Chapter

Human Reproduction





TOPIC WISE QUESTIONS



THE MALE REPRODUCTIVE SYSTEM

- **O.1** Sertoli cells are involved in
 - (1) Excretion
- (2) Respiration
- (3) Nutrition of sperm (4) All of these
- **Q.2** The tunica albuginea is a covering around the:
 - (1) Testes
- (2) Kidneys
- (3) Uterus
- (4) Epididymis
- **O.3** Testosterone is a/an:
 - (1) Steroid
- (2) Protein
- (3) Octapeptide
- (4) Glycoprotein
- **Q.4** The primary regulator of Leydig cell secretion is:
 - (1) FSH releasing factor
 - (2) Androgen-binding protein
 - (3) Luteinizing hormone (LH)
 - (4) Follicle stimulating hormone (FSH)
- **Q.5** Testosterone is secreted by:
 - (1) Leydig cells
- (2) Sertoli cells
- (3) Pituitary gland
- (4) Ovaries
- Q.6 Common duct formed by union of vas-deferens and duct from seminal vesicle is:
 - (1) Urethra
- (2) Tunica-vasculosa
- (3) Ejaculatory duct (4) Spermatic duct
- Q.7 Sperm cells are produced in
 - (1) Seminiferous tubules
 - (2) Interstitial cells
 - (3) Epididymis
 - (4) Prostate gland
- Q.8 Scrotal sacs of man are connected with the abdominal cavity by:
 - (1) Inguinal canal
- (2) Haversian canal
- (3) Vagina cavity
- (4) Spermatic canal
- **Q.9** Seminal vesicle is present at the junction of :
 - (1) Prostate and urethra
 - (2) Prostate and vas-deferens
 - (3) Prostate and cowper's gland

- (4) Vas-deferens and testis
- **Q.10** The function of the secretion of prostate gland
 - (1) Inhibit sperms activity
 - (2) Attract sperms
 - (3) Stimulate sperm activity
 - (4) None of these
- **0.11** If testes of a male are not transferred from abdominal cavity to Scrotal sac then:
 - (1) Person dies
 - (2) Absence of male characters
 - (3) Development of male reproductive system will not occur
 - (4) Sperms will not form
- Q.12 Which of the following statements best characterizes the testis?
 - (1) Functional compartmentalization of the seminiferous epithelium depends on tight iunctions
 - (2) The seminiferous epithelium contains only proliferative cells.
 - (3) The seminiferous epithelium contains numerous capillaries.
 - (4) The interstitial tissue contains few capillaries
- Q.13 Which of the following statements best characterizes the epididymis?
 - (1) It has motile cilia.
 - (2) It has a simple columnar epithelium.
 - (3) It has long, non-motile microvilli.
 - (4) Its wall lacks smooth muscle.
- Q.14 Sertoli cells are found in:
 - (1) Testis of mammal (2) Ovary of mammal
 - (3) Testis of Ascaris (4) Pancreas of frog
- **Q.15** Which of the following controls the function of Sertoli cells?
 - (1) FSH
- (2) ICSH
- (3) Oestrogen
- (4) Testosterone



