

SSR DEGREE COLLEGE (AUTONOMOUS)
B.Sc. Medical Laboratory Technology – I Year
Semester – II
Subject: Human Physiology – Part II
Internal- I Question Bank

SECTION – A: Multiple Choice Questions

1. Sliding filament theory explains the mechanism of
a) Bone formation b) Muscle contraction c) Nerve conduction d) Hormone secretion → **Ans: b**
2. The functional unit of skeletal muscle is
a) Myosin b) Sarcolemma c) Sarcomere d) Actin → **Ans: c**
3. Calcium required for muscle contraction is released from
a) Sarcolemma b) Mitochondria c) Sarcoplasmic reticulum d) T-tubules → **Ans: c**
4. Muscle is attached to bone by
a) Ligament b) Cartilage c) Tendon d) Joint → **Ans: c**
5. The outermost layer of skin is
a) Dermis b) Epidermis c) Hypodermis d) Subcutaneous layer → **Ans: b**
6. Skin colour is mainly due to
a) Keratin b) Hemoglobin c) Melanin d) Collagen → **Ans: c**
7. Hair growth occurs from
a) Hair shaft b) Hair follicle c) Sebaceous gland d) Epidermis → **Ans: b**
8. Age-related decrease in muscle mass is called
a) Hypertrophy b) Hyperplasia c) Atrophy d) Metaplasia → **Ans: c**
9. Fertilization normally occurs in the
a) Uterus b) Ovary c) Cervix d) Fallopian tube → **Ans: d**
10. Fusion of male and female gametes is called
a) Ovulation b) Implantation c) Fertilization d) Parturition → **Ans: c**
11. Hormone responsible for uterine contraction during labour is
a) Estrogen b) Progesterone c) Oxytocin d) Prolactin → **Ans: c**
12. Process of childbirth is called
a) Fertilization b) Implantation c) Parturition d) Lactation → **Ans: c**
13. Formation of male gametes is known as
a) Oogenesis b) Spermiogenesis c) Spermatogenesis d) Ovulation → **Ans: c**
14. Formation of female gametes is known as
a) Oogenesis b) Spermatogenesis c) Fertilization d) Menstruation → **Ans: a**

15. Primary male sex hormone is
a) