**TYPE:** Test

**TASK 14: Reproductive cycles, fertilization, STI’s and contraception (60 marks)**

Students will complete a number of questions about reproductive cycles, fertilization, contraception and STIs. These questions will address specific content as well as analysis of second hand data. This task will be completed in one session under test conditions.

**Time for the tasks (1 hour)**

* 5 minutes reading time
* 55 minutes working time

**What you need to do:**

* Follow the instructions provided very carefully to complete the test.
* Draw any results in pencil and answer all questions given.
* It is your responsibility to organise your time effectively.
* There is to be no discussion between you or any of your class mates.
* No sharing of any equipment or answers at all.

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| --- | --- | --- | --- |
| SECTION | Question Type | Marks Available | Your marks |
| A | Multiple Choice | 30 |  |
| B | Short Answer | 10 |  |
| C | Extended answer | 20 |  |
|  | TOTAL | 60 |  |

DO NOT TURN THIS PAGE OVER UNTIL YOU ARE TOLD TO

**STUDENT NAME: ANSWER KEY**

**TEACHER: Mrs Cunningham YEAR: 11**

REPRODUCTIVE CYCLES, FERTILIZATION, STI’s AND CONTRACEPTION TEST

**PART A: Multiple choice questions.**

**Please mark your answers in the answer sheet provided and NOT on the questions.**

1. What is the urethra?

a. the entrance to the uterus

b. channel which carries semen and urine through the penis to the outside of the body

c. passageway of sperm

d. where the ovum is fertilised

2. Fertilisation normally occurs in the

a. vagina

b. uterus

c. uterine tube

d. ovary

3. Semen does NOT contain

a. gonadotrophic hormones

b. sperm

c. enzymes to activate sperm

d. fluid to neutralise acid

4. Secondary sexual characteristics include the:

a. growth of the endometrium

b. development of the testes

c. growth of pubic hair

d. release of seminal fluid

5. Fertilisation results in a cell that has:

a. a diploid number of chromosomes

b. a haploid number of chromosomes

c. half the usual number of chromosomes

d. double the usual number of chromosomes

6. Human semen consists of sperm cells and secretions from various glands. One of these secretions contains a high concentration of the simple sugar fructose. The function of this sugar in the semen would be to:

a. provide a readily usable energy source for the sperm

b. prevent sperm drying out and hence dying

c. provide a medium through which the sperm can swim to the ovum

d. maintain an ideal level of acidity

7. Which of the following statements is correct?

a. FSH targets ovaries and aids in the maturation of ovarian follicles

b. LH targets breasts and activates milk production

c. Testosterone targets testes and initiates sperm production

d. HCG targets the uterus and stimulates contraction of smooth muscle

8. Thickening and softening of the endometrium is associated with:

a. degeneration of the corpus luteum

b. the maturation of the ovarian follicle

c. development of the corpus albicans

d. puberty.

9. Fertilisation is assisted by the presence of a large number of sperm.

Which of the following is NOT a relevant characteristic of sperm when considering the large number produced to ensure fertilisation?

a. Sperm do not travel very easily

b. Sperm are much smaller than ova

c. The presence of enzymes that can break down acid

d. Sperm mortality rate is high

10. Vas deferens are:

a. a muscular tube that passes upward alongside the testes and transports semen

b. sperm storage organ

c. ovum holding area

d. where sperm are produced

11. After the sperm meets the egg

a. the uterus sheds its lining

b. the successful sperm dies

c. the ovary releases two more eggs

d. the fertilized egg implants in the wall of the uterus.

12. Maintenance of the corpus luteum occurs

a. with HCG production by the placenta

b. when no fertilisation occurs

c. with the development of the corpus albicans

d. when the primary follicle matures

13. Secretion of FSH from the pituitary is reduced in response to

a. increased levels of oestrogen

b. reduced levels of oestrogen

c. increased levels of LH

d. increased levels of progesterone

14. The hormone, luteinising hormone (LH):

a. stimulates cells in the testes to produce testosterone and stimulates development of the ovarian follicle

b. stimulates spermatogenesis in the testes and ovulation in the ovary

c. stimulates cells in the testes to produce testosterone and promotes the final maturation of the ovarian follicle

d. maintains the male reproductive organs and maintains the endometrium

15. Which of the following is NOT a common STI caused by a bacterium?

a. Syphilis

b. Chlamydia

c. Gonorrhoea

d. Genital warts

16. The genital herpes virus:

a. may cause cervical cancer

b. can be treated with antibiotics

c. cannot be removed from the body once infected

d. is prevented through a vaccine

17. Genital warts

a. cause AIDS

b. are caused by a virus

c. are caused by a bacterium

d. may result in ectopic pregnancies

18. Gonorrhoea’s spread between individuals is enhanced by:

a. the lack of apparent symptoms in infected women

b. infected babies’ eyes transmitting the bacterium to mothers at birth

c. a very long incubation period

d. the fact that it is an old disease.

