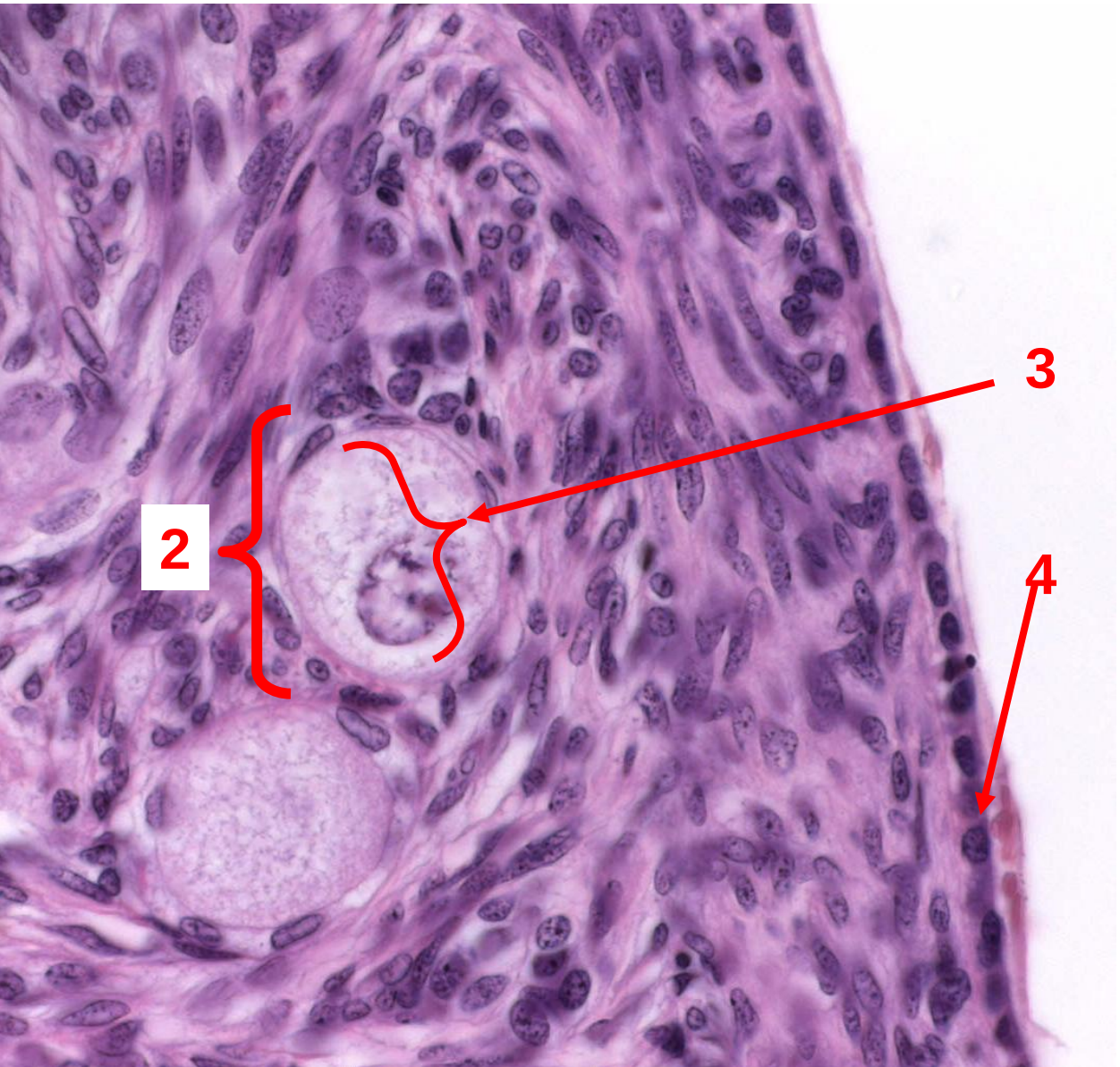
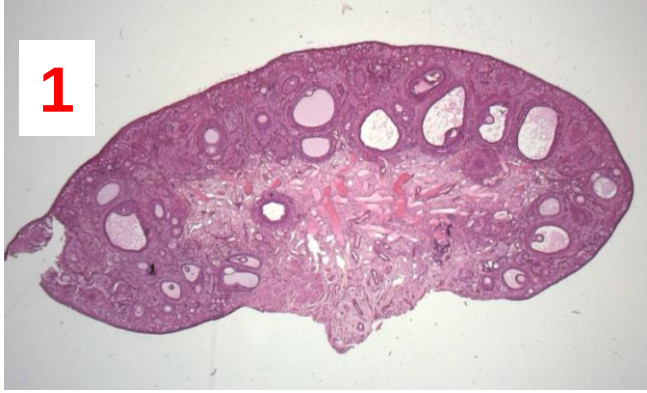
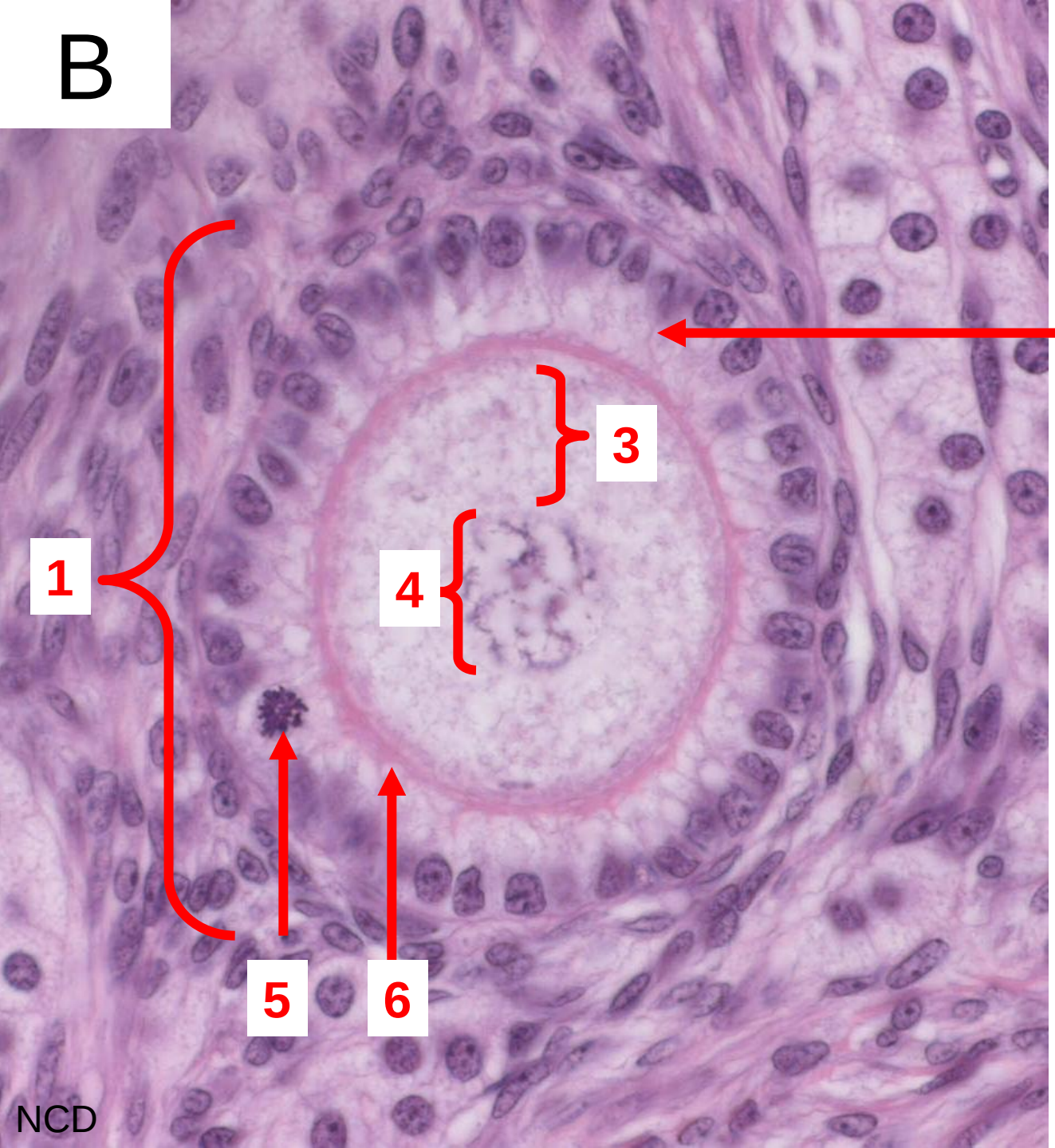
Station 10

