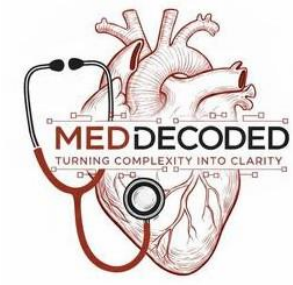


بِسْمِ اللَّهِ الرَّحْمَنِ الرَّحِيمِ

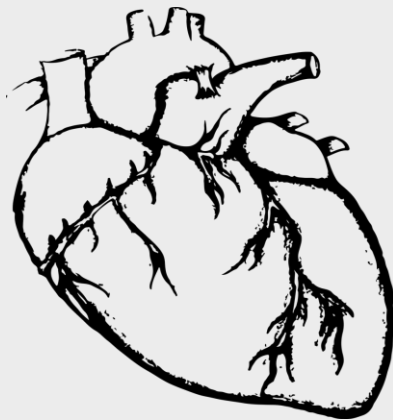


﴿وَلَقَدْ خَلَقْنَا الْإِنْسَانَ وَنَعْلَمُ مَا تُوَسْوِسُ بِهِ نَفْسُهُ وَنَحْنُ أَقْرَبُ إِلَيْهِ مِنْ حَبْلِ الْوَرِيدِ﴾



Embryology

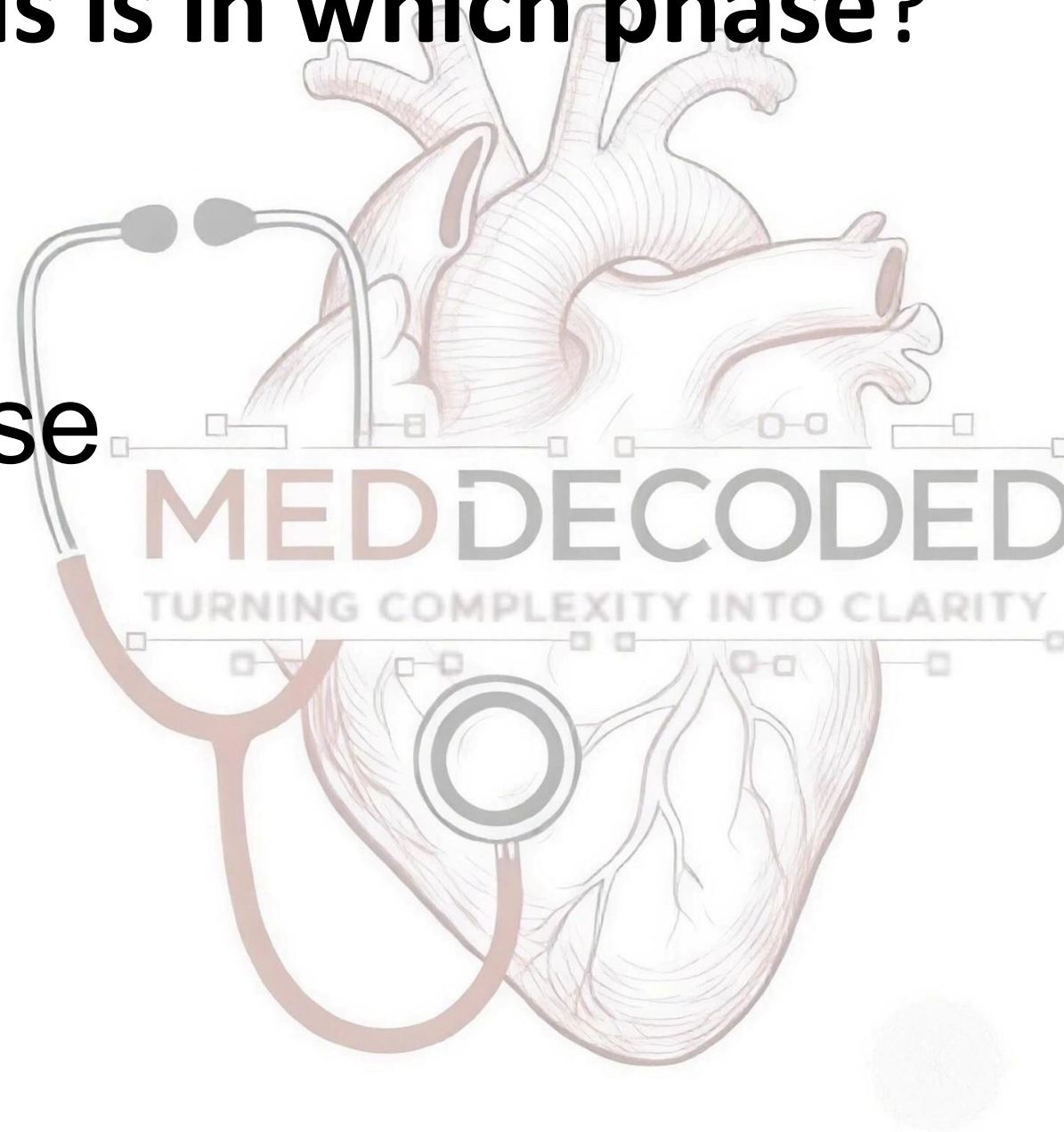
Past Papers - Final



Reviewed by : MedDecoded Scientific Team

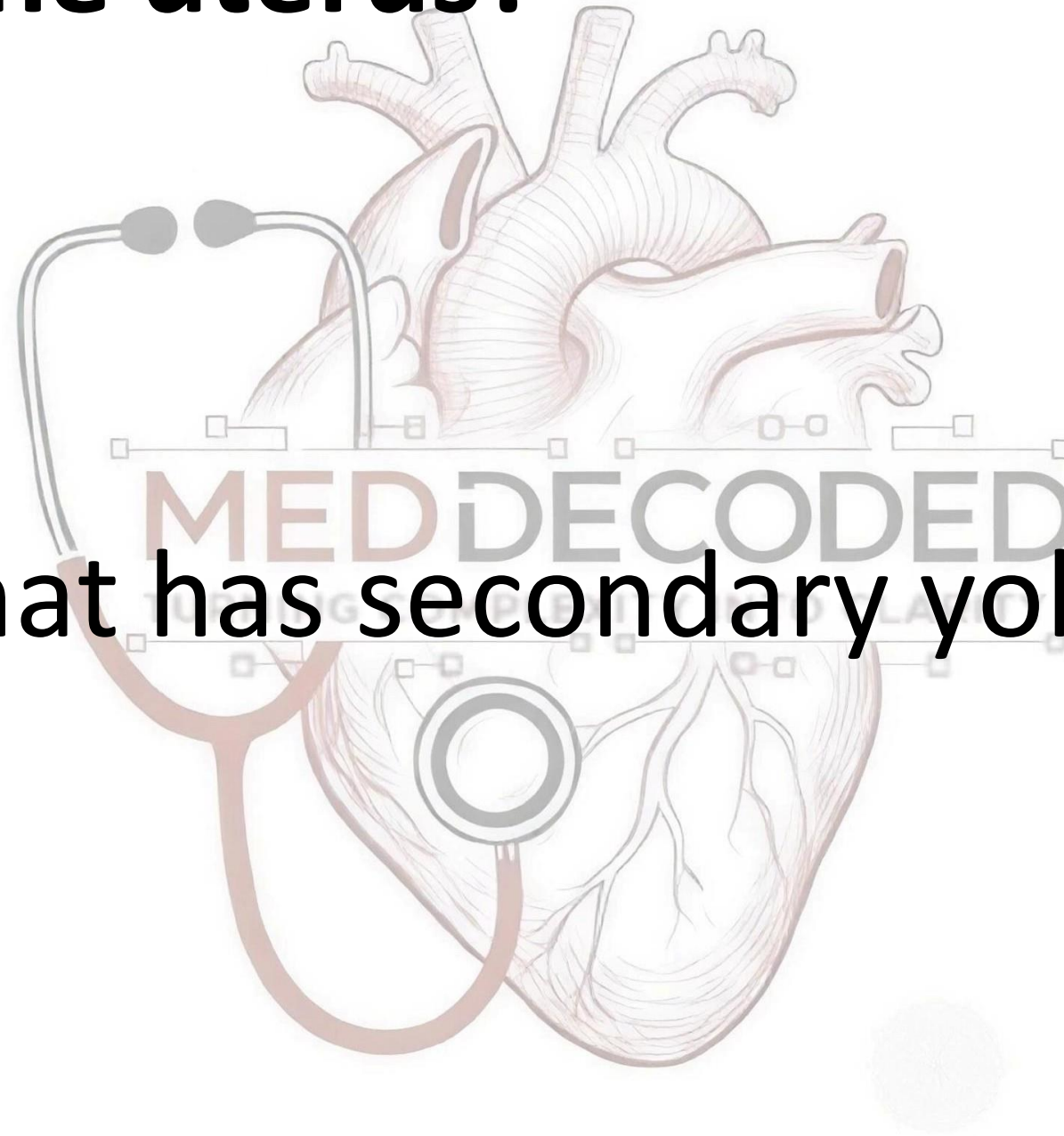
1-At the time that the morula reaches the uterus, the mucosa of the uterus is in which phase?

- a. Secretory phase
- b. Proliferative phase
- c. Menstrual phase
- d. A and B
- e. A and C



2- Which one of the following implants in the endometrium of the uterus?

- a. Two cell stage
- b. The structure that has secondary yolk sac
- c. The blastocyst
- d. Morula
- e. Zygote



3- In general, which one of the following is not produced by the ectodermal germ layer?

- A- The peripheral nervous system
- B- The central nervous
- C- Neural crest
- D- The sensory epithelium of the ear, nose and eye
- E- The reticular stroma of the thymus

4- Menstrual cycle, choose the wrong statement:

- A- Variations between 21 and 35 days are normal
- B- In the luteal /secretory phase, spiral arterioles develop in length and coil.
- C- Averages 28 days
- D- Proliferative phase is under the influence of estrogen
- E- Secretory phase is under the influence of FSH.

5- Third week of development, choose the wrong statement.

- A- The epiblast gives rise to ectoderm, mesoderm and endoderm
- B- The notochord appears above the ectoderm
- C- The primitive streak appears
- D- The hypoblast is displaced and the endoderm is created in its place
- E- The epiblast starts to proliferate forming the primitive node

6 At ovulation, which one of the followings breaks free from the ovaries?

- A- Theca externa
- B- Theca interna
- C- All granulosa cells
- D- Cumulus oophorus
- E- The whole graafian follicle

Ans : D

7- All of the following are results of fertilization except:

- A- Resumption of the second meiotic division
- B- Metabolic activation of the egg
- C- Determination of the sex
- D- The first polar body appears
- E- Diploid number of chromosomes

8- The myotome gives rise to all of the following except:

- A- intercostal muscles of the back
- B- the abdominal muscles of the back
- C- The two limbs
- D- the dermis of the skin

9- The second maturation meiosis 2 occurs at :

