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Total Marks : 150 $150 \times 1 = 150$

1)	Egg	apparatus	consists	of
-,	\neg	apparacas	COLLOIDED	0.

- (a) egg (b) egg and polar nuclei (c) Egg and synergids (d) Egg and antipodal cells
- 2) Which type of association is found in between entomophilous flower and pollinating agent?
- (a) Mutualism (b) Commensalism (c) Cooperation (d) Coevolution
- 3) In angiosperms, pollen tubes liberate their male gametes into the
- (a) Central cell (b) Antipodal cell (c) Egg cell (d) Synergids
- 4) Insect-pollinated flowers are characterized by
- (a) Large number of pollens (b) Dry and smooth pollens (c) Sticky and rough pollens
- (d) Heavy pollens
- 5) Pick the odd one out
- (a) Chalazogamy (b) Porogamy (c) Mesogamy (d) Allogamy
- 6) Pollen grains are able to withstand extremes of temperature and desiccation because their exile is composed of
- (a) Cutin (b) Suberin (c) Sporopollenin (d) Callose
- 7) Anthesis is a phenomenon which refers to
- (a) Formation of pollen (b) Development of anther (c) the opening of a flower bud
- (d) Reception of pollen by stigma
- 8) The pollen tube usually enters the embryo sac
- (a) Through one of the synergids (b) By directly penetrating the egg
- (c) Between one synergid and central cell (d) By knocking off the antipodal cells
- 9) Which one of the following represents an ovule, where the embryo sac becomes horse-shoe shaped and the funiculus and micropyle are close to each other?
- (a) Amphitropous (b) Circinotropous (c) Atropous (d) Anatropous
- 10) In some plants anthers and stigma grow and mature at the same time. This phenomenon is called
- (a) Homogamy (b) Sanamy (c) Allogamy (d) Fusion
- 11) Plants of which one of the following groups of genera are pollinated by the same agency?
- (a) Triticum, Cocos, Mangifera (b) Ficus, Kigelia, Casuarina (c) Salvia, Morus, Euphorbia
- (d) Bombax, Butea, Bauhinia
- 12) Which one of the following is surrounded by a callose wall?
- (a) Male gamete (b) Egg (c) Pollen grain (d) Microspore mother cell
- 13) Identify the wrong statement regarding post-fertilization development
- (a) The ovary wall develops into pericarp (b) The outer integument of the ovule develop into tegmen
- (c) The fusion nucleus (triple fusion) develops into endosperm (d) The ovule develops into seed
- (e) The ovary develops into fruit
- 14) Duble fertilization is the process in plants that includes
- (a) Syngamy and triple fusion (b) only triple fusion (c) Development of antipodal cells
- (d) Name of the above