A

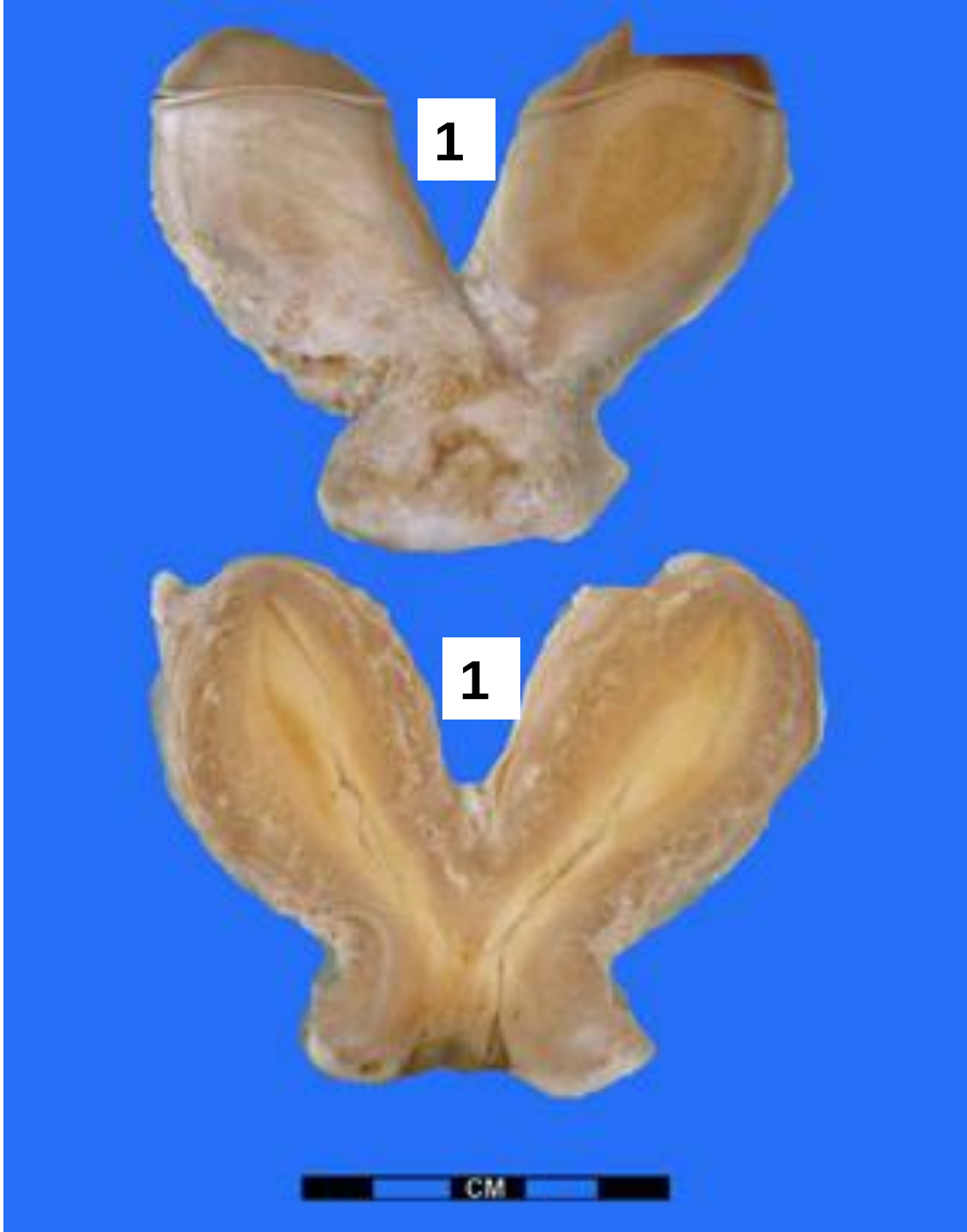




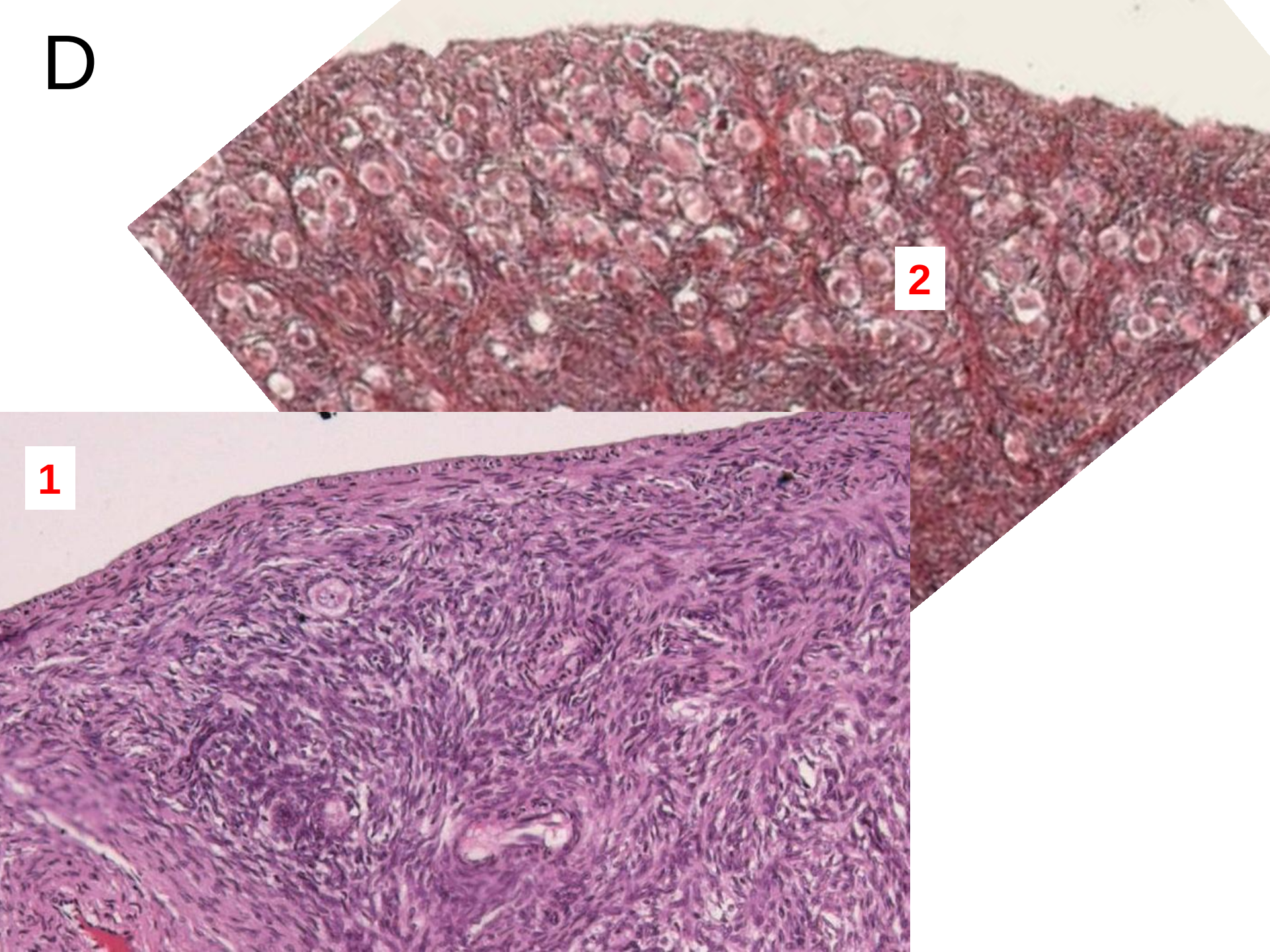

B
1
2
3
4
5
6
NCD

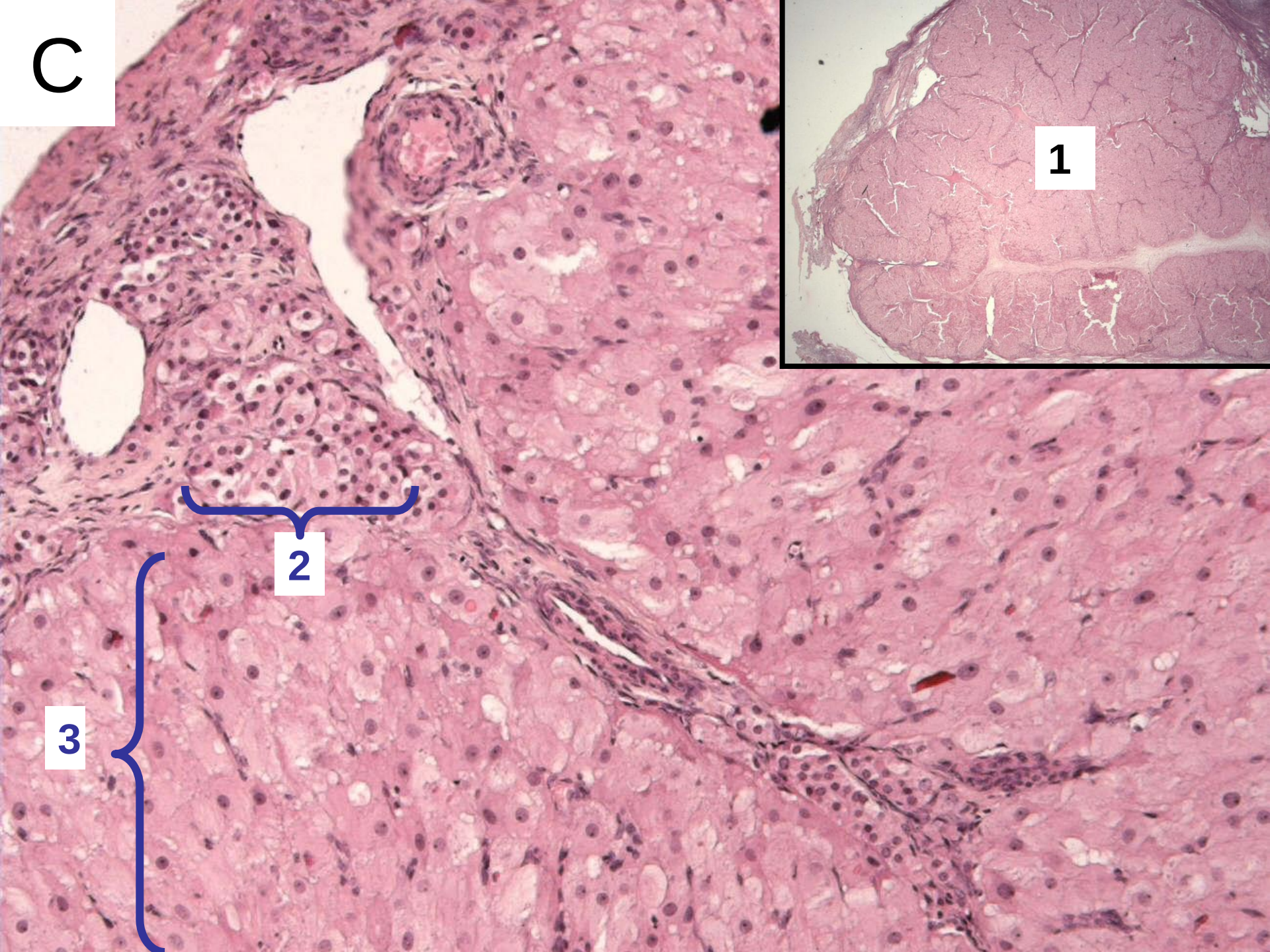
C

Bicorn uterus



D




C
1
2
3

Student ID Number:…….

Station number 10 - Anatomy and Physiology
Slide Show – Short Answer

Remember to fill in your student ID on top right of this page

You are presented with four slides (A, B, C, and D) in a Power Point presentation.
The questions are numbered according to the numbers on the slides.

A. Two images from the same organ

1. Name of organ……
2. Name of structure……
3. Name of structure……
4. Name of layer ……

B. Same organ as in A

1. Name of structure……
2. Name of cells in this layer……
3. Name of substance ……
4. Name of structure……
5. What is this/what happens here?……
6. Name of red line……

C. Bicornate uterus: What has gone wrong during the embryological development?

……

D. The ovary at different ages

Suggest approximate ages (e.g: before puberty, early reproductive, late reproductive, or after menopause) and explain why:

1. ……
2. …….

Examiner's sheet (avkrysningsskjema for eksaminator= den som retter skjemaet)

Student ID number: …….

Examiner ID: ……

Station number 10 - Anatomy and Physiology
Slide Show

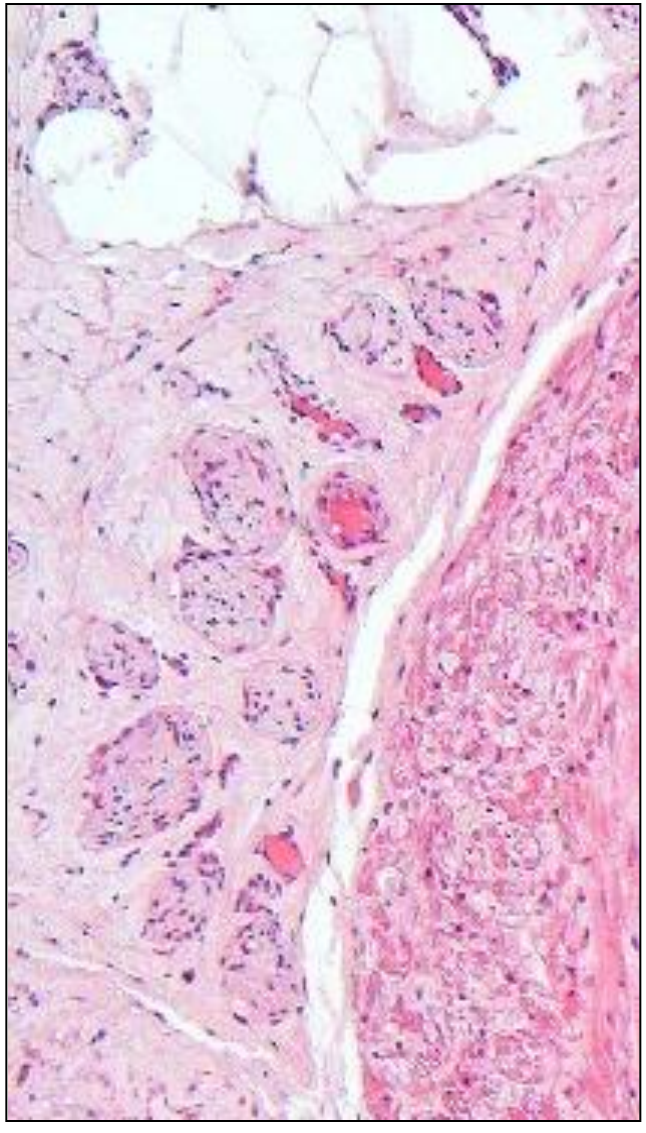
You are presented with 4 slides (A, B, C and D) in a Power Point presentation.
The questions are numbered according to the numbers on the slides.

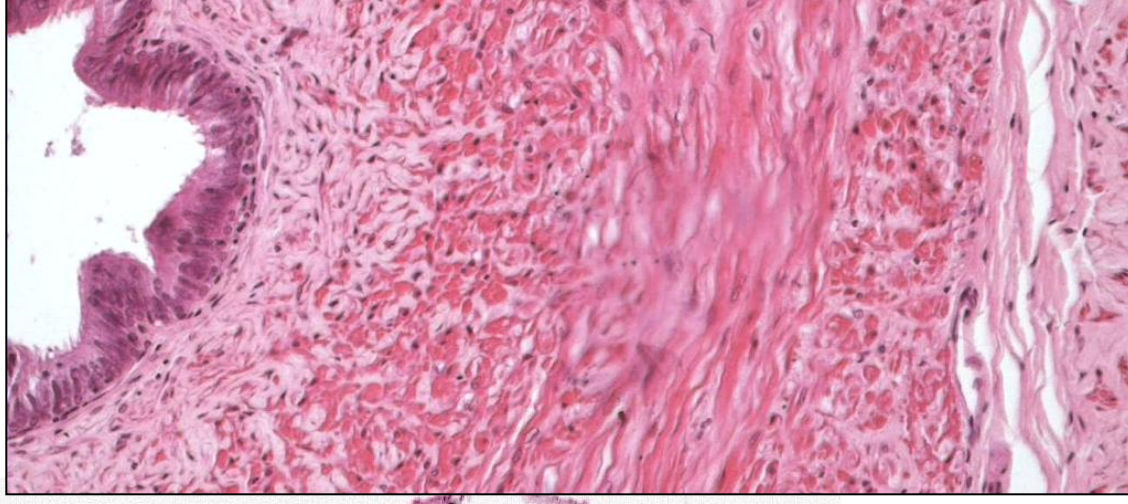
[The column "Max" has no function other than acting as a help when calculating the total score.]

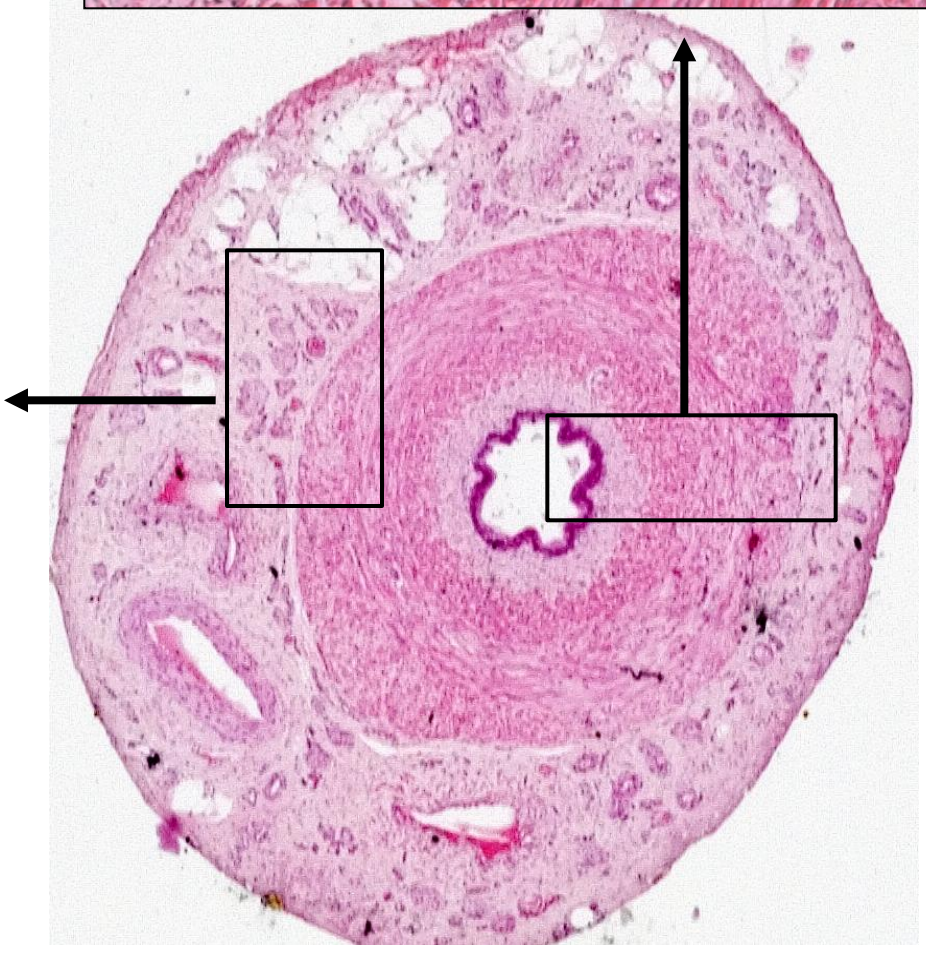
	Gives p.	Score
A 1. Ovary 2. Primordial follicle 3. Oocyte 4. Peritoneum	 1 1 1 1	
B 1. Primary follicle 2. Granulosa cells [follicular (epithelilial) cells, corona radiata] 3. Oocyte cytoplasm 4. Ooocyte nucleus 5. Mitosis 6. Zona pellucida	 1 2 2 2 2 1	
C 1. Incomplete fusion of the lower parts of the paramesonephric ducts.	 4	
D 1. Close to menopause: only one follicle is seen. 2. Childhood: many follicles (accept early reproductive age as correct answer)	 3 3	
	Sum	