HUMAN REPRODUCTION

- Q.16 Puberty occurs in male at the age of
 - (1) 8 10 years
- (2) 12 14 years
- (3) 16 18 years
- (4) 20 22 years
- Q.17 Major part of semen is secreted by:
 - (1) Seminal vesicle
- (2) Prostate gland
- (3) Cowper's gland
- (4) Bartholin's gland
- **Q.18** In male, the acidity in the urethra is neutralized by the secretions of:
 - (1) Cowper's gland
- (2) Bartholin glands
- (3) Perineal glands
- (4) Leydig cells
- **Q.19** Whose discharge is there in seminal fluid?
 - (1) Vesicles, uterus and prostate gland
 - (2) Prostate, Cowper's and Bartholin's glands
 - (3) testicles, uterus and prostate gland
 - (4) testicles, prostate and cowper's gland
- **Q.20** Which one is unpaired gland in male reproductive system?
 - (1) Seminal vesicle (2) Cowper's gland
- - (3) Prostate gland (4) Lacrimal gland
- **Q.21** What would happen if vas deferens of man are cut?
 - (1) Semen is not formed
 - (2) Spermatogenesis does not occur
 - (3) Semen is without sperms
 - (4) Sperm are non motile
- **Q.22** Leydig cells are found in:
 - (1) Seminiferous tubules
 - (2) Testis
 - (3) Ovary
 - (4) Epididymis
- Q.23 Temperature in scrotum necessary for sperm formation should be:
 - (1) 2°C above than body temperature
 - (2) 2°C below than body temperature
 - (3) 8°C above than body temperature
 - (4) 8°Cbelow than body temperature
- Q.24 Tubuli recti of seminiferous tubules open into:
 - (1) Epididymis
- (2) Vasa efferentia
- (3) Vasa deferentia
- (4) Rete testis
- **Q.25** Accessory glands of male reproductive system are:
 - (1) Prostate and seminal vesicles
 - (2) Prostate, Bartholin's gland and seminal vesicles
 - (3) Seminal vesicles and Bartholin's gland
 - (4) Prostate, Cowper's gland and seminal vesicles
- Q.26 Sperms are stored and nourished inside:
 - (1) Cowper's gland
 - (2) Epididymis
 - (3) Seminiferous tubules
 - (4) Vasa efferentia

- Q.27 Each of the following statements concerning testosterone is true except
 - (1) It is synthesised by Leydig's cells
 - (2) It is required for spermatogenesis
 - (3) It is required for male secondary sexual characteristics
 - (4) It is excluded from the adluminal compartment of the seminiferous epithelium
- **Q.28** Epididymis is:
 - (1) Network of sinuses between seminiferous tubules and vasa efferentia
 - (2) Intermediate structure between rete testis and vasa efferentia
 - (3) A long coiled tube between vasa efferentia and vas deferens
 - (4) Connection between vas deferens and seminal vesicle
- **Q.29** Which of the following releases inhibin to control spermatogenesis?
 - (1) Rete testis
- (2) Follicular cells
- (3) Leydig's cells
- (4) Sertoli cells
- Q.30 Spermatogenesis and sperm differentiation are under the control of:
 - (1) FSH
- (2) LH
- (3) Progesterone
- (4) Parathyroid Hormone
- **Q.31** Each of the following statements regarding the seminiferous is true except
 - (1) Before puberty, it contains spermatids
 - (2) It consists of Sertoli cells and spermatogenic
 - (3) It has a robust basement membrane
 - (4) Its basal compartment contains spermatogenic
- Q.32 Which of the following is not the part of intratesticular genital duct system?
 - (1) Rete testis
- (2) Tubuli recti
- (3) Vas deferens
- (4) Vas efferens
- Q.33 If Cowper's gland is removed which of the following will be affected:
 - (1) Spermatogenesis (2) Fertilization
 - (3) Hardness of penis (4) Copulation
- Q.34 Cowper's glands are found in
 - (1) Female amphibians
 - (2) Male mammals
 - (3) Female mammals
 - (4) Male amphibians
- Q.35 Seminal plasma is the secretions of male accessory glands, i.e., seminal vesicle, prostate and bulbouretheral gland and it contains
 - (1) Sucrose, Mg⁺⁺ and no enzymes



- (2) Glucose, K⁺ and no enzymes
- (3) Fructose, Ca⁺⁺ and some enzymes
- (4) Fructose, iron and some enzymes
- **Q.36** Penis is male external genitalia which has three cylindrical masses of erectile tissue. The erect penis shows:
 - (1) Two dorsal corpus spongiosum and one ventral corpora cavernosa
 - (2) Two dorsal corpora cavernosa and one ventral corpus spongiosum
 - (3) Two ventral corpora cavernosa and one dorsal corpus spongiosum
 - (4) One dorsal corpora cavernosa and two ventral corpus spongiosum
- Q.37 Which one of these is not an accessory gland in male reproductive system?
 - (1) Cowper gland
- (2) Prostate gland