15) Endosperm is consumed by developing embryo in the seed of
(a) Pea (b) Maize (c) Coconut (d) Castor
16) What does the filiform apparatus do at the entrance into ovule?
(a) It brings about opening of the pollen tube (b) It guides pollen tube from a synergid to egg
(c) It helps in the entry of pollen tube into a synergid
(d) It prevents entry of more than one pollen tube into the embryo sac
17) Which one of the following pairs of plant structures has a haploid number of chromosomes?
(a) Nucellus and antipodal cells (b) Egg nucleus and secondary nucleus
(c) Megaspore mother cell and antipodal cells (d) Egg cell and antipodal cells
18) Choose the mismatched option
(a) Wind - Cannabis: Anemophily (b) Water - Zostera: Hydrophily (c) Insects - salvia: Entomophily
(d) Birds - Adansonia: Ornithophily (e) Bats - kigelia: Chiropterophily
19) one advantage of cleistogamy is
(a) It leads to greater genetic diversity (b) seed dispersal is more efficient and widespread.
(c) seed set is not dependent on pollinators
(d) Each visit of a pollinator results in the transfer of hundreds of pollen grains.
20) In a mature embryo sac the central cell is
(a) Single nucleate (b) Binucleate (c) Four nucleate (d) Eight nucleate
21) Embryo sac is to ovule is to an anther
(a) Stamen (b) Filament (c) Pollen grain (d) Androecium
22) A dicotyledonous plant bears flowers but never produces fruit 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) The plant is dioecious and bears only staminate flowers.
23) From among the sets of terms given below, Identify those that are associated with gynoecium.
(a) Stigma, ovule, embryo sac, placenta (b) Thalamus, pistil, style, ovule
(c) Ovule, ovary, tapetum, embryo sac (d) Egg, integument, embryo sac, nucellus
24) The outermost and innermost wall layers of microsporangium in an anther are respectively
(a) Endothecium and tapetum (b) Epidermis and endodermis (c) Epidermis and middle layers
(d) Epidermis and tapetum
25) In the embryos of a typical dicot and grass, true homologous structures are
(a) Coleorhiza and Coleoptile (b) Coleoptile and Scutellum (c) Cotyledons and Scutellum (d) hypocotyl and Radical
26) In a flower, if a megaspore mother cell forms megaspores without undergoing meiosis and if one of the megaspores develops into an embryo sac, its nuclei would be
(a) Haploid (b) Diploid (c) A few haploid and a few diploid
27) While planning for an artificial hybridization programme involving dioecious plants, which of the following steps will be irrelevent:
(a) Bagging of female flower (b) Dusting of pollen on stigma (c) Emasculation
(d) Collection of pollen
28) A particular species of plant produces light, non-sticky pollens in large numbers and its stigmas are long and festhery. These modifications facilitate pollination by:
(a) Insects (b) Water (c) Wind (d) Animals
29) Apomictic embryos in Citrus arise from

(a) diploid egg (b) synergids (c) maternal sporophytic tissue (d) antipodal cells

(a) haploid (b) diploid (c) triploid (d) tetraploid 31) Residual persistent nucellus is known as (a) perisperm (b) pericarp (c) integuments (d) none of these 32) The egg apparatus of angiosperm comprises (a) an egg cell and two antipodals (b) an egg and two synergids (c) an egg and two polar nuclei (d) an egg and central cell 33) Nucellar polyembryony is reported in species of (a) Citrus (b) Gossypium (c) Triticum (d) Brassica 34) Which one of the following pollinations is autogamous? (a) geitonogamy (b) xenogamy (c) chasmogamy (d) cleistogamy 35) Wind pollination is common in (a) legumes (b) lilies (c) grasses (d) orchids 36) Selaginella and Salvinia are considered to represent a significant step toward evolution of seed habit because (a) female gametophyte is free and gets dispersed like seeds (b) female gametophyte lacks archegonia (c) megaspores posses endosperm and embryo surrounded by seed coat (d) embryo develop in female gametophyte which is retained on the parent sporophyte 37) In angiosperms, functional megaspore develops into (a) embryo sac (b) ovule (c) endosperm (d) pollen sac 38) Both autogamy and geitonogamy are prevented in (a) Papaya (b) Cucumber (c) Castor (d) Maize 39) An organic substance that can withstand environmental extremes and cannot be degraded by any enzyme is: (a) Cuticle (b) Sporopollenin (c) Lignin (d) Cellulose 40) Even in absence of pollinating agents, seed setting is assured in (a) Commelina (b) Zostera (c) Salvia (d) Fig 41) The innermost wall layer of microsporangium nourishing the developing pollen grains is known as (a) endodermis (b) endothecium (c) tapetum (d) sporogenous tissue 42) Which one of the following statements is wrong? (a) When pollen is shed at two-celled stage, double fertilization does not take place (b) Vegetative cell is larger than generative cell (c) pollen grains in some plants remain viable for months (d) Inline is made up of cellulose and pectin 43) What is the function of germ pore? (a) Emergence of radicle (b) Absorption of water for seed germination (c) Initiation of pollen tube (d) Release of male gametes 44) Plants with ovaries having only one or a few ovules are generally pollinated by (a) bees (b) butterflies (c) birds (d) wind 45) From among the situations given below, choose the one that prevents both autogamy and geitonogamy. (a) Monoecious plant bearing unisexual flowers. (b) Dioecious plant bearing only male or female flowers. (c) Monoecious plant with bisexual flowers. (d) Dioecious plant with bisexual flowers. 46) In a fertilised embryo sac, the haploid, diploid and triploid structures are:

(a) Synergid, zygote and primary endosperm nucleus. (b) Synergid, antipodal and polar nuclei.

