

Station no. 1
OSCE

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

Student's instructions

You are working at a well baby clinic. A mother has arrived with her son, who was born 13 weeks before term, with a birth weight of 950 gr. He is now 19 weeks post partum (6 weeks old corrected for expected day of delivery).

The head circumference has increased from the 25th percentile at discharge from the hospital, to 41 cm today.

The weight has increased from the 10th percentile to 4.8 kg for the age, while the length has increased from the 10th percentile to 58 cm.

You have the growth charts.

- a) Plot and find his percentiles.

- b) Most probable diagnosis?

- c) Suggest one examination to verify this diagnosis.

Examiner's sheet

Student ID Number:.....

Examiner ID:.....

Station no. 1

	Correct answer gives	Given points
Percentile for head circumference is 90	4	
Weight percentile 50	6	
Height for age 50 percentile	6	
Diagnosis: hydrocephalus	4	
Examination: Ultrasound of the head/cranium/brain	4	

Maximum score 24

Total score: _____

Is this candidate competent to do turnus in general practice?

Not competent ()

Borderline ()

Competent ()

Student ID no:

Station number 10 - Anatomy and Physiology

Slide Show – Short Answer

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

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

A. Mammary gland: Low magnification image (inset in top right corner) and a high magnification image showing details.

1. What do these areas represent (Arrows 1)?

.....
.....
.....

2. What do these areas represent (Arrows 2)?

.....
.....
.....

B. Portio

1. Type of epithelium

2. Type of epithelium.....

3. Why are these areas bright red?

.....

C. Cervical smear at high magnification

1. Name of cell type.....

2. Name of cell type?.....

3. Name of cell type?.....

4. What kind of structure are the arrows pointing at? Give name and function

.....

Examiner's sheet

Student ID no:

Examiner ID:

Station number 10 - Anatomy and Physiology

Slide Show

You are presented with 3 slides 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 an aid when calculating the total score.]

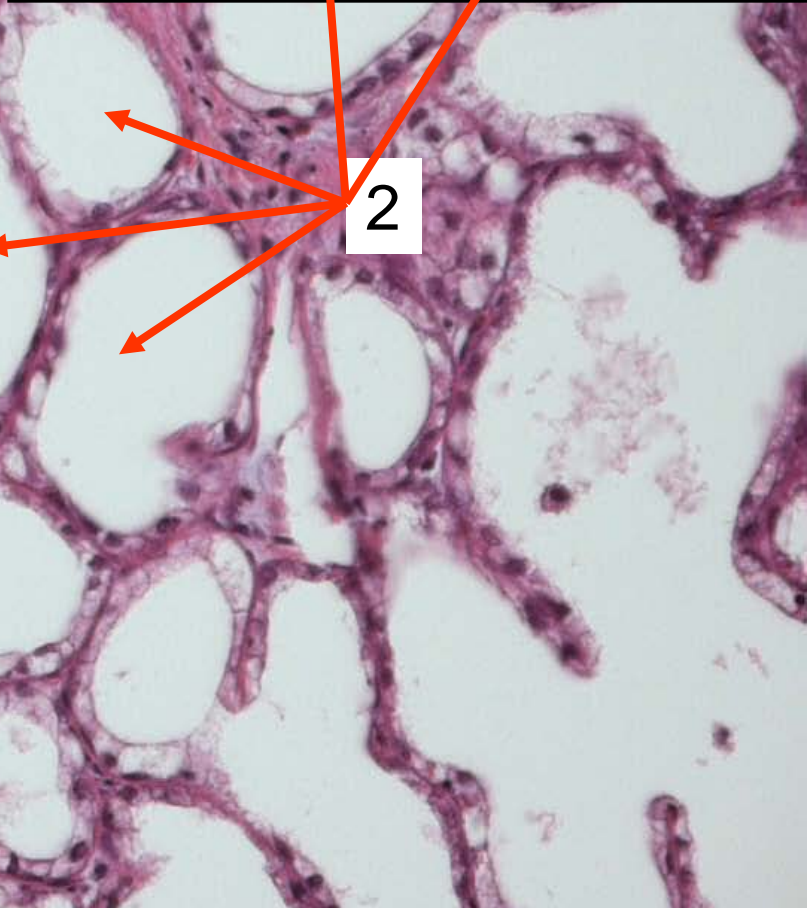
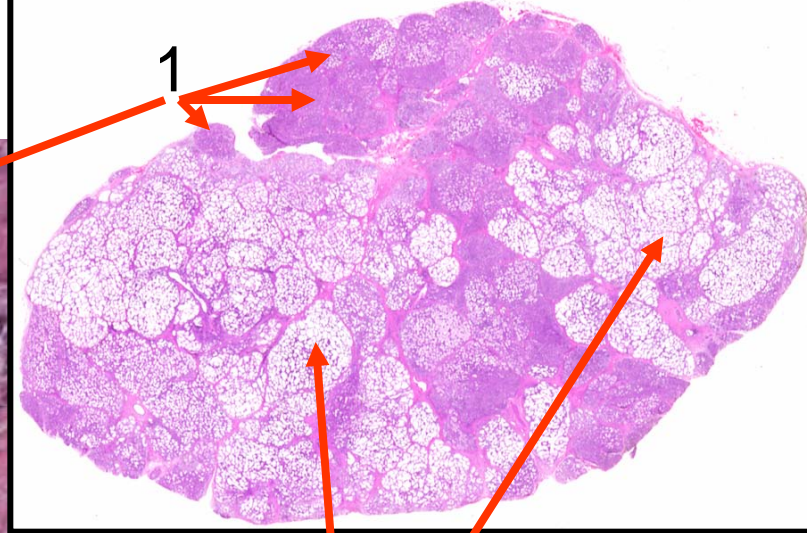
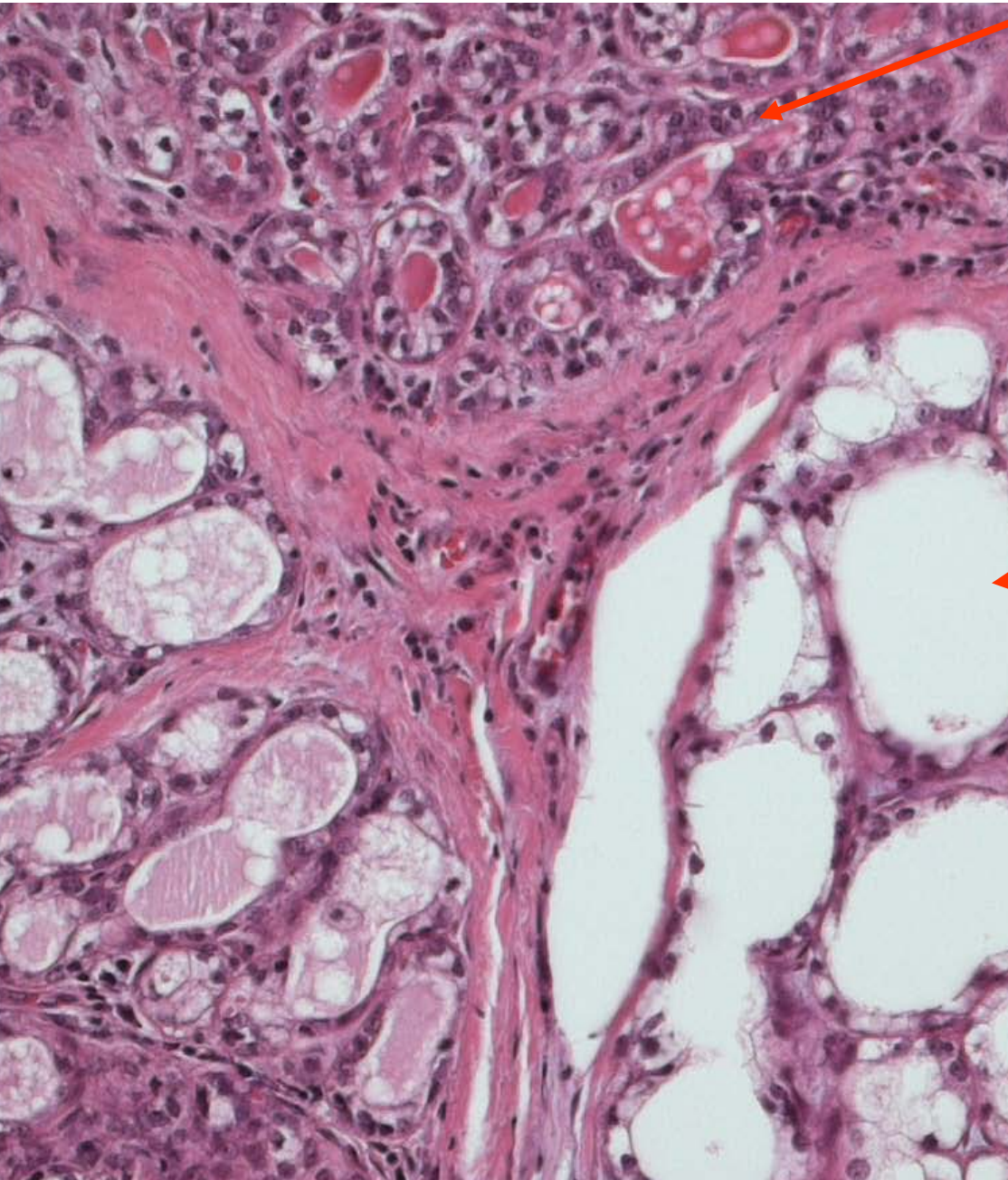
	2p	3p	Max.	Score
A 1. Dark areas are lobuli where the alveoli are contracted after having emptied themselves (and are producing milk). 2. Light areas are lobuli where the alveoli are distended because they are full of milk (storing).	x x		4	
B 1. Cervical columnar epithelium 2. Vaginal stratified squamous epithelium 3. The red areas are covered with columnar epithelium, which appears redder because it is thinner.		x x x	9	
C 1. Granulocytes (a leucocyte type) 2. Cervical columnar epithelial cells 3. Vaginal squamous epithelial cells 4. Lactobacillus, a Gram positive rod, producing lactic acid	x x	x x x	11	

