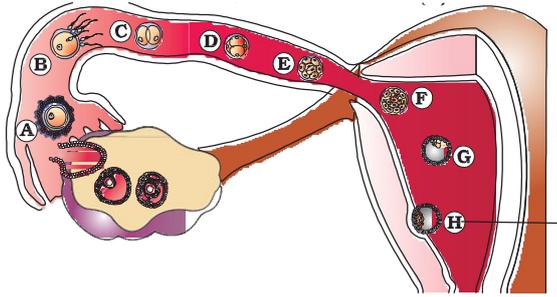


EMBRYONIC DEVELOPMENT: DAILY PRACTICE PAPER (DPP) BY TEACHINGCARE.COM

1. What does the letter 'H' represent in the given diagram below

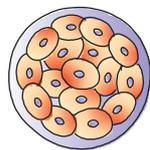
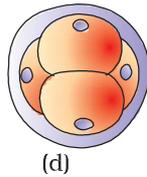
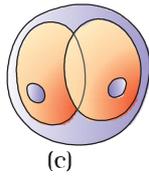
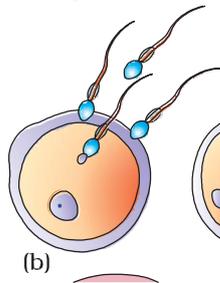
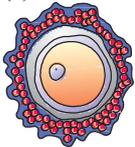


1. Morulla
2. Blastula
3. Zygote
4. Gastrulla

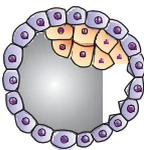
Ans2

2. Which of the following diagramme represents morulla stage

(a)



(e)



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(f)

1. a and e

2. d and f

3. e and f

4. e only

Ans 4

3. The fertilisation and pregnancy take place when

1. only the ovum released by the ovary is transported to the ampullary-isthmic junction.

2. the ovum and sperms are transported simultaneously to the ampullary-isthmic junction.

3. only the motile sperms swim rapidly, pass through the cervix, enter into the uterus and finally reach the junction of the isthmus and ampulla (ampullary-isthmic junction) of the fallopian tube.

4. when sperms and ovum meet in the uterus

Ans2

4. What does the letter 'e' represents in the given diagramme below



1. Corona radiate

2. Zona pellucida

3. Perivittelline space

4. Fertilization membrane

Ans 2

5. Which one(S) of the given statements regarding fertilization process is/are correct

1. Fertilization induces the completion of the second meiotic division of the secondary oocyte.

2. The second meiotic division is unequal and results in the formation of a **second polar body** and a

haploid ovum (ootid).

3. the haploid nucleus of the sperms and that of the ovum fuse together to form a diploid **zygote**.
- 4.all of the above

Ans 4

6. Choose the incorrect w.r.t. embryonic development

1. The embryo with 8 to 16 blastomeres is called a blastula .
2. The morula divides and transforms into blastocyst as it moves further into the uterus.
3. The blastomeres in the blastocyst are arranged into an outer layer called **trophoblast** and an inner group of cells attached to trophoblast called the **inner cell mass**.
4. Both 1 and 2

Ans 1

7. Choose the correct one w.r.t. embryonic development

1. The trophoblast layer gets attached to the endometrium
2. the inner cell mass gets differentiated as the embryo.
- 3.After attachment of the trophoblast layer to the endometrium, the uterine cells divide rapidly and cover the blastocyst. As a result, the blastocyst becomes embedded in the endometrium of the uterus called **implantation** and it leads to pregnancy.
4. all of the above

Ans 4

8. After implantation, finger-like projections appear on the trophoblast called **chorionic villi**. The

chorionic villi are surrounded by the

- 1 uterine tissue
2. maternal blood.
3. Both 1 and 2
4. Only 2

Ans 3

9. Choose the incorrect one w.r.t. placenta in embryonic development

1. The chorionic villi and uterine tissue become interdigitated with each other and jointly form placenta
2. placenta is a structural and functional unit between developing embryo (foetus) and maternal body.
- 3.The placenta facilitate the supply of oxygen and nutrients to the embryo and also removal of carbon dioxide and excretory/waste materials produced by the embryo.
- 4.None of the above