A) Uterus

B) Cervix

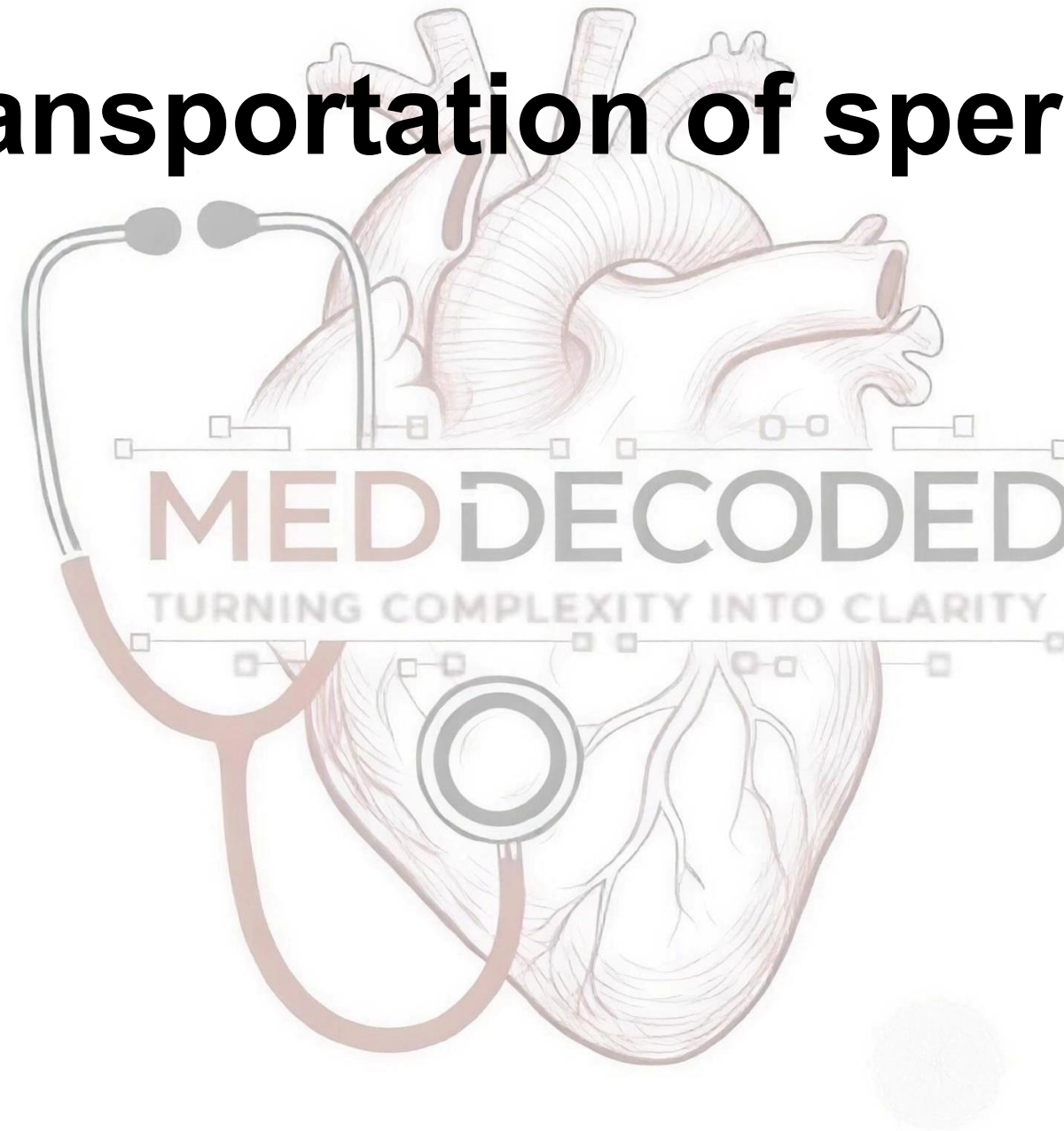
C) Ovary

D) Fimbriae

E) Fallopian tube

**10- The male sex organ that is responsible of
Maturation and transportation of sperm:**

- A) Epididymis
- B) Vas deferens
- C) Testis
- D) Ejaculatory duct
- E) Penis

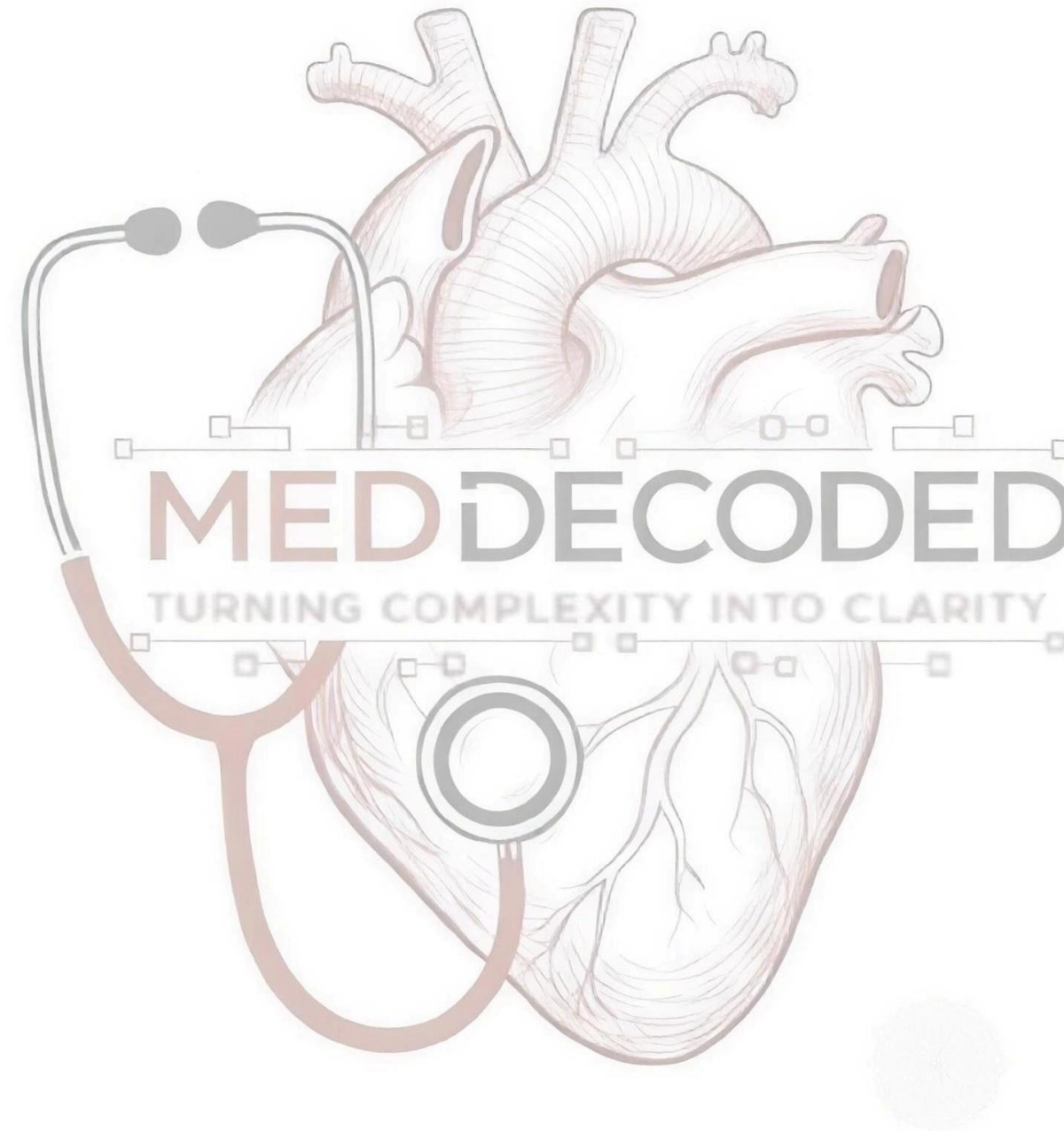


11- If fertilization doesn't occur, Corpus luteum is converted into :

- A) Corpus luteum of pregnancy
- B) Corpus albicans
- C) It secretes progesterone and relaxin hormone
- D) Secondary follicle
- E) Primary follicle

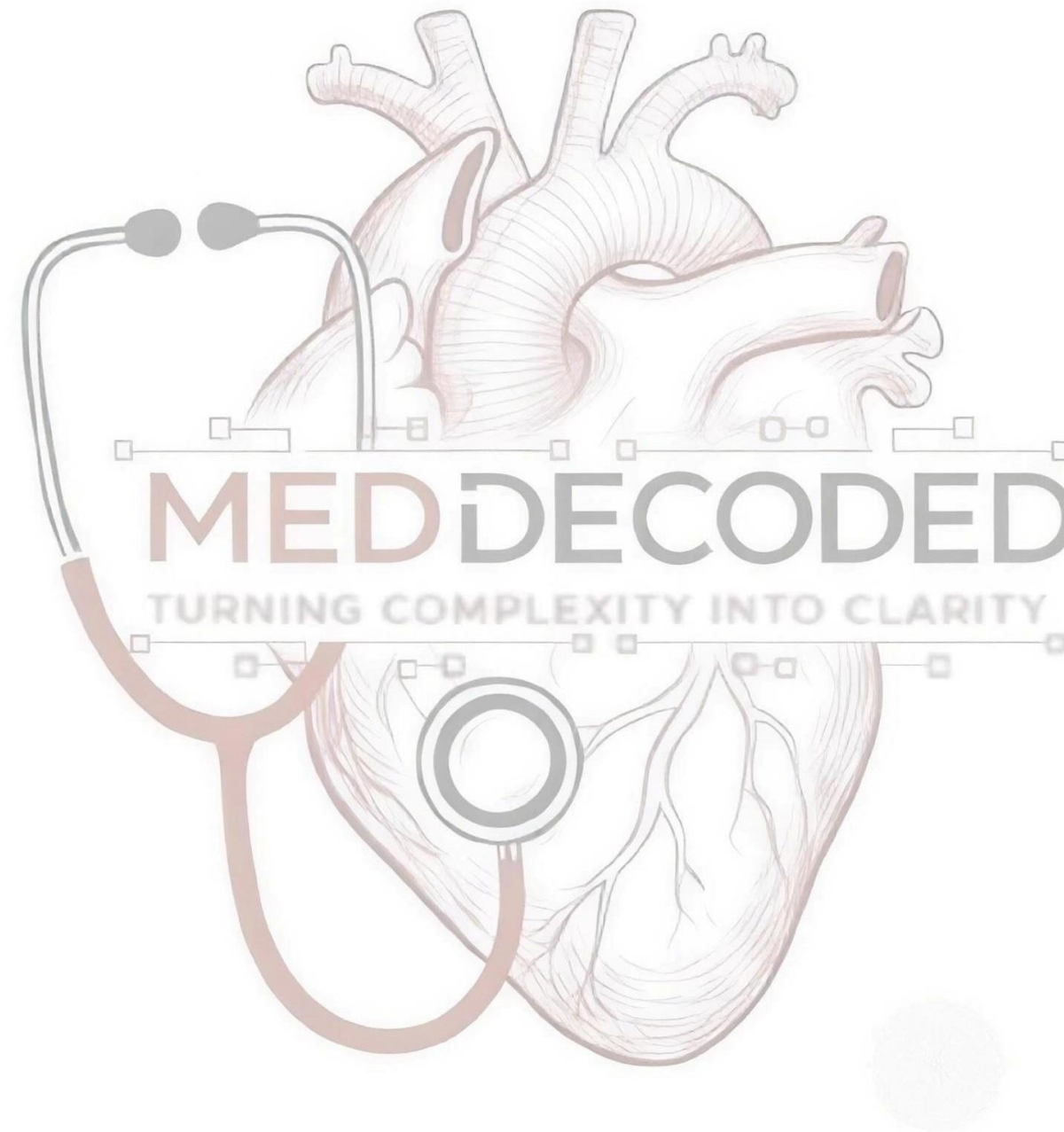
12- The inner layer of uterus is called :

- A) Endometrium
- B) Myometrium
- C) Perimetrium
- D) Body
- E) Fundus



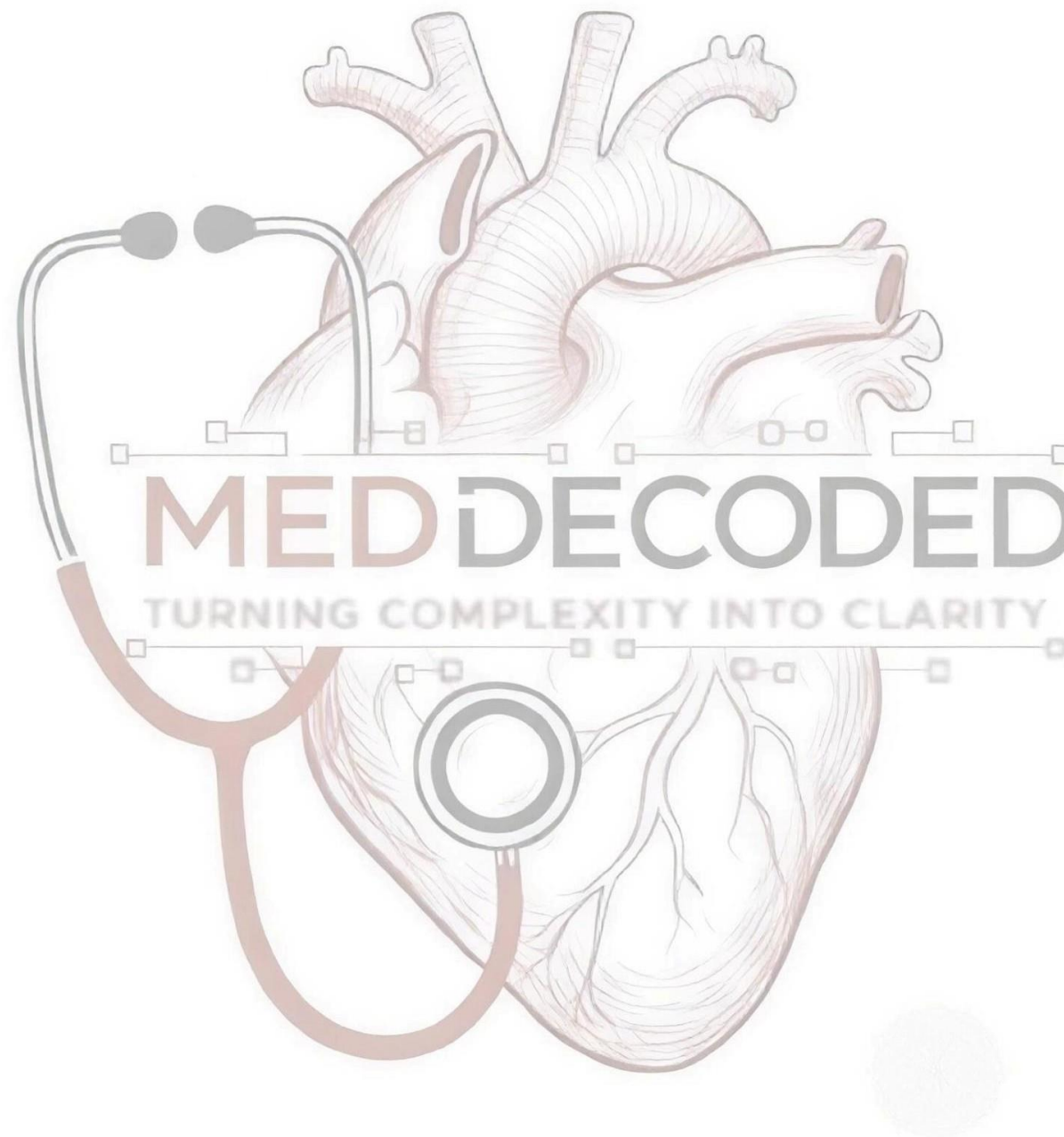
13- The crossing over happened in :

- A) Prophase 1
- B) Prophase 2
- C) Anaphase 1
- D) Anaphase 2



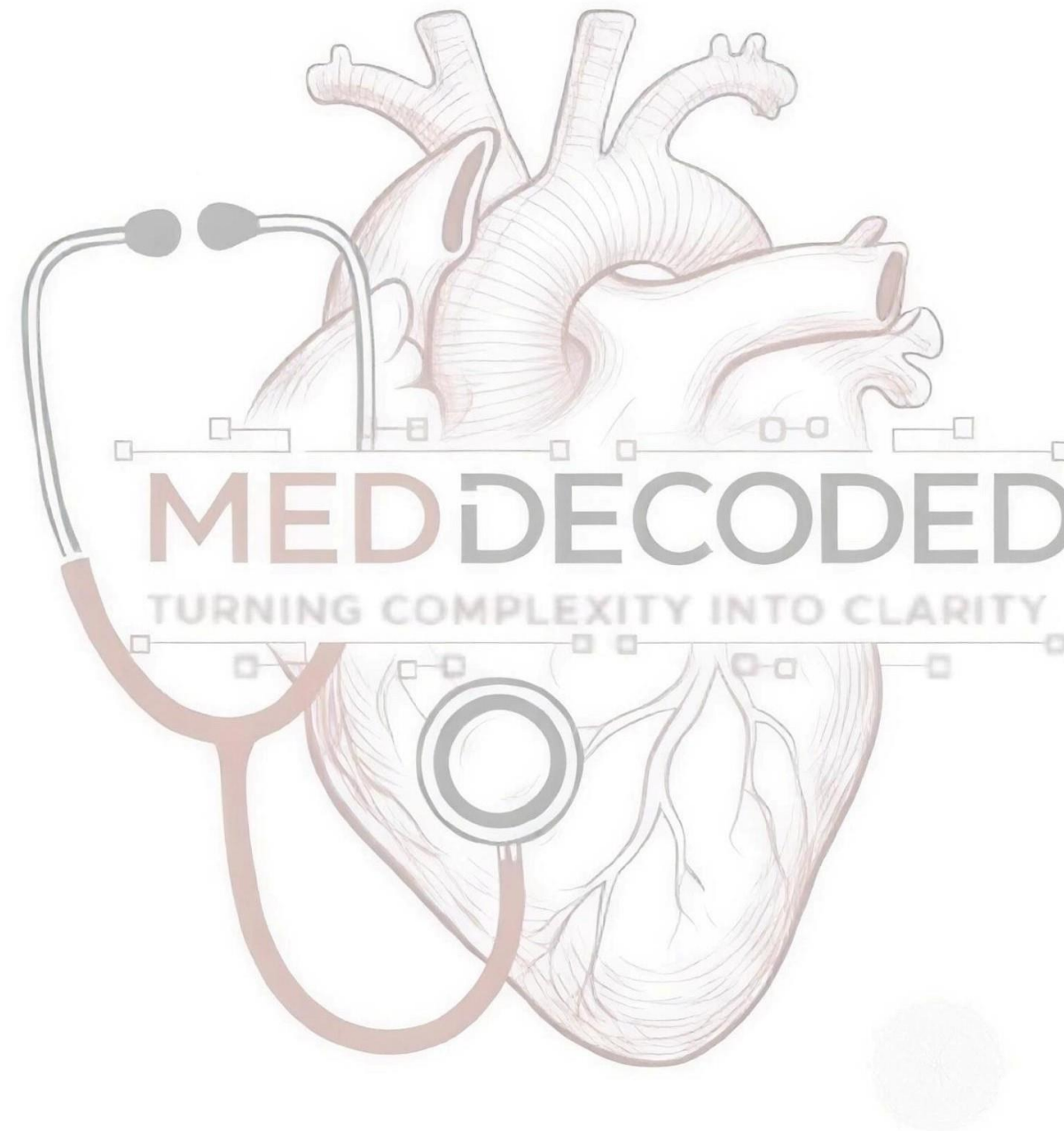
14- The widest part of the fallopian tube is :

- A) Infundibulum
- B) Isthmus
- C) Uterine part
- D) Intramural
- E) Ampulla



15- Cytokinesis is division of :

- A) Cell
- B) Cell membrane
- C) Cytoplasm
- D) Chromosomes
- E) Nucleus



16- Meiosis result in :

- A) Formation of two cells that are diploid.
- B) Formation of eight cells that are diploid.
- C) Formation of two cells that are haploid.
- D) Formation of four cells that are haploid.
- E) Formation of four cells that are diploid.

17- Meiosis I results only in one of the following:

- a. Primary oocyte
- b. Primary spermatocyte
- c. Separation of sister chromatids
- d. First polar body

18- Sertoli cells or sustentacular cells, choose the wrong statement:

- a.They phagocytize excess spermatid cytoplasm
- b.They extend from the basement membrane to the lumen
- c.They are located in the seminiferous tubules
- d.They are in direct relation with Leydig cells
- e.They nourish spermatocytes, spermatids, and sperm

19- A Secondary oocyte arrested in metaphase of meiosis II and can be seen in which one of the following?

- a. In the secondary and Graafian follicles
- b. In the secondary follicle
- c. In the primordial and primary follicles
- d. In the Graafian follicle
- e. In the primordial, primary and secondary follicles

20- Choose the wrong match:

- a. Hypothalamus.....Gonadotropin releasing hormone
- b. Ovarian Cycle.....Estrogen and progesterone
- c. Adenohypophysis.....FSH
- d. Zona pellucida.....LH
- e. FSH.....15 to 20 follicles each month

21- The blood–testis barrier, choose the wrong statement.

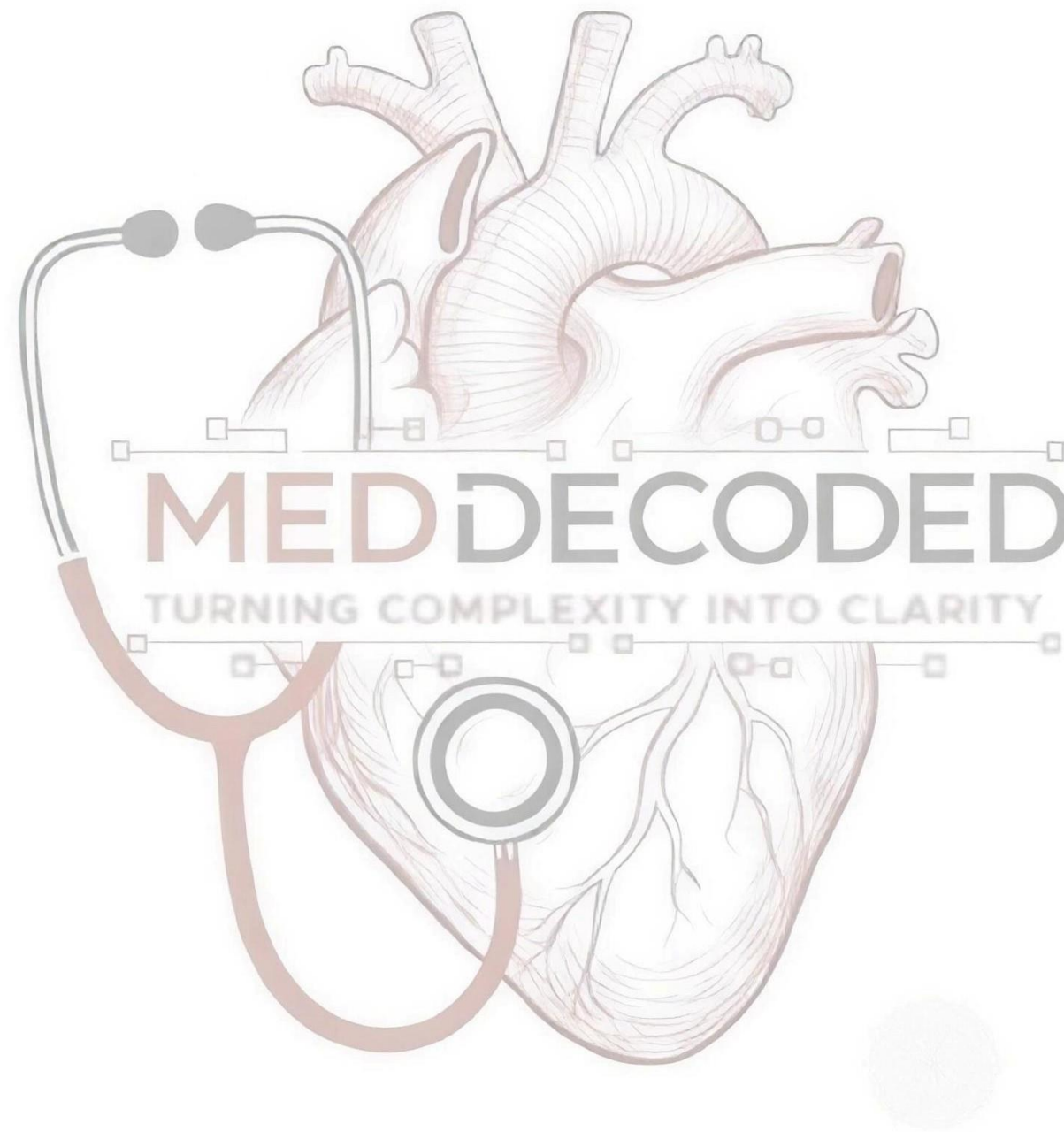
- a. It is formed by Sertoli cells
- b. Spermiogenesis takes place in the apical compartment
- c. It prevents an immune response against the spermatogenic cells
- d. Meiosis I and II take place in the basal compartment
- e. It divides the seminiferous epithelium into basal and the apical compartments.

23- Oogenesis and spermatogenesis, choose the wrong statement?

- a. After meiosis I, both produce $1n$ cells
- b. Oogenesis has limited time (production of oocytes ends at certain age)
- c. There are no arresting periods in spermatogenesis
- d. Meiosis I extends longer in oogenesis than in spermatogenesis
- e. After meiosis I, both produce two cells equal in size

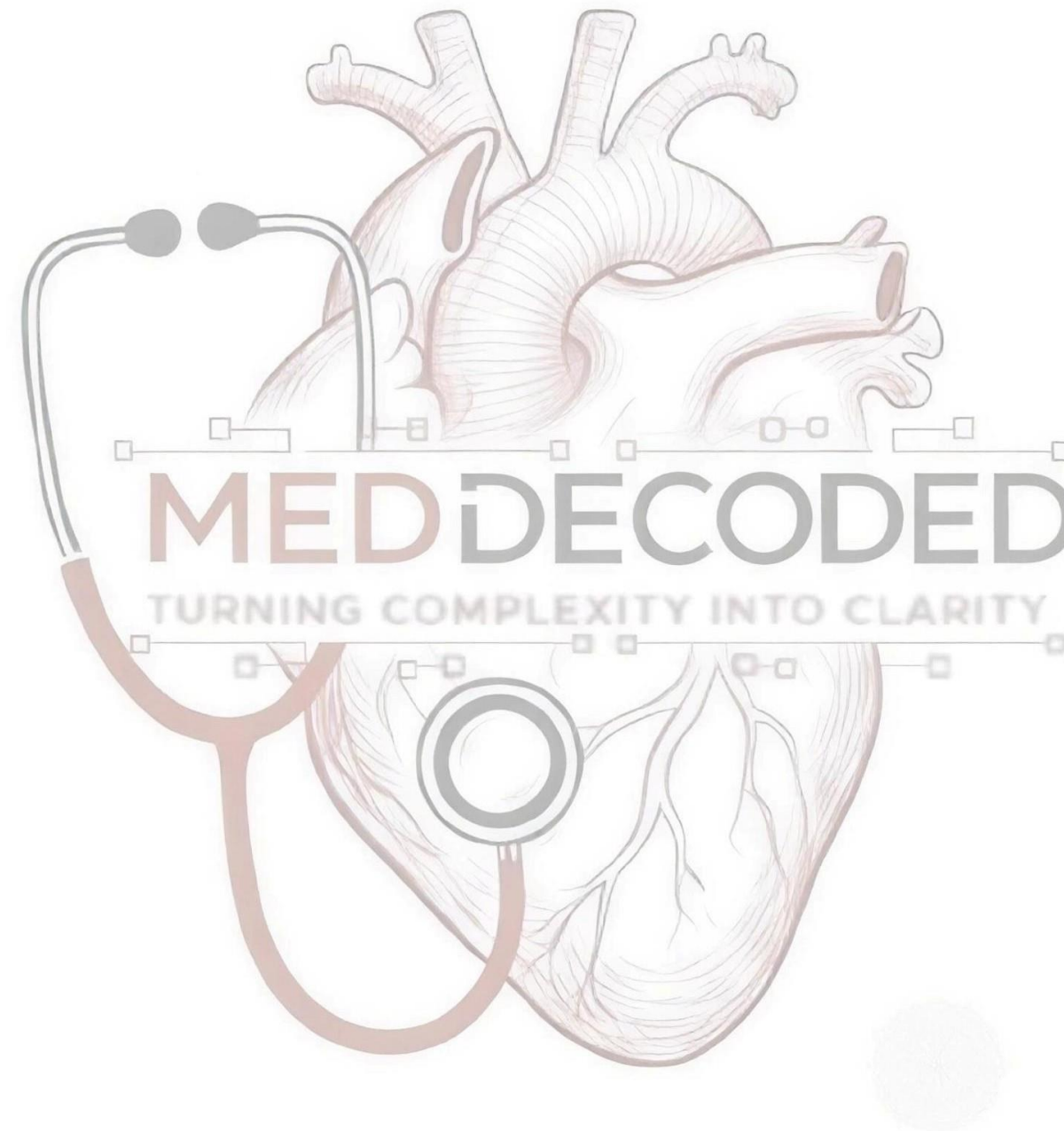
24- Which one of the following is not a diploid?

- a. First polar body
- b. Oogonium
- c. Primary oocyte
- d. Spermatogonium
- e. Primary spermatocyte



25- Which one of the following is not a feature of the primary follicle?

- a. Theca externa
- b. Zona pellucida
- c. Granulosa cells
- d. Secondary oocyte
- e. Theca interna



Ans: d

26- Spermiogenesis includes all of the followings except:

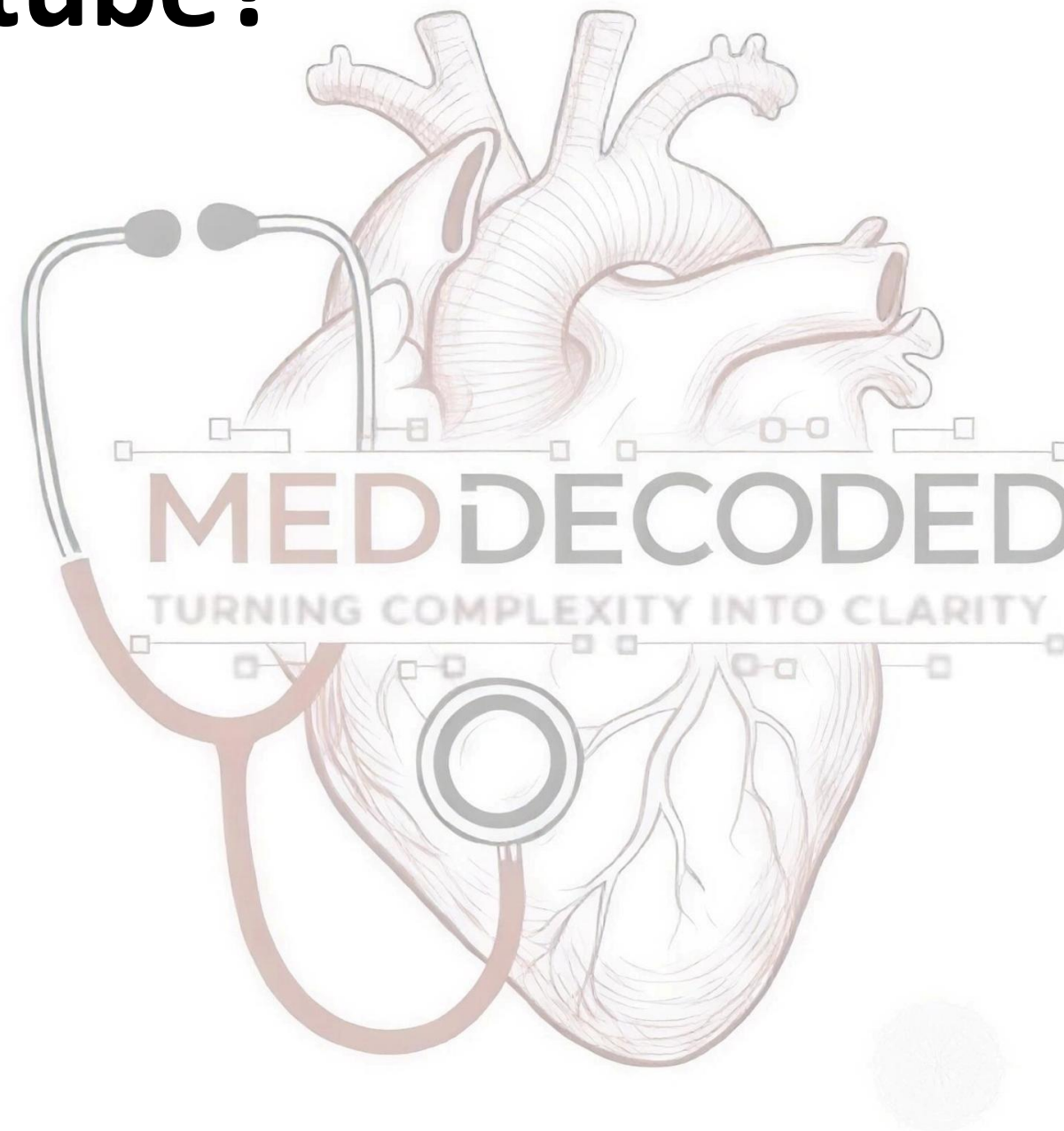
- a. Formation of neck, middle piece, and tail
- b. Formation of the acrosome
- c. Condensation of the nucleus
- d. Primary spermatocyte gives early spermatid
- e. Shedding of most of the cytoplasm

27- Which one of the following secretes testosterone?

- a. Primary spermatocyte
- b. Spermatid
- c. Secondary spermatocyte
- d. Leydig (interstitial) cells
- e. Sertoli cells

28) Which of the following structures trap the oocyte into the uterine tube?

- A. Fimbriae
- B. Ampulla
- C. Isthmus
- D. Intramural
- E. Cervix



2.9) Which of the following structures produce testosterone?

