

1. What is present in the 2nd week of development of extraembryonic cavity?
Exocoelomic cysts.
2. In IVF, what is used to stimulate ovaries?
Gonadotropins are used to stimulate ovaries.
3. On which day does the posterior neuropore close? Day 23.
4. Which are following are derived from the endoderm? None of the following.
5. Which embryonic layer is in contact with parietal hypoblast?
Cytotrophoblast.
6. Which layer is generated by the epiblast?
Epiblast.
7. Why layer are the primary villi originated from? Cytotrophoblast.
8. What structure is under the neural tube?
Notochord.
9. How long does semen capacitation take? 10 hours.
10. What is the placenta?
Haemochoral.
11. What is the percentage of sperm in a sample?
140%.
12. On which day does the process of Allantosis begin? Days 15-16.
13. When does second meiosis of oogenesis occur?
Fertilisation.
14. At the eighth day of development the hypoblast consists of? Small cuboidal cells.
15. The amniotic cavity is formed by cells of the? Epiblast.
16. Approximately how long after fertilization occurs the first cleavage of the zygote? 30 hours.
17. The primitive endothelial cells are formed by?
Cells lining the yolk sac.
18. In the beginning of the 3rd week the paraxial mesoderm differentiates into segments known as
? Somites.
19. Which embryonic layer is in a direct contact with the parietal hypoblast until the formation of the extraembryonic mesoderm?
Cytotrophoblast.
20. Monozygous twins may have: Common amnion, placenta and chorion.
21. The intraembryonic lateral plate mesoderm generates which of the following? Limb buds.
22. Which of the statements regarding the types of spermatogonia is NOT true? Stem cells generating Sertoli cells.
23. The number of oogonia at birth is approximately? 700 000- 2 000 000.
24. The primitive endothelial cells are formed by?
Cell linings of the yolk sac.
25. The amniotic and yolk sac cavities are temporarily connected by? The neurenteric canal.
26. The intraembryonic intermediate mesoderm forms? Gonads.

27. From which germ layer originates the adenohypophysis (anterior pituitary)?

Surface ectoderm.

28. Which pharyngeal arch contributes to most of middle ear ossicles?
Second.

29. Which cells are generated by the secondary spermatocytes? Early spermatids.

30. Which effect have prostaglandins of the semen? A+C.

31. How does the female reproductive tract assist sperm migration? B. + C.

32. Which of the following statements is true? Chorionic villi are part of the foetal placenta part.

33. The merging of which structures contributes to the development of the face?

Maxillary & Mandibular processes and Frontonasal prominence.

34. From which component of the blastocyst can be isolated stem cells capable of organ regeneration in humans? Embryoblast.

35. Which of the zona pellucida proteins acts as a receptor for spermatozoa binding? ZP3.

36. What is the name of the outer layer of the blastocyst? Trophoblast.

37. The process of compaction of the pre-embryo leads to a formation of outer and inner cell mass, which differ in their intercellular junctions as follows:

Outer cell mass --> Tight junctions --> Inner cell mass -->

Gap junctions.

38. From the 3rd month, the hemopoiesis is? Extravasal.

39. The number of somites at the end of the 5th week of development is?

42-44.

40. Which of the following structures originates from the endoderm?

Epithelium of vagina and prostate.

41. Which of the following stages is not a process of fertilisation?

Gastrulation.

42. Which of the following phases of the menstrual cycle is under progesterone control?

Secretory phase.

43. Primary villi result from the proliferation of? Cytotrophoblast.

44. In which cavity are localized the exocoelomic cysts during the second week of development? Extraembryonic cavity.

45. How long after ejaculation is the maximum fertile time for most sperm?

48 hours.

46. Which of the following originate(s) from the paraxial mesoderm?

Dermis.

47. The amniotic cavity is formed by cells of the? Epiblast.

48. Gastrulation begins with formation of? Primitive streak.

49. The following structures are NOT derived from the endoderm?

All

answers are true.

50. How long does normally capacitation of the semen take? About 10 hours.

51. The primitive endothelial cells are formed by? Cell linings of the yolk sac.
52. Trophoblastic overgrowth with lack of embryoblast development may lead to?
Molar pregnancy (Hydatiform mole).
53. Select the correct sequence of formation of the chorionic villi during the III week of development:
54. Which pharyngeal arch contributes to the formation of the mandible? First.
55. What is the rate of occurrence of abnormal blastocysts? 20-30%.
56. At the cranial end of the embryonic disc is formed?
Primitive knot.
57. At the presence of how many cells, generated by the zygote, the process of cleavage (segmentation) is assumed to begin?
16.
58. The following originate from the endoderm.
Urinary bladder,
urethra, alimentary canal, liver, pancreas, trachea, bronchi, alveoli, thyroid, thymus, tympanic cavity.
59. The conjoined monozygotic twins connected in thoracic region are called? Thoracopagus.
60. Each somite differentiates into all of the following: Dermatomes, Myotomes, Syndetomes, Sclerotomes.
61. The bilaminar disc consists of?
Epiblast & Hypoblast.
62. Turner syndrome is? Monosomy X (absence of an entire sex chromosome, the Barr body) resulting in 45 chromosomes.
63. From which germ layers originate the nephrogenic cords?
Intermediate mesoderm.
64. How is designated the outermost layer of the embryonic mesoderm?
Ectoderm.
65.
The umbilical arteries: umbilical arteries surround the urinary bladder and then carry all the deoxygenated blood out of the fetus through the umbilical cord
66. Which of the following tissues is derived from the ectoderm?
Epidermis skin cells, Neurons of brain, Pigment cells.
67. How is designated the outermost layer of the pre-embryo?
Trophoblast.
68. What are the two layers of the endometrium?
Stratum functionalis &
Stratum basalis.
69. What kind of change in the size of the yolk sac (relative to the size of the embryo) occurs during development?
70. How long lasts the capability of the secondary oocyte to be fertilised?
12-24 hours.
71. How many cavities characterize the pre-embryo at the end of II week of development? 2 (chorionic & amniotic cavity).
72. The first blood cells originate from?
Yolk sac.
73. What is the normal sperm count of the sperm in 1/mL?
15-40 million.

74. Which of the cells produce testosterone in the testis?

Interstitial cells

75. Which of the blastocyst poles is directed to the endometrium at implantation? Embryonic pole.

76. The ectoderm is created by?

Epiblast.

77. During which stage of prophase of first meiotic division in gametes does crossing-over take place?

Pachytene.

78. Which is the optimal window of opportunity for people wishing to conceive a child? 3 days before ovulation and less than a day after.

79. Which structure is formed at the dorsal border (tip) of the neural tube?

Spinal Cord.

80. The cells generated by the spermatogonia are:

Primary

spermatocytes.

81. The maternal and fetal components of the placenta are?

82. The cephalic end of the primitive streak is?

Primitive node.

83. From which layer originates the chorion?

Extraembryonic mesoderm.

84. Amniocentesis is used to investigate and detect?

Prenatal

diagnosis of chromosomal abnormalities and fetal infections and genetic abnormalities.

85. What is the name of the cells forming the morula? Blastomeres.

86. When does implantation after fertilisation start?

6-7 days.

87. How many chromosomes has the fertilised egg?

46.

88. Which are the risks for pregnant women in case of a tubal pregnancy?

Rupture, Bleeding, Internal Haemorrhage.

89. During the second week of development, the embryoblast differentiates into?

Bilaminar Germ disc composed of Epiblast &

Hypoblast.

90. What compartment of the blastocyst contributes to the formation of the placenta?

Trophoblast.

91. How long does it normally take the sperm to migrate in the female reproductive tract and to achieve the egg? 18-24 hours.

92. During which week of development the primordial germ cells migrate to the dorsal body wall (approx. at the level of T10 vertebra)?

93. Which process is ejaculation? It is the ejection of semen (usually carrying sperm) from the male reproductive tract, and is usually accompanied by orgasm.

94. Which of the following lists are steps in in-vitro fertilisation procedure? Ovarian hyperstimulation --> Natural & mild IVF --> Final maturation induction --> Egg retrieval --> Egg & Sperm preparation --> Co-incubation --> Embryo culture --> Embryo selection --> Embryo transfer --> Adjunctive medication.