Max. 24 points

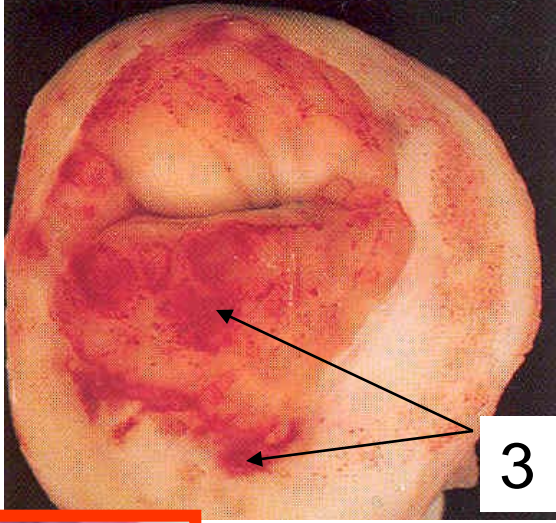
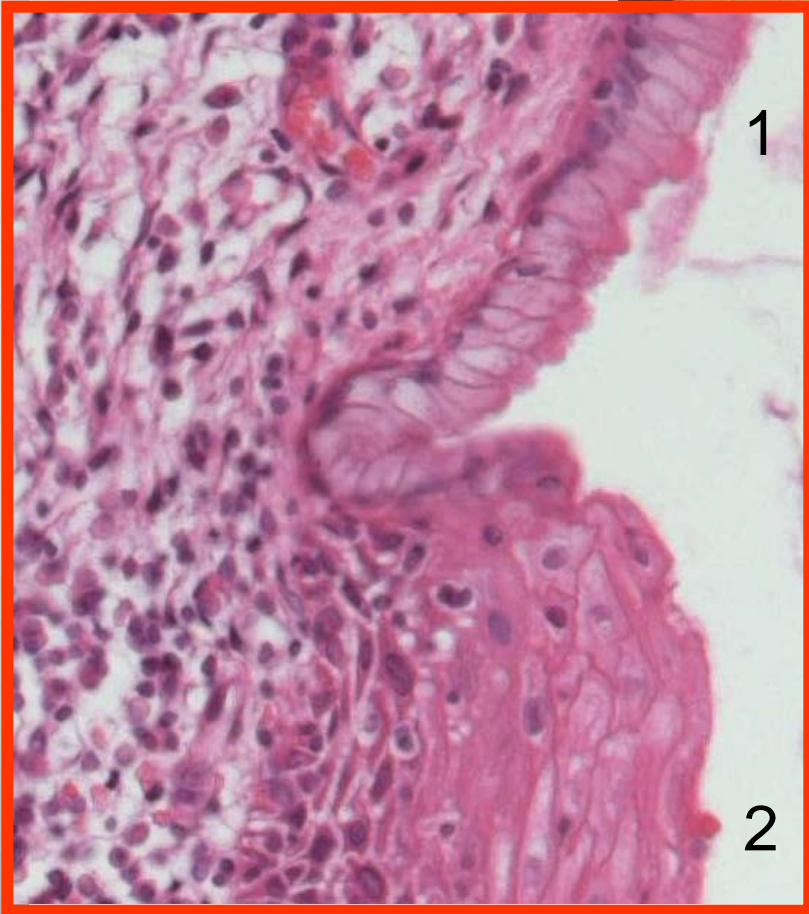
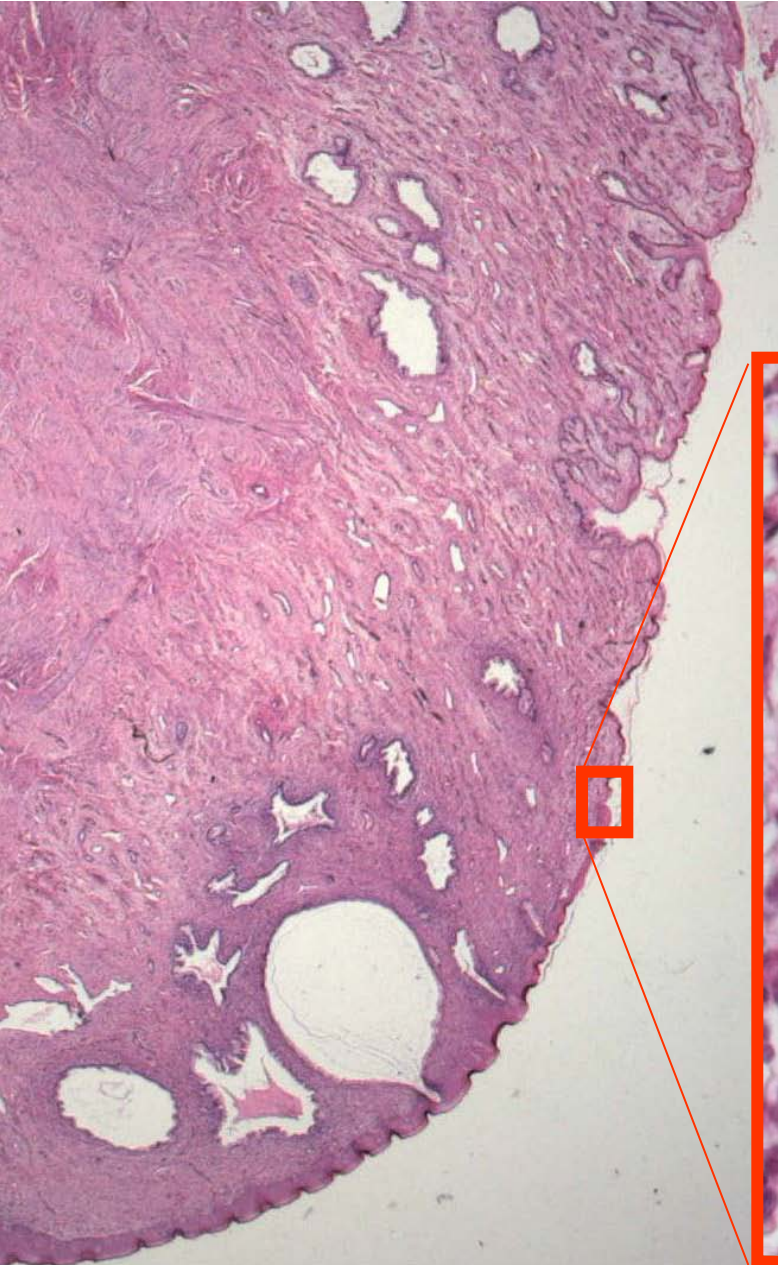
Total score: _____

Station 10

A. Gl. mamma (lactating)

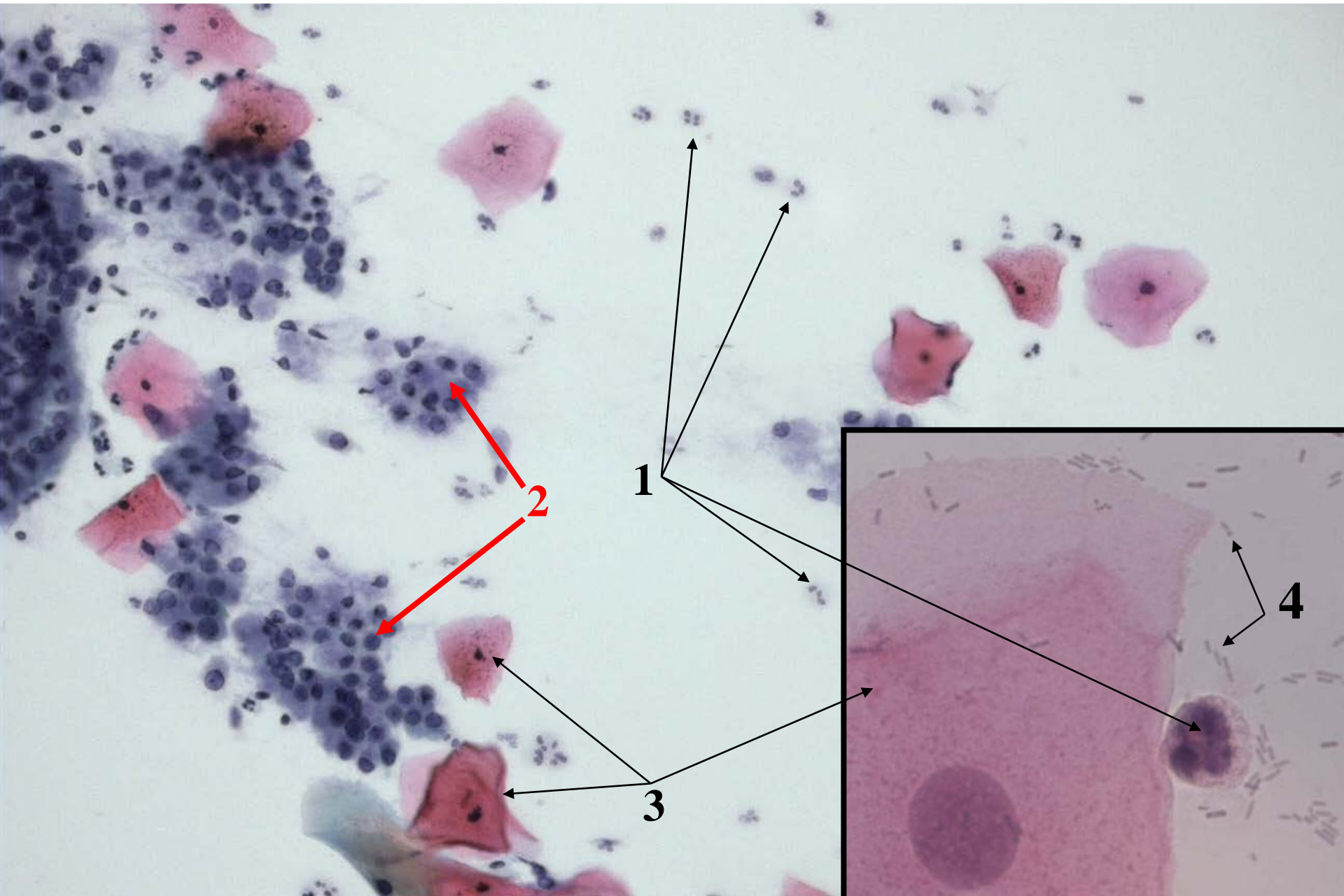


B Portio vaginalis uteri



C

Cervical smear, Papanicolaou



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

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

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 organ.....
2. Name of organ.....
3. Name of area within organ

B. Same organ as in A, but at higher magnification

1. Name and embryological origin of the layer covering most of the surface of this organ? [NB: The arrow points at the location. The layer itself is not visible on this image.]
.....