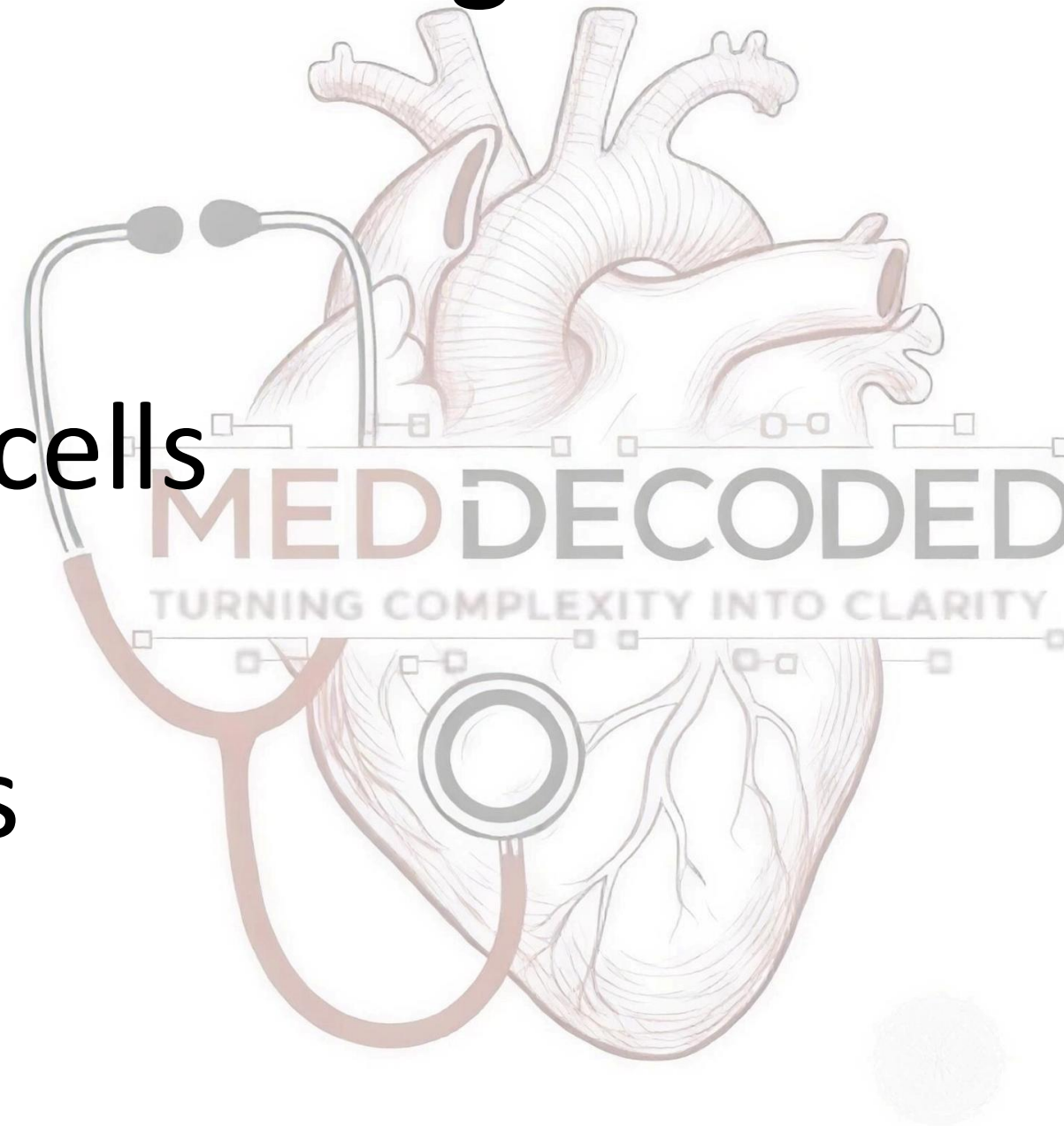
A. Sertoli cells

B. Spermatogenic cells

C. Leydig cells

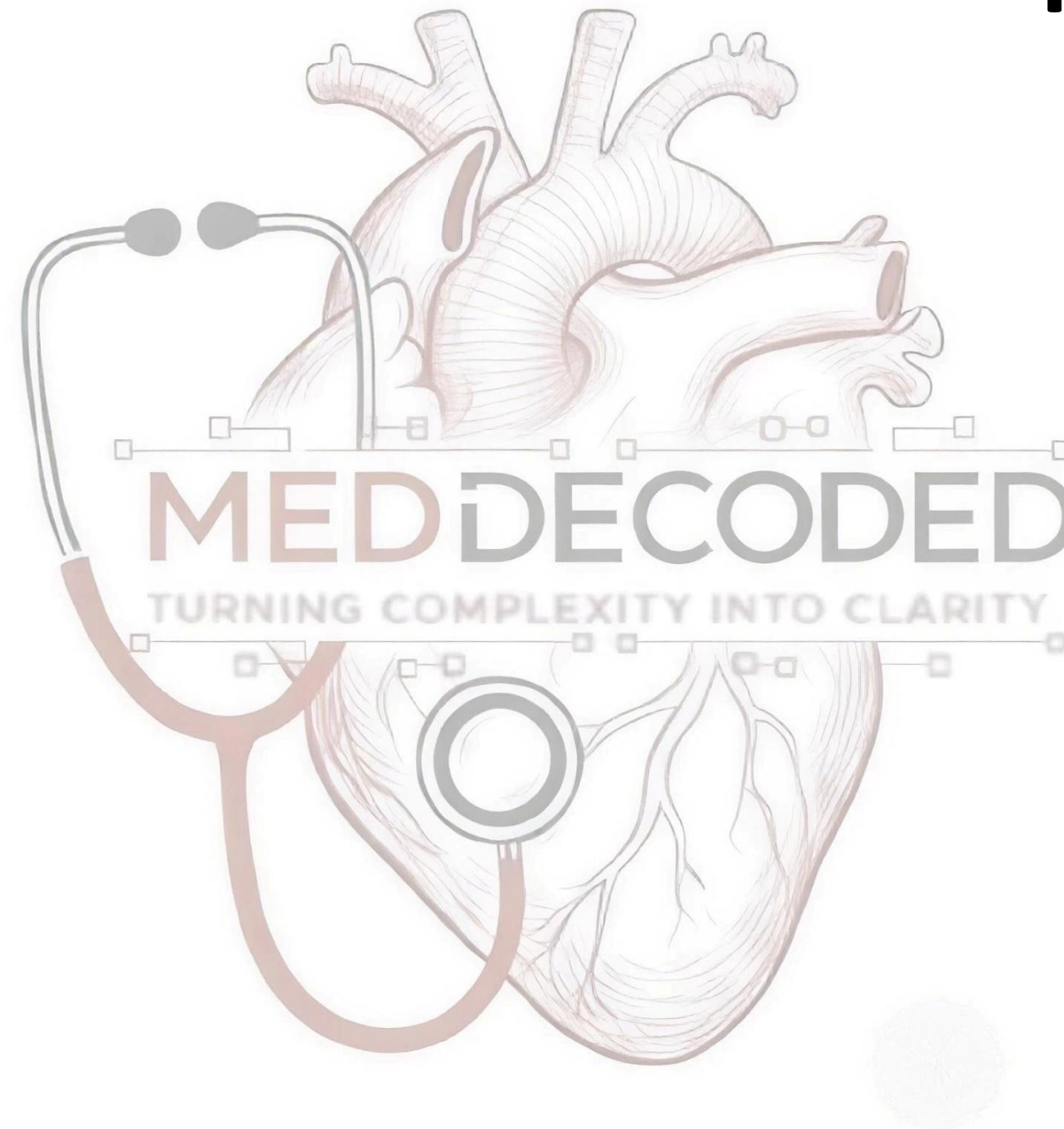
D. Seminal vesicles

E. Epididymis



3.0) In which stage of mitosis does DNA replication take place?

- a) Interphase G1
- a) Interphase G2
- b) Interphase G0
- c) Interphase S
- d) Cytokinesis



Ans: interphase s

31- Crossing-Over occurs during.....

- A. Telophase of mitosis
- B. Anaphase of mitosis
- C. Metaphase II of meiosis
- D. Meiosis II Equational
- E. Prophase I of meiosis

33- Choose the INCORRECT statement:

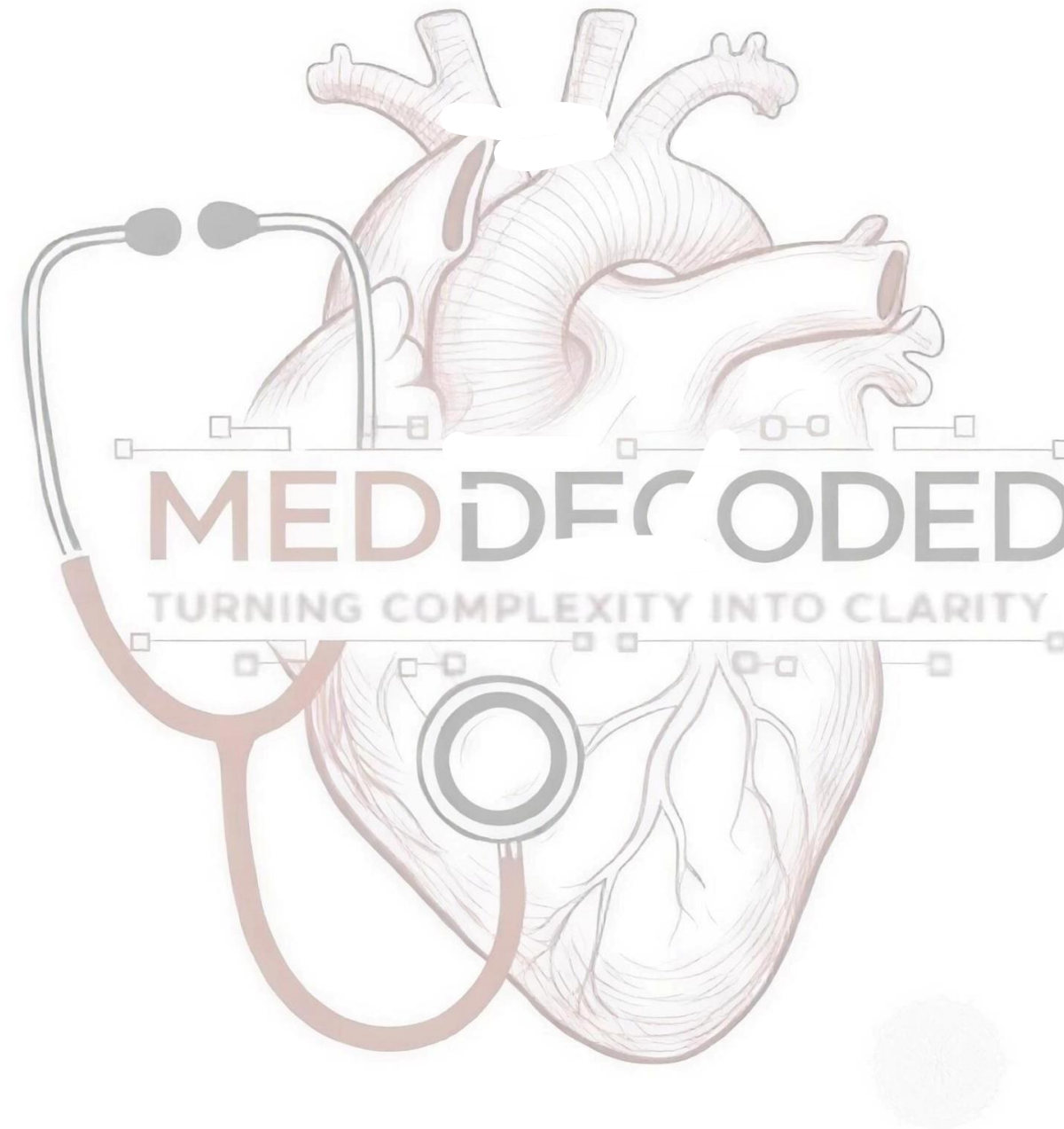
- A. Follicle stimulating hormone induces maturation of primary follicle into Graffian follicle.
- B. Luteinizing hormone induces the conversion of the ruptured follicle into a corpus luteum.
- C. Follicle stimulating hormone induces the follicular cells to secrete progesterone.
- D. Luteinizing hormone stimulates collagenase activity to digest collagen fibers surrounding the mature Graffian follicle.
- E. Luteinizing hormone induces final maturation of Graffian follicle and ovulation.

34- Which of the following is TRUE about Decidua parietalis?

- A.Covers the fetus.
- B.Lies between the fetus and myometrium.
- C.From the maternal part of the placenta.
- D.Lines the uterine.
- E.Forms the future umbilical cord.

36- Which of the following parts of sperm contain mitochondrial sheath?

- A. Head
- B. Neck
- C. Middle piece
- D. Tail
- E. End piece



37- Regarding oogenesis, choose the INCORRECT statement

- A. It starts during intrauterine life.
- B. It is completed during puberty.
- C. It continues till menopause.
- D. Primary oocytes are formed after birth.
- E. The second meiotic division is completed after fertilization.

39- Which of the following structure contain cumulus oophorus ?

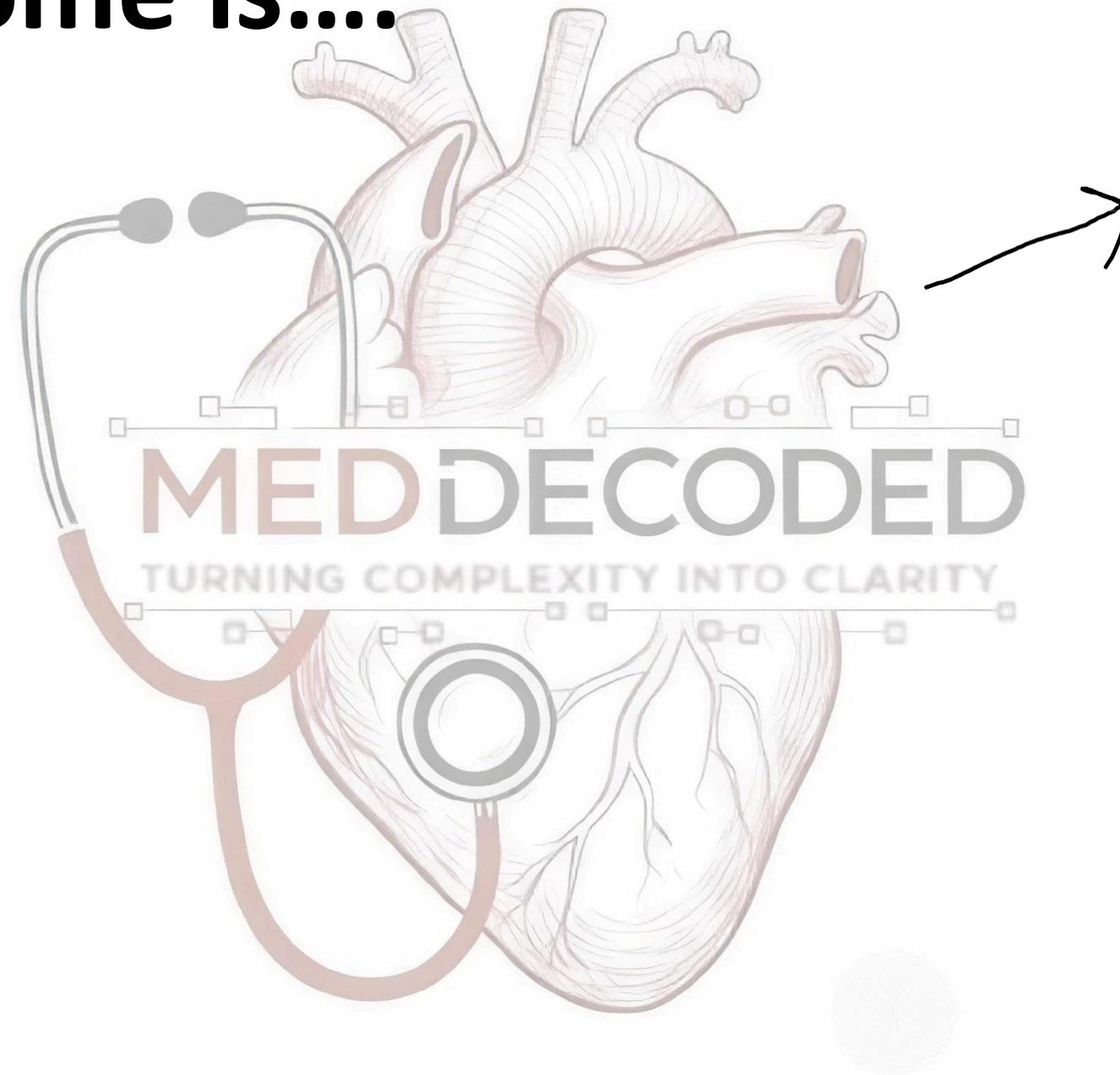
- A. Primordial follicle
- B. Primary follicle
- C. Early secondary follicle
- D. Graafian follicle
- E. Late secondary follicle

**40- All of the following is a result of fertilization
EXCEPT:**

- A. Determination of fetus sex.
- B. Ovulation stops.
- C. Corpus luteum continues to secrete progesterone.
- D. Menstrual cycles stops.
- E. Shedding of the endometrium

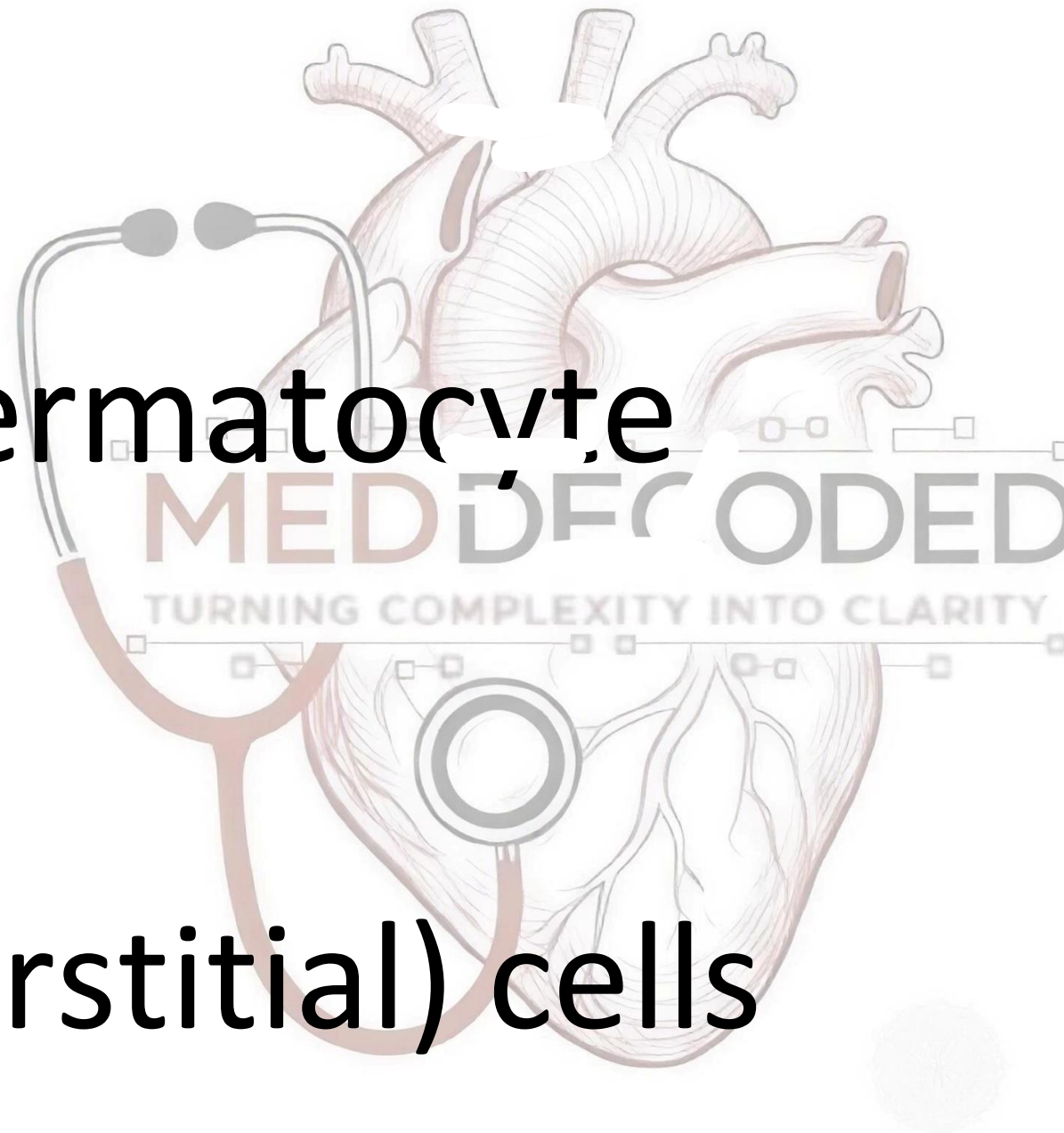
41- The number of chromosomes in case of Klinefelter syndrome is....

- A. $44+XY$
- B. $44+XO$
- C. $45+XY$
- D. $44+XXY$
- E. $43+XY$



42- Which one of the following secretes testosterone?

- A- Sperms
- B- Primary spermatocyte
- C- Sertoli cells
- D- Spermatid
- E- Leydig (interstitial) cells

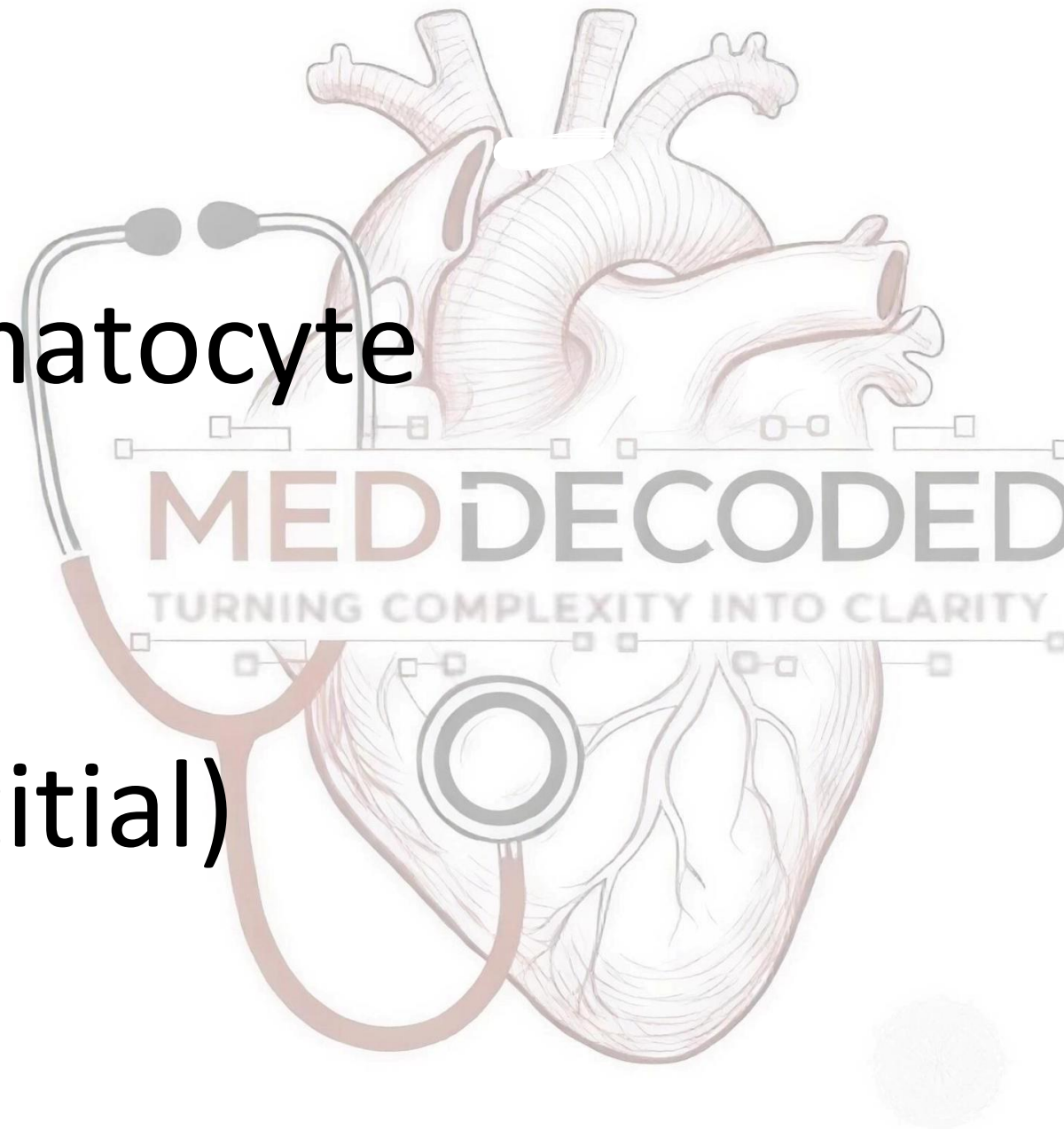


43- Which of the following can be produced at the end of Mitosis?

- A- Second polar body
- B- Secondary oocyte and first polar body
- C- First polar body only
- D- Two Diploid cells
- E- One haploid and diploid cells

44- The blood – testis barrier is made by which one of the following?

- A- Sperms
- B- Primary spermatocyte
- C- Sertoli cells
- D- Spermatid
- E- Leydig (interstitial)



45- Which one of the following is NOT contained in Preovulatory (Graafian follicle)?

- A- Granulosa cells
- B- Zona pellucide
- C- Secondary oocyte arrested in metaphase stage of meiosis II
- D- Secondary polar body
- E- Antrum

46- Which of the following can be produced at the end of Meiosis I?

- A- Primary oocyte and first polar body
- B- Secondary oocyte and first polar body
- C- Two somatic cells
- D- Diploid and haploid cells
- E- Diploid cell and first polar body

46- Spermiogenesis includes all of the following except:

- A- Formation of the acrosome
- B- Condensation of the nucleus
- C- Formation of the neck, middle piece, and tail
- D- Shedding of most of the cytoplasm
- E- Primary spermatocyte gives early spermatid

47- Mark the wrong match:

- A- Mitosis – conserves chromosomes number
- B- Meiosis – reduces chromosomes number →
- C- Mitosis – $1n$
- D- Meiosis – reproductive cells
- E- Zygote – $2n$
- F- Mitosis – sex cells

47- Synapsis and crossing-over can be seen in which one of the following:

- A- Prophase stage of mitosis
- B- Metaphase stage of meiosis I
- C- Anaphase stage of meiosis II
- D- Prophase stage of meiosis I
- E- Prophase stage of meiosis II

48- Preovulatory (Graafian follicle) contains all of the following except:

- A- Granulosa cells
- B- Zona pellucida
- C- Primary oocyte arrested in diplotene stage of meiosis I
- D- First polar body
- E- Antrum

48) Which one of the following is contained in the secondary follicle?

- A- Secondary oocyte arrested in prophase of meiosis I
- B- Primary oocyte arrested in pachytene stage of meiosis I
- C- Primary oocyte arrested in diplotene stage of meiosis I
- D- Secondary oocyte arrested in anaphase of meiosis I
- E- Primary oocyte arrested in prophase of meiosis II

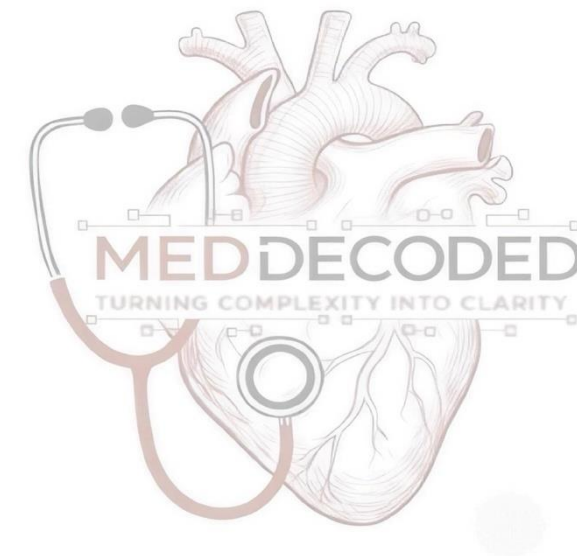
49- Which of the following can be produced at the end of meiosis?

- A- Spermatid
- B- Secondary oocyte and first polar body
- C- First polar body only
- D- Two diploid cells
- E- One haploid and one diploid cells

Ans: a

50- Which of the following can be produced at the end of mitosis?

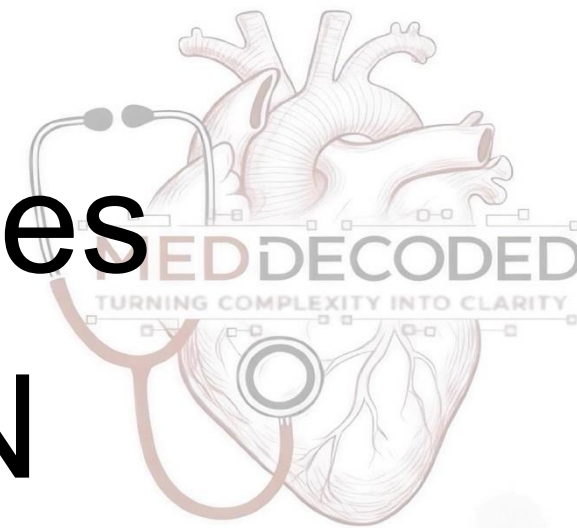
- A- Primary oocyte and first polar body
- B- Secondary oocyte and first polar body
- C- Two somatic cells



Ans:c

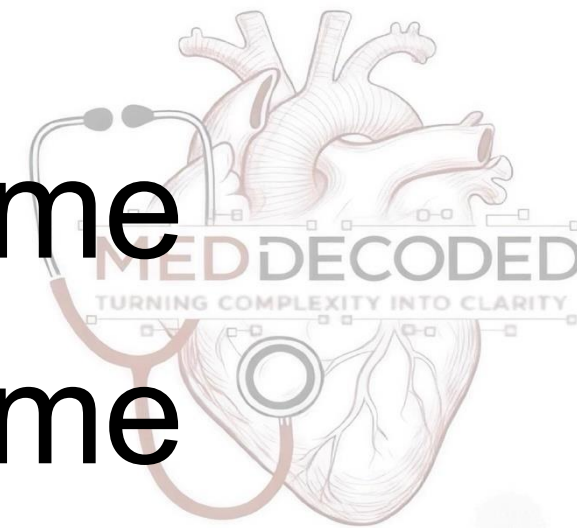
51) Which of the following is a major characteristic of meiosis I?

- (A) Splitting of the centromere
- (B) Pairing of homologous chromosomes
- (C) Reducing the amount of DNA to 1N
- (D) Achieving the diploid number of chromosomes
- (E) Producing primordial germ cells



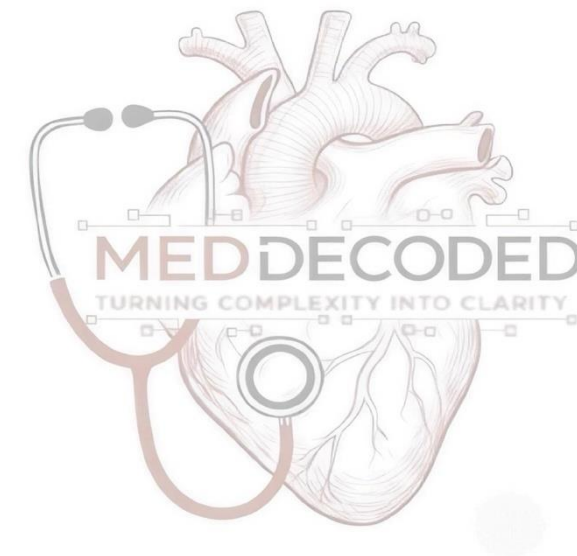
52- A normal somatic cell contains a total of 46 chromosomes. What is the normal complement of chromosomes found in a sperm?

- (A) 22 autosomes plus a sex chromosome
- (B) 23 autosomes plus a sex chromosome
- (C) 22 autosomes
- (D) 23 autosomes
- (E) 23 paired autosomes



53- Which of the following describes the number of chromosomes and amount of DNA in a gamete?

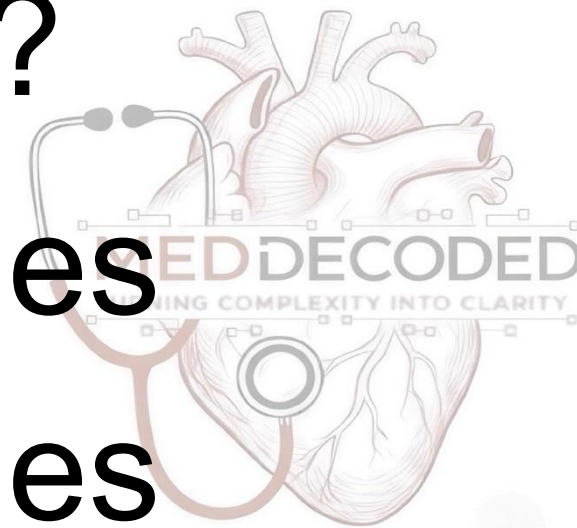
- (A) 46 chromosomes, 1N
- (B) 46 chromosomes, 2N
- (C) 23 chromosomes, 1N
- (D) 23 chromosomes, 2N
- (E) 23 chromosomes, 4N



Ans:c

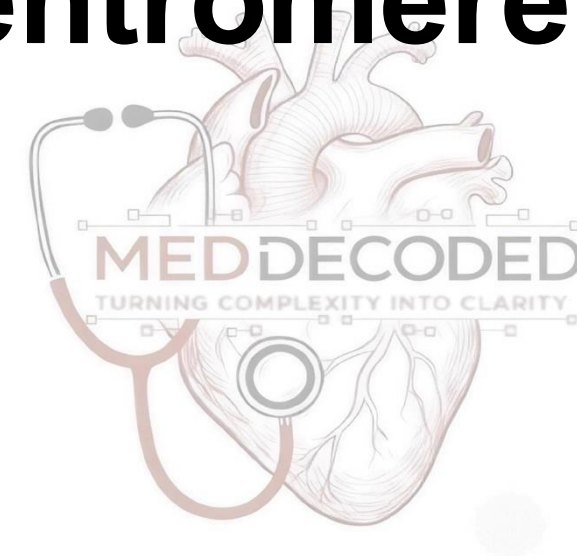
54- Which of the following chromosome compositions in a sperm normally results in the production of a genetic female if fertilization occurs?