(4) ICSH

- (3) Bartholin gland (4) Seminal vesicle
- **Q.38** Which is **not correct** about Sertoli cells?
 - (1) It is situated in between the germinal epithelial cell
 - (2) It is related with the nutrition of sperm
 - (3) It forms blood testis barrier
 - (4) It secretes testosterone
- Q.39 Synthesis of testosterone by Leydig cells is stimulated by:
 - (1) LTH (2) TSH (3) FSH
- **Q.40** Function of prostate glands is:
 - (1) Storage of semen
 - (2) Provide motility to sperms
 - (3) Formation of semen
 - (4) Release of hormones
- **Q.41** What is the oligospermia condition?
 - (1) If sperm count is 40 to 120 million/ml
 - (2) If sperm count is < 20 million/ml
 - (3) If sperm count is < 60 million/ml
 - (4) If sperm count is 20 million to 40 million/ml
- **Q.42** The head of the epididymis at the head of the testis is called:
 - (1) Cauda epididymis (2) Vas deferens
 - (3) Caput epididymis (4) Gubernaculum
- **Q.43** If the epididymis is being removed, then what will happen?
 - (1) Short life span of sperm
 - (2) Early cross the pathway
 - (3) Sperm will be incapable for fertilization
 - (4) Functional maturation is early

THE FEMALE REPRODUCTIVE SYSTEM

- **Q.44** Ostium is the aperture present in:
 - (1) Uterus
- (2) Fallopian funnel
- (3) Ovisac
- (4) Cloaca
- Q.45 Development of foetus takes place in:
 - (1) Vagina
- (2) Uterus
- (3) Ovary
- (4) Oviduct
- **Q.46** In the Human female, which structure is homologous to penis of male?
 - (1) Cervix
- (2) Vagina
- (3) Uterus
- (4) Clitoris
- Q.47 Select the odd one out.
 - (1) Oviduct
- (2) Ureter
- (3) Uterus
- (4) Vagina
- Q.48 Lower narrow end of uterus is called:
 - (1) Urethra
- (2) Cervix
- (3) Fundus
- (4) Vulva
- Q.49 Identify the odd one from the following:
 - (1) Labia minora
- (2) Fimbriae
- (3) Infundibulum
- (4) Isthmus
- **Q.50** Endometrium is lining of:
 - (1) Testis
- (2) Urinary bladder
- (3) Uterus
- (4) Ureter
- Q.51 The female external genitalia include
 - (i) ovary
- (ii) mammary gland
- (iii) mons pubis
- (iv) clitoris
- (v) labia majora
- (1) (i) and (ii)
- (1) (1) und (11)
- (2) (ii) and (iii)
- (3) (iii), (iv) and (v)
- (4) (ii), (iii) and (v)
- **Q.52** Which of the following is not related to **vulva**?
 - (1) Mons-pubis
- (2) Clitoris
- (3) Labia majora
- (4) Cervix
- Q.53 Labium majora of a female mammal is homologous to:
 - (1) Scrotal sac
- (2) Prostate gland
- (3) Epididymis
- (4) Seminal vesicle
- **Q.54** The main function of the fimbriae of the fallopian tube in females is to
 - (1) Release ovum from the Graafian follicle
 - (2) Make necessary changes in the endometrium for implantation
 - (3) Help in the development of corpus luteum
 - (4) Help in the collection of the ovum after ovulation.

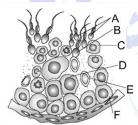


HUMAN REPRODUCTION

- Q.55 Expanded proximal part of oviduct in female is:
 - (1) Uterus
- (2) Ampulla
- (3) Isthmus
- (4) Infundibulum
- **Q.56** When both ovaries are removed from human female then which hormone is decreases in blood?
 - (1) Oxytocin
 - (2) Prolactin
 - (3) Estrogen
 - (4) Gonadotrophic releasing factor
- **Q.57** Womb is the another name of :
 - (1) Vagina
- (2) Cervix
- (3) Oviduct
- (4) Uterus
- Q.58 Identify the structure belongs to female external genitalia:
 - (1) labia minora
- (2) Fimbriae
- (3) Infundibulum
- (4) Isthmus

GAMETOGENESIS

Q.59 Find out the spermatogonium and spermatozoa in below figure:



- (1) A and F
- (2) C and D
- (3) F and A
- (4) D and E
- **Q.60** If somatic chromosomes number is 40. What shall be chromosomal number in the cell of seminiferous tubules?
 - (1) 40
- (2) 20
- (3) 10
- (4) 40 and 20
- **Q.61** For normal fertility:
 - (1) At least 60% sperm must show vigorous motility
 - (2) At least 40% sperm must have normal shape and size
 - (3) At least 30% sperm must have normal activity and function
 - (4) At least 40% sperm must show vigorous motility or 60% sperm must have normal shape and size
- **Q.62** Which piece of a sperm is called **power house**?
 - (1) Head piece
- (2) Neck piece
- (3) Middle piece
- (4) Tail piece
- **Q.63** "Spermiogenesis" is a process in which:
 - (1) Spermatids change into spermatozoa

- (2) Spermatogonia produce a spermatid
- (3) Spermatocytes give rise to spermatozoa
- (4) Dormant spermatozoa become active just before ejaculation
- **Q.64** In gametogenesis, reduction division take place during:
 - (1) Multiplication phase
 - (2) Growth phase
 - (3) First maturation division
 - (4) Second maturation
- **Q.65** Release of sperm from testes is called:
 - (1) Spermiation
- (2) Semination
- (3) Insemination
- (4) Ejaculation
- Q.66 Clitoris in female mammal is
 - (1) Homologous to penis of male
 - (2) Analogous to penis of male
 - (3) Non-functional
 - (4) Over grown structure
- **Q.67** Which organelle is absent in human sperm?
 - (1) ER
- (2) Nucleus
- (3) Centriole
- (4) Mitochondria
- **Q.68** Middle piece of sperm contains:
 - (1) Mitochondria and Golgi body
 - (2) Centriole and Golgi body
 - (3) Axial filament and Golgi body
 - (4) Mitochondria and axial filament
- **Q.69** During spermatogenesis, how many sperms are formed from a single primary spermatocyte?
 - (1) 1
- (2) 2
- (3)4
- (4) 8
- Q.70 How many secondary spermatocytes will form 400 spermatozoa?
 - (1) 100
 - 100 (2) 400
- (3) 40
- (4) 200
- Q.71 Acrosome formation in spermatogenesis occurs in which stage?
 - (1) Multiplication phase
 - (2) Spermiation
 - (3) Growth phage
 - (4) Spermiogenesis
- **Q.72** The head of a mature sperm is mainly composed of:
 - (1) Elongated nucleus and acrosomal material
 - (2) Mitochondria, cytoplasm & nucleus
 - (3) Two centriole & the axial filament
 - (4) All of the above
- **Q.73** At the end of first meiotic division, male germ cell differentiates into:
 - (1) Secondary spermatocyte
 - (2) Primary spermatocyte
 - (3) Spermatogonium



- (4) Spermatid
- **Q.74** 10 oogonia yield 10 primary oocytes, then how many ova are produced by primary oocyte stage?
 - (1)5
- (2) 10
- (3)20
- (4) 40

- **O.75** First meiotic division during Oogenesis occurs in:
 - (1) Oogonia
- (2) Second polar body
- (3) Primary oocytes (4) Secondary oocytes
- **Q.76** The minute cells which separate from the developing ova during their maturation are called
 - (1) Primary Oogonia
 - (2) Secondary Oogonia
 - (3) Polar bodies
 - (4) Primary spermatogonia
- **Q.77** Which of the following is **haploid**?
 - (1) Primary spermatocytes & primary Oocytes
 - (2) Secondary spermatocytes & secondary Oocytes
 - (3) Spermatogonia and Oogonia
 - (4) Spermatogonia and secondary oocyte
- **0.78** How many sperm and ova will be formed from 50 secondary oocytes and 50 secondary spermatocytes?
 - (1) 50 ova & 200 sperm
 - (2) 50 ova & 100 sperm
 - (3) 100 ova & 200 sperm
 - (4) 100 ova & 400 sperm
- **Q.79** During which stage of gametogenesis, meiosis occurs:
 - (1) Growth phase
- (2) Multiplication phase
- (3) Maturation phase (4) None of the above
- **Q.80** A human female has the maximum number of primary oocytes in her ovaries:
 - (1) At menopause
 - (2) At Puberty
 - (3) At Birth
 - (4) Early in her fertile years
- **Q.81** Eggs liberated from ovary in human is:
 - (1) Secondary oocyte stage
 - (2) Primary oocyte stage
 - (3) Oogonial stage
 - (4) Mature ovum stage
- **Q.82** The process of spermatogenesis and oogenesis in most vertebrates are under the influence of which hormone:
 - (1) Oxytocin
- (2) FSH
- (3) ACTH
- (4) LH
- Q.83 A glycoprotein non-cellular membrane which normally surrounds the ovum of a mammal:
 - (1) Corona radiata
 - (2) Jelly envelope