2. Name thick structure surrounding the organ
3. Name structures and main physiological function.....
.....

C

1. Name and main function of these cells
.....
2. What are these structures?.....

D

1. Name cell type.....
2. Name cell type.....
3. Which cell type present in the area defined by the bracket forms a tight barrier?
What is the name of the barrier?
.....

4. The brown-black dots: state physiological purpose and chemical composition
.....

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 an aid when calculating the total score.]

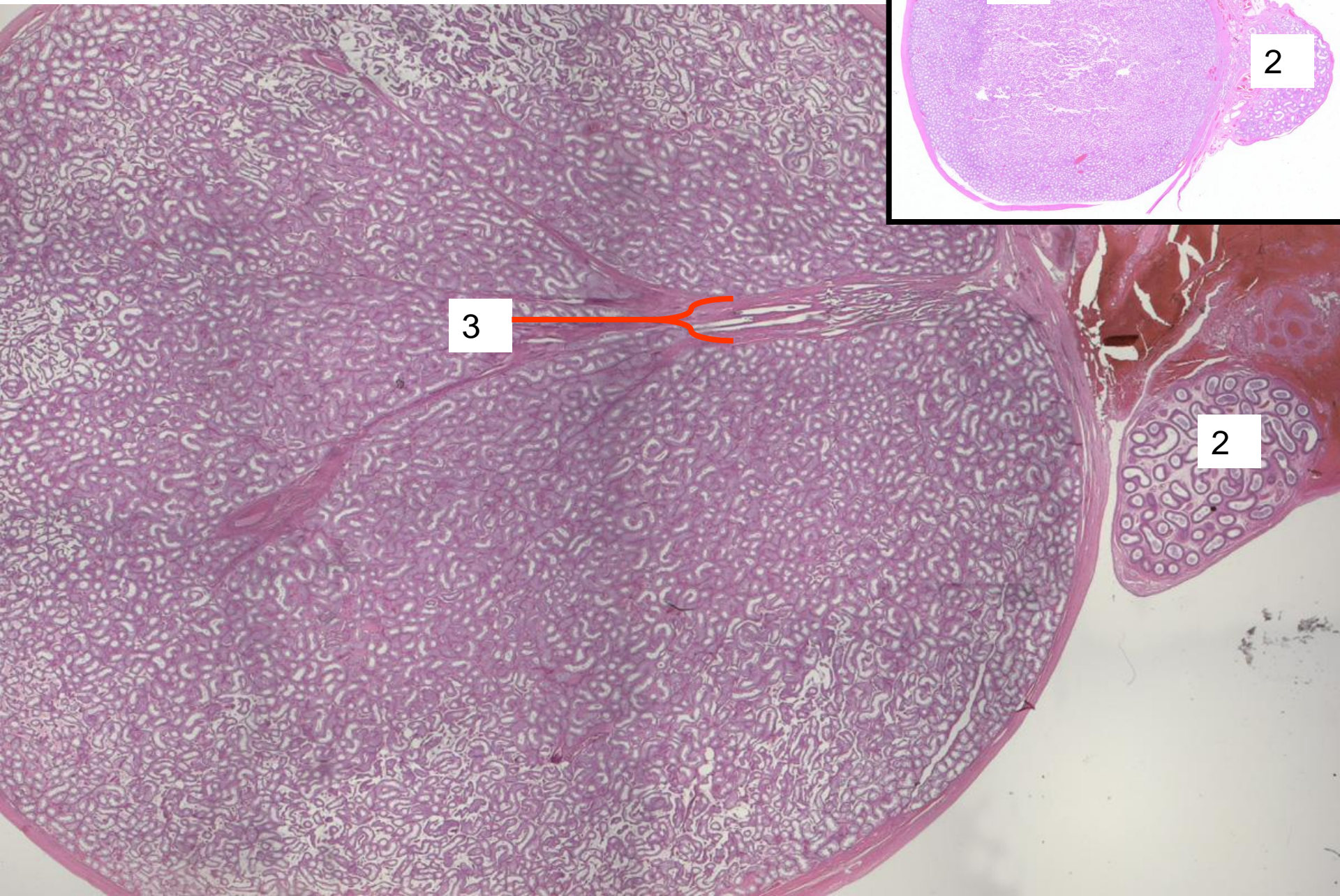
	1p	2p	Max.	Score
A 1. Testis 2. Epididymis 3. Mediastinum testis (with rete testis and ductuli recti)	x	x x	5	
B 1. Tunica vaginalis. Develops from the peritoneum. 2. Tunica albuginea 3. Tubuli seminiferi contorti. Produce sperms.		x x x	6	
C 1. Leydig cells. Produce testosterone 2 Blood vessels		x x	4	
D 1 Sertoli cell 2 Spermatogonia 3 The Sertoli cells form the blood-testis barrier 4 The dots are lipid (cholesterol) droplets within Leydig cells. They represent material that testosterone can be made from. Steroid hormones cannot be stored.	x	x x x x	9	