(c) Antipodal, synergid and primary endosperm nucleus. (d) Synergid, polar nuclei and zygote

30) Synergies are

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www.ravitestpapers.com www.ravitestpapers.in RAVI MATHS TUITION CENTER 47) In an embryo sac, the cells that degenerate after fertilisation are
(a) Synergids and primary endosperm cell. (b) Synergids and antipodals
(c) Antipodals and primary endosperm cell. (d) Egg and antipodals.
48) Which of the following floral parts forms the pericarp after fertilisation?
(a) Nucellus (b) Outer integument (c) Ovary wall (d) Inner integument

49) Match the terms in Column I with the descriptions in Column II.

Column I	Column II
A. Pericarp	1. Cotyledon in the seeds of grasses.
B. Pollen grains	2.Remains of nucellus in a
of Vallisneria	seed.
C. Perisperm	3.Mucilaginous covering.
D. Scutellum	4. Wall of the true fruit.

- (a) A 4, B-3, C 2, D 1 (b) A 3 B-4, C 2, D 1 (c) A 4, B-3, C 1, D 2
- (d) A 2, B-3, C 4, D 1
- 50) How many pollen mother cells should undergo meiotic division to produce 48 pollen grains
- (a) 8 (b) 12 (c) 16 (d) 24
- 51) 60% of the angiosperms shed their pollens at the
- (a) 2-celled stage (b) 3-celled stage (c) 4-celled stage (d) 1-celled stage
- 52) Which condition of gynoecium (pistil) is shown in the figures (i) and (ii)?
- (a) (i) Multicarpellary apocarpous, (b) (i) Multicarpellary syncarpous, (c) (i) Bicarpellary apocarpous,
- (ii) Multicarpellary syncarpous (ii) Multicarpellary apocarpous (ii) Bicarpellary syncarpous
- (d) (i) Bicarpellary syncarpous,
- (ii) Bicarpellary apocarpous
- 53) Enclosed within the integuments of a typical anatropous ovule is a diploid mass of cellular tissue known as
- (a) megaspore mother cell (b) nucellus (c) synergids (d) embryo sac
- 54) Which of the following outbreeding devices are used by majority of flowering plants to prevent inbreeding depression?
- (i) Pollen release and stigma receptivity are not synchronised.
- (ii) Different positions of anther and stigma.
- (iii) Production of different types of pollen grains.
- (iv) Formation of unisexual flowers along with bisexual flowers.
- (v) Preventing self-pollen from fertilising the ovules by inhibiting pollen germination.
- (a) (i), (ii) and (v) (b) (ii), (ii) and (v) (c) (i), (ii) and (v) (d) (ii), (iv) and (v)
- 55) To overcome incompatible pollinations so as to get desired hybrids, a plant breeder must have the knowledge of ______.
- (a) pollen-nucellar interaction (b) pollen-egg cell interaction (c) pollen-pistil interaction
- (d) pollen-embryo sac interaction
- 56) Choose the correct labellings for the parts X, Y and Z in the given figure of the stages in embryo development in a dicot.
- (a) X is suspensor, Y is radicle and Z is cotyledon (b) X is radicle, Yis cotyledon and Z is suspensor
- (c) X is cotyledon, Y is suspensor and Z is radicle (d) X is zygote, Y is radicle and Z is cotyledon
- 57) In human beings, the eggs are:
- (a) Skin lecithal (b) Macrolecithal (c) Mesolecithal (d) Alecithal
- 58) Some important events in the human female reproductive cycle are given below. Arrange the events in a proper sequence. A-secretion of FSH, B-growth of corpus luteum, C-growth of the follicle and oogenesis, D-ovulation, E-sudden increase in the levels of LH
- (a) A D C E B (b) B A C D E (c) C A D B E (d) A C E D B