19. Syphilis is a very severe disease that can be treated safely and effectively with antibiotics. Despite this, an estimated 12 million new cases develop each year.

Which of the following is NOT a reason for the large number of new cases?

a. It is prevalent in developing countries, where antibiotics are less available

b. A vaccine to treat syphilis is under investigation

c. it can easily spread from mother to foetus

d. The infectious secondary stage lasts about two years and can return.

20. The spread of STIs will NOT be limited by:

a using condoms

b. engaging in sexual intercourse only when no symptoms are evident

c. contact tracing

d. testing for infection

21. Which of the following lists in order, from least to most effective, various forms of contraceptives?

a. Intrauterine device, rhythm method, condom, the pill

b. the pill, rhythm method, condom, intrauterine device

c. rhythm method, condom, the pill, intrauterine device

d. rhythm method, intrauterine device, condom, the pill

22. Without being fertilised, human eggs can only survive for about

a. four days

b. one day

c. two days

d. 14 days

23. A method of contraception that can be used to prevent the sperm reaching the egg is:

a. the diaphragm

b. the pill

c. the mucous method

d. male hormone contraception

24. The hormones released by hormonal intrauterine devices:

a. make the lining of the uterus thin and unsuitable for implantation.

b. affect the movement of sperm through the uterus

c. allows safe intercourse only on some days of the menstrual cycle

d. are unreliable when used alone

25. Sterilisation:

a. lasts three years

b. is suitable as an emergency contraception

c. protects against STLs

d. should be considered permanent

26. Women can detect the timing of ovulation accurately by:

a. monitoring body temperature

b. counting the days from menstruation

c. observing when mucous is produced

d. keeping note of which colour pill she is up to.

27. What is the target organ of follicle stimulating hormone (FSH) in the female ?

a. the ovary

b. the pituitary

c. the uterus

d. the placenta

28. Which of the following is NOT a hormone secreted by the pituitary gland?

a. Follicle stimulating hormone (FSH)

b. Prolactin

c. Luteinising hormone (LH)

d. progesterone

29. Oestrogen is secreted by the

a. follicle cells, endometrium and corpus luteum

b. corpus luteum and follicle cells

c. endometrium and corpus material

d. follicle cells and endometrium

30.

Which ovarian hormone is responsible for endometrial development in the first half of the menstrual

cycle

a. Luteinising hormone

b. Progesterone

c. Follicle stimulating hormone

d. oestrogen

END OF MULTIPLE CHOICE SECTION

PART B: Short Answer questions. ( 20 marks)

Please write your answers in the spaces provided on this sheet.

21. **List** the following events in the order in which they would commence in the female body:

Beginning with**: A follicle begins to develop**

The endometrium begins to thicken; formation of the corpus luteum; a follicle begins to

develop; uterine bleeding; egg travels down the uterine tube; follicle approaches maturity;

degeneration of the corpus luteum; ovulation; breakdown of unfertilised egg; development of the mature

follicle; deterioration of the endometrium. (10 marks)

1. **a follicle begins to develop**

2. follicle approaches maturity

* 10 marks if all correct.
* Minus 1 mark each event in incorrect position
* Once incorrect event is excluded, if the rest are in correct order – and I guess make sense - then further marks can be awarded

3. development of the mature follicle

4. The endometrium begins to thicken

5. ovulation

6. egg travels down the uterine tube

7 formation of the corpus luteum

8 breakdown of unfertilised egg

9 degeneration of the corpus luteum

10 breakdown of unfertilised egg

11 deterioration of the endometrium

12 uterine bleeding

END OF SHORT ANSWER CHOICE SECTION

PART C: Extended Answer questions. (20 marks)

Contraception methods can be broadly categorised into 6 groups:

* Natural methods …including detection of ovulation
* Steroid hormones
* Mechanical…barrier methods
* Chemical methods – other than hormones
* Sterilisation
* And there are also those methods which function after coitus.

Write about one example for **four** of the **six** methods listed above.(4 different examples). You should include how the method works, limitations, risks and benefits.

Number each example from 1 to 4.

**ANSWER KEY for Part C**

They should be doing **one** example of 4 of the contraceptive methods …for **4** methods.

For each example, they should indicate:

Name of example **and** name of method type = 1 ( no mark if no method type)

How it works…a bit more than repeating the type of method = 1

Limitations = 1

Risks = 1

Benefits = 1

….. – for the ones above, a couple of ideas is what we’re looking for.

i.e. 5 marks per example.

END OF TEST