- (A) 23 homologous pairs of chromosomes
- (B) 22 homologous pairs of chromosomes
- (C) 23 autosomes plus an X chromosome
- (D) 22 autosomes plus a Y chromosome
- (E) 22 autosomes plus an X chromosome



55-In the process of meiosis, DNA replication of each chromosome occurs, forming a structure consisting of two sister chromatids attached to a single centromere. What is this structure?

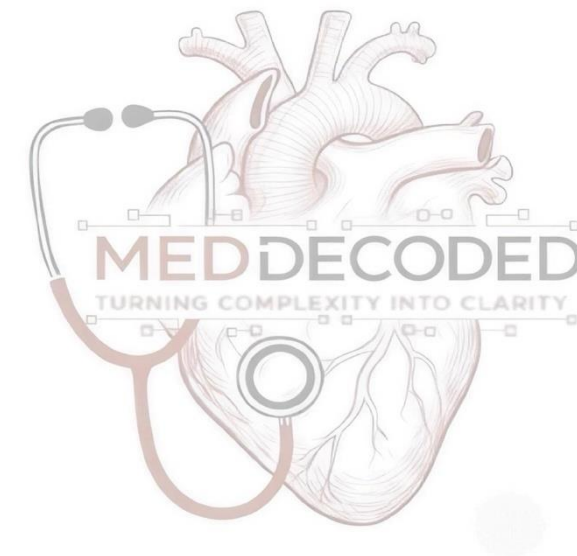
- (A) A duplicated chromosome
- (B) Two chromosomes
- (C) A synapsed chromosome
- (D) A crossover chromosome
- (E) A homologous pair



Ans:a

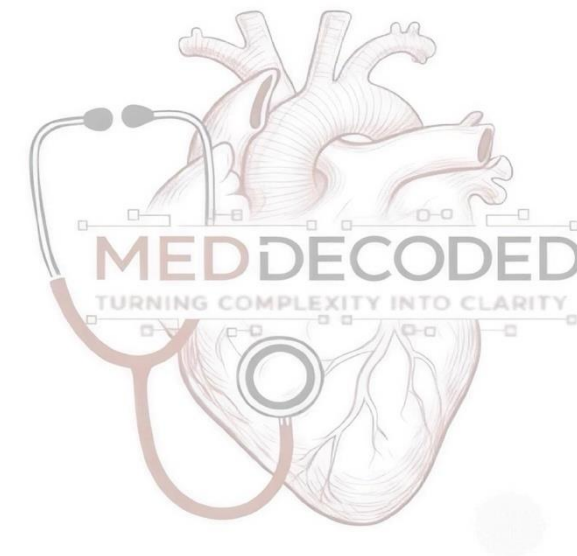
56- During meiosis, pairing of homologous chromosomes occurs, which permits large segments of DNA to be exchanged. What is this process called?

- (A) Synapsis
- (B) Nondisjunction
- (C) Alignment
- (D) Crossing over
- (E) Disjunction



57/ The two chromosomes that make up each pair in somatic are called:

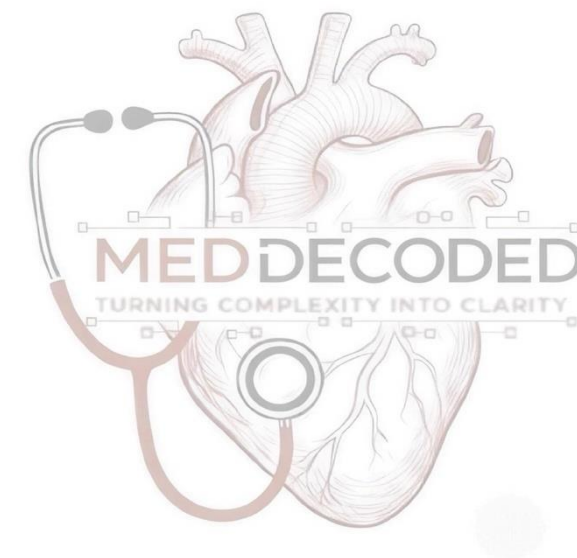
- A. sister chromosome
- B. homologous chromosomes
- C. replecated chromosomes
- D. -genes



Ans:b

58- HOMOLOGOUS CHROMOSOMES generally they look very similar except:

- A. when the DNA replicate
- B. when the DNA start packing itself
- C. sex chromosomes in male



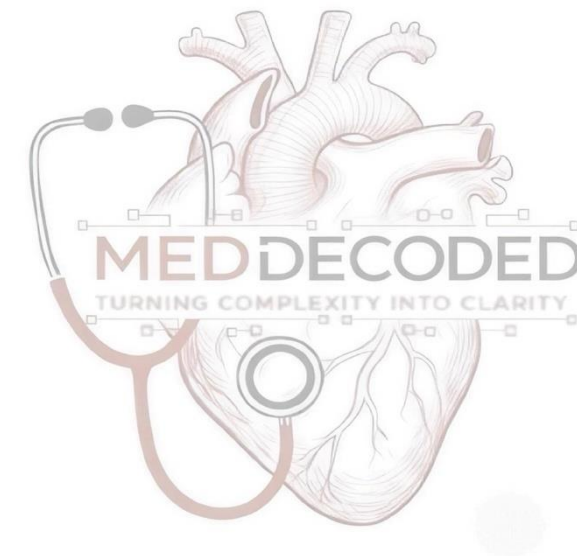
**59-HOW MANY HOMOLOGOUS CHROMOSOMES is
in the somatic cell of male human?**

A-22

B-23

C-46

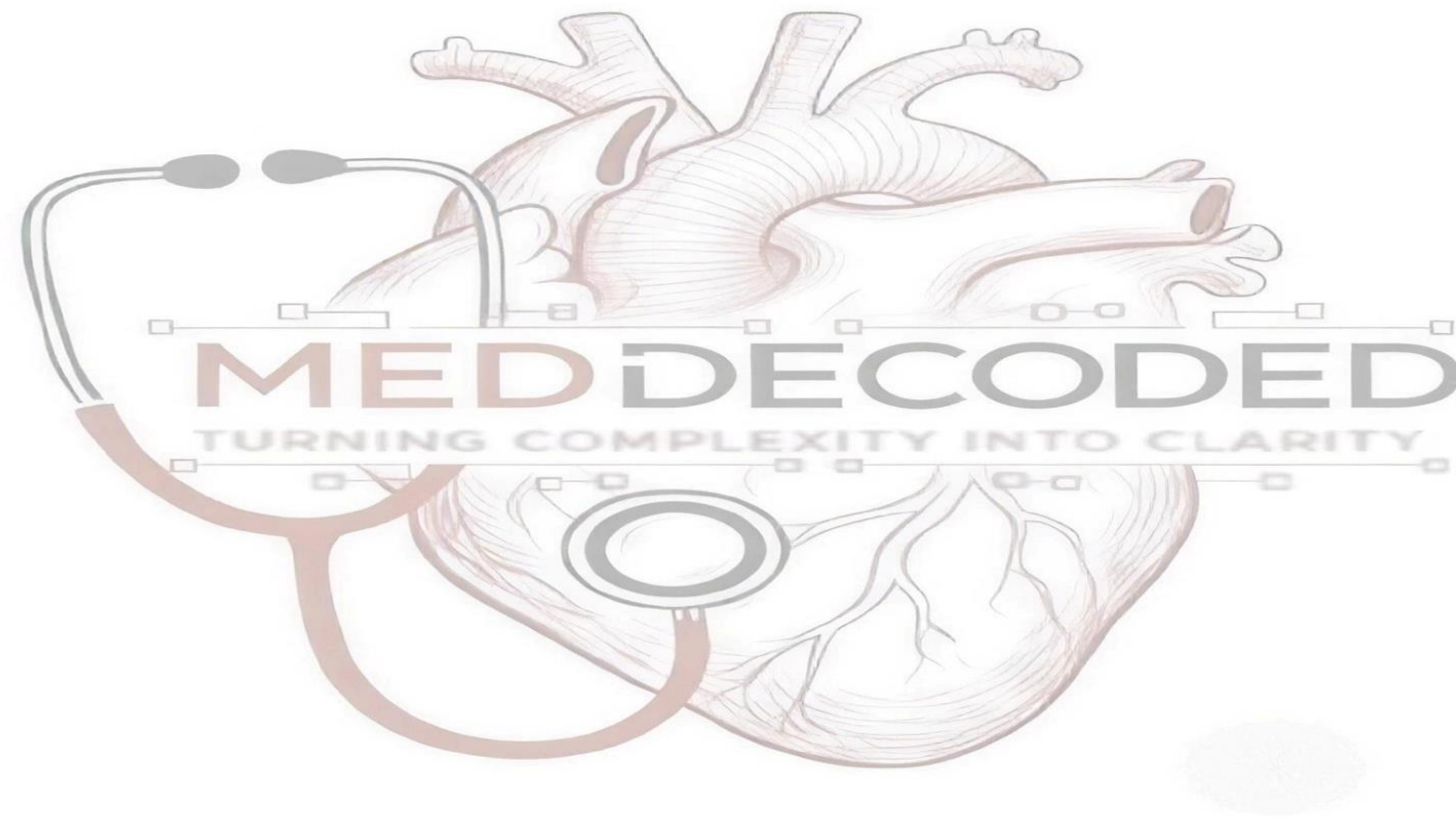
D- 92



Ans:a

60-Sex chromosomes in males are NOT homologous:

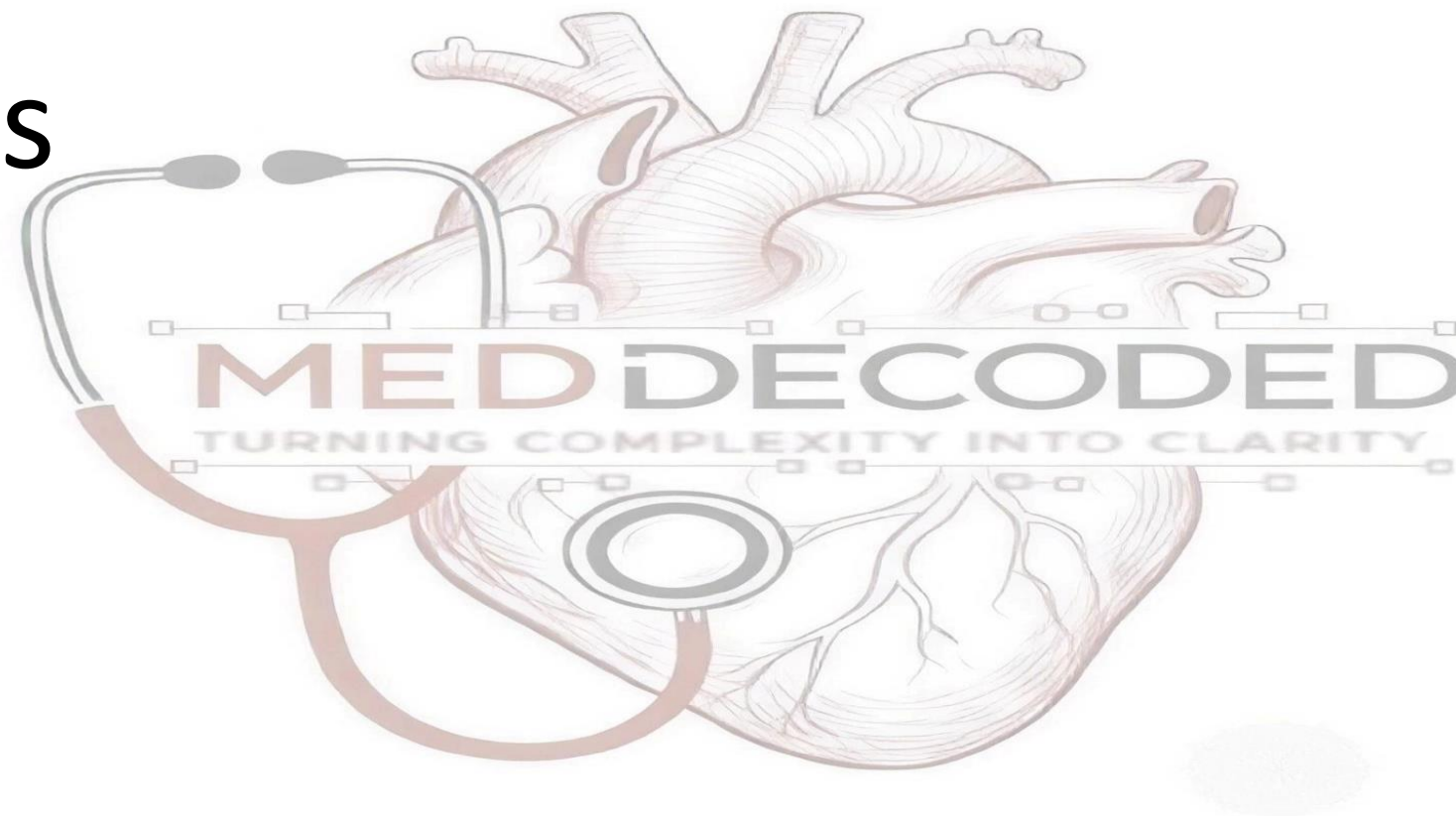
- A.True
- B.False



Ans:a

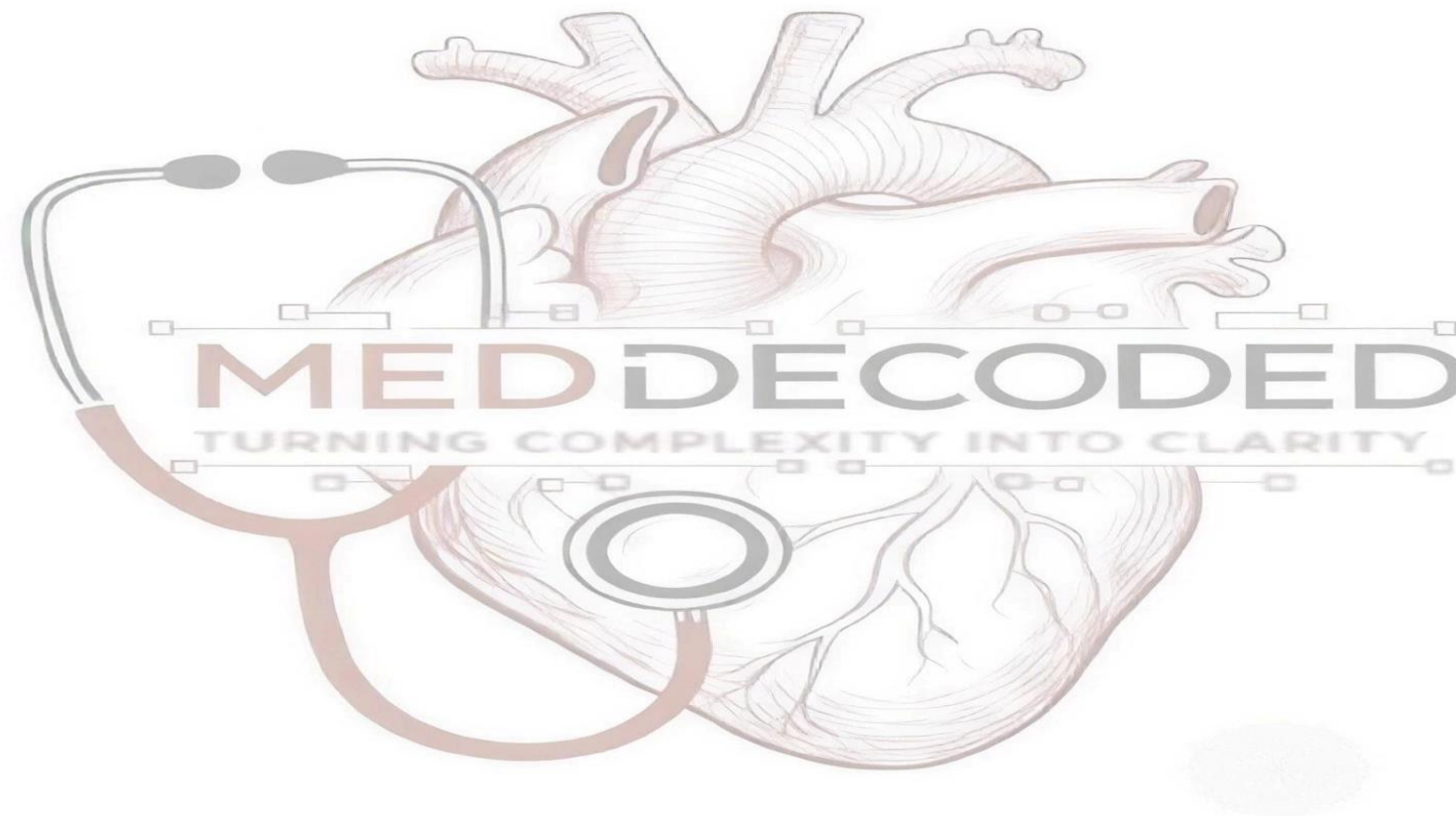
61-An example of Cells that are said to in the G0 phase are:

- A. Glandular cells
- B. Muscle cells
- C. Bone cells
- D. Nerve cells



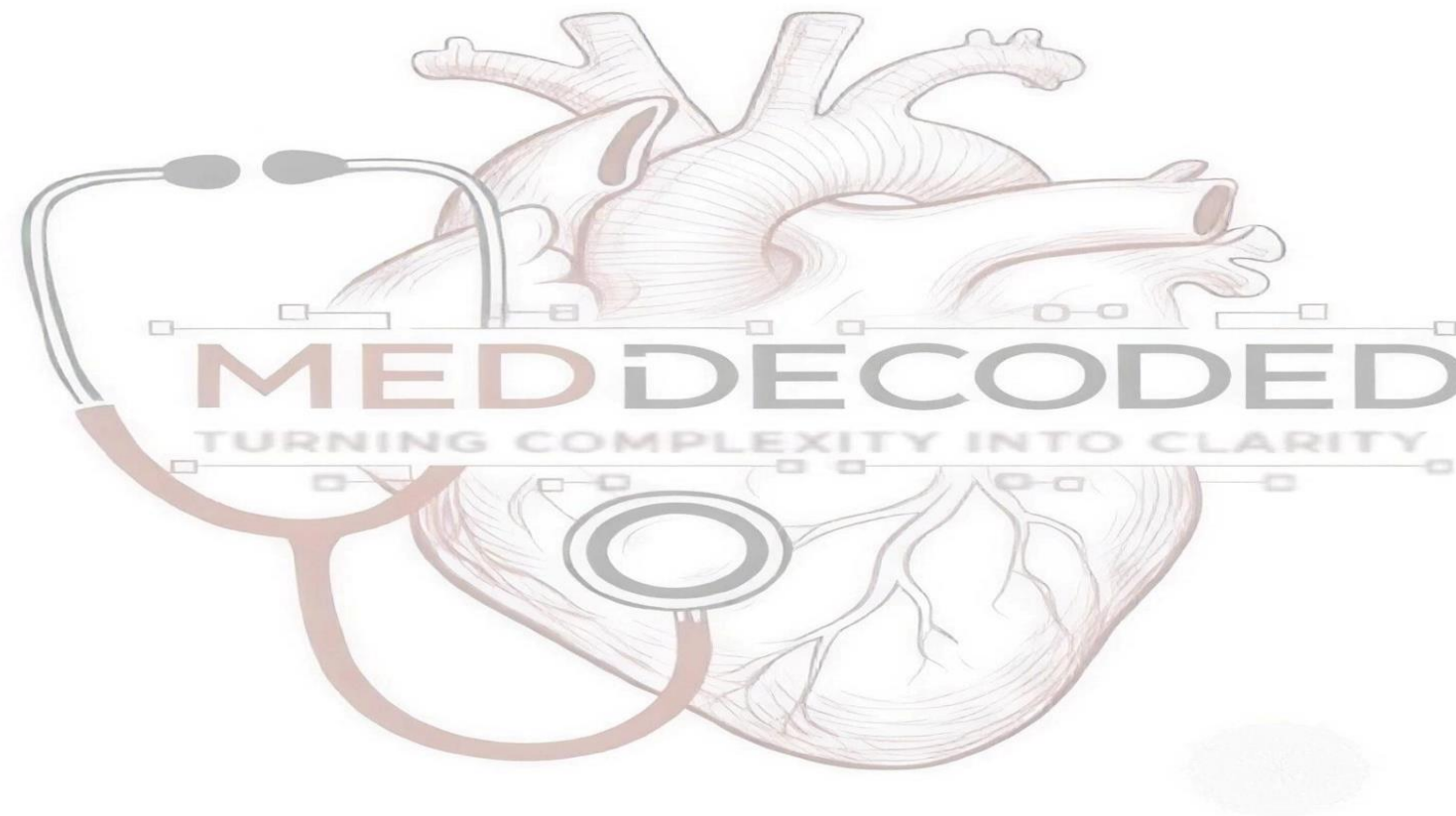
62- During the period of interphase, enzymes and proteins and centrosomes replicated in the:

- A.G1 phase
- B.S phase
- C.G2 phase
- D.Metaphase



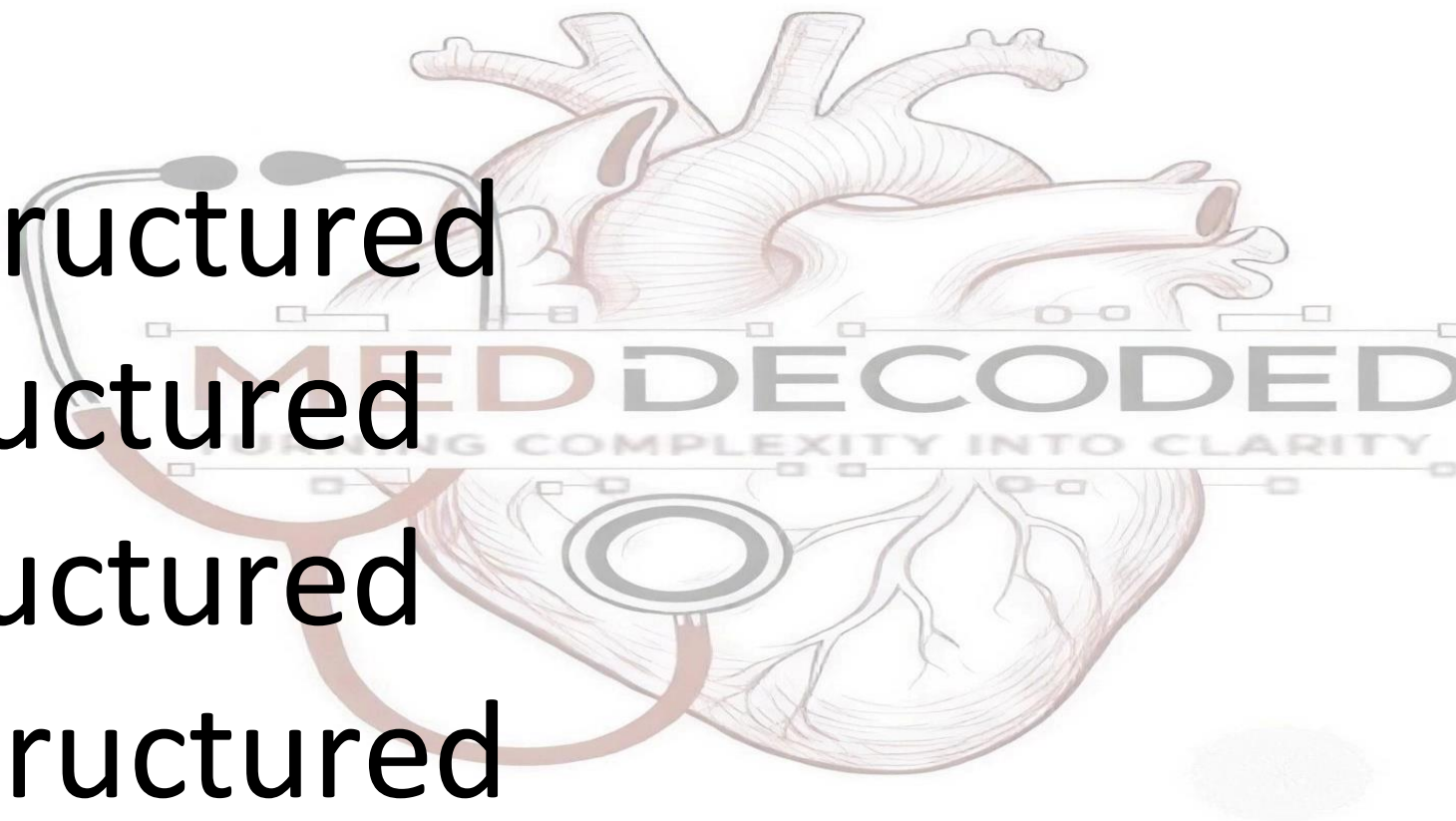
63-During the period of interphase, centrosome replication is completed in the:

- A. G1 phase
- B. S phase
- C. G2 phase
- D. Metaphase



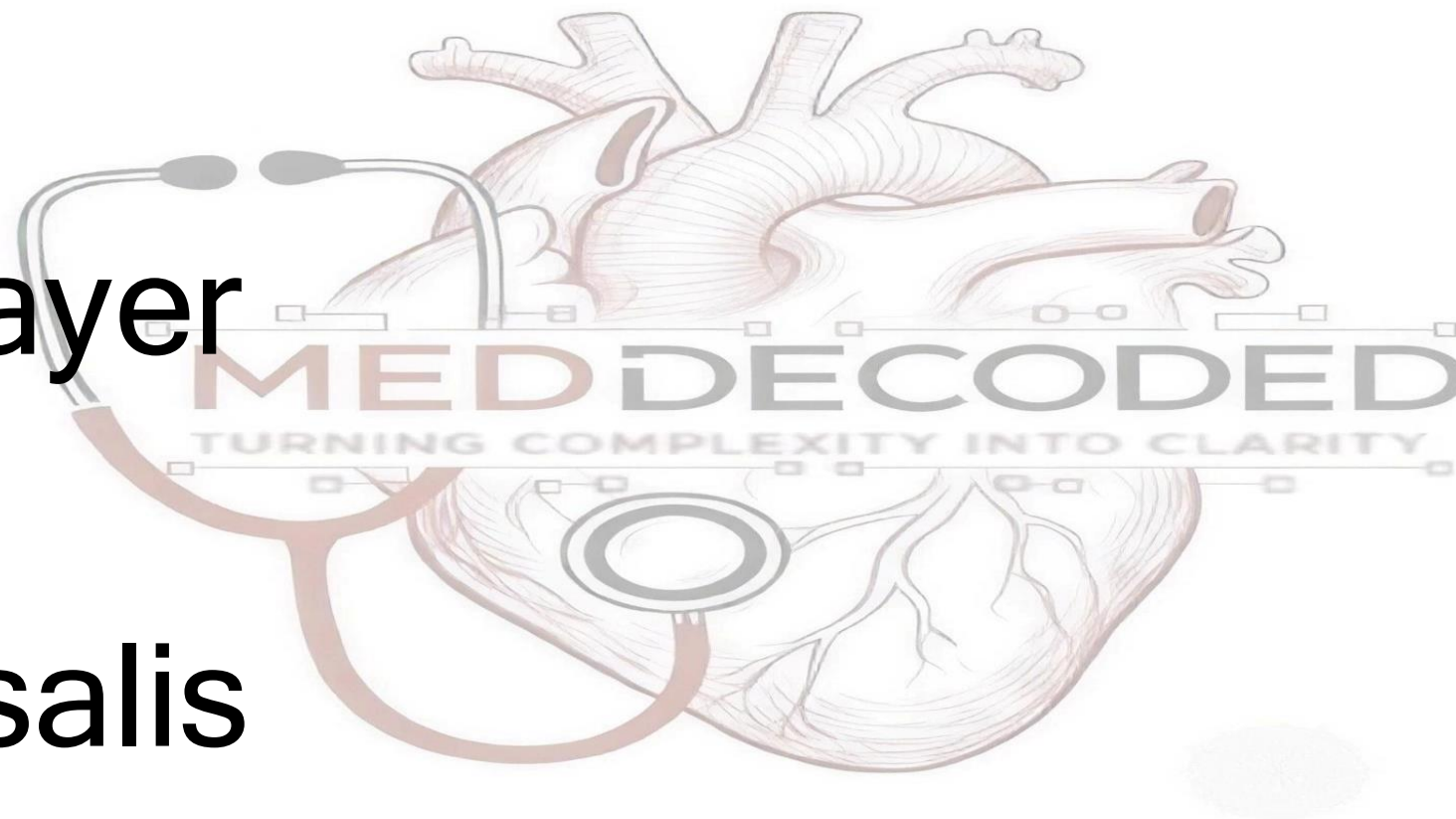
64-Somatic cells that are not dividing, have chromosomes that are:

- A. $2n$, double structured
- B. $1n$, single structured
- C. $2n$, single structured
- D. $1n$, double structured



65- Which layer of endometrium degenerates (sheds) during menstruation :

