Scientific Aptitude



Check Your Concepts

Q.1. Match the following:

Directions: Given below are two columns - column I and column II. Match the two columns and write the correct answer in the given blank grid.

1. Match the following:

	Column – I	Column – II	
(A)	A muscular tube where sperm cells are deposited.	(i)	Uterus
(B)	The female sex cell.	(ii)	Menstruation
(C)	The discharge of broken lining of uterus.	(iii)	Cervix
(D)	The narrow opening of uterus.	(iv)	Ovum
(E)	The release of a mature egg from the ovary.	(v)	Fallopian tube/oviduct
(F)	Site of fertilization.	(vi)	Vagina
(G)	A muscular structure where baby grows.	(vii)	Epididymis
(H)	Region that stores sperm.	(viii)	Ovulation

Q.2. True / False:

Directions: Read the following statements and mark your response as true or false. Rewrite the correct statement(s) in the box provided below, in case of false statements).

1.	An ovum of a women is about the size of a full stop at the end of this sentence.	[]	
2.	Sperms have tails so that they can swim towards the egg.	[]	
3.	Every girl is born with about a hundred unripe egg in each ovary.	[]	
4.	Of the million of sperm that enter the female, only one sperm is needed to bring about	[]	
	fertilization.			
5 .	Fertilization is the process of fusion of egg nucleus and sperm nucleus.	[]	
6.	Fertilization of ova in human female occurs in vagina.	[]	

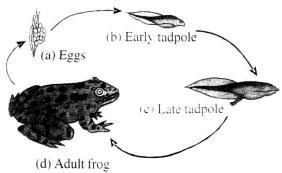
Q.3. Multiple choice questions:

Directions: Read the following questions and choose the answers that best answer the questions.

1.	Which of the following changes does not occur during puberty in a girl?						
	(a) Rapid increase in height		(b) Growth of hair	(b) Growth of hair in armpits			
	(c) Hips become wider and rounder		(d) Production of	(d) Production of testosterone hormone			
2.	Which one of the following is not part of the male reproductive system?						
	(a) Sperm	(b) Penis	(c) Ovaries	(d) Testes			
3.	The process of formi	The process of forming two new cells from a cell is called					
	(a) Cell division	(b) Pollination	(c) Splitting	(d) Fertilization			
4.	A sperm does not ha	ave					
	(a) Cell membrane	(b) Cytoplasm	(c) Cell wall	(d) Nucleus			
5.	Which of the following	Which of the following statements is correct for fertilization?					
	(a) It occurs in all pla	(a) It occurs in all plants.					
	(b) It does not occur	in animals.					
	(c) It allows the characteristics of both male and female parents to be passed onto their young.						
	(d) It occurs using an egg cell from the male parent and a sperm cell from the female parent.						
6.	In humans, the stage of growth in a young person when the reproductive organs become functional is called						
	(a) Adulthood	(b) Fertilization	(c) Ovulation	(d) Puberty			
9.	Which of these is pa	rt of the human male :	reproductive system?				
	(a) Cervix	(b) Testis	(c) Uterus	(d) Vagina			
8.	The male sex cell in	humans is called the					
	(a) Hormone	(b) Ovum	(c) Penis	(d) Sperm			
9.	The chemicals which are responsible for the changes in a young person during puberty are called						
	(a) Eggs	(b) Enzymes	(c) Hormones	(d) Sperm			

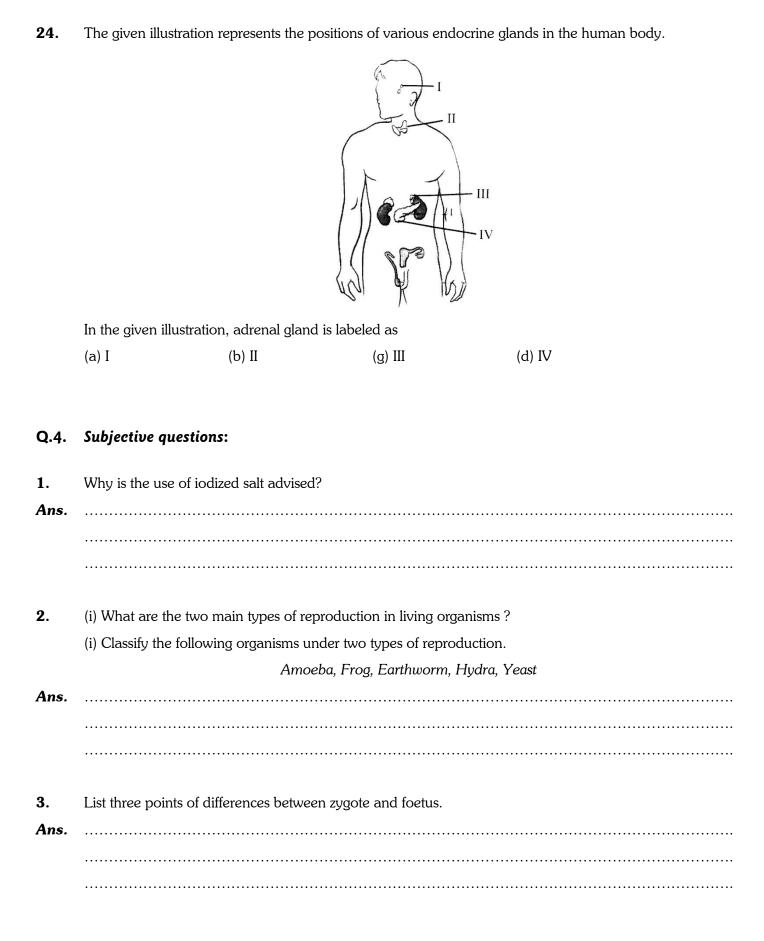
10 .	Sex gland (prostate and seminal vesicle) provide					
	(a) The sex hormones for males and females		(b) A storage space for sperm and eggs			
	(c) The nutrients for eggs only		(d) The nutrients for sperm only			
11.	Genetic information fr	rom the father is transfer	rred via the			
	(a) Ovum	(b) Prostate	(c) Seminal vesicle	(d) Sperm		
12.	The word "foetus" means a					
	(a) Fertilized egg		(b) Method of birth co	ontrol		
	(c) Developing unborn baby in womb		(d) Person with sexually transmitted disease			
13.	A gamete is					
	(a) Haploid	(b) Diploid	(c) Triploid	(d) Tetraploid		
14.	The first menstrual pe	riod in a girl occurs at a	n age of			
	(a) 1-2 years	(b) 5-6 years	(c) 12-14 years	(d) 17-18 years		
15.	When released from ovary, human egg contains					
	(a) One X chromosome		(b) One Y chromosome			
	(c) XX chromosome		(d) XY chromosome			
16.	The stages in the development of an embryo is					
	(a) Egg - Embryo - Zygote — Foetus		(b) Egg - Zygote - Embryo – Foetus			
	(c) Zygote - Egg - Foetus - Embryo		(d) Zygote - Foetus - Egg — Embryo			
17.	A gland that releases hormones directly into the bloodstream is known asi gland. An example of					
	such gland isii					
	The information in which row completes the given statements?					
	(a) i-Exocrine; ii-sweat gland		(b) i-Exocrine; ii-pituitary			
	(c) i-Endocrine; ii-sweat gland		(d) i-Endocrine; ii-pituitary			

18.	Which option correc	tly describes the sex ch	romosomes in huma	ins?	
	(a) Female-XY; Male	e-XX	(b) Female-YY; N	Male-XY	
	(c) Female-XX; Male	e-XY	(d) Female-XY; N	Male-YY	
19.			n of male and femal	le gamete. The off springs produced are	
	ii to their parents.				
		The information in which row completes the given statements?			
	(a) i-Sexual; ii-identical		(b) i-Sexual; ii-non-identical		
	(c) i-Asexual; ii-identical		(d) i-Asexual; ii-non-identical		
20.	Amoeba reproduces	iibyii			
	The information in w	which row completes the	e given statement?		
	(a) i-Asexually; ii-budding		(b) i-Sexually; ii-binary fission		
	(c) i-Asexually; ii-binary fission		(d) i-Sexually; ii-budding		
21.	A person is suffering from goiter. The disease is associated with				
	(a) Pituitary gland	(b) Thyroid gland	(c) Adrenal	(d) Pancreas	
22 .	Which hormone con	trols the process of met	tamorphosis in frogs	?	
	(a) Insulin	(b) Estrogen	(c) Thyroxin	(d) Adrenalin	
23.	The given figure sho	ws life cycle of frog.			
		Ŋ.			



The process of development of tadpole into adult frog is known as

- (a) Metamorphosis
- (b) Fertilization
- (c) Implantation
- (d) Budding



4 .	The given figure shows an important step in sexual reproduction.		
	(i) What is label I and II in the figure?		
	(ii) Which process is being represented in above figure? Explain		
Ans.			
5.	In the diagram, X is a sperm and Y is an egg.		
	Y——X		
	Describe how fertilization takes place using the terms X and Y.		
Ans.			
6.	Explain why there is an equal chance of a baby being either a boy or a girl.		
Ans.			

7. Complete the chart using given words/ terms.

Womb, Egg, fertilized egg, Testis, Ovary, Sperm, Sexual reproduction