Station 11

A



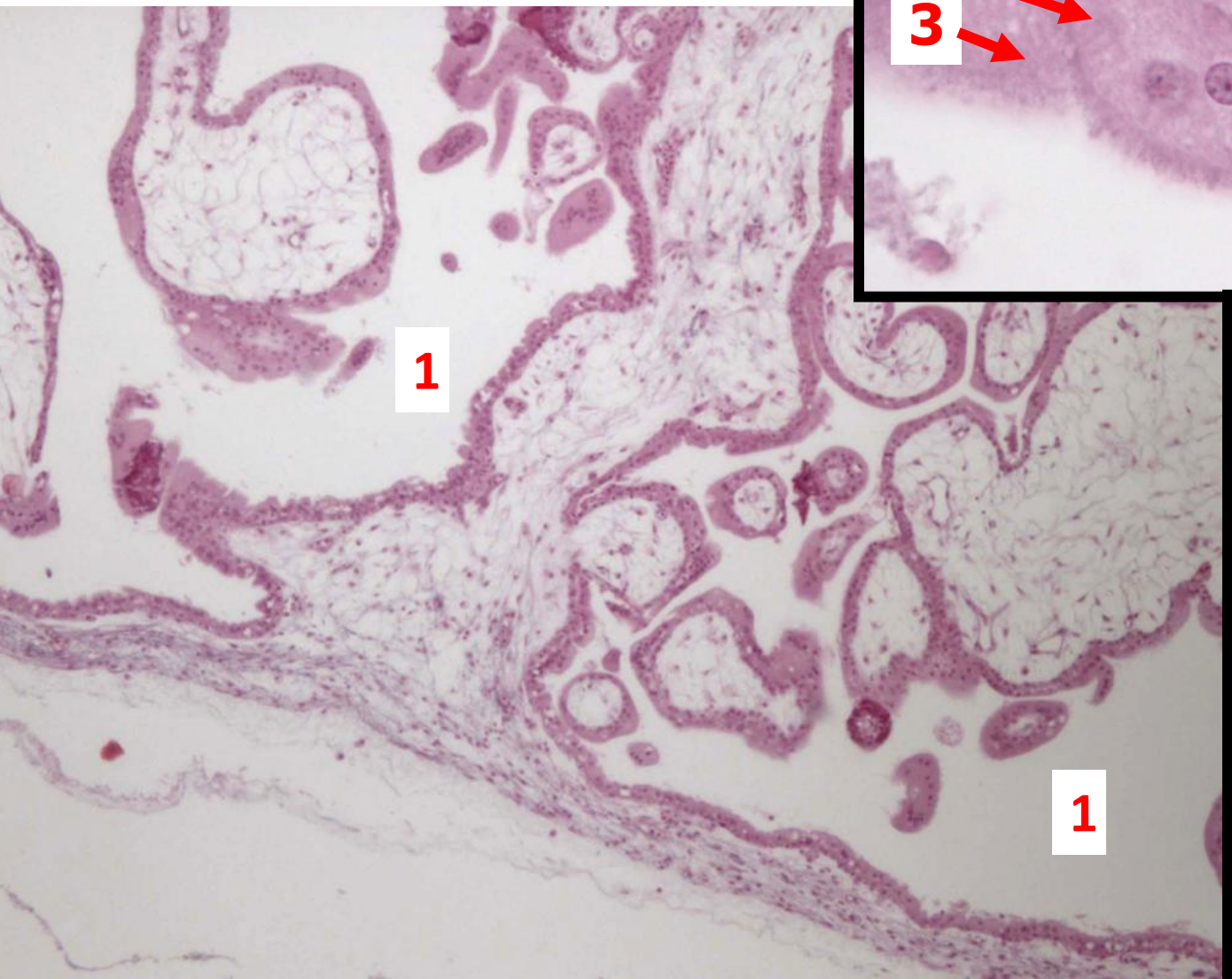


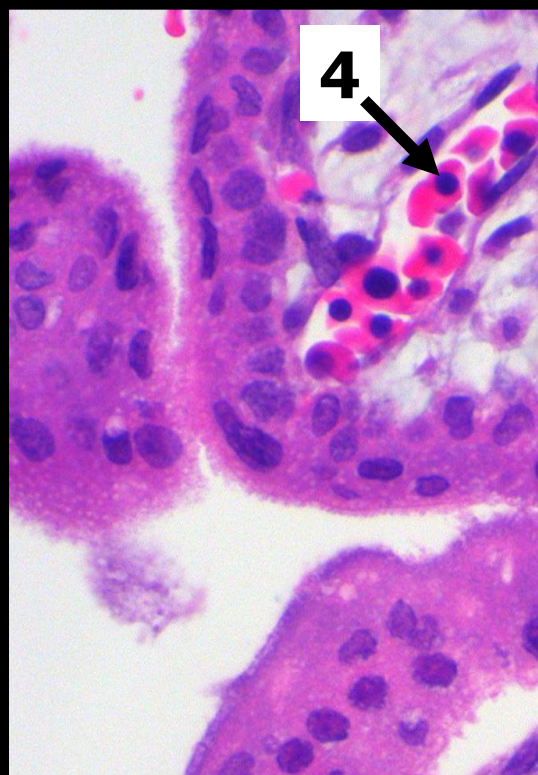


B

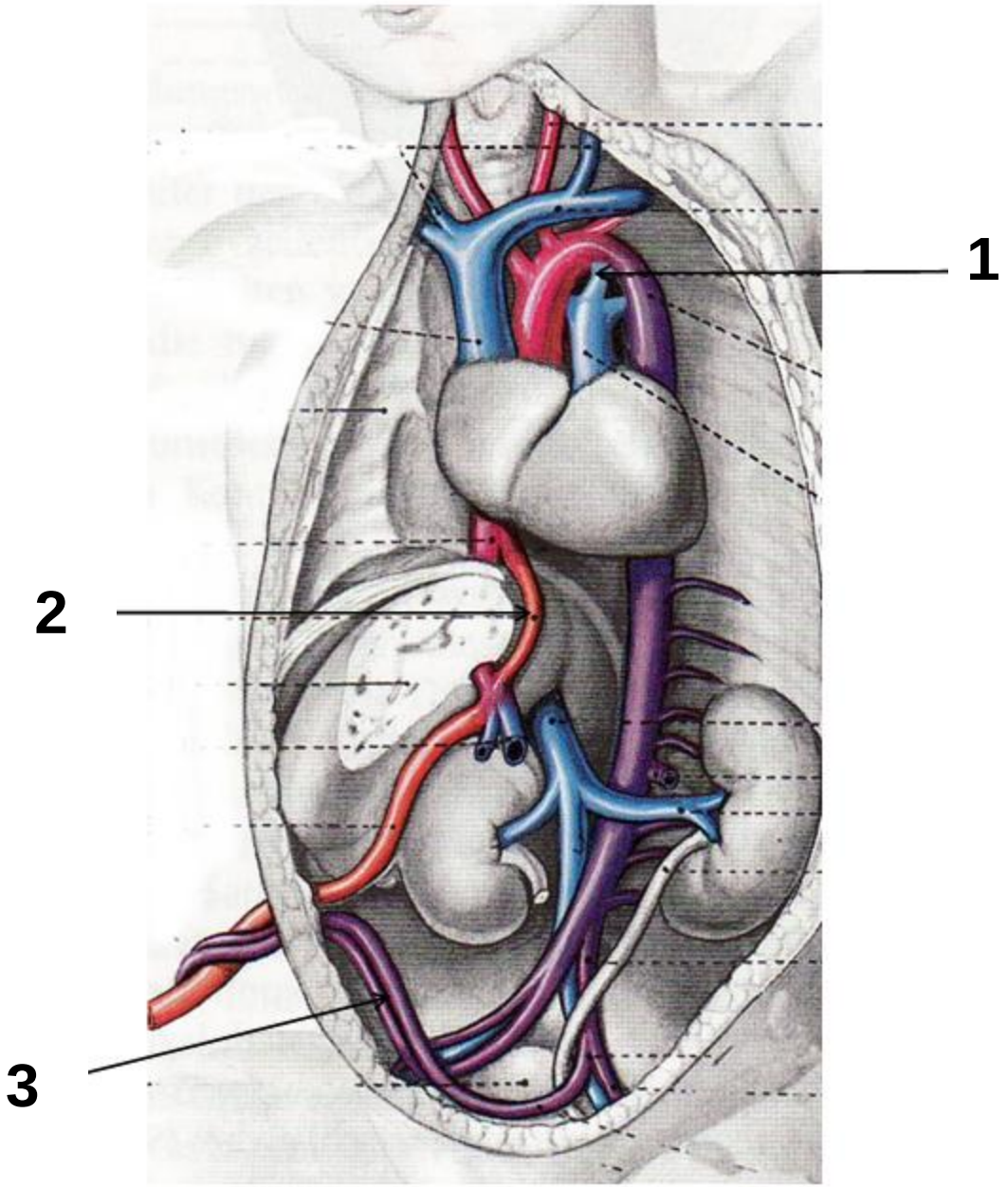
Three images from the same organ:

Different magnifications and stains





C



Student ID Number:…….

