculatory duct</p> <p>6 x ½</p>	3

SET	Q.NO	VALUE POINTS	MARK
B	1	Amniocentesis	1
B	2	<p>Oogenesis in human females initiate at the foetal/embryonic stage.</p> <p>Spermatogenesis in human males starts at puberty. ½ + ½</p>	1
B	3	Tubectomy involves cutting a piece of the fallopian tube and tying its ends./ This way, the sperms are not able to reach the egg so fertilisation cannot take place./ Thus, it acts as a contraceptive method.	1
B	4	Sertoli cells are present in seminiferous tubules. They provide nutrition to the germ cells or sperms ½ + ½	1
B	5	Methods: IVF/ZIFT/AI	2
B	6	Chorionic villi appear after implantation on the trophoblast. It becomes interdigitated with uterine tissue to form the placenta and increases the surface area for exchange of materials between the mother and the embryo.	2
B	7	‘Saheli’ is an oral pill used as a contraceptive by females./ Oral pills inhibit ovulation/ and implantation,/ as well as, alter the quality of cervical mucus to prevent or retard entry of sperms. /Thus, fertilisation and further pregnancy is prevented. 4X ½	2
B	8	The signal from the fully developed foetus and placenta or the foetal ejection reflex induces mild uterine contraction. The hormone released is oxytocin. 1+1	2
B	9	The human testes need lower temperature, 2 – 2.5°C less than the body temperature, for the formation of sperms which is provided outside the body. Testes are present in scrotal sac or scrotum. 1+1	2
B	10	<p>(a) Cells that divide by mitosis to increase their number – Spermatogonia</p> <p>(b) Cells that undergo Meiosis I – Primary spermatocytes</p>	3

		(c) Cells that undergo Meiosis II – Secondary spermatocytes (d) Cells that help in the process of spermiogenesis – Sertoli cells (ii) Role of Leydig cells: They synthesise and secrete testicular hormones called androgens.	
B	11	Seminiferous tubules → Rete testis → Vasa efferentia → Epididymis → Vas deferens → Ejaculatory duct 6 x ½	3

SET	Q.NO	VALUE POINTS	MARK
C	1	Oogenesis in human females initiate at the foetal/embryonic stage. Spermatogenesis in human males starts at puberty. ½ + ½	1
C	2	Avoid multiple partners , early detection	1
C	3	Seminal plasma	1
C	4	Amniocentesis	1
C	5	The human testes need lower temperature, 2 – 2.5°C less than the body temperature, for the formation of sperms which is provided outside the body. Testes are present in scrotal sac or scrotum. 1+1	2
C	6	Chorionic villi appear after implantation on the trophoblast. It becomes inter digitated with uterine tissue to form the placenta and increases the surface area for exchange of materials between the mother and the embryo.	2
C	7	The embryo with 8 to 16 blastomeres is called a morula/ transformed into blastocyst. 1+1	2
C	8	suppress sperm motility and/ the fertilising capacity of sperms	2
C	9	Methods: IVF/ZIFT/AI	2
C	10	supporting the fetal growth,/metabolic changes in the mother and/ maintenance of pregnancy.	3
C	11	(a) Cells that divide by mitosis to increase their number – Spermatogonia (b) Cells that undergo Meiosis I – Primary spermatocytes (c) Cells that undergo Meiosis II – Secondary spermatocytes	3

		<p>(d) Cells that help in the process of spermiogenesis – Sertoli cells</p> <p>(ii) Role of Leydig cells: They synthesise and secrete testicular hormones called androgens.</p>	
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