95. Which of the following structures refers to as embryonic membranes? Any from, Amnion, Chorion, Yolk Sac, Allantois.
96. What is the average composition of the seminal fluid? 2-5% sperm, 65-75% amino acids & citrate, 25-30% acid phosphatase & citric acid, 1% galactose & mucus.
97. Which figure presents a primary villus?
98. What is the average age of menopause in humans? 40 years.
99. The somatopleure and splanchnopleure originate from? Lateral mesoderm.
100. Which of the following is not known to be a human teratogen?
101. From which germ layer originates the heart and the spleen? Mesoderm.
102. What is the name of the inner layer of the blastocyst? Hypoblast.
103. What is the mechanism of the clonal expansion of the progenitors of the gametes? Mitosis.
104. Which of the listed form the corona radiata? Cuboidal Granulosa Cells.
105. What is the main factor of sperm migration in the female reproductive track? Sperm Chemotaxis eg.- Progesterone.
106. In which phase of the menstrual cycle does the endometrium achieve its maximum thickness? Luteal phase.
107. The myotomes consist of? Epithelial somites.
108. After its penetration in the oocyte, the spermatozoa head is transformed into? Pronucleus of Zygote.
109. The initial haemopoiesis is? Intravasal.
110. The umbilical vein: Carries oxygenated blood from placenta to foetus.
111. Which of the enumerated characteristics of a given semen analysis are normal? 20 and 40 million sperm per millilitre.
112. Which of the following tissues originates from the endoderm? Can be lung, thyroid or pancreatic cells.
113. Cumulus oophorus is characteristic for which follicle? Antral (Graafin) follicles.
114. The embryonic disc gradually becomes elongated with? Primitive streak.
115. The process of cleavage represents a series of? Mitotic cell divisions.
116. Gastrulation establishes: The trilaminar disc.
117. Which component of the pre-embryo aborts its development in a molar pregnancy? Hydatiform mole.
118. True statements of sperm capacitation: Takes between 5-6 hours. Takes place and is complete in female genital track. Increases flagellum motility. Sperm is able to undergo acrosome reaction.
119. The hypoblast belongs to? Trophoblast.
120. The formation of the fingers in the limb buds takes place via: Apical ectodermal ridge.
121. What is the correct sequence of the extended first meiotic division? Leptotene --> Zygotene --> Pachytene --> Diplotene --> Diakinesis --> Synchronous processes.
122. At which developmental stage begins the segmentation of the paraxialmesoderm? (beginning of) 3rd Week.

123. From which germ layer structure originate the neurons of the peripheral nervous system? Neural crest of ectoderm.
124. Which pharyngeal arches mostly contribute to the formation of the thymus? 3.
125. The formation of the primitive streak occurs on the surface of: Hypoblast.
126. The connecting stalk originates from: Extraembryonic mesoderm.
127. The conjoined monozygotic twins connected in head are called: Craniophagus.
128. Which of the following phases of the menstrual cycle is under estrogen control? Follicular phase.
129. Ejaculation is identical to which process? Ovulation.
130. The intervillous space of the placenta contains: Blood (from maternal arteries & veins).
131. Which compartment of the blastocyst contributes to the formation of the fetus? Embryoblast (inner cell mass).
132. The exocoelomic (Heuser) membrane lines the inner surface of? Cytotrophoblast.
133. The secretion of FSH by pituitary gland is suppressed by a factor secreted by the Sertoli cells. Which is this factor? Inhibins.
134. Where must sperm normally encounter the egg in order to fertilize it? Ampulla of uterine/fallopian tube.
135. How many pairs of chromosomes contain the primordial germ cells? 23.
136. Placental villi are best developed in the region of? Syncytiotrophoblast.
137. The rate for dizygotic twins is? 70% of Twins.
138. Down syndrome is: Also known as trisomy 21, is a genetic disorder caused by the presence of all or part of a third copy of chromosome 21.
139. From which germ layer originate the serous membranes of the body (peritoneum, pleura, pericardium)? (Lateral plate) Mesoderm.
140. Which type of trophoblastic villi are formed in the II week of development. Primary villi.
141. Which are the following are functions of the yolk sac?
Producing early blood cells & vessels. Forming digestive tube.
142. Name the most medially located components of the intraembryonic mesoderm. Intermediate mesoderm.
143. The layer of the embryoblast adjacent to the amniotic cavity is: Epiblast.
144. Insemination is a process of passage of the spermatozoa through the female genital track as follows: Deposition of sperm into vagina --> Migration to uterus --> Uterine tube.
145. Which component of the pre-embryo continues to develop thus forming molar pregnancy? Trophoblast.
146. The definitive umbilical cord contains? 2 arteries & 1 vein.
147. Which is the normal sperm motility? 3mm/min.
148. The cardiogenic primordium is formed by: Epiblast, lateral to primitive streak.
149. Which is the sequence of appearance of the limb buds?
Flatten buds --> Radial grooves on distal portion of buds --> Digits.

150. Which requirements of the semen must be met for sperm motility? Increased flagellum motility. High number of mitochondria.