- 59) Identify the correctly matched pair/pairs of the germ layers and their derivatives.
 - A.ectoderm-epidermis
- B. endoderm-dermis
- C. mesoderm-muscles
- D. mesoderm-notochord
- E. endoderm-enamel of teeth
- (a) A and D only (b) A and B only (c) A, C and D only (d) A, B, C and E only
- 60) 1st polar body is formed at which state of oogenesis?
- (a) 1st meiosis (b) 2nd mitosis (c) 1st mitosis (d) differentiation
- 61) Foetal ejection reflex in human female is induced by
- (a) differentiation of mammary glands (b) the pressure exerted by amniotic fluid
- (c) the release of oxytocin from pituitary (d) fully developed foetus and placenta
- 62) Which one of the following is the correct matching of the events occurring during menstrual cycle?
- (a) Menstruation: breakdown of myometrium and ovum not fertilized
- (b) Ovulation:LH and FSH attain peak level and sharp fall the in secretion of progesterone.
- (c) Proliferative phase: Rapid regeneration of myometrium and maturation of Graafian follicle
- (d) Development of corpus luteum: Secretary phase and increased secretion of progesterone
- 63) Which one of the following is the most likely root cause why menstruation is not taking place in the regularly cycling human female?
- (a) retention of well-developed corpus luteum (b) fertilization of the ovum
- (c) maintenance of the hypertrophical endometrial lining
- (d) maintenance of high conc. of sex hormones in the blood stream
- 64) The correct sequence of spermatogenic stages leading to the formation of sperms in a mature human testis is
- (a) spermatogonia-spermatid-spermatocyte-sperms
- (b) spermatocyte-spermatogonia-spermatid-sperms
- (c) spermatogonia-spermatocyte-spermatid-sperms
- (d) spermatid-spermatocyte-spermatogonia-sperms
- 65) A change in the amount of yolk and its distribution in the egg will affect
- (a) Fertilization (b) Formation of zygote (c) Pattern of cleavage (d) Number of blastomeres produced
- 66) Which among the following has 23 chromosomes?
- (a) Spermatogonia (b) Zygote (c) Secondary oocyte (d) Oogonia
- 67) Match the following and choose the correct options:

		Embedding of
A	Trophoblast	blastocyst
		in the endometrium
		Group of cells that
Ъ	Cleavage	would
В		differentiate as
		embryo
		Outer layer of
C	Inner cell	blastocyst
	mass	attached to the
		endometrium
	T14 - 4:	Mitotic division of
ט	Implantation	zygote

- (a) A-(II), B-(I), C-(III), D-(IV) (b) A-(III), B-(IV), C-(II), D-(I) (c) A-(III), B-(I), C-(II), D-(I)
- (d) A-(II), B-(IV), C-(III), D-(I)
- 68) Which of the following hormones is not secreted by human placenta?
- (a) hCG (b) Estrogens (c) Progesterone (d) LH

- 69) The vas deferens receives duct from the seminal vesicle and opens into ureter as:

 (a) Epididymis (b) Ejaculatory duct (c) Efferent ductule (d) Ureter

 70) Urethral meatus refers to the

 (a) Urinogenital duct (b) the opening of vas deferens into urethra

 (c) External opening of the urinogenital duct (d) Muscles surrounding the urinogenital duct

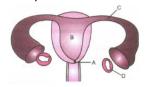
 71) The number of chromosomes in a mature gamete gets halved during