Station number 11 - Anatomy and Physiology
Slide Show – Short Answer

Remember to fill in your student ID on top right of this page

You are presented with four slides (A, B, C and D) in a Power Point presentation.
The questions are numbered according to the numbers on the slides.

A.

1. Name of structure ……

2. The left picture shows a number of small nerve fascicles. What would you consider are the most important efferent nerve fibers in these fascicles? ……

B. Placenta

1. What is this space normally filled with? ……
2. Name cell type … … …… … … … … … ……
3. Name cell type……..……
4. Name cell type (give reason)…… ……
5. Which layers separate fetal from maternal blood in the ***mature*** placenta?

……

C. Fetal circulation

1. Name the structure ……..

   What is the function of and what happens to it after birth?……..

   ……..……..……..……..……..

2. Name the structure ……..……..……..
3. Name the structure ……..

Examiner's sheet (avkrysningsskjema for eksaminator= den som retter skjemaet)

Student ID number: …….

Examiner ID: ……

Station number 11 - Anatomy and Physiology
Slide Show

You are presented with 4 slides (A, B, C and D) in a Power Point presentation.
The questions are numbered according to the numbers on the slides.

[The column "Max" has no function other than acting as a help when calculating the total score.]

	Gives p.	Score
A 1. Ductus deferens 2. Sympathetic nerve fibers	 2 2	
B 1. Mother's blood 2. Cytotrophoblast 3. Syncytiotrophoblast 4. Fetal erythrocytes. They are nucleated. 5. In a completely developed villus the barrier consists of fetal capillary endothelium, syncytiotrophoblast and their fused basal laminae. [In the early placenta (or a newly formed tertiary villus), maternal and fetal blood are separated by endothelium with basal lamina, mesenchyme (ekstraembryonic mesoderm), cytotrophoblast with basal lamina, and syncytiotrophoblast (all 4 layers are fetal). endothelium, basal lamina og syncytiotrophoblast.]	 2 2 2 2 2	
D 1. Ductus arteriosus Shunting blood past the lungs; closed after birth 2. Ductus venosus 3. Umbilical artery	 2 2 2 2 2	
	Sum	

Max. Score = 24

Stasjon 12 publiseres ikke grunnet personvernhensyn

Student ID Number: ……

Station number 13 - Paediatrics
Short Answers

Remember to fill in your student ID in the top right-hand corner of this page

You are a GP. A mother of a 6 weeks old boy comes to you. The mother thinks that the baby looks jaundiced (yellow). You agree that the baby's skin is slightly jaundiced.

1. Facts from the medical history may resolve whether
   a) the baby may have a rare and serious problem or
   b) the cause of the baby's jaundice is likely to be innocent.

Write down the two (2) questions which might help you to distinguish between *a)* and *b).*

_____

_____

2. Which two conditions (rare and serious vs common and innocent) were you thinking of when you asked the questions in 1?

   Serious condition:_____

   Innocent/common condition_____

3. You now examine the baby. Mention two (2) findings/observations from a physical examination of the baby which will make you send the child to hospital immediately for further evaluation.

   _____

   _____

Examiner's sheet (avkrysningsskjema for eksaminator= den som retter skjemaet)

Student ID number: …….

Examiner ID: ……

Station number13 - Paediatrics
Short answers

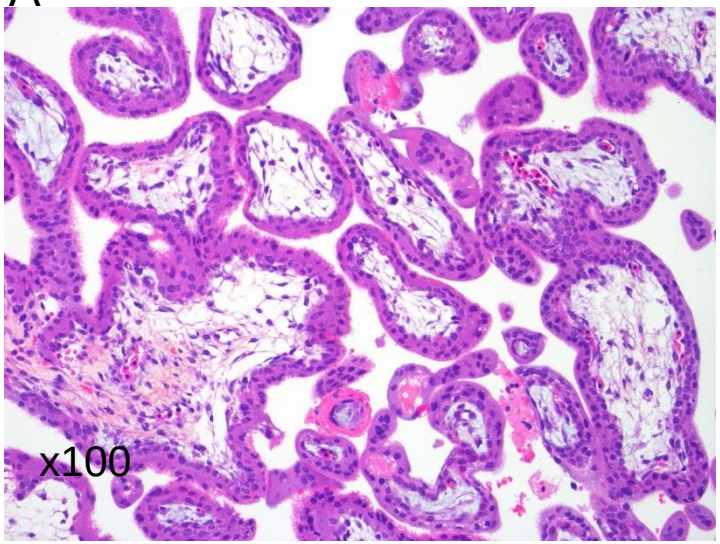
	Correct answer gives points	**Achieved Score**
1 Write down the two (2) questions which might help you to distinguish between *a)* and *b)*. What is the colour of the baby's stool? Is the baby breast fed? Other questions with some relevance (max 2 points total for this)	 4 4 2	
2.Which two conditions (rare and serious vs common and innocent) were you thinking of when you asked the questions in 1? Bile duct atresia (external/internal) Breast milk jaundice	 4 4	
3. Mention two (2) possible findings/observations from a physical examination of the baby which would make you send the child to hospital immediately for further evaluation. (Max. 6 points for this question) Poor general condition/appearing significantly sick/ill Hepatomegaly and/or splenomegaly Pallor underneath jaundice Grey/white stools in diaper	 2 2 2 2	
Sum		

Max score 24 p.

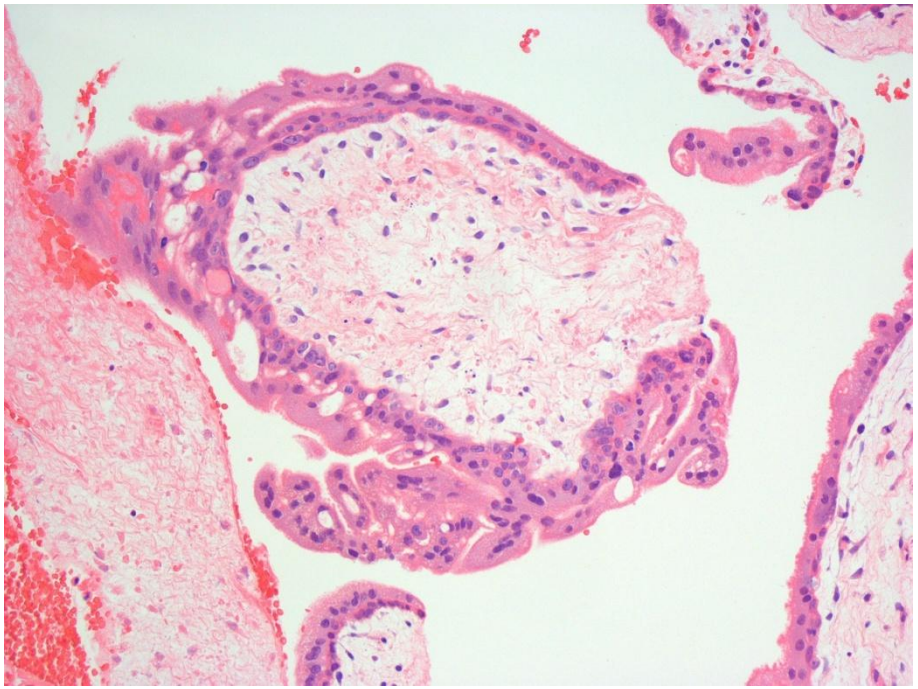
Stasjon 15 publiseres ikke grunnet personvernhensyn

