

map 29:

Exam 3
Brightman
BSC1086

Development &

Inheritance

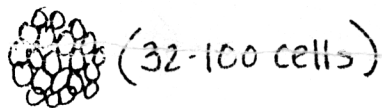


1. _____ thinning acrosomal membrane (10 hrs)
2. _____ sperm entering the egg
3. _____ fusion of nuclei, also known as _____
 - a. _____ - 2 oocytes
 - b. _____ - 1 oocyte that splits

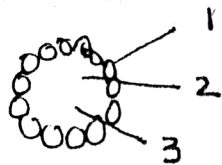
Gastrulation:

* inner cell mass → germ layers → organs (= _____)

2. _____ = epidermis + nervous system
3. _____ = muscle, bone, etc....
4. _____ = inside linings



1. stage = _____
2. _____ = rapid mitotic division that increases cell number and decreases cell size



4. stage = _____
5. day 6 = _____
6. hormone produced by #1 = _____

2

Embryonic Membrane

1. _____ = endoderm - nutrients
2. _____ = ectoderm - forms cavity
3. _____ = derived trophoblast/placenta
4. _____ = becomes umbilical cord

3

MWJ

1. Capacitation
2. Penetration
3. Fertilization
 - a. Dizygotic
 - b. Monozygotic

1. Morula
2. Cleavage (embryo stays the same)

1. trophoblast
2. inner cell mass
3. blastocoel
4. blastocyst
5. implantation
6. hCG

4

1. Organogenesis
2. Ectoderm
3. Mesoderm
4. Endoderm

5

1. Yolk sac
2. Amnion
3. chorion
4. allantois

Genotype - Actual genetic make-up 6

1. BB - _____
2. Bb - _____
3. bb - _____
4. _____ = masks a gene
5. _____ : gene that is masked
6. _____ = alternate forms of gene

Phenotype 7

1. Definition =

10

1. Autosomal =
2. Sex chromosomes =

Mutation 8

1. definition =
2. 1 nucleotide = ~~enzyme~~
3. non disjunction =
 - a. _____ = missing one
 - b. _____ = extra one

Multiple Alleles 9 i.e. Blood Types

1. A and B = _____
2. O = _____
3. Type A =
4. Type B =
5. Type O =
6. Type AB =

11

Sex-linked Inheritance

1. X^cY =
2. X^cX^c =
3. X^cX^c' =
4. XY =
5. X^cY =

1. Homozygous Dominant
2. ~~Homozygous~~ Heterozygous
3. Homozygous Recessive
4. Dominant
5. Recessive
6. Alternate form = alleles

1. physical expression of genes

1. Chromosomal # 1-22
2. X and Y (23rd pair)
Y - determines maleness

1. permanent change in a gene sequence

2. i.e. sickle cell, ϕ

3. failure to separate

a. monosomic = XO

b. trisomic = Down's (21, 21, 21)
XXY, XYY

1. Normal female
2. carrier female
3. diseased female
4. Normal male
5. diseased male

1. Co-dominant

2. recessive

3. AA or A_o

4. BB or B_o

5. oo

6. AB

1. Ureters transport urine

2.

- a. transitional epithelium - mucosa
- b. muscularis layer = detrusor muscle
- c. serosa layer

3. Urethra

1. glucosuria = diabetes mellitus

2. Proteinuria = internal bleeding

3. Ketonuria = too much ketone bodies

4. Hematuria = too much RBC / internal bleeding

5. Pyuria = too much WBC / pus

1.

→ urinary bladder
filled from bottom up.

2.

Urinary Bladder

a. mucosa: _____

b. _____

c. _____

3.

Urethra to free world

Urinalysis

1.

= glucose = _____

2.

= protein = _____

3.

= ketones = _____

4.

= RBC = _____

5.

= WBC = _____