- (3) Zona pellucida
- (4) Granulosa membrane
- **Q.84** Which is the **correct** sequence of layers in the mammalian egg from outside to inside?
 - (1) Zona pellucida, corona radiata, plasma membrane
 - (2) Corona radiata, zona pellucida, plasma membrane
 - (3) Plasma membrane, zona pellucida, corona
 - (4) Corona radiata, Plasma membrane, Zona pellucida
- Q.85 Oocyte is liberated from ovary under the influence of LH, after completing:
 - (1) Meiosis I and after liberating second polar
 - (2) Meiosis I and before liberating second polar bodies
 - (3) Meiosis II and liberating second polar bodies
 - (4) Meiosis II after release of first polar body
- Q.86 Identify the stage of sperm formation during which the cytoplasmic volume of spermatid reduces:
 - (1) Spermiogenesis
 - (2) Spermatidogenesis
 - (3) Spermeto cytogenesis
 - (4) Spermiation
- Q.87 The process of release of sperms from seminiferous tubules is called:
 - (1) Spermiogenesis
- (2) Ejaculation
- (3) Semination
- (4) Spermiation
- Q.88 At what stage of life, oogenesis is initiated in a human female?
 - (1) At puberty
 - (2) During menarche
 - (3) During menopause
 - (4) During embryonic development

MENSTRUAL CYCLE

- **Q.89** The wall of the uterus has three layers of tissue. The layer which undergoes cyclical change during menstrual cycle is:
 - (1) Perimetrium
- (2) Myometrium
- (3) Endometrium
- (4) Both (2) & (3)
- **Q.90** Which temporary endocrine gland forms in ovary after ovulation?
 - (1) Corpus callosum (2) Corpus albicans
 - (3) Corpus luteum
- (4) Corpus striata