Station 16, short answers

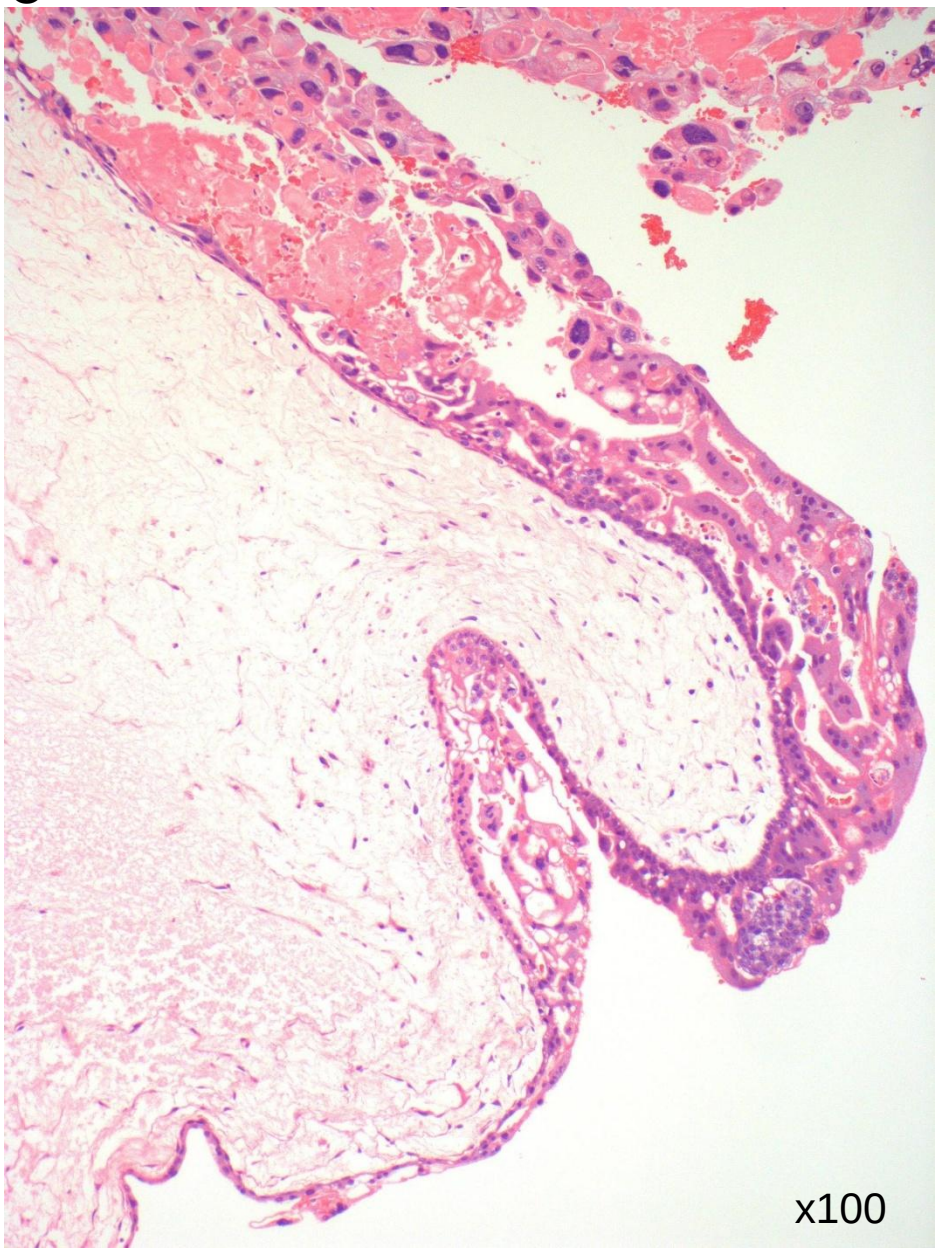
A

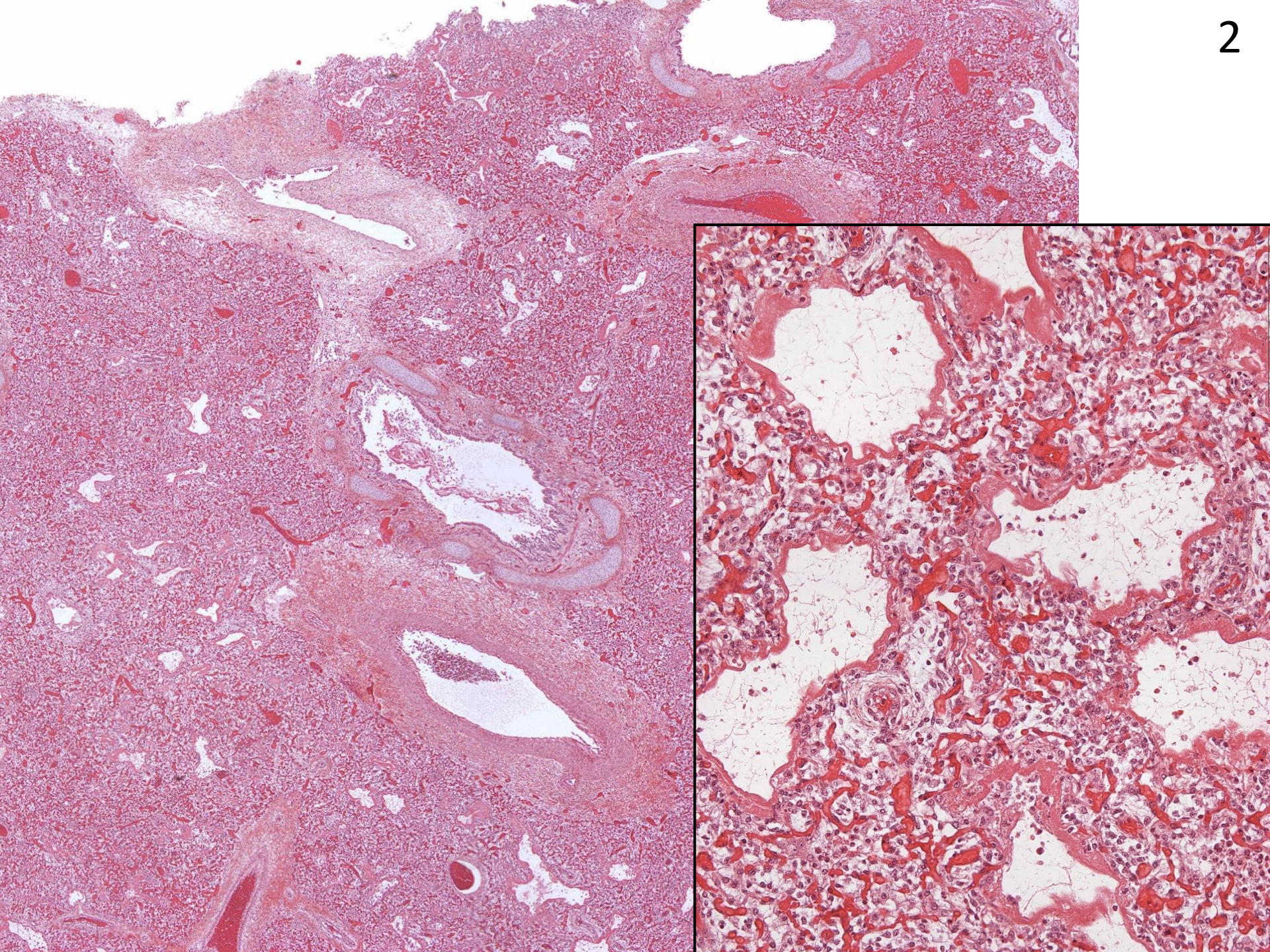


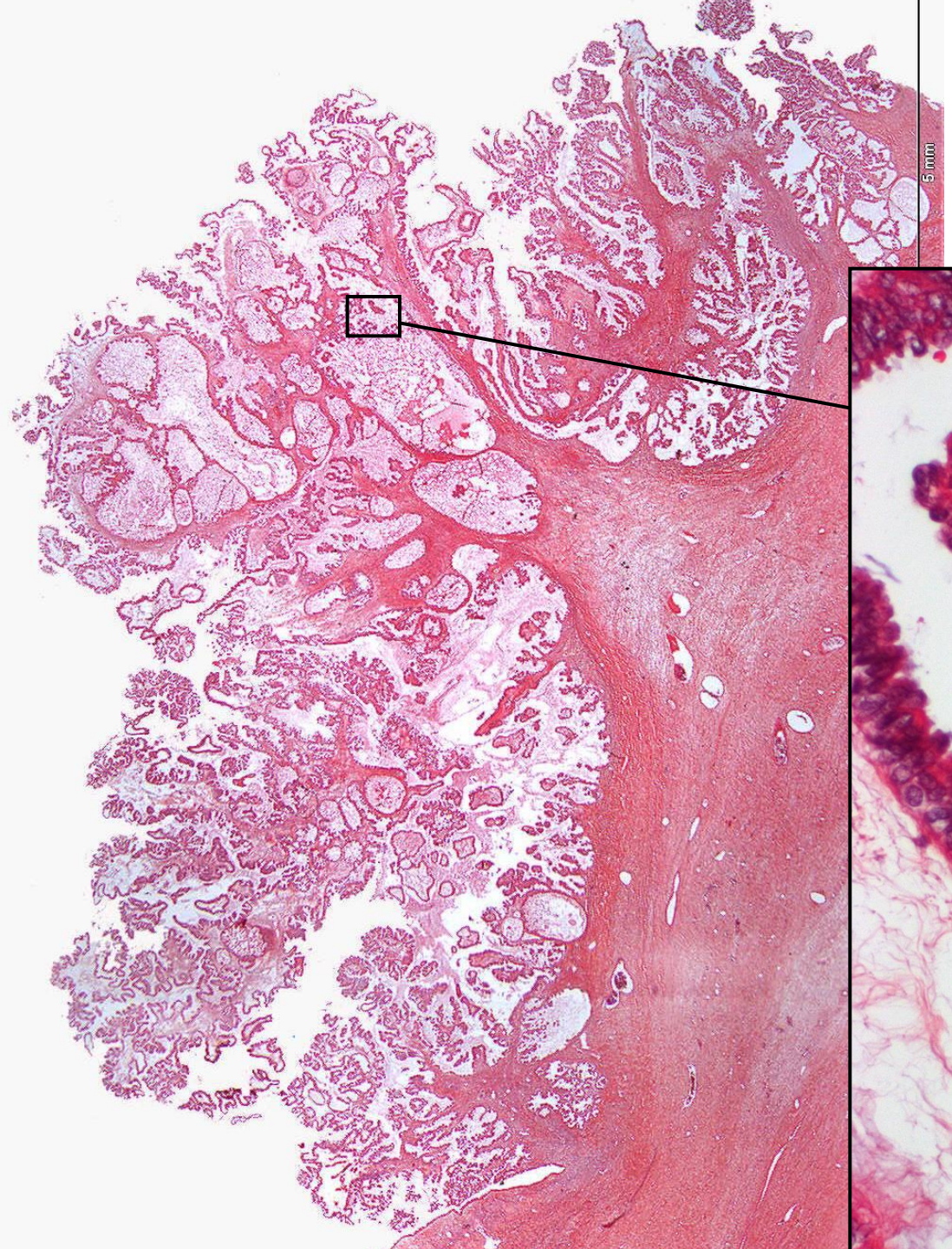
B



C



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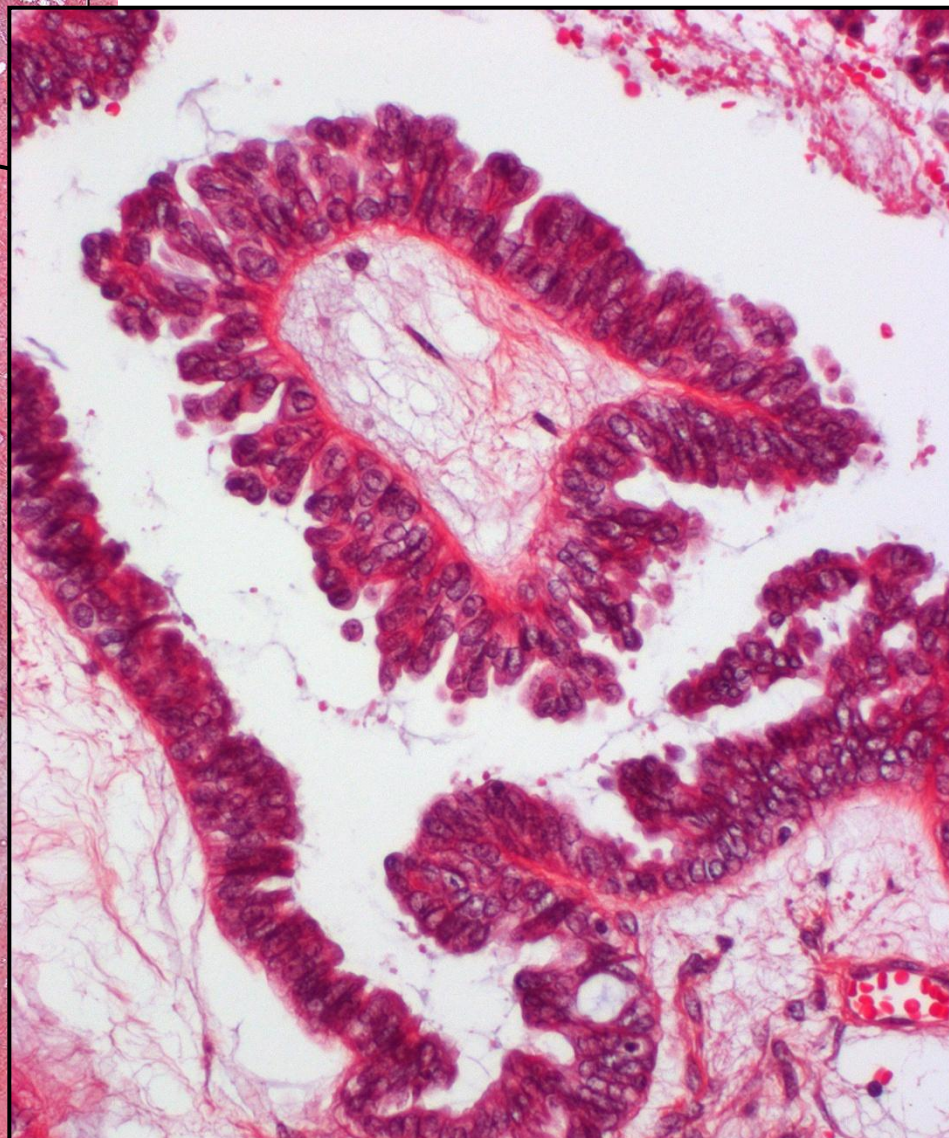

Student ID Number: ……

Station 16 - Pathological anatomy - Short answers station

Remember to fill in your student ID on top right of this page

You are presented with micrographs from histopathological sections.
You are asked to answer all the questions below.

1. Pictures A and B+C show placental tissue from two different, terminated pregnancies (12^{th} – 14^{th} week).

1.1. Which of the two would you consider histologically pathological? A☐ or B+C☐

1.2. Describe at least two characteristic histopathological findings in the abnormal case:

……....

…….

1.3. Diagnosis of histopathologically abnormal case?

……

2. The micrographs are from a prematurely born baby.

2.1 From which organ is this section?

……..……

2.2 Name at least two characteristic pathological findings:

……..…….....

2.3 What is your diagnosis? (abbreviation not sufficient).....

3. The pictures are from the inside of a cystic lesion in the ovary. The tumour measured 20 cm and contained several litres of thin, straw-yellow fluid.

3.1 Characterize the growth of this tumour ……...

3.2 Describe the pathological epithelium ……..…….....

……..……..**.....**

3.3 What type of epithelium is this?.....

3.4 Examination under the microscope showed no signs of invasion. What is your diagnosis? ……..

Examiner's sheet

Student ID number: …….

Examiner ID: ……

Station 16 - Pathological anatomy
Short answers station

	Correct answer gives	**Achieved points**
Question 1		
1.1 B+C	2	
1.2 Pathological process Hyperplasia of trophoblasts, lack of vessels, apolarity, oedema (If at least 2 findings are given = full score)	4	
1.3 Diagnosis Molar pregnancy or complete mola (both correct)	**2**	
Question 2		
2.1 From which organ? Lung	**2**	
2.2 Pathological process Distended alveoli with Hyaline membranes Atelectatic lung tissue (if at least 2 findings are given = full score)	**4**	
2.3 (Infant) Respiratory Distress Syndrome RDS	**2**	
Question 3		
3.1. Growth Papillary, exophytic	**2**	
3.2 Columnar (or glandular), papillary, enlarged and crowded nuclei, pseudostratified (only "atypical" not enough)	**2**	
3.3 Serous type	**2**	
3.4 Diagnosis? Serous papillary cystadenoma with atypia, borderline (no points if the lesion is called carcinoma)	**2**	