Max. 24 points

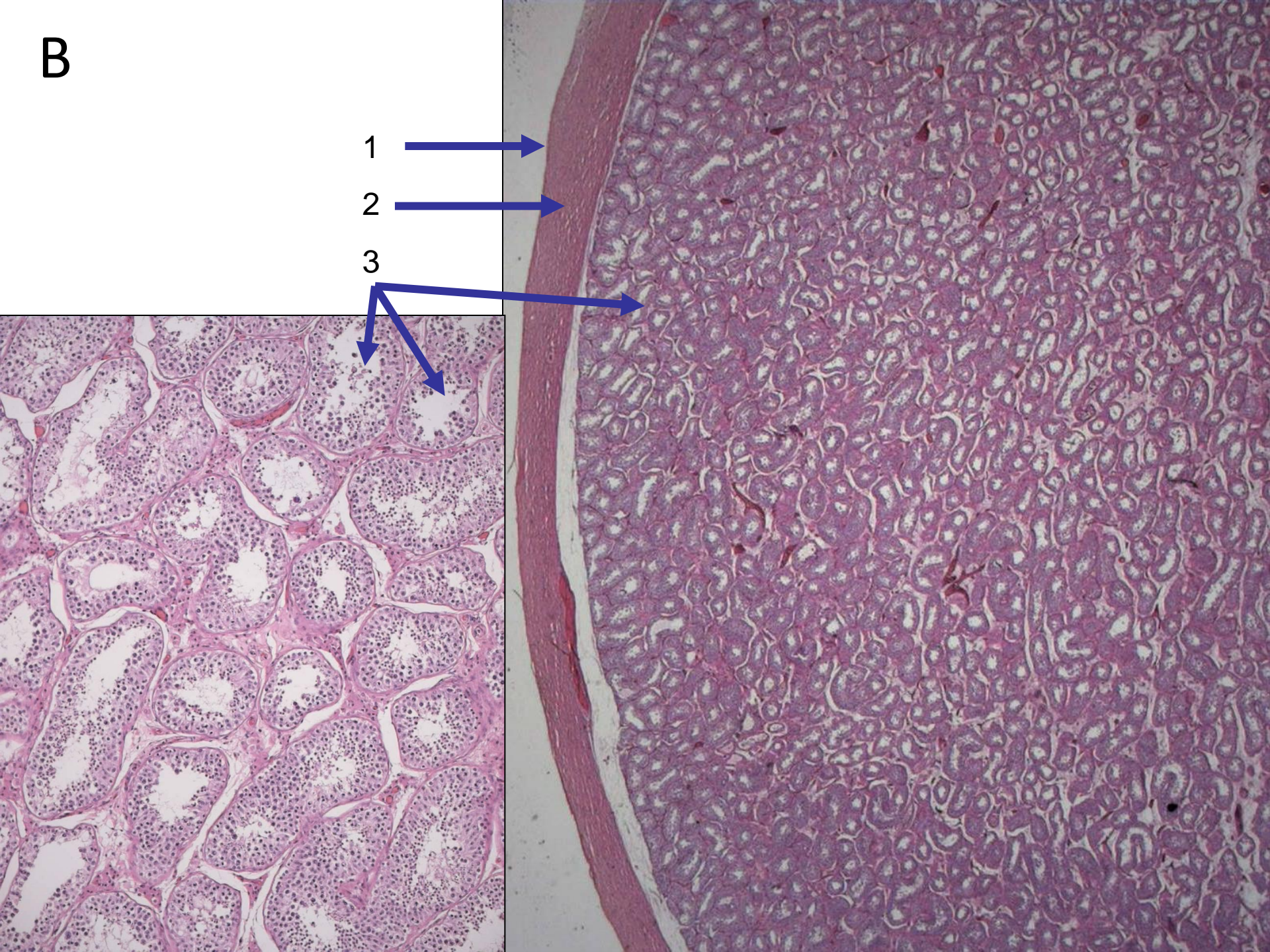
Total score: _____

Station 11

A



B

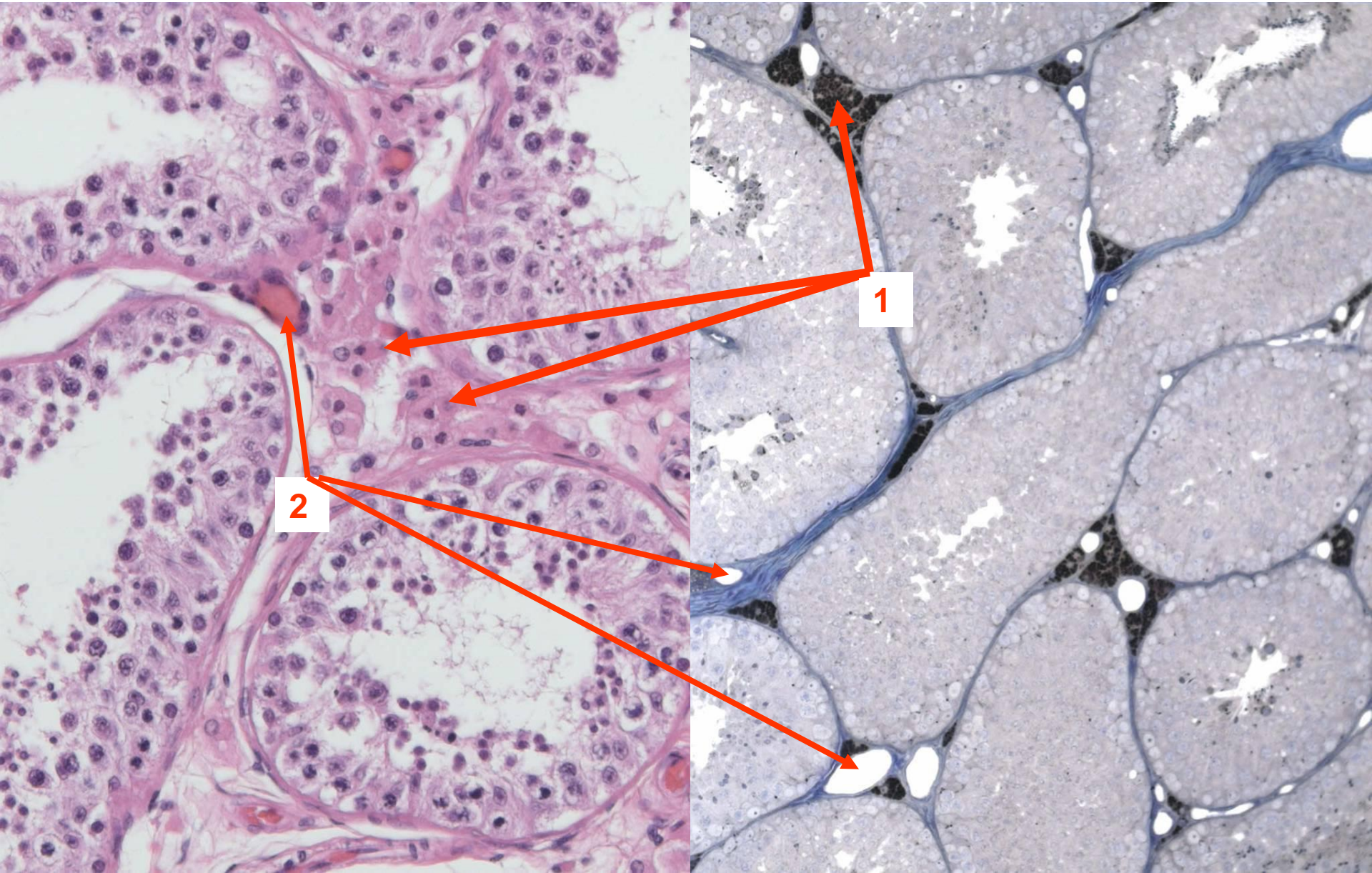


C

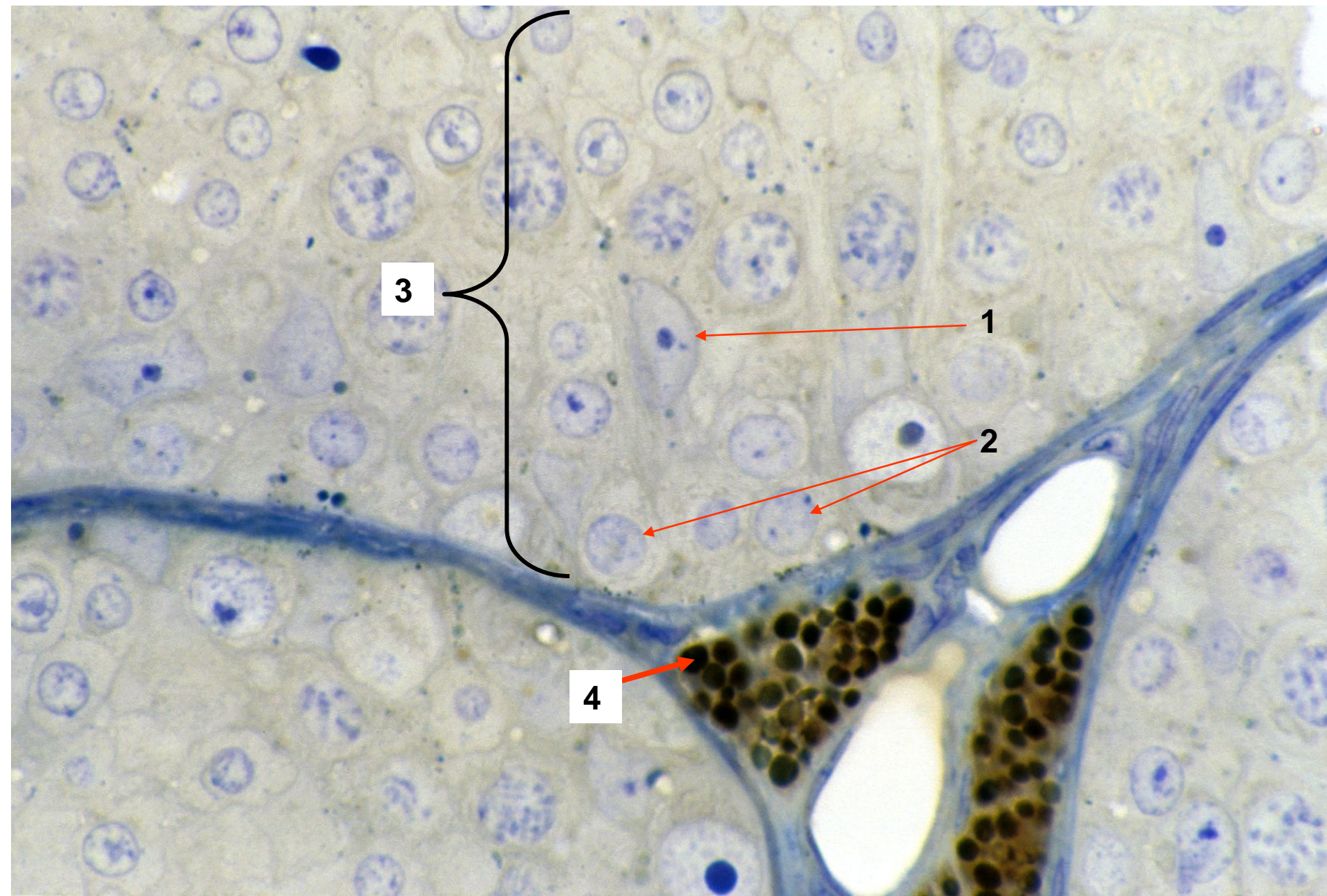
Same organ, different tissue processing

Standard paraffin section, HE stained

Perfusion fixed, osmium tetroxide treated



D



Station no. 15
Short Answers

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

This patient is a 1 1/2 year-old boy. He goes to kindergarten, and he has received all the scheduled vaccinations. Currently, he is taking iron mixture as medication, and he has had several upper airways infections.

After 3 days of illness with fever (rectal temperature 39.0°C) he presents with this chest X-ray:

1. What is the most probable diagnosis?
 (from 0 to all 4 alternatives may be right)

a) Bacterial pneumonia	
b) Rib fracture	
c) Bronchiectasis	
d) Atelectasis	

2. What other symptoms would you expect?
 (from 0 to all 4 alternatives may be right)

a) Cyanosis	
b) Grunting	
c) Abdominal pain	
d) Coughing	

3. What possible clinical signs will there be?
 (from 0 to all 4 alternatives may be right)

a) Rales by auscultation	
b) Redness in his throat	
c) Intercostal retractions	
d) Nasal flaring	

4. On admittance to hospital, what blood tests are relevant?
 (from 0 to all 4 alternatives may be right)

A. Total leukocyte count with differential	
B. Procalcitonin	
C. Blood culture	
D. Erythrocyte sedimentation rate (ESR)	

Examiner's sheet

Student ID no.