 (a) Formation of first polar body (b) Formation of second polar body (c) Meiosis II
 - (d) Division of secondary oocyte and spermatocyte
 - 72) Morula is a developmental stage
 - (a) Between the zygote and blastocyst (b) Between the blastocyst and gastrula
 - (c) After the implantation (d) Between implantation and parturition
 - 73) Frog's testes do not possess
 - (a) Interstitial cells (b) Seminiferous tubules (c) Sertoli cells (d) Seminal vesicles
 - 74) The membranous cover of the ovum at ovulation is
 - (a) Corona radiata (b) Zona radiata (c) Zona pellucida (d) Chorion
 - 75) Identify the odd one from the following:
 - (a) Labia minora (b) Fimbriae (c) Infundibulum (d) Isthmus
 - 76) During embryonic development, the establishment of polarity along anterior/posterior, dorsal/ventral or medial/lateral axis is called
 - (a) Organizer phenomena (b) Axis formation (c) Anamorphosis (d) Pattern formation
 - 77) Vasa efferentia are the ductules leading from
 - (a) epididymis to urethra (b) testicular lobules to rete testis (c) rete testis to vas deferens
 - (d) vas deferens to epididymis
 - 78) The main function of Trophectoderm in mammalian embryo is
 - (a) Protection of the developing cells (b) Drawing food for the developing cells
 - (c) Formation of future ectoderm (d) Formation of placenta
 - (e) Formation of the body of developing embryo
 - 79) The first movements of the foetus and appearance of hair on its head are usually observed during which month of pregnancy?
 - (a) Third month (b) Fourth month (c) Fifth month (d) Sixth month
 - 80) Amniocentesis is a technique used to
 - (a) Determine errors in amino acid metabolism in embryo
 - (b) Pinpoint specific cardiac ailments in embryo
 - (c) Determine any hereditary/genetic abnormality in embryo (d) All of these
 - 81) The part of fallopian tube closed to the ovary is
 - (a) ampulla (b) isthmus (c) infundibulum (d) cervix
 - 82) Seminar plasma in human males is rich in
 - (a) ribose and potassium (b) fructose and calcium (c) glucose and calcium
 - (d) DNA and testosterone
 - 83) Which one of the following statements with regards to embryonic development in humans is correct?
 - (a) Cleavage divisions bring about considerable increase in the mass of protoplasm
 - (b) In the second cleavage division, one of the two blastomeres usually divides a little sooner than the second
 - (c) With more cleavage divisions, the resultant blastomeres become larger and larger
 - (d) Cleavage division results in a hollow ball of cells called morula.

84) Layers of an ovum from outside to inside are
(a) corona radiata, zona pellicida and vitelline membrane
(b) Zona pellucida, corona radiata and vitelline membrane
(c) vitelline membrane, zona pellucida and crona radiata
(d) zona pellucida, vitelline membrane and corona radiata
85) The rule embryonic development was given by
(a) Von Baer (b) Haeckel (c) Wallace (d) Morgan
86) Which layer develops first during embryonic development?
(a) ectoderm (b) mesoderm (c) endoderm (d) both (b) and (c)
87) Sertoli cells are regulated by the pituitary hormone known as
(a) LH (b) FSH (c) GH (d) prolactin
88) In oogamy, fertilization involves
(a) A large non-motile female gamete and a small non-motile male gamete
(b) A large motile female gamete and a small non-motile male gamete
(c) A small non-motile female gamete and a large motile male gamete
(d) A large non-motile female gamete and a small motile male gamete
89) Which of the following statements about morula in humans is correct?
(a) It has more cytoplasm and more DNA than an uncleaved zygote
(b) It has almost equal quantity of cytoplasm as an uncleaved zygote but much more DNA
(c) It has far less cytoplasm as well as less DNA than in an uncleaved zygote.
(d) It has more or less equal quantity of cytoplasm and DNA as in uncleaved zygote.
90) Withdrawal of which of the following hormones is the immediate cause of menstruation?
(a) progesterone (b) estrogen (c) FSH (d) FSH-RH
91) If mammalian ovum fails to get fertilized, which one of the following is unlikely?
(a) Corpus luteum will degenerate (b) Progesterone secretion rapidly declines
(c) estrogen secretion further decrease (d) Primary follicle starts developing
92) Which of the following are secretions produced by the spermatozoa at the time of fertilization?
(a) Fertilizin and antifertilizin (b) antifertilizin and sperm lysin (c) fertilizin and sperm lysin
(d) only sperm lysin
93) Which extraembryonic membrane in humans prevents desiccation of the embryo inside the uterus?
(a) yolk sac (b) amnion (c) chorion (d) allantois
94) Which of the following is 'immortal'?
(a) Somatic cells (b) Glomerular cells (c) Germ cells (d) Cells of pituitary
95) Sertoli cells are found in
(a) pancreas and secrete cholecystokinin (b) ovaries and secret progesterone
(c) adrenal cortex and secret adrenaline (d) seminiferous tubules and provide nutrition to germ cells
96) Which of the following represents a condition where the motility of the of the sperms is highly reduced?
(a) oligospermia (b) athenospermia (c) azoospermia (d) polyspermy
97) Gastrula has a pore which is known as
(a) zoospore (b) oospore (c) blastopore (d) gonophore
98) In humans, at the end of the first meiotic division, the male germ cells differentiate into the
(a) spermatids (b) spermatogonia (c) primary spermatocytes (d) secondary spermatocytes
99) Hormone responsible for the secretion of milk after parturition is
(a) ICSH (b) Prolactin (c) ACTH (d) LH

- 100) Spermatids are transformed into spermatozoa by
 (a) spermiation (b) spermatogenesis (c) spermiogenesis (d) spermatosis
 101) Which one of the following events is correctly matched with the time period in a normal menstrual cycle?
 (a) Release of egg: 5-10 days (b) Endometrium regenerates: 5-10 days
 (c) Endometrium secretes nutrients for implantation: 11-18 days
 (d) Pipe in prograturous level; 1-15 days
- (d) Rise in progesterone level: 1-15 days
- 102) The embryo at 16 celled stage is known as
- (a) morula (b) gastrula (c) blastula (d) blastomere
- 103) What is present in the middle piece of sperm?
- (a) acrosome (b) mitochondria (c) nucleus (d) proximal centriole
- 104) In humans, the oocyte is maintained in a state of meiotic arrest by secretion of
- (a) granulosa cells (b) zona pellucida (c) cumulus oophorus (d) theca
- 105) In the human female, menstruation can be deferred by the administration of
- (a) Combination of FSH and LH (b) Combination of estrogen and progesterone (c) FSH only
- (d) LH only
- 106) Grey crescent is the area
- (a) At the point of entry of sperm into ovum (b) Just opposite to the site of entry of sperm into ovum
- (c) At the animal pole (d) At the vegetal pole
- 107) The 32 cells stage of the human embryo is
- (a) smaller than fertilized egg (b) same size as the fertilized egg
- (c) two times of the size of the fertilized egg (d) four times of the size of the fertilized egg
- 108) Which accessory genital gland occurs only in mammalian male?
- (a) prostate gland (b) perineal gland (c) cowper's gland (d) Bartholin gland
- 109) Positive feedback loop signals from fully developed fetus and placenta ultimately lead to parturition which requires the release of
- (a) estrogen from the placenta (b) relaxing from placenta (c) oxytocin from fetal pituitary
- (d) oxytocin from maternal pituitary
- 110) The extra structure that provides nutrition to the embryo is
- (a) Umbilicus (b) Amnion (c) Chorion (d) Placenta
- 111) In the reproductive systems, sperms are concentrated in the
- (a) rete testis (b) epididymis (c) vas deferens (d) seminal vesicle
- 112) The secretions of one of the following are rich in fructose, calcium and some enzymes.
- (a) Uterus (b) Liver (c) Male accessory glands (d) Salivary glands
- 113) In females, the hormone inhibin is secreted by
- (a) granulosa and theca cells (b) granulosa cells and corpus luteum
- (c) granulosa and cumulus oophorous cells (d) granulosa cells and zona pellucida
- 114) In human female the blastocyst
- (a) forms placenta even before implantation (b) gets implanted into uterus 3 days after ovulation
- (c) gets nutrition from uterine endometrial secretion only after implantation
- (d) gets implanted in endometrium by the trophoblast cells

115) Which of the following are correctly labelled?