	Sum	

Student ID Number: …….

Station number 17 - Pathological anatomy
Short answers station

Remember to fill in your student ID on top right of this page

You are asked to answer all the questions below.

RDS in premature child:

1.1 Name the underlying pathophysiological cause of respiratory distress syndrome in a premature child

.....

1.2 What is the treatment of RDS: a) Before birth, to the mother……

b) After birth, to the premature child .....

Infection of the child in utero:

2.1. Which are the routes of infection from mother to child in utero?

……..

2.2 Name at least two kinds of each microorganism causing infections in the child, in utero:

Bacteria: 1) . …… 2) …….

Virus: 1)……2) ……

Other types: 1)……2) …… ……..……

Endometriosis and adenomyosis:

3.1. How do you define endometriosis?

…….

3.2. List the different theories about the origin of endometriosis:

……..

……

3.3 What is adenomyosis of the uterus?

……

Examiner's sheet (avkrysningsskjema for eksaminator= den som retter skjemaet)

Student ID number: …….

Examiner ID: ……

Station number 17 - Pathological anatomy

Short answers station	**Correct answer gives points**	**Achieved points**
Question 1		
1.1. Cause of RDS Deficiency in pulmonary surfactant	**3**	
1.2 Treatment **a)** Systemic steroids before birth (2) b) Pulmonary surfactant (and ventilation) (2)	4	
2.1 Routes of infections (both must be mentioned) Ascending, from vagina through membranes Transplacental, blood-borne	**2**	
2.2 (No points if virus is mentioned under bacteria or vice versa) **Bacteria:** E.coli, beta-haemolytic streptococci, Listeria monocytogenes, mycobacterium tuberculosis, treponema pallidum. (2) **Virus:** Rubella, CMV, parvovirus, HIV, hepatitis B and C, EBV (2) **Others:** Toxoplasma gondii, malaria, mycoplasma, Candida (2)	**6**	
3.1 Definition Endometrium outside the uterus	**2**	
3.2 Theories **M**etaplastic (1), Retrograde (1), implantation (1) or via lymph/blood-vessels/metastatic (1)	**4**	
3.3. Definition of adenomyosis Misplaced endometrium in the myometrium	**3**	
	Sum	

Student ID number: .....

Station number 18
Short answer

Fill in your student ID in the top right-hand corner of this page

Urinary incontinence

1. Write down the two main groups of female urinary incontinence

_____ _____

2 Increased intraabdominal pressure followed by a few drops of urinary leakage fits with which type of urinary incontinence?

