

SELF EVALUATION TEST -ZOOLOGY -- ANSWER KEY -2020

1	Androgen Ovarian hormones / any other relevant points	½ mark ½ mark	1 mark				
2	ZIFT	1 mark	1 mark				
3	Saheli	1 mark	1 mark				
4	Fimbriae	1 mark	1 mark				
5	a) Pituitary gland b) Rupture of graafian follicle/ release of ovum occurs Or Ovulation c) <table border="1" style="margin-left: 20px;"> <tr> <td>Estrogen</td> <td>Progesterone</td> </tr> <tr> <td>Stimulates Growth of uterine lining (endometrium) Development of female sexual characters</td> <td>Maintains the developed endometrium. Supports pregnancy</td> </tr> </table>	Estrogen	Progesterone	Stimulates Growth of uterine lining (endometrium) Development of female sexual characters	Maintains the developed endometrium. Supports pregnancy	½ mark ½ mark 1 point each carries ½ mark	2 marks
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6	a) Yes , agree b) Colostrum c) Colostrum is essential for the development of immunity of the newborn baby / anyother relevant point	½ mark ½ mark 1 mark	2 marks				
7	Agree Fertilisation can only occur if the ovum and sperms are transported simultaneously to the ampullaryisthmic junction. This is the reason why not all copulations lead to fertilisation and pregnancy	1 mark 1 mark	2 marks				
8	a) Sexually transmitted disease b) Gonorrhoea, syphilis, genital herpes, chlamydisias, genital warts, trichomoniasis, hepatitis-B,AIDS (any two) i) Avoid sex with unknown partners/multiple partners. ii) (ii) Always use condoms during coitus. iii) (iii) In case of doubt, go to a qualified doctor for early detection and get complete treatment if diagnosed with disease.	½ mark ½ mark ½ + ½ mark	2 marks				
9	a) Amniocentesis is sex determination test and is used for findind chromosomal abnormalities. b) To avoid female foeticide c) Can be used for finding chromosomal abnormalities of the foetus.	½ mark 1 mark ½ mark	2 marks				
10	a) A- Cells of the corona radiata. B- <i>Zona pellucida</i> b) During fertilisation, a sperm comes in contact with the <i>zona pellucida</i> layerof the ovum and induces changes in the membrane that block the entry of additional sperms. Thus, it ensures that only one sperm can fertilise an ovum.	½ mark ½ mark 1 mark	2 marks				
11	Luteal phase - LH Acrosome - Sperms Ovulation - Oogenesis Inner cellmass- Blastocyst	½ mark each	2 marks				
12	<table border="1" style="margin-left: 20px;"> <tr> <td>Leydig cells</td> <td>Sertoli cells</td> </tr> <tr> <td>Present in the interstitial space between seminiferous tubule. Secretes male sex hormone</td> <td>Present within the walls of seminiferous tubule Provide nutrition to the</td> </tr> </table>	Leydig cells	Sertoli cells	Present in the interstitial space between seminiferous tubule. Secretes male sex hormone	Present within the walls of seminiferous tubule Provide nutrition to the	2 point each	2 marks
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	Androgen	developing sperms														
13	a) After implantation, finger-like projections of trophoblast called chorionic villi are surrounded by the uterine tissue and maternal blood. The chorionic villi and uterine tissue become interdigitated with each other and jointly form placenta . b) human chorionic gonadotropin (hCG), human placental lactogen (hPL), estrogens, progesterones. c) Provide nutrients and oxygen to foetus Remove carbon dioxide and waste materials from foetus Acts as endocrine gland		1 mark ½ mark(1point) ½ mark(1point)	2 marks												
14	A- Pituitary gland B- FSH	C- Leydig cells D- provide nutrition to the germ cells/ developing sperms	½ mark each	2 marks												
15	a) Fertilization, Fertilization occurs at ampullary isthmic junction. b) C- Zygote E- Morula c) Implantation, Implantation occurs in Endometrium of the uterus.		½ mark each	2 marks												
16	a) Oogenesis b) <table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th style="width: 50%;">Spermatogenesis</th> <th style="width: 50%;">Oogenesis</th> </tr> </thead> <tbody> <tr> <td>Formation of sperms</td> <td>Formation of ovum</td> </tr> <tr> <td>Formed in testes</td> <td>Formed in ovary</td> </tr> <tr> <td>Millions of sperms are formed</td> <td>Only one ovum is formed per month</td> </tr> <tr> <td>Polar bodies not formed</td> <td>Polar bodies are formed.</td> </tr> <tr> <td colspan="2" style="text-align: center;">Any other relevant points</td> </tr> </tbody> </table>		Spermatogenesis	Oogenesis	Formation of sperms	Formation of ovum	Formed in testes	Formed in ovary	Millions of sperms are formed	Only one ovum is formed per month	Polar bodies not formed	Polar bodies are formed.	Any other relevant points		1 mark 2 points 2 marks	3 marks
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17	a) A- Inner cellmass b) B- Trophoblast c) Inner cellmass is developed into embryo d) Helps in implantation, Formation of placenta.		3marks	3marks												
18	a) Barrier methods b) Intra Uterine Devices c) Vasectomy d) Lactational Amenorrhea or Periodic abstinence e) Diaphragm/ cervical caps / vaults f) Copper releasing IUDs / Hormone releasing IUDs.		½ mark each	3 marks												