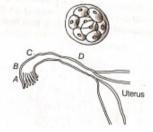


- (a) A-oviduct, B-uterus, C-outduct, D-ovary (b) A-cervix, B-uterus, C-ovary, D-tumor
- (c) A-uterus, B-uterine cavity, C-oviducal funnel, D-ovary
- (d) A-cervix, B-uterine cavity, C-fallopian tube, D-ovary
- 116) The chemical substances released by activated spermatozoa that act on the ground substances of the follicle cells are known as
- (a) progesterone (b) hyaluronidase (c) relaxin (d) gonadotropin (e) teratogen
- 117) If for some reason, the vasa efferentia in the human reproductive system get blocked, the gametes will not be transported from
- (a) tests to the epididymis (b) epididymis to the vas deferens (c) Ovary to uterus
- (d) vagina to uterus
- 118) About which day in a normal human menstrual cycle does rapid secretion of LH (popularly called LH surge) normally occurs?
- (a) 14th day (b) 20th day (c) 5th day (d) 11th day
- 119) The Leydig cells found in the human body are the secretory source of
- (a) Progesterone (b) intestinal mucus (c) glucagon (d) androgens
- 120) The tests in humans are situated outside the abdominal cavity inside a pouch called scrotum. The purpose served is for
- (a) Maintaining the scrotal temperature lower than the internal body temperature
- (b) escaping any possible compression by the visceral organs
- (c) providing more space for the growth of epididymis
- (d) providing a secondary sexual feature for exhibiting the male sex
- 121) Vitellogenesis occurs during the formation of
- (a) ootid in the fallopian tube (b) secondary oocyte in the fallopian tube
- (c) primary oocyte in the Graafian follicle (d) oogonial cell in the Graafian follicle
- 122) What happens during fertilization in humans after many sperms reach close to the ovum?
- (a) secretions of acrosome help one sperm enter the cytoplasm of ovum through zona pellucida
- (b) cells of corona radiate trap all the sperms except one
- (c) only two sperms nearest the ovum penetrate the zona pellucida
- 123) Signals for parturition originate from:
- (a) Both placenta as well as fully developed fetus (b) Oxytocin released from maternal pituitary
- (c) Placenta Only (d) Fully developed fetus only
- 124) Ina normal pregnant woman, the amount of total gonadotropin activity was assessed. the result expected was
- (a) High level of circulating FSH and LH in the uterus to stimulate implantation of the embryo
- (b) High level of circulating HCG to stimulate endometrial thickening
- (c) High level of FSH and LH in uterus to stimulate endometrial thickening
- (d) high level of circulating Hcg to stimulate estrogen and progesterone synthesis
- 125) The secretary phase in the human menstrual cycle is also called
- (a) Luteal phase and lasts for about 6 days (b) follicular phase and lasts for about 6 days
- (c) Luteal phase and lasts for about 13 days (d) Follicular phase and lasts for about 13 days

- 126) Which one of the following statements is false in respect of viability of mammalian sperm?
- (a) Sperm is visible for only up to 24 hours
- (b) Survival of sperm depends on the pH of the medium and is more active in alkaline medium
- (c) Viability of sperm is determined by its motility
- (d) Sperms must be concentrated in a thick suspension.
- 127) Vas deferens receives the duct of seminal vesicle and forms the
- (a) epididymis (b) urethra (c) ejaculatory duct (d) urethral meatus
- 128) Proliferative phase of menstrual cycle, is also called
- (a) follicular phase (b) luteal phase (c) secretory phase (d) ovulatory phase
- 129) The cell division in secondary oocyte is suspended at
- (a) Anaphase II (b) Metaphase II (c) Prophase II (d) Telophase II
- 130) The outermost layer of a blastocyst is called
- (a) ectoderm (b) mesoderm (c) endoderm (d) trophoblast
- 131) Spermiation is the process of the release of sperms from
- (a) seminiferous tubules (b) vas deferens (c) epididymis (d) prostate gland
- 132) Match Column I with Column II.

Column I	Column II
A. Acrosome	1. Motility of sperm towards the egg.
B. Head	2. Powerhouse of the sperm; contains a number of mitochondria.
C. Tail	3. Contains the genetic material.
D. Middle piece	4. Contains enzymes to dissolve egg envelopes.

133) Given below is the stage of growing embryo and different regions of the Fallopian tube marked as A, B, C and D.



Where do you think the given stage of embryo will be seen in the Fallopian tube?