Q.91	Corpus luteum secre	tes:	reproductive cycle are given below. Arrange the						
	(1) LH	(2) Oxytocin		events in a proper se	equence:				
	(3) Progesterone	(4) FSH		A - Secretion of FS	Н,				
O 92	Corpus luteum is	structure		B - Growth of corpu	is luteum,				
Q.,,_	(1) Excretory	(2) Endocrine			ollicle and oogenesis,				
	(3) Digestive	(4) Reproductive		D - Ovulation,					
		•		E - Sudden increase	in the levels of LH				
Q.93		egins at puberty and is called:		(1) ADCEB	(2) BACDE				
	(1) Menses	(2) Menopause		(3) ACEDB	(4) CADBE				
	(3) Menarche	(4) Implantation	0.103	Scrotum helps	in maintaining the low				
0.94	In Human, duration of	of menstrual cycle is:	2.100	_	testis _A_ lower than the				
	(1) 21 days	(2) 28 days		-	dy temperature. Each testis				
	(3) 38 days	(4) 40 days			B and a width ofC				
0.05	•				t _D_ compartments called				
Q.95	•			testicular lobules.	<u></u>				
	(1) Recovery and pr	_	Options:						
	(2) Proliferative and		(1) A-2-2.5°C, B-4 to 5 cm, C-2 to 5 cm, D-250						
	· ·	retory and menstrual phase	(2) A-3-3.5°C, B-6-7 cm, C-2 to 3 cm, D-350						
		secretory phase and phase of			-6 cm, C-2 to 3 cm, D-450				
	menstrual flow				to 5 cm, C-2 to 3 cm, D-550				
Q.96	Luteal phase is the o	ther name of :	O 104						
	(1) Follicular phase		Q.104 If the menstrual cycle is of 35 days then what is risk period (cycle start on 1 st day)?						
	(2) Proliferative phas	se			(2) 11 th to 18 th days				
	(3) Menstrual flow p	has <mark>e</mark>	A.		(4) 18 th to 35 th days				
	(4) Secretory phase		O 105		licles converted into:				
O 97	Cessation of menstru	al cycle is called:	Q.103		(2) Corpus albicans				
Q.JI	(1) Ovulation	(2) Menopause	 	B. Aller J. 1880 April 1	sa (4) Corpus callosum				
	(3) Menarche	(4) Menses	0.100		-				
			Q.106		uman female normally takes				
Q.98		cycle in human that lasts for		place during the me					
	7-8 days is :			(1) At the end of the (2) At the mid secre					
	(1) Follicular phase	(2) Ovulatory phase			nd of the secretory phase				
	(3) Luteal phase	(4) Menstruation	arni		g of the proliferative phase				
Q.99	Correct sequence of	of hormone secretion from	0.107						
	beginning of menstru		Q.107		n increase of the LH hormone				
	(1) FSH, progesteror	ne, estrogen			cycle (about 14th day) is: ack of progesterone on the				
	(2) Estrogen, FSH, p	rogesterone		hypothalamus	ack of progesterone on the				
	(3) FSH, estrogen, pr	rogesterone			ack of estrogen on the anterio				
	(4) Estrogen, progest	terone, FSH		lobe of pituitary	_				
Q.100 Progesterone level falls leading to :					ck of FSH on the ovary				
Q.100	(1) Gestation	(2) Menopause			ck of estrogen on the anterior				
	(3) Lactation	(4) Menstruation		lobe of pituitary	_				
0.10:			O 100						
Q.101	· · · · · · · · · · · · · · · · · · ·	30 days & bleeding start on	Q.108	(1) Menstrual phase	e menstrual cycle of human is (2) Luteal phase				
	Ist day then ovulation			•	(4) Follicular phase				
	(1) 14 th day	(2) 18^{th} day		• •	•				
	(3) 30 th day	(4) 16 th day	Q.109		lowing hormone initiates a				
Q.102	Some important ever	nts in the human female	metabolic rise that results into the rupture of						

graafian follicle?



- (1) Prolactin (2) HCG (3) FSH (4) LH
- **Q.110** Level of estrogen and progesterone are minimum at the time of :
 - (1) Follicular phase(2) Ovulation(3) Secretory phase(4) Menses

FERTILIZATION AND IMPLANTATION

- **Q.111** Division of human egg is:
 - (1) Unequal holoblastic
 - (2) Equal holoblastic
 - (3) Superficial meroblastic
 - (4) Discoidal meroblastic
- Q.112 Stage of embryo development at which implantation occurs in human female is:
 - (1) Morula
- (2) Zygote
- (3) Blastocyst
- (4) Gastrula
- **Q.113** The acrosome plays a role in:
 - (1) Fusion of nuclei of gametes
 - (2) Motility of sperm
 - (3) Penetration of sperm in to ovum
 - (4) All of the above
- **Q.114** The change in a mammalian sperm which prepares it to fertilize the ovum is termed :
 - (1) Maturation
- (2) Preparation
- (3) Capacitation (4) Metamorphosis
- **Q.115** Fertilization is:
 - (1) Union of diploid spermatozoon with diploid ovum to form diploid zygote
 - (2) Union of haploid sperm with haploid ovum to form haploid zygote
 - (3) Union of haploid sperm with haploid ovum to form diploid zygote
 - (4) Union of diploid sperm with haploid ovum to form triploid zygote
- Q.116 Fertilization takes place at:
 - (1) Cervix
 - (2) Ampullary region of fallopian tube
 - (3) Infundibulum region of fallopian tube
 - (4) Uterus
- Q.117 Acrosome reaction in sperm triggers:
 - (1) Capacitation
- (2) Release of lysin
- (3) Influx of Na⁺
- (4) Release of fertilizin
- **Q.118** Part of sperm involved in penetrating egg membrane is:
 - (1) Tail
- (2) Acrosome
- (3) Middle Piece
- (4) Centriole
- **Q.119** Fertilization involves all of the following except:
 - (1) Metabolic activation of egg