Examiner ID:

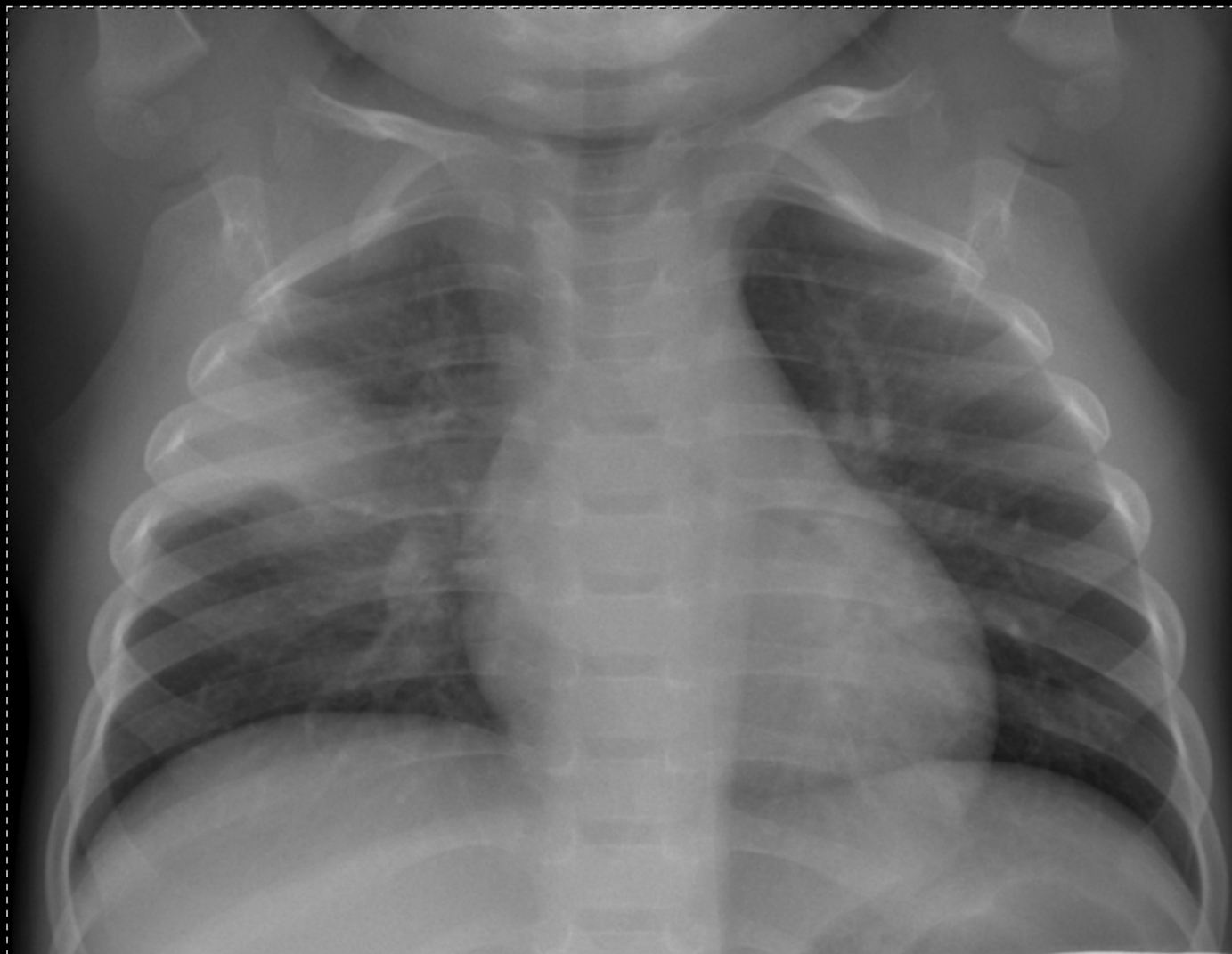
Station 15
Short answers

	Max. points	Given points
1. What is the most probable diagnosis? (from 0 to all 4 alternatives may be right) a) Bacterial pneumonia b) Rib fracture c) Bronchiectasis d) Atelectasis	4 0 0 2	
2. What other symptoms would you expect? (from 0 to all 4 alternatives may be right) a) Cyanosis b) Grunting c) Abdominal pain d) Coughing	2 2 0 2	
3. What possible clinical signs will there be? (from 0 to all 4 alternatives may be right) a) Rales by auscultation b) Redness in his throat c) Intercostal retractions d) Nasal flaring	1 1 2 2	
4. On admittance to hospital, what blood tests are relevant? (from 0 to all 4 alternatives may be right) a) Total leukocyte count with differential b) Procalcitonin c) Blood culture d) Erythrocyte sedimentation rate (ESR)	2 1 2 1	

Maximum points 24

Total score: _____

Stasjon 15



B_Thorax AP 1- 2 år T

24.01.2010, 23:22:33

Student ID Number:

Station 16 - Pathological anatomy - Short answers station

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

You are presented with pictures from histopathological sections in a Power Point presentation. The questions are numbered according to the numbers on the slides (upper right corner).

- 1. The pictures A and B are details from two different types of testicular tumours.**
Describe in a few words the different growth patterns of the two tumours:

1.1 Tumour A

1.2 Tumour B

- What are the diagnoses? (main groups are sufficient)**

1.3 Tumour A

1.4 Tumour B.....

- 2 The pictures show an organ with a tumour from an 8 year-old girl.**

2.1. In which organ is the tumour located?

2.2. Give a (short) description of the tumour cells.
.....

2.3. From what kind of tissue does the tumour originate?.....

2. 4. What is your diagnosis?

- 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 Characterise the growth pattern of this tumour

3.2 Characterise the epithelium

3.3 Examination in the microscope showed no signs of invasion. What is your diagnosis?

Examiner's sheet

Student ID number:

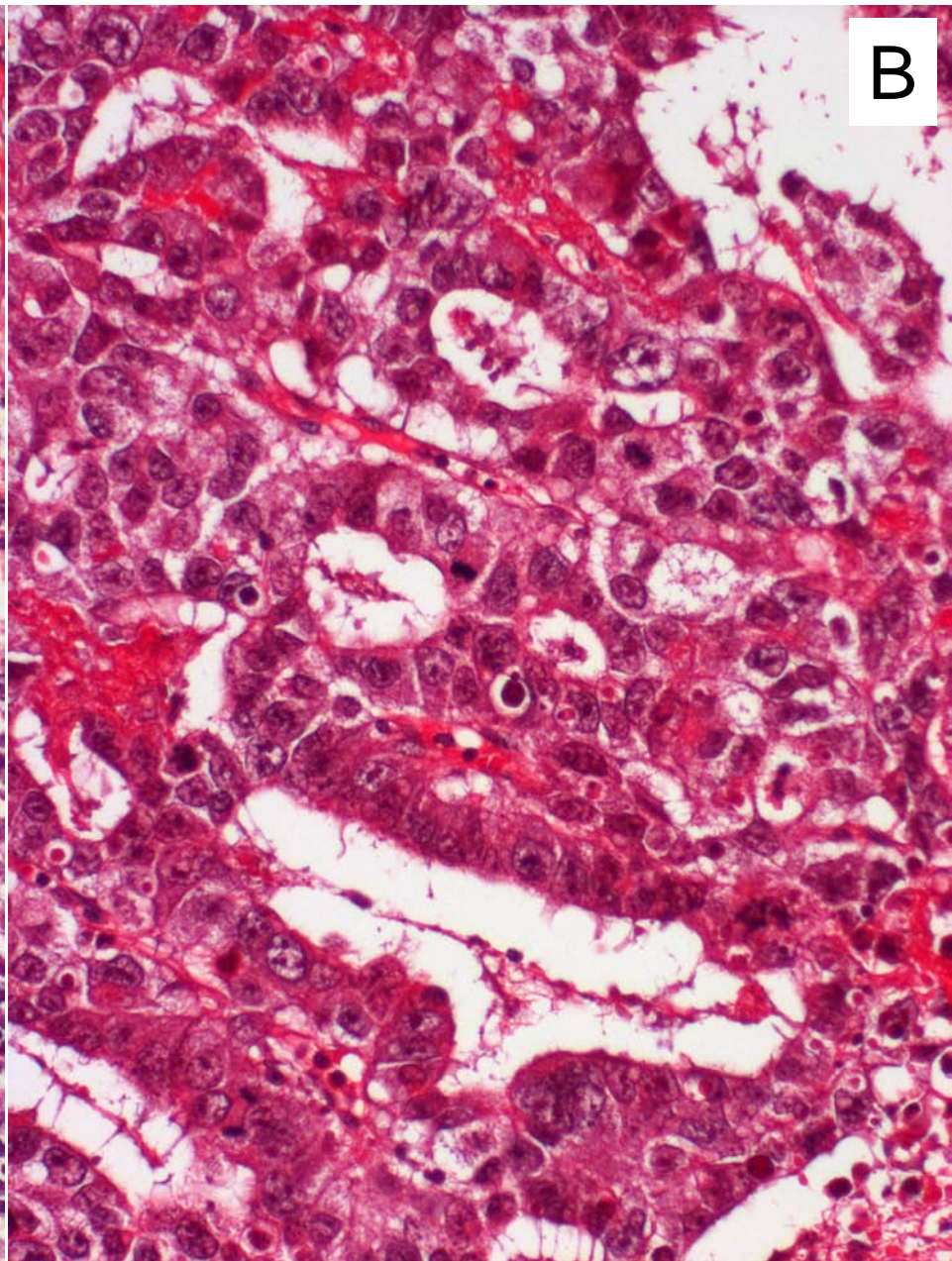
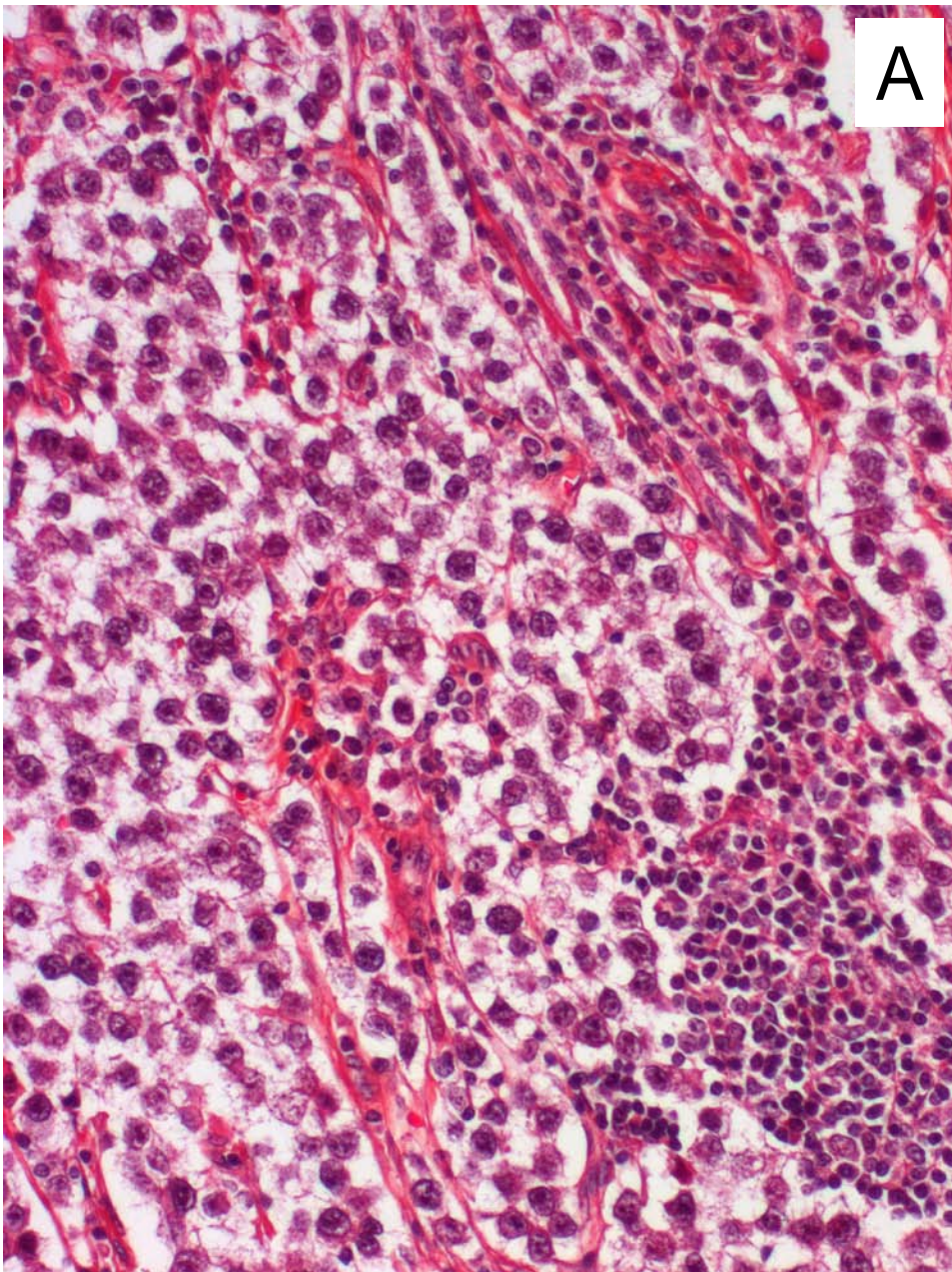
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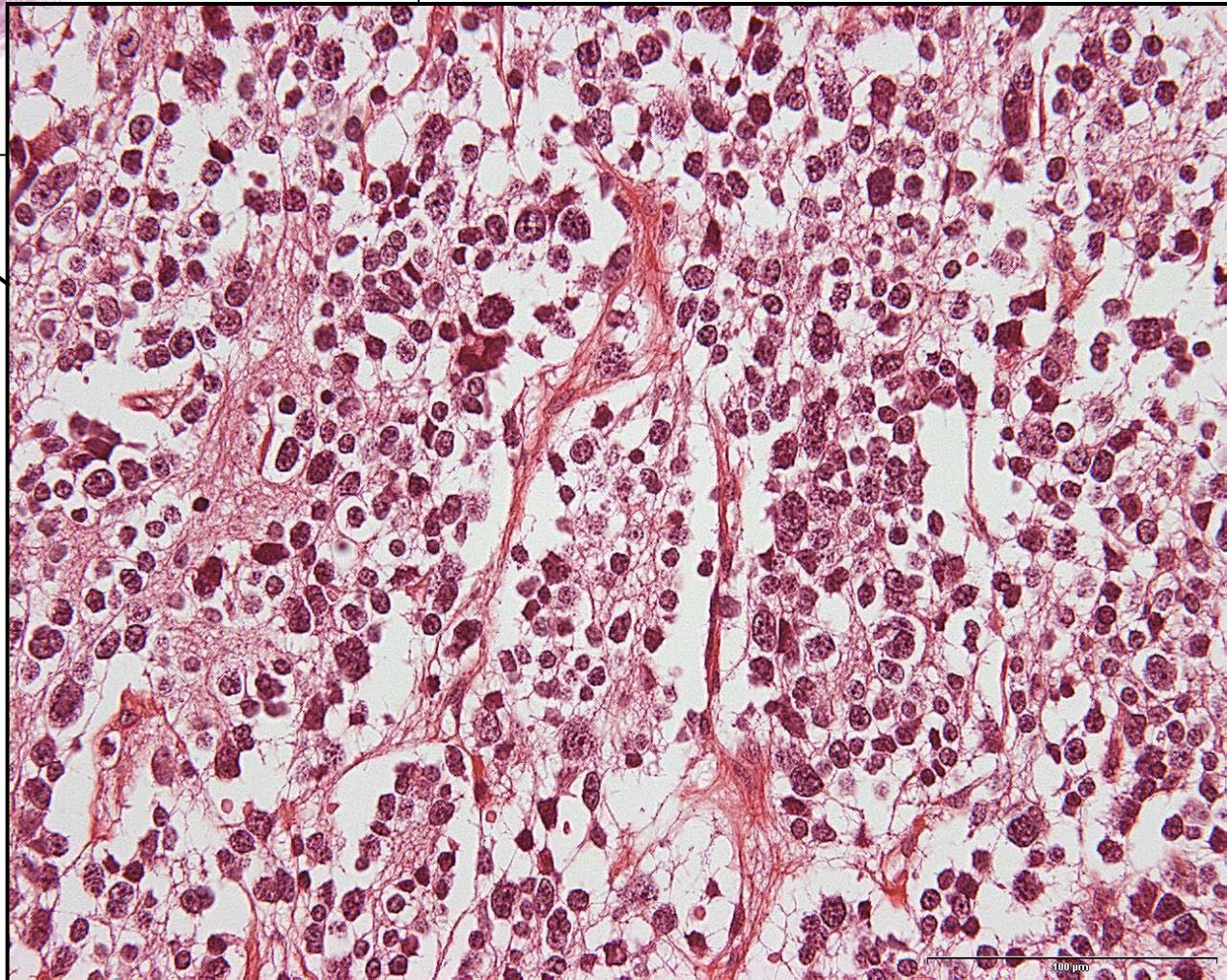
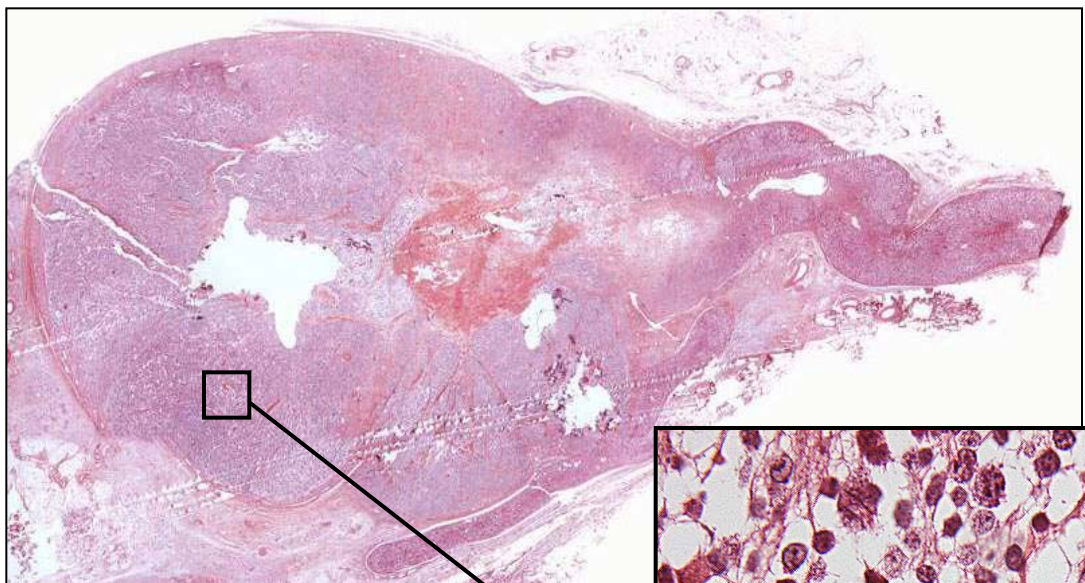
Station 16 - Pathological anatomy
Short answers station