_____

3 Sudden, strong need to pass urine followed by complete emptying of the bladder fits with which type of urinary incontinence?

_____

4 For which type of incontinence may bladder training be a treatment option?

_____

5 For which type of incontinence may pelvic floor training be a treatment option?

_____

6 In which type of urinary incontinence is surgery the main treatment option?

_____

7 Which type of urinary incontinence can be treated with anticholinergic drugs?

_____

Student ID number: .....

Examiner ID…….

Examiner's sheet

Station number 18 - Gynaecology
Short answer

	Maximum score	Achieved score
1. stress incontinence and urge incontinence	3 + 3	
2. stress incontinence	3	
3. urge incontinence	3	
4. urge incontinence	3	
5. stress incontinence	3	
6. stress incontinence	3	
7. urge incontinence	3	
Sum:		

Maximum score 24

Student ID number: .....

Station number 20
Short answer

Fill in your student ID in the top right-hand corner of this page

Ovarialcancer

1. Which of the alternatives below is the most important primary treatment modality in ovarian cancer?

Irradiation therapy
Chemotherapy
Surgery
Hormonal treatment

2. Among the alternatives below select the three main groups of epithelial ovarian cancers

Serous cystadenocarcinoma
Teratoma
Choriocarcinoma
Mucinous cystadenocarcinoma
Endometroid carcinoma
Dysgerminoma
Granulosa cell tumor

3. Which of the four tumour markers below is most often elevated in epithelial ovarian cancer?

AFP
CEA
CA 125
HCG

4. How often does hereditary ovarian cancer occur?

< 2 %
5 – 10 %
> 25 %

5. Which other cancer type do women with BRCA1 mutation have a significantly increased risk of developing?

Colon cancer
Malignant melanoma
Breast cancer
Endometrial cancer

Student ID number: .....

Examiner ID…….

Examiner's sheet

Station number 20 - Gynaecology
Short answer

	Maximum score	Achieved score
1. Surgery	**6**	
2. Serous cystadenocarcinoma Mucinous cystadenocarcinoma Endometroid carcinoma	**2** **2** **2**	
3. CA 125	**4**	
4. 5 – 10%	**4**	
5. Breast cancer **Sum:**	**4**	

Maximum score 24

Student ID number: .....

Station number 21
Short answer

Fill in your student ID in the top right-hand corner of this page

a) What is the definition of body mass index (BMI)?

…….

b) What is the definition of overweight and adiposity according to the World Health Organization?

……

c) Name the most important complications of overweight/adiposity during pregnancy.

…….

d) Name two complications ***during labour***, which occur more often in overweight/adipose women

…….

Student ID number: .....

Examiner ID…….

Examiner's sheet

Station number 21 - Gynaecology
Short answer

	Achieved score
a) Body mass index: kg/m^2 : 6 points	
b) BMI > 25 og BMI > 30: 6 points	
c) Diabetes: 6 points Hypertension/preeclampsia 3 points e) Caesarean section more frequently : 3 points Long-lasting delivery : 3 points. If both mentioned also give 3 points	
Sum:	

Maximum score 24

Student ID Number:…….

Station number 22 - Anatomy and Physiology
Short Answer Questions

Remember to fill in your student ID on top right of this page

Please answer all the questions below. The answers may be in key word form, and should not exceed the space allotted by stippled lines.

1. *Name the mechanisms responsible for transport of the following substances across the placenta barrier*

a. oxygen and carbon dioxide……

b. glucose……

c. *amino acids and iron* ……

2. Which three groups of lymph nodes receive lymph from the uterus?

……

……

3. What symptoms/signs would you expect from a complete transection of both of the pudendal nerves in both sexes?

……

……

4. Why can incision of an ischiorectal (ischioanal) abscess result in a reduced ability for fecal continence?

……

Examiner's sheet (avkrysningsskjema for eksaminator= den som retter skjemaet)

Student ID number: …….

Examiner ID: ……

Station number 22 - Anatomy and Physiology

Short answer questions

Please answer all the questions below. The answers may be in key word form, and should not exceed the space allotted by stippled lines.

	Correct answer gives	Achieved Score
1a. Diffusion 1b. Carrier(transports protein) mediated, but passive (facilitated diffusion) 1c. Carrier (transports protein) mediated, active transport	2 2 2	
2. # Pelvic (along the external and internal iliac arteries and on the sacrum) # Inguinal (via ligamentum teres uteri) # Lumbar (from the fundus and uterine corner).	2 2 2	
3. # Incontinence for urine and feces. # Anaesthesia of the innervated regions): the penis, clitoris, the posterior part of the scrotum, labia minora, labia majora, vagina, urethra, perineum, anal region. # Impaired sexual function due to anaesthesia and failure of bulbocavernosus and bulbospongiosus muscles, in both sexes.	3 3 3	
4. The incision may damage nerves controlling sphincter function.	3	
	Sum	

Max 24 points

Student ID number: .....

Station number 23
Short answer

Fill in your student ID in the top right-hand corner of this page

1. What is the definition (mmHg) of high blood pressure in pregnancy?

   ……

2.

   a) What is the definition of chronic hypertension in pregnancy?

   ……

   b) What is the definition of pregnancy induced hypertension.

   ……..

3. Which of the antihypertensive drugs listed below are contraindicated in pregnancy?

   Boxes!

ACE-inhibitors	☐
Labetolol	☐
Methyldopa	☐
Angiotensin receptor blockers	☐
Calcium antagonists	☐
Thiazides	☐
Beta-blockers	☐

Student ID number: .....

Examiner ID…….

Examiner's sheet

Station number 23 - Gynaecology
Short answer

	Correct answer gives	Achieved score
Sensor guidance: 1. ≥ 140/90 mmHg:	6 points	
2. 2.1 High blood pressure known before pregnancy or discovered at first antenatal check (in the great majority of cases carried out during first trimester) : 2.2 Hypertension starting after gestation week 20 .	6 points 6 points	
ACE-inhibitors Angiotensin-receptor blockers	3 points 3 points	
	Sum:	

Maximum score 24

Student ID Number:…….

Station number 24 Paediatrics

Remember to fill in your student ID on top right of this page

1a) Mention clinical signs or findings of coarctation of the aorta

……..

1b) Mark the coarctation of the aorta in the X-ray (MR imaging) below. This is the most common location of the coarctation.

---

2. Describe how central cyanosis can be recognized?

……
..

3. Why are some congenital heart malformations associated with central cyanosis?

……

4. In the newborn child, a VSD may be without a systolic murmur during the first days of life. Why?

……

Student ID ……....

Examiner's sheet

Station number 24 **Examiner ID: ……**

Pediatrics, Heart disease

	Correct answer gives	**Achieved Score**
1a) What are the 3-4 most common CLINICAL signs of coarctation of the aorta in older children? (each sign explained by 1-4 words)		
Differential blood pressure: arms > legs	3	
Systolic murmur or bruit in the back	3	
Systolic hypertension in the upper extremities	3	
Diminished or absent femoral or lower-extremity pulses	3	
b) Mark the coarctation of the aorta in the X-ray (MR imaging) below	2	
2. Colour of the skin and/or of mucus membranes	3	
3. Right to left shunt	3	
4. The pressures in right and left ventricle are the same: thus there is no shunting and no murmur	4	
	Sum	

Max. points = 24

Student ID Number: ……

Station number 25 - paediatrics
Short Answers

Fill in your student ID in the top right-hand corner of this page

A 13-year-old girl comes to your practice. She has always been healthy and active. She is now unusually tired, and has hardly been at school the last 4 months. She complains of nausea, frequent diuresis and diffuse pains in her body. She has had several fever episodes.

On examination: The patient appears thin, pale and clammy but otherwise the clinical status is normal. Heart Rate 95 beats /min. Blood Pressure 110/65 mmHg, Core temperature 36.9 C Laboratory tests: Hb 8.7 g/dl; CRP 13 mg/l; urine dipstick negative. The closest paediatric unit is about 2 hours drive away.

a) From the information above, which 6 clinical conditions would you suspect in this case?

…… …….

…….... ……..

……. ……

b) Which part of the information is the most important for the further handling of the patient?

…….....……

.....

c) How urgent do you consider the situation to be?

.....

d) Would you admit this patient directly to hospital ?

…….

…….

……..

Student ID Number: ……

Examiner ID: ……..

Examiner's sheet

Station number 25 - Paediatrics
Short answers

	Correct answer gives p.	Given Score
a) These are very non-specific symptoms, and the student should consider a range of possibilities: *Anaemia *chronic infection *autoimmune disease *endocrinopathies (Diabetes a possibility) *malignancy (consider CNS tumour) *Organ failure (liver, renal, heart) *Arrhythmias *serious psycho-social problems *malabsorption *Chronic fatigue syndrome (ME)	2 p for each relevant answer **Maximum 12 p**.	
b) - Failure to attend school. - Anaemia - Diffuse organsymptoms. - Slight tachycardia.	2 2 2 2	
c) The patient has diffuse symptoms and she needs investigation. This should be performed within days, not hours.	2 points	
d) Not urgent,but needs handeling No, should not be hospitalized immediately but be referred to specialist care within days	2 points for any of these	
	Sum	

Maximum possible points 24 **Total score: _____**