- (2) Breakdown of the acrosomal membrane
- (3) Second meiotic division of sperm nucleus
- (4) Binding of sperm cell to surrounding of egg
- **Q.120** In oogenesis haploid eggs is fertilized by sperm at which stage?
 - (1) Primary oocyte (2)
 - (2) Secondary oocyte
 - (3) Oogonium
- (4) Ovum
- Q.121 Extrusion of second polar body from egg nucleus occurs
 - (1) After entry of sperm before completion of fertilisation
 - (2) After completion of fertilisation
 - (3) Before entry of sperm
 - (4) Without any relation to sperm entry.
- Q.122 Select the correct statement.
 - (1) Cleavage follows gastrulation.
 - (2) Yolk content of egg has no role in cleavage.
 - (3) Cleavage is repeated mitotic division of zygote.
 - (4) Gastrulation and blastulation are followed by each other.
- Q.123 Why do all copulations not lead to fertilisation and pregnancy? The root cause is
 - (1) Due to numerous sperms and one ovum
 - (2) Due to less progesterone
 - (3) Ovum and sperms are not transported simultaneously to the ampullary region
 - (4) Due to non-formation of corpus luteum
- Q.124 Mature ovum in human beings is surrounded by
 - (1) Plasma membrane (2) Vitelline membrane
 - (3) Corona radiata
- (4) All of these
- Q.125 Cleavage in mammals in
 - (1) Holoblastic equal (2) Holoblastic unequal
 - (3) Super fission
- (4) Discoidal
- **Q.126** After which stage cleavage stopped?
 - (1) After Morula
- (2) After Blastula
- (3) After Gastrula
- (4) Any time it stops
- **Q.127** How many cleavages are required for formation of 16 Blastomeres ?
 - (1) 2
- (2) 4
- (3) 6
- (4) 8
- Q.128 Which of the following characteristics does not belong to cleavage?
 - (1) Decrease in size of blastomeres
 - (2) Rapid mitotic cell division
 - (3) Interphase of very short duration
 - (4) Differentiation of blastomeres
- Q.129 During cleavage, what is true about embryo?



HUMAN REPRODUCTION

- (1) Nucleocytoplasmic ratio remains unchanged
- (2) Size does not increase
- (3) There is less consumption of oxygen
- (4) The division is like meiosis
- Q.130 Human eggs are
 - (1) Alecithal
- (2) Microlecithal
- (3) Mesolecithal
- (4) Macrolechithal
- **Q.131** Three germ layers are formed during which stage of Embryonic development :
 - (1) Morula
- (2) Blastula
- (3) Gastrula
- (4) In any two stages
- Q.132 Zona pellucida disintegrates:
 - (1) Just after fertilization
 - (2) Before fertilization
 - (3) Before cleavage
 - (4) After completion of cleavage
- Q.133 The fertilized egg in human female is implanted in the uterus after:
 - (1) One month of fertilization
 - (2) Two months of fertilization
 - (3) Three weeks of fertilization
 - (4) About seven days of fertilization
- Q.134 The 16 cells stage of the human embryo is:
 - (1) Smaller than the fertilized egg
 - (2) Same size as the fertilized egg
 - (3) Two times of the size of the fertilized egg
 - (4) Four times the size of the fertilized egg
- Q.135 Cells become variable in morphology and function in different regions of the embryo. The process is called
 - (1) Differentiation
- (2) Metamorphosis
- (3) Organisatoin
- (4) Rearrangement

PREGNANCY AND EMBRYONIC DEVELOPMENT

- Q.136 The first movements of the foetus and appearance of hair on the head are usually observed during the:
 - (1) 3rd month
- (2) 4th month
- (3) 5th month
- (4) 8th month
- Q.137 Identical twins are also known as
 - (1) Monozygotic twins
 - (2) Dizygotic twins
 - (3) Fraternal twins
 - (4) Both (2) and (3)