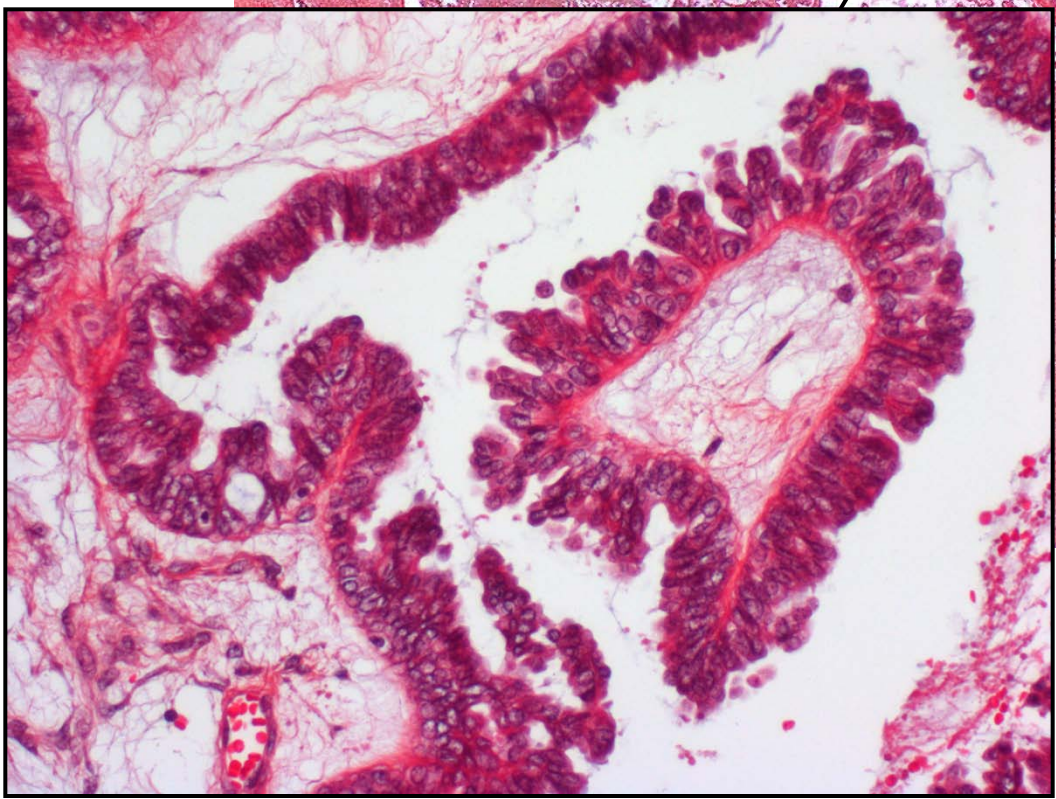
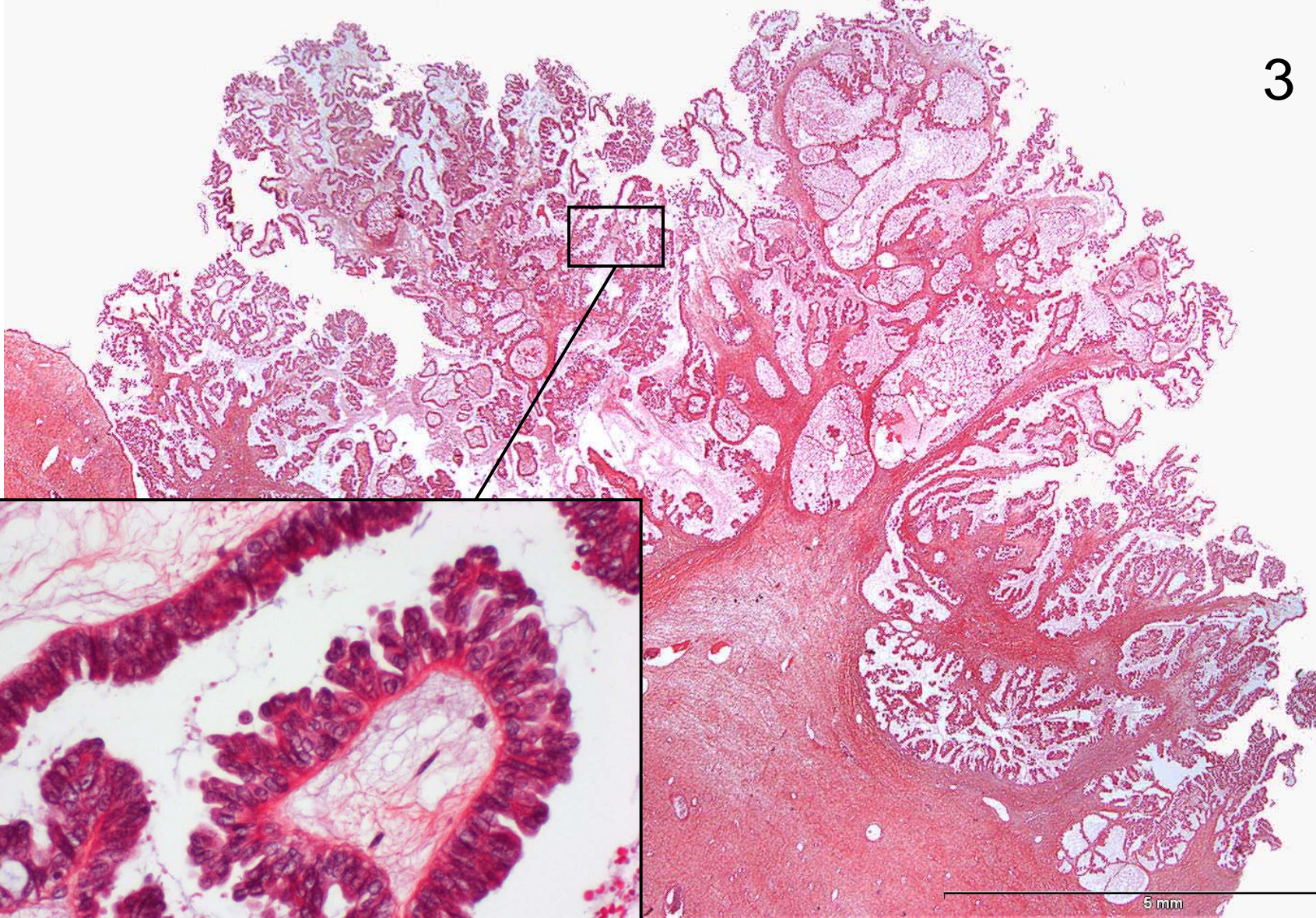
	Achieved points
1	
Growth pattern 1.1. Diffusely, dissociated growth, strands of connective tissue, lymphocytes (2) 1.2 Epithelial-like cells in sheets or glandular/cystic structures, partly necrotic (2)	
Diagnoses 1.3 Seminoma (2) 1.4 Non-seminoma or Embryonal carcinoma (and endodermal sinus tumour) (2)	
2	
2.1 Which organ? Adrenal gland (1)	
2.2 Short description Pleomorphic, small cells, scant cytoplasm, neuropil etc. (2)	
2.3. From which tissue: Sympathetic nervous system (2) Adrenal medulla (alone) (1)	
2.3 Short description Pleomorphic, small cells, scant cytoplasm, neuropil etc. (2)	
2.4. Diagnosis: Neuroblastoma (2)	
3	
3.1 Growth pattern Papillary (1) Exophytic (1)	
3.2. Cell type Cylindrical, glandular, serous (2)	
3.3 Diagnosis Serous papillary cystadenoma (2 if single answer), Borderline type (2)	
Sum:	

Station 16 pathology

Short answers station







Student ID Number:

Station number 17 - Pathological anatomy
Short answers station

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

You are asked to answer all questions below.

A. From which cell type do teratomas develop?

B. Name the three layers that teratomatous tissue may differentiate into.

1).....

2).....

3).....

C. Where do teratomas occur?

.....

D. In females with ovarian teratomas: why is it important to identify immature tissue components?

.....

E. Mark the correct statement of some presumed risk factors in the female population with regard to frequency of ovarian epithelial tumours:

Human papillomavirus infection: increased risk decreased risk not associated

Nulliparity: increased risk decreased risk not associated

Hypertension: increased risk decreased risk not associated

Oral contraceptives: increased risk decreased risk not associated

BRCA1 gene mutation: increased risk decreased risk not associated

Examiner's sheet

Student ID number:

Examiner ID:

Station number 17 - Pathological anatomy
Short answers station

	Achieved points
A Origin: <ul style="list-style-type: none">• Germ cells (3)	
B Layers (all must be mentioned = 3) Less than 3 layers mentioned = 0 points. <ul style="list-style-type: none">• Ectoderm• Mesoderm• Endoderm	
C Where teratomas occur <ul style="list-style-type: none">• Gonads (of both sexes) (2)• Brain (1)• Midline (mediastinum, retroperitoneum, head and neck) and sacrococcygeal region (1)	
D Difference in females <ul style="list-style-type: none">• Mature lesions benign (1)• Immature with malignant potential, malignant (3)	
E Risk factors (wrong answers give 0 points, correct answer 2 points) <ul style="list-style-type: none">• Human papillomavirus: not associated (2)• Nulliparity: increased risk (2)• Hypertension: not associated (2)• Oral contraceptives: decreased risk (2)• BRCA1 mutation: increased risk (2)	
Sum :	

Student ID number:

Station number 19

Short answer

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

1. Which **TWO histological** types of premalignant cervical lesions do you know of?
2. Which is the **ONE** main risk factor in cervical carcinogenesis? Do you know of any other risk factors?
3. What do you do if you have a patient with low grade squamous intraepithelial lesion (**LSIL**) on a PAP smear?
4. What do you do if you have a patient with a high grade squamous intraepithelial lesion (**HSIL**) on a PAP smear?
5. What do you do with a woman with repeated postcoital bleedings and normal PAP smear?
6. Mention **TWO** main strategies in Norway for cervical cancer prevention?

Examiner's sheet

Student ID number:

Examiner ID.....