- (a) A (b) C (c) B (d) D
- 134) During human embryonic development, the heart in the embryo is formed after
- (a) 15 days of pregnancy (b) 30 days of pregnancy (c) 45 days of pregnancy
- (d) 60 days of pregnancy
- 135) Chorionic villi and uterine tissue become interdigitated with each other and jointly form
- (a) trophoblast (b) inner cell mass (c) placenta (d) implantation
- 136) Signals from fully developed foetus and placenta ultimately lead to parturition, which is facilitated by the release of
- (a) oestrogen from placenta (b) oxytocin from maternal pituitary (c) oxytocin from foetal pituitary
- (d) maternal progesterone
- 137) Which of the following birth control measures can be considered as the safest?
- (a) the rhythm method (b) the use of physical barriers (c) termination of unwanted pregnancy
- (d) sterilization techniques

138) Given below are four methods (A-D) and their modes of action (i) - (iv) in achieving contraception. Select their correct matching from the four options that follow

Method	Mode of Action
(A) The pill	(i) Prevents sperms reaching cervix
(B) Condom	(ii) Prevents implication
(C) Vasectomy	(iii)Prevents ovulation
(D) Copper T	(iv)Semen contains no sperms

(a)		(b)			(c)				(d)			
A B	CD	A B	С	D	A	В	С	D	P	1	В	С	D
(iii) (iv)	(i) (ii)	(ii) (ii	i)(i)	(iv)	(iii)	(i)	(iv)	(ii)	(iv)	(i)	(ii)	(iii)

- 139) Amniocentesis is a process to
- (a) determine any disease of heart (b) determine any hereditary disease of the embryo
- (c) know about the disease of brain (d) grow cell on culture medium
- 140) Which of the following is the component of oral pills?
- (a) Progesterone (b) Oxytocin (c) Relaxin (d) None of these
- 141) Choose the correct answer regarding the ZIFT procedure?
- (a) Ova collected from a female donor are transferred to the fallopian tube to facilitate zygote formation.
- (b) Zygote is collected from a female donor and transferred to the fallopian tube.
- (c) Zygote is collected from a female donor and transferred to the uterus
- (d) Ova collected from a female donor and transferred to the uterus
- 142) The correct surgical procedure as a contraceptive method is:
- (a) Ovariectomy (b) Hysterectomy (c) Vasectomy (d) Castration
- 143) Diaphragms are contraceptive devices used by the females. Choose the correct option from the statements given below:
- (i) They are introduced into the uterus
- (ii) They are placed to cover the cervical region
- (iii) They act as physical barriers for sperm entry
- (iv) They act as spermicidal agents
- (a) (i) and (ii) (b) (i) and (iii) (c) (ii) and (iii) (d) (iii) and (iv)
- 144) In-vitro fertilization is a technique that involves transfer of which one of the following into the fallopian tube??
- (a) Zygote only (b) Embryo only, upto 8 cell stage (c) Either zygote or early embryo foetus
- (d) embryo of 32 cell stage
- 145) The permissible use of the technique amniocentesis is for
- (a) detecting any genetic abnormally (b) detecting sex of the unborn foetus (c) artificial insemination
- (d) transfer of embryo into the uterus of a surrogate mother
- 146) Medical Termination of Pregnancy (MTP) is considered safe up to how many weeks of pregnancy?
- (a) 8 weeks (b) 12 weeks (c) 18 weeks (d) 6 weeks
- 147) The technique called Gamete Intra Fallopian Transfer (GIFT) is recommended for those females
- (a) who cannot produce an ovum (b) who cannot retain the foetus inside uterus
- (c) whose cervical canal is too narrow to allow passage for the sperms
- (d) who cannot provide suitable environment for fertilization
- 148) What is the figure given below showing in particular?



(a) Ovarian cancer (b) Uterine cancer (c) Tubectomy (d) Vasectomy

- 149) The test-tube baby programme employs which one of the following techniques
- (a) Intra cytoplasmic sperm injection (ICSI) (b) Intra uterine insemination (IUI)
- (c) Gamete intra fallopian transfer (GIET) (d) Zygote intra fallopian transfer (ZIFT)
- 150) It is a disease which mainly affects mucous membrane of urinogenital tract. In males, burning feeling on passing urine, after a yellow discharge occurs, that is accompanied by fever, headache and feeling of illness. Its name is
- (a) syphilis (b) gonorrhoea (c) AIDS (d) none of these.