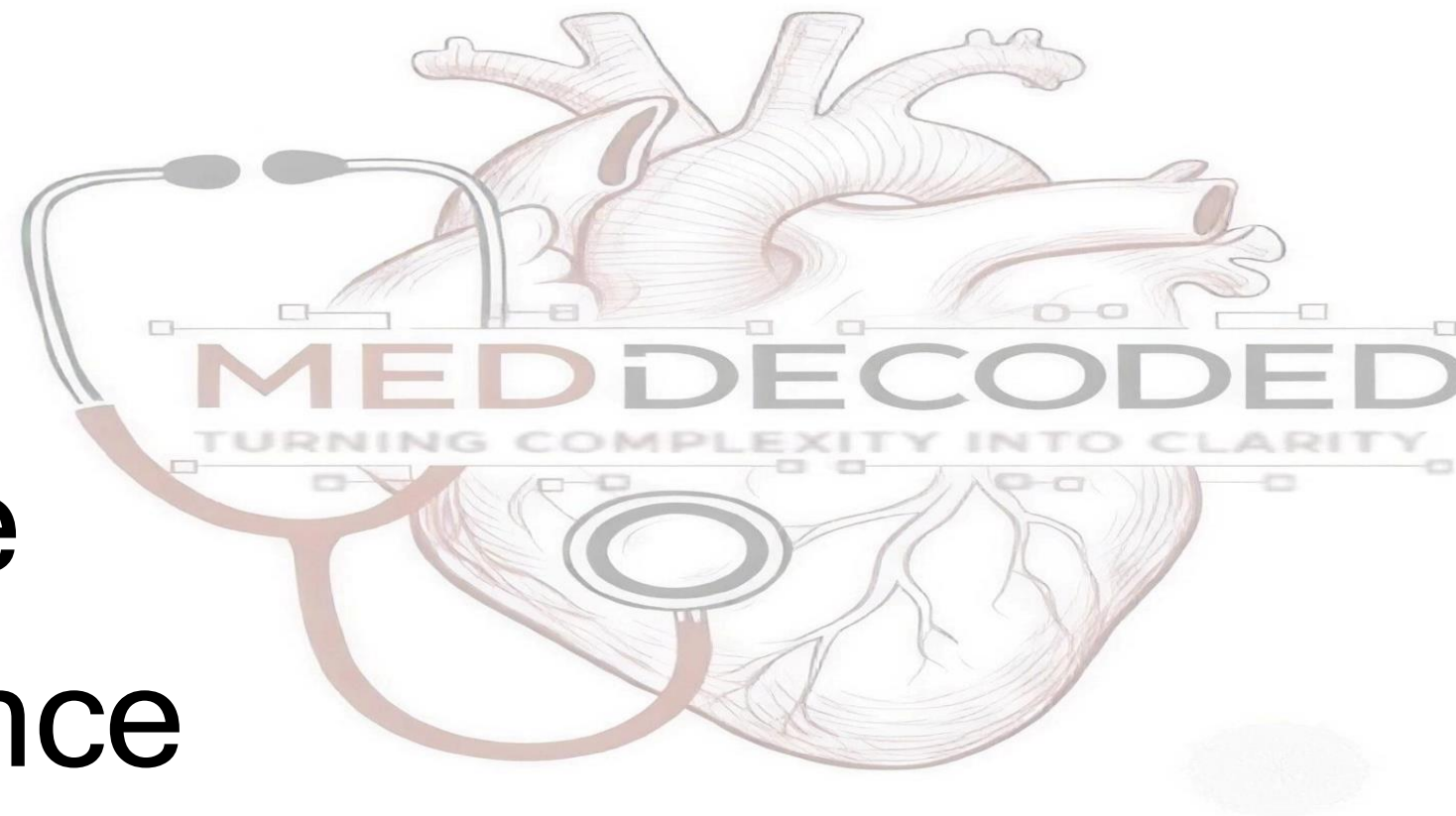
- A- Functional layer**
- B- Basal layer**
- C- Decidua basalis**
- D- Decidua capsularies**
- E- Decidua parietalis**



Ans:a

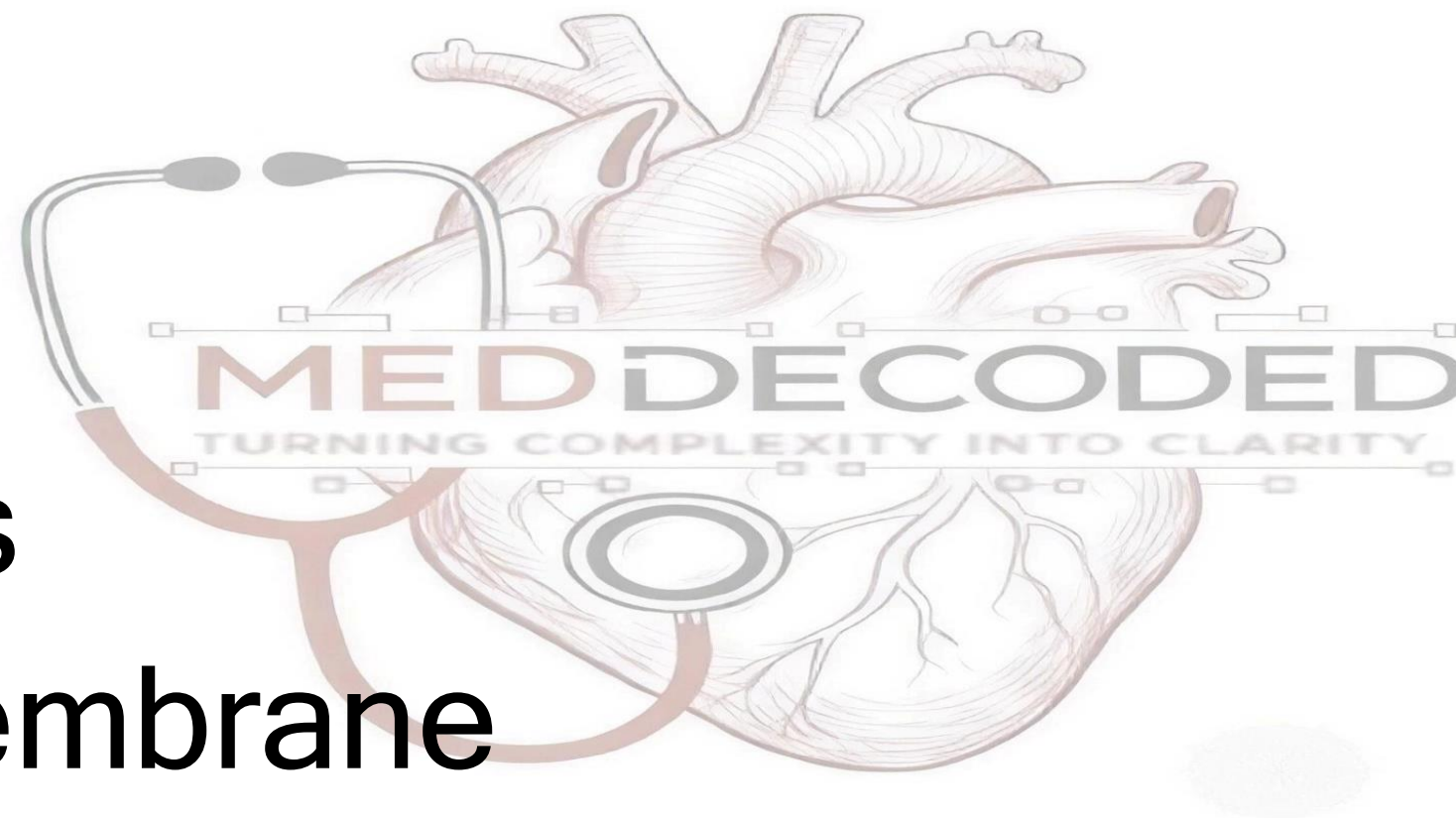
66- Where does capacitation of sperms occur :

- A- Cervix**
- B- Ovary**
- C- Uterine tube**
- D- Vas Deference**
- E- Testis**



67- What is the base of the amniotic cavity :

- A- Hypoblast**
- B- Epiblast**
- C- Amnioblasts**
- D- Hausers membrane**
- E- Yolk sac**



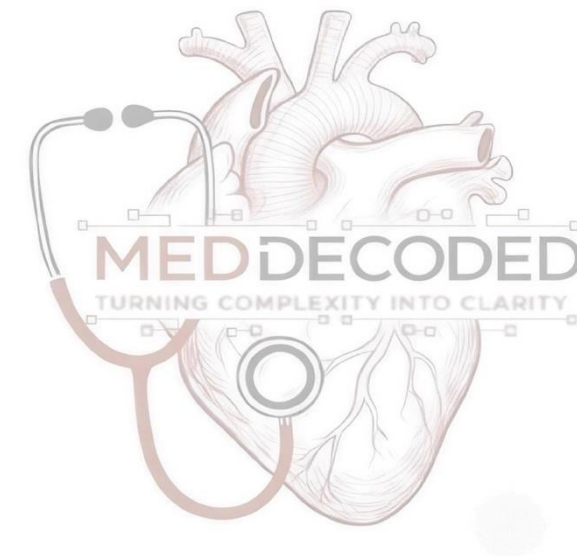
68- What does the tertiary chorionic villus contains:

- A- Cytotrophoblast + syncytiotrophoblast
- B- Cytotrophoblast + syncytiotrophoblast + base of mesoderm
- C- Cytotrophoblast + syncytiotrophoblast + blood capillaries
- D- Cytotrophoblast + syncytiotrophoblast + extraembryonic mesoderm + fetal blood vessels
- E- Syncytiotrophoblast only

Ans:d

69- What part of the fold make up the foregut :

- A- Head fold
- B- Tail fold
- C- Lateral fold
- D- Yolk sac
- E- Buccopharyngeal membrane



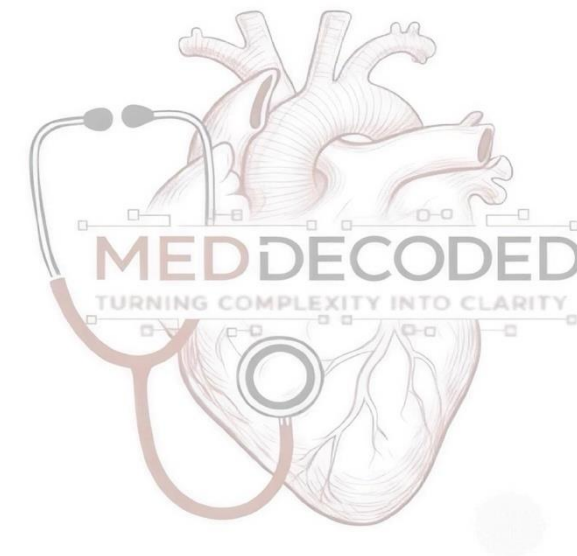
Ans:a

70- What is the function of the FSH hormone :

- A- Increases prostaglandin activity resulting in ovarian contraction
- B- Induces maturation of graffian follicles
- C- Induces follicles to secrete estrogen
- D- Causes carpus luteum to secrete progesterone
- E- Induces conversion of follicles to carpus luteum

71- What does external splanchnic mesoderm attach to :

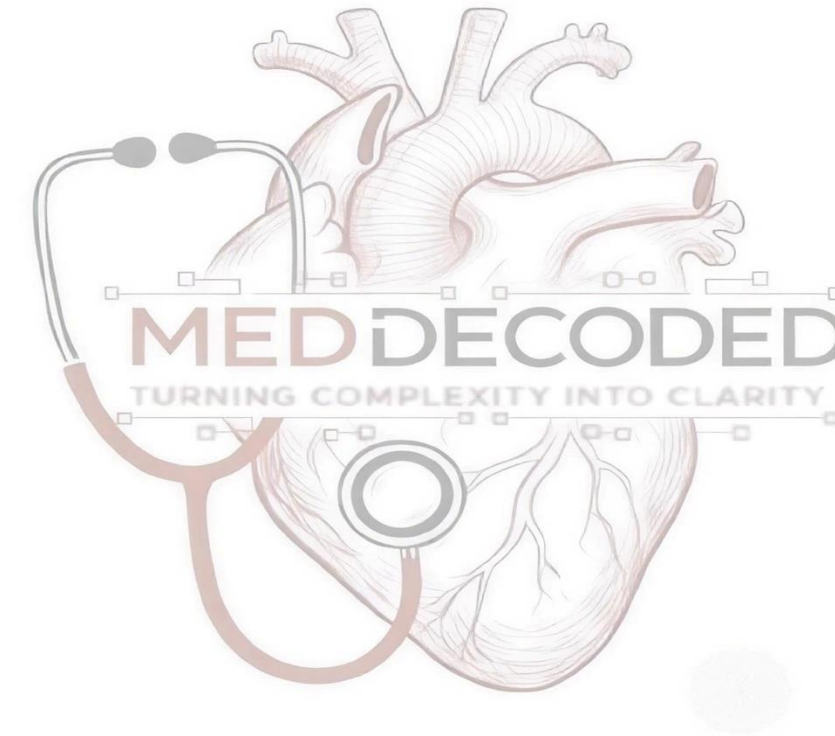
- A- Cytotrophoblast**
- B- Syncytiotrophoblast**
- C- Yolk sac**
- D- Hypoblast**
- E- Epiblast**



Ans:c

72- What period of intrauterine life involves growth of organs and systems ?

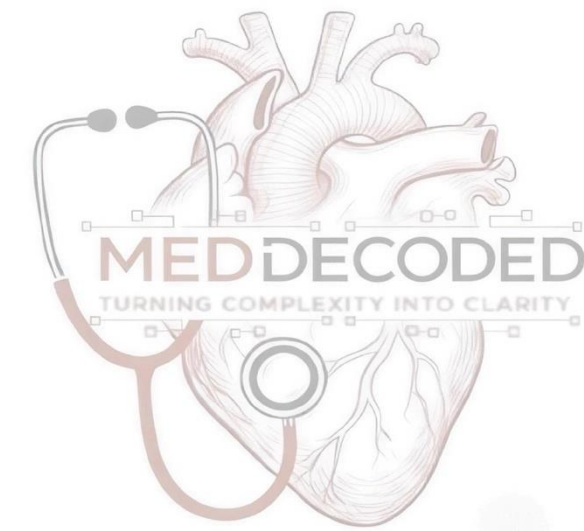
- A- Embryonic
- B- Fetal
- C- Germinal
- D- Capacitation
- E- Implantation



Ans:b

73- Periodic changes which occur in the endometrium every lunar month during the fertile period of non pregnant female :

- A- Ovarian cycle
- B- Menstrual cycle
- C- Fetal phase
- D- Embryonic phase
- E- Germinal phase



74- What is the fate of corpus luteum if fertilisation doesn't occur .

A- It changes to corpus luteum of pregnancy

B- The placenta will secrete progesterone

C- The concentration of progesterone & estrogen increases

D- The corpus luteum becomes corpus albicans

E- The level of GnRH increases

75- What causes changes that prevent polyspermy in the zona pellucida :

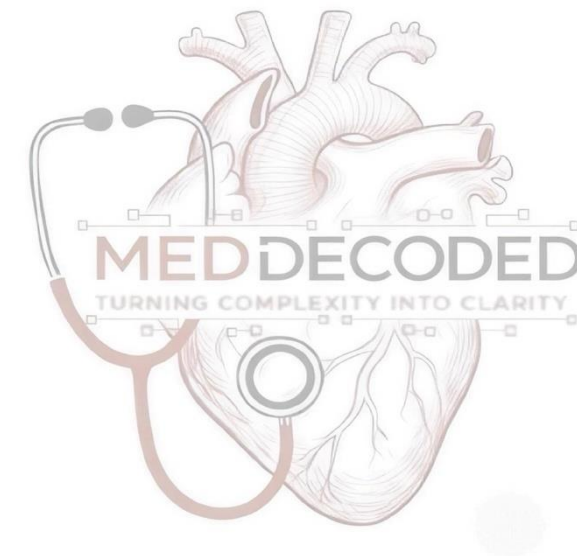
- A- FSH released by the pituitary gland
- B- LH released by the pituitary gland
- C- Acrosomal enzymes released by capacitated sperms
- D- Enzymes released from the cortical granules
- E- GnRH released by the hypothalamus

76- Fertilization means :

- A- Transport of the zygote from the uterine tube to the uterine cavity
- B- Fusion of single sperm and an ovum to form zygote
- C- Penetration of the endometrium by the blastocyst
- D- Transportation of bilaminar embryonic disc to trilaminar
- E- Occurs normally in the uterine tube and ovary

77- The embryonic disc after folding becomes :

- A- Flat**
- B- Circular**
- C- Cylindrical**
- D- Long**
- E- Short**



Ans:c

رسالة من الفريق العلمي:

عن أبي هريرة رضي الله عنه أن رسول الله صلی اللہ علیہ وسلم قال :

من قال :

لا إله إلا الله وحده لا شريك له

له الملك .. وله الحمد

وهو على كل شيء قدير

(في يوم مئة مرة)

كانت له عدل عشر رقاب

وكتب له مئة حسنة ، ومحيت عنه مئة سيئة

وكانت له حرزا من الشيطان يومه ذلك حتى يمسي

ولم يأت أحد بأفضل مما جاء ، إلا رجل عمل أكثر منه

(متفق عليه)

For any feedback, scan the code or click on it.



Corrections from previous versions:

Versions	Slide # and Place of Error	Before Correction	After Correction
V0 → V1			
V1 → V2			