Station number 19 - Gynaecology

Short answer

	Achieved score
Types of premalignant cervical lesions <ul style="list-style-type: none">• Cervical intraepithelial neoplasia (CIN) (2p)• Adenocarcinoma in situ (2p)	
Main risk factor <ul style="list-style-type: none">• HPV (4p)	
LSIL <ul style="list-style-type: none">• New PAP smear in 6 months (3p)• HPV test (1p)	
HSIL <ul style="list-style-type: none">• Colposcopy (1p)• Biopsy (1p)• Cervical curettage (1p) <p><i>If all three are filled in = (4p)</i></p>	
Postcoital bleeding <ul style="list-style-type: none">• Colposcopy (1p)• Biopsy (1p)• Cervical curettage (1p) <p><i>If all three are filled in = (4p)</i></p>	
Strategies for cervical cancer prevention <ul style="list-style-type: none">• Organised cytology screening (2p)• Prophylactic HPV vaccination (2p)	
Sum:	

Maximum score 24

Station 20

Multiple Choice Questions (MCQ)

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

1. From the alternatives below, MARK in the boxes the THREE criteria (Rotterdam criteria) used for diagnosing polycystic ovary syndrome (PCOS)
 - Dysmenorrhea
 - Hyperandrogenism
 - Enlarged, tender uterus
 - Foul smelling vaginal discharge
 - Oligo- or anovulation
 - Tender adnexal mass
 - Ultrasound showing multiple small follicles in a slightly enlarged ovary

2. MARK in the boxes below frequent laboratory findings in polycystic ovary syndrome:
 - Serum testosterone is high normal or slightly elevated
 - Serum testosterone is low normal or slightly decreased
 - Sex hormone binding globulin (SHBG) is high normal or elevated
 - SHBG is low normal or decreased
 - LH/FSH ratio is elevated
 - LH/FSH ratio is decreased
 - Fasting insulin level is elevated
 - Fasting insulin level is decreased

3. In a centrally obese woman (BMI = 35) with primary infertility, oligomenorrhea and hirsutism, MARK the TWO most important treatments for infertility:
 - Gonadotropin stimulation
 - Metformin
 - Weight loss
 - Ovarian electrocautery
 - In vitro fertilisation (IVF)
 - Clomiphene citrate

4. From the four alternatives below, MARK the TWO conditions that women with PCOS have an increased risk of developing:
 - Cancer of the cervix uteri
 - Type II diabetes
 - Endometrial hyperplasia
 - Osteoporosis

Examiner's sheet

Student ID no.

Examiner ID.....

Station number 20 - Gynaecology

Short answer

	Given points
Diagnosis of PCOS <ul style="list-style-type: none">• Hyperandrogenism 2• Oligo-/anovulation 2• Multiple small cysts on ultrasound 2	
Laboratory findings in PCOS <ul style="list-style-type: none">• Testosterone high normal/elevated 2• SHBG is low normal/decreased 2• LH/FSH ratio is elevated 2• Fasting insulin is elevated 2	
Treatment of infertility in obese women with PCOS <ul style="list-style-type: none">• Weight loss 2• Clomiphene citrate 2	
Two common conditions in PCOS <ul style="list-style-type: none">• Type II diabetes 3• Endometrial hyperplasia 3	
Sum:	

Maximum score 24

Station 21

Multiple choice questions (MCQ)

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

In the following examples you are a GP.

Mark ONE alternative for each question.

1 A woman, 36 weeks pregnant, comes to your office complaining of vaginal bleeding as the only symptom. The bleeding started two days ago.

Which examination should you **NOT** perform at your office?

- Measure blood pressure
- Palpate the abdomen
- Identify foetal heart beat
- Vaginal inspection
- Digital vaginal exploration

2 A woman, 33 weeks pregnant, comes to your office complaining of lower abdominal pain and some bleeding for 6 hours. Her blood pressure is 140/100. Her urinary test shows 2+ for protein. You palpate a tender and tense uterus that does not relax. Which is the ONE most probable diagnosis?

- Placenta praevia
- Abruption placenta
- Appendicitis
- Symphysiolysis
- Premature labour

3 A woman, 32 weeks pregnant, comes to your office and tells you that she has felt less **foetal movements** during the last week. After having identified a normal foetal heart rate, you

- Refer her to the nearest obstetrical department immediately in order to exclude foetal distress.
- See her again after a week
- Ask her to count foetal movements and come back next day
- Take blood test (liver enzymes trombocytes) and decide what to do based on the results

4 You are seeing a woman 31 weeks pregnant. Her urinary test shows 2+ for glucose. How do you exclude gestational diabetes?

- You see her again after a week and check the urine
- You order a glucose tolerance test
- You ask her to avoid sugar and take a fasting blood sugar post partum
- You test her fasting blood glucose levels

Examiner's sheet

Student ID no.

Examiner ID

Station 21 - Obstetrics

MCQ:s

	Achieved score
Examination to avoid Digital vaginal exploration (6p)	
Most probable diagnosis Abruptio placenta (6p)	
Less foetal movements Refer immediately (6p)	
Urinary test shows 2+ Order a glucose challenge test (6p)	
Sum:	

Maximum score 24

Student ID Number:.....

Station 22 - Anatomy and Physiology
Short Answer Questions

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

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

1. *Name the 2 chief divisions of the pelvic floor. Name the main nerve supplying it.*
.....
.....
2. *How many arteries and veins does a normal umbilical cord contain? To which vessels in the foetus do they connect?*
.....
.....
3. *How does the milk get out of the mammary gland? Describe briefly the afferent and efferent links of the milk ejection reflex (central nervous pathways are not required).*
.....
.....
4. *Explain different secretory mechanisms. [Help: ions, proteins, fat droplets, steroid hormones and sebum]*
.....
.....
5. *What role is the gubernaculum testis thought to serve? Name 2 pathological conditions ascribed to failure of this role.*
.....
.....
6. *A man presents with a unilateral scrotal swelling. Name 4 possible causes. Name 2 simple bedside examinations by which some of the possible causes can be distinguished.*
.....
.....

Examiner's sheet

Student ID number:

Examiner ID:

Station 22 - Anatomy and Physiology

Short answer questions

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

	1p	2p	3p	4p	Max	Score
1. <i>The pelvic floor is formed by the urogenital diaphragm (below in front) and the m. levator ani.</i> <i>Motor and sensory innervation by the pudendal nerve.</i>		x			4	
2. <i>A normal umbilical cord should contain two arteries originating from the internal iliac arteries on each side, and one vein connecting to the ductus venosus.</i>		x			4	
3. <i>Milk ejection reflex: afferent signals are mediated via nerves, while the efferent component is hormonal (oxytocin).</i>	x	x			3	
4. <i>Ions: carried by transporter proteins</i> <i>Proteins: Exocytosis</i> <i>Fat droplets: Discharged together with parts of the cytoplasm and covered by plasma membrane (Apocrine secretion)</i> <i>Steroid hormones: diffusion through the plasma membrane</i> <i>Sebum: Cell bursts (holocrine secretion)</i>	x x x x x				5	
5. <i>The gubernaculum testis tethers the testicle to the scrotum</i> <i>Failure leads to failure of testicular descent, causing cryptorchism (retentio testis) and indirect ('congenital') inguinal hernia.</i>	x x	x			4	
6. <i>Inguinal hernia, hydrocoele, spermatocele, varicocele, epididymitis/orchitis, testicular tumour (1 or 2 correct answers give 1 point; 3 or 4 correct answers give 2 points).</i> <i>Impact on coughing (inguinal hernia), translucence (hydrocoele)</i>		x x			4	

Max. 24 points

Total score: _____

Station 23

Short answer and Multiple Choice Questions (MCQ)

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

1. A pregnant woman in week 35 and with BP 165/100 mm Hg (measured repeatedly) has ankle edema and moderate proteinuria.

a) What is her diagnosis?

b) Mark which TWO of the four antihypertensive drugs below can be safely used in this condition.

- Thiazides and loop diuretics
- α -methyldopa
- Labetalol
- ACE inhibitors

2a Of the following antibiotics, which TWO would you avoid using in a pregnant patient in the **first** trimester?

- Sulphonamides
- Trimethoprim
- Erythromycin
- Amoxicillin
- Tetracyclines

b. Of the following antibiotics, which TWO would you avoid using in a pregnant patient in the **third** trimester?

- Sulphonamides
- Trimethoprim
- Erythromycin
- Amoxicillin
- Tetracyclines

Examiner's sheet

Student ID no.

Examiner ID.....

Station number 23 - Gynaecology

Short answer

	Given points
1. What is her diagnosis? a The pregnant woman has preeclampsia. (4p) b Safe antihypertensive drugs prescribed during pregnancy α -methyldopa (4 p) Labetalol (4 p)	
2 Antibiotics to be avoided during first trimester Trimethoprim (3 p) Erythromycin (3 point)	
3. Antibiotics to be avoided during third trimester Tetracyclines (3 p) Sulphonamides (3 p)	
Sum:	

Station No. 24
Short Answers

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

A mother brings her 11 week old infant boy to your outpatient clinic early one morning. The child has become more discontented over the last week, and has breastfed poorly for the last 2-3 days. Today he has vomited and the rectal temperature is 39°C. He seems limper and makes less eye contact than normal.

When undressing the infant you notice a respiratory rate of 60 per minute.

An adequately collected urine sample shows: leucocytes 3+, erythrocytes 2+ and nitrite negative.

1. Give the most possible diagnoses?
2. What could be the problem with a bag-collected urine sample?
3. Give at least two more appropriate methods to obtain an adequate urine sample?
4. Given the most probable diagnosis, what kind of further investigations would be indicated and why?

Examiner's sheet

Student ID no.

Examiner ID:

Station no. 24**Short answers**

	Max. points	Given points
1. Pyelonephritis/Pyelitis Pneumonia Gastroenteritis Sepsis Meningitis Maximum 12 points	6 2 2 2 2 2	
2. Contamination Urine culture growth of more than one bacteria, false positive	2 2	
3. Suprapubic aspiration "Clean catch"/spontaneous collected urine Catheterisation Maximum 4 points	2 2 2	
4. Renal ultrasound/ultrasound of urinary tracts Dimercaptosuccinic Acid Scintigraphy (DMSA)/ Radioisotop investigation Micturition cysturethrogram (MCU) Disclose congenital malformations Urethral valves, hydronephrosis, reflux, etc. Maximum 6 points	4 2 1 2 2	

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