- **Q.138** During which week of embryo development does heart starts pumping blood and heart beat is identified?
 - (1) Week 7
- (2) Week 4
- (3) Week 3
- (4) Week 5
- **Q.139** Stage of embryonic development in which differentiation of cell occurs :
 - (1) Blastula
- (2) Morula
- (3) Gastrula
- (4) Neurula
- **Q.140** Solid ball of cell produced by repeated cleavage is called:
 - (1) Gastrula
- (2) Blastula
- (3) Morula
- (4) Neurula
- Q.141 Preparation of cell differentiation are completed in:
 - (1) Morula
- (2) Blastula
- (3) Gastrula
- (4) Neurula
- Q.142 During pregnancy, the urine of female would contain:
 - (1) LH
- (2) Progesterone
- (3) FSH
- (4) hCG
- **Q.143** Placenta is the region where:
 - (1) Foetus is attached to mother by spermatic cord
 - (2) Foetus is provided with mother's blood
 - (3) Foetus receives nourishment from mother's blood
 - (4) Foetus is covered by membranes
- **Q.144** Which of the following placental hormone takes over the function of LH and maintains corpus luteum of pregnancy?
 - (1) Human chorionic somatomammotropin
 - (2) Human chorionic corticotropin
 - (3) Human chorionic thyrotropin
 - (4) Human chorionic gonadotropin
- **Q.145** Which of the following sets contain only mesodermal structures?
 - (1) Liver, heart, blood, muscles
 - (2) Pancreas, heart, blood, bones
 - (3) Notochord, bones, cardiac muscles, blood
 - (4) Liver, blood, muscles, notochord



- **Q.146** During embryonic development, which of the following structure is formed first?
 - (1) Heart
- (2) Brain
- (3) Neural tube
- (4) Skin
- **Q.147** Pregnancy hormone is:
 - (1) Estrogen
- (2) Progesterone
- (3) Oxytocin
- (4) FSH

PARTURITION AND LACTATION

- **Q.148** In parturition process, which of the following does not happen?
 - (1) Oxytocin Hormone is secreted by posterior pituitary
 - (2) Relaxin hormone responsible for narrowing of pelvic cavity
 - (3) Progesterone hormone secretion is stopped
 - (4) After parturition, placenta is also expelled out
- **Q.149** The expulsion of completely developed foetus from the uterus is known as:
 - (1) Ovulation
- (2) Oviposition
- (3) Gestation
- (4) Parturition
- Q.150 Milk secretion in mammals is associated with
 - (1) Vasopressin
- (2) Progesterone
- (3) Prolactin
- (4) Estrogen





ANSWER KEY

TOPIC WISE QUESTIONS

Que.	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
Ans.	3	1	1	3	1	3	1	1	2	3	4	1	3	1	1
Que.	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30
Ans.	2	1	1	4	3	3	2	2	4	4	2	4	3	4	1
Que.	31	32	33	34	35	36	37	38	39	40	41	42	43	44	45
Ans.	1	3	2	2	3	2	3	4	4	2	2	3	3	2	2
Que.	46	47	48	49	50	51	52	53	54	55	56	57	58	59	60
Ans.	4	2	2	1	3	3	4	1	4	4	3	4	1	3	4
Que.	61	62	63	64	65	66	67	68	69	70	71	72	73	74	75
Ans.	4	3	1	3	2	1	1	4	3	4	4	1	1	2	3
Que.	76	77	78	79	80	81	82	83	84	85	86	87	88	89	90
Ans.	3	2	2	3	3	1	2	3	2	2	1	4	4	3	3
Que.	91	92	93	94	95	96	97	98	99	100	101	102	103	104	105
Ans.	3	2	3	2	3	4	2	1	3	4	4	3	1	3	1
Que.	106	107	108	1 09	110	111	112	113	114	115	11 <mark>6</mark>	117	118	119	120
Ans.	1	4	3	4	4	2	3	3	3	3	2	2	2	3	2
Que.	121	122	123	124	125	126	127	128	129	130	131	132	133	134	135
Ans.	1	3	3	4	1	2	2	4	2	1	3	4	4	2	1
Que.	136	137	138	139	140	141	142	143	144	145	146	147	148	149	150
Ans.	3	1	4	3	3	3	4	3	4	3	/ 3	2	2	4	3

Usted Learning

* KHAN SIR *