Ans 4

10. Choose the incorrect one w.r.t. placenta

1. The placenta is connected to the embryo through an umbilical cord which helps in the transport of substances to and from the embryo.
2. Placenta also acts as an exocrine tissue
3. placenta produces several hormones like **human chorionic gonadotropin (hCG)**, **human placental lactogen (hPL)**, **estrogens, progestogens**, etc.
4. Placenta is derived from trophoblast

Ans 2

11. Choose the incorrect one w.r.t. pregnancy

1. In the early phase of pregnancy, a hormone called **relaxin** is also secreted by the ovary.
2. hCG, hPL and relaxin are produced in women only during pregnancy.
3. In addition, during pregnancy the levels of other hormones like estrogens, progestogens, cortisol, prolactin, thyroxine, etc., are increased several folds in the maternal blood.
4. all the above

Ans 1

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12. Increased production of many hormones during pregnancy is essential for supporting the
- fetal growth,
 - metabolic changes in the mother
 - maintenance of pregnancy.
- a only
 - b only
 - c only
 - all the above
13. How many statements given below are incorrect
- Immediately after implantation, the inner cell mass (embryo) differentiates into an outer layer called **ectoderm** and an inner layer called **mesoderm**.
 - Immediately after implantation, the inner cell mass (embryo) differentiates into an outer layer called **ectoderm** and an inner layer called **endoderm**.
 - A **mesoderm** appears between the ectoderm and the endoderm.
 - A **endoderm** appears between the ectoderm and the mesoderm.

- one
- two
- three
- four

Ans 2

14. In human beings, choose the incorrect one w.r.t. pregnancy

- In human beings, after one month of pregnancy, the embryo's heart is formed.
- The first sign of growing foetus may be noticed by listening to the heart sound carefully through the stethoscope.
- By the end of the third month of pregnancy, the foetus develops limbs and digits.
- By the end of 12 weeks (first trimester), most of the major organ systems are formed, for example, the limbs and external genital organs are well-developed.

Ans 3

15. In human beings, choose the incorrect one w.r.t. pregnancy

- The first movements of the foetus and appearance of hair on the head are usually observed during the fifth month.
- By the end of 24 weeks (second trimester), the body is covered with fine hair, eye-lids separate, and eyelashes are formed.
- By the end of 24 weeks (second trimester), the eye-lids separate, and eye-lashes are formed.
- By the end of six months of pregnancy, the foetus is fully developed and is ready for delivery.

Ans 4

16. . In human beings, choose the incorrect one w.r.t. **parturition**

- Parturition is induced by an endocrine mechanism.
- The signals for parturition originate from the fully developed fetus and the placenta which induce mild uterine contractions called **foetal ejection reflex**.
- the foetal ejection reflex** triggers release of oxytocin from the maternal pituitary.
- Oxytocin acts on the uterine muscle and causes stronger uterine contractions, which in turn stimulates further secretion of oxytocin.

Ans 1

17. choose the incorrect one w.r.t. **delivery and lactaion** in human beings,

- The stimulatory reflex between the uterine contraction and oxytocin secretion continues resulting in stronger and stronger contractions. This leads to expulsion of the baby out of the uterus through the birth canal – parturition.

2. after the infant is delivered, the placenta is also expelled out of the uterus in 4-5 days.
3. The mammary glands of the female undergo differentiation during pregnancy and starts producing milk towards the end of pregnancy by the process called **lactation**.
4. The milk produced during the initial few days of lactation is called **colostrum** which contains several antibodies absolutely essential to develop resistance for the new-born babies.

Ans 2

18. Name the hormones during pregnancy whose levels are increased several folds in the maternal blood.
- a. estrogens, progestogens,
 - b. cortisol, prolactin,
 - c. thyroxine,
1. a only
 2. b only
 3. c only
 4. all of the above
- ans 4

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