

MINISTRY OF HEALTH OF UKRAINE  
O.O. BOGOMOLETS NATIONAL MEDICAL UNIVERSITY

**WORKBOOK**

for individual work of 4th year students

Discipline "Obstetrics"

Module 1

Field of training "Medicine"

Speciality "Dentistry"

Department of Obstetrics and Gynaecology No.2

## INTRODUCTION

One of the effective methods of individual student work on the subject of individual study discipline is the **workbook**. This work on the workbook should begin with a review of key topic issues. The next step should be to get acquainted with the list of sources where students can find answers to questions. For deeper study of the problem students could consult professional websites.

After studying theory, students should assess their knowledge. For this purpose they should do proposed exercises and answer test questions on the topic. During preparation for classes students should pay particular attention to the required minimum of practical skills they need to master. They should find the information necessary for mastering practical skills in the relevant sections of the textbooks and manuals.

Organisation of individual work with a workbook is as follows: the professor presents a workbook to the students in electronic form (on the department's website) or as a hard copy; students then perform tasks during extracurricular time and the professor later checks and evaluates them **at the initial practice sessions**.

### *Criteria for workbook task assessment*

Each task requires an individual approach in the assessment of performance according to individual criteria. However, for 5-point evaluation of each task type the following general teaching criteria is applied:

**Grade "5"** is assigned if the student:

1. Completed work without mistakes and incomplete answers.
2. Had not more than one incomplete answer.

**Grade "4"** is assigned if the student completed the work but made:

1. Not more than one minor mistake and one incomplete answer.
2. No more than two incomplete answers.

**Grade "3"** is assigned if the student correctly completed at least half of the work or made:

1. Not more than two major or not more than one major and one minor mistake and one incomplete answer;

2. Not more than two or three minor mistakes or one minor mistake and one three incomplete answers;

3. No mistakes but four or five incomplete answers.

**Grade "2"** is assigned if the student:

1. Had mistakes (incomplete answers) more than acceptable for grade "3".

2. Properly completed less than half of the work.

3. Did not start the work.

Properly completed not more than 10% of all tasks.

### **Module 1.**

#### **Topic 1. "Anatomical and physiological characteristics of the female body. Menstrual cycle. Birth canal"**

**Purpose (learning objectives):** teach students to analyse the clinical features of the anatomy of internal and external female genitalia; changes in hormonal activity of the hypothalamus - pituitary – gonadal axis; physiological parameters of the menstrual cycle and the basic mechanisms of its regulation.

#### **The student should know:**

- clinical features of the anatomical structure of the vagina;
- clinical features of the anatomical structure of the uterus;
- clinical features of the anatomical structure of the fallopian tubes;
- clinical features of the anatomical structure of the ovaries;
- changes in hormonal activity in the ovaries and uterus;
- physiological parameters of the menstrual cycle and the basic mechanisms of its regulation;
- the principle of feedback.

#### **The student should be able to:**

- conduct clinical and laboratory studies on women;
- analyse colpocytology study data;
- conduct tests of functional diagnostics;

#### **Key topic terms:**

Term	Definition
The menstrual cycle	physiological changes in women between two menstrual bleeds (from the first day of the previous menstrual cycle to the first day of the next cycle) when there is a periodic change of phases of growth and maturation of the follicle, ending in ovulation (follicular phase) and the development of the corpus luteum (luteal phase). Measurement of the size of the pelvis
Ovulation	pre-ovulatory dominant follicle rupture and releases the ovum
Yellow body	transient endocrine gland that functions for 14 days, regardless of the length of the menstrual cycle
Menstruation	expulsion of the functional layer of the endometrium

### References:

1. Ventskivskiy B.M., Stepankivska G.K., Yarotskiy M.E., Obstetrics. - VSV "Medicine", Kyiv, 2012.
2. Savelyeva G.M., Shalina R.I., Sychynava L.G., Panina O.B., Kurtser M.A., Obstetrics. - GEOTAR-Media, Moscow, 2010.
3. Order of the MoH of Ukraine No. 676.

### Tasks for individual study of the topic (written answers required)

#### Option 1.

##### Task 1.

The external genitalia include:

1. Pubis.
- 2.

- 3.
- 4.
- 5.
- 6.

**Task 2.**

Characteristics of a normal menstrual cycle

No.	Characteristic	Quantitative parameter
1.	Duration of the menstrual cycle	
2.	Volume of blood loss	
3.	Duration of menstruation	

**Task 3.**

Cyclical changes in the ovarian include the following processes:

1. Growth of the follicle and formation of the dominant follicle
- 2.
- 3.

**Test questions.**

1. The features of a normal menstrual cycle are the following except:
  - A) ovulation
  - B) formation of the corpus luteum
  - C) absence of cyclicity
  - D) prevalence of progestogens in the ovarium during the second phase of the cycle
  - E) 2 peaks of oestrogen production during the cycle
  
2. The LH helps:
  - a) ovulation
  - b) formation of the corpus luteum
  - c) trophic effect on the corpus luteum
  - d) oestrogen secretion
  - e) all of the above
  
3. Functional diagnostic tests can determine:
  - a) 2-phase character of the menstrual cycle
  - b) the level of oestrogen saturation of the body
  - c) presence of ovulation

- d) adequacy of the luteal phase of the cycle
- e) all of the above

### **Option 2.**

#### **Task 1.**

The internal genitalia include:

- 1. Vagina
- 2.
- 3.
- 4.

#### **Task 2.**

The endometrium consists of the following layers:

- 1. The basal layer
- 2.
- 3.

#### **Task 3.**

There are several main endometrium change phases during the menstrual cycle:

- 1. Proliferation phase
- 2.
- 3.

### **Test questions.**

**1.** What is the duration of the normal menstrual cycle?

- a) 36-40 days
- b) 3-7 days
- c) 21-35 days
- d) 14-20 days
- e) 18-38 days

**2.** Which functional diagnostics tests indicate the presence of the two-phase menstrual cycle:

- a) "pupil" symptom
- b) kariopicnotic index
- c) basal thermometry
- d) "fern" symptom

**3.** The hypothalamus produces:

- a) gonadotropins

- b) oestrogens
- c) gestogens
- d) releasing factors
- e) androgens

### **Option 3.**

#### **Task 1.**

The uterus and uterine appendages are held in normal position by:

1. Suspensory apparatus (ligaments)
- 2.
- 3.
- 4.

#### **Task 2.**

Stages of development of the dominant follicle

1. Premorbid follicle
- 2.
- 3.
- 4.

#### **Task 3.**

In the regulation of the menstrual cycle the following elements are involved:

1. The cerebral cortex
- 2.
- 3.
- 4.
- 5.

### **Test questions.**

1. What is the duration of normal menstruation?

- a) 1-2 days
- b) 3-7 days
- c) 8 days
- d) 8-10 days
- e) 10-12 days

2. The basal body temperature measurement test is based on the hyperthermic effect of:

- a) estradiol
- b) prostaglandins
- c) progesterone
- d) LH
- e) FSH

3. Oestrogens include:

- a) testosterone, prolactin, estriol
- b) estrone, estriol, estradiol
- c) prolactin, androstenedione, estrone
- d) androstenedione, estradiol, estriol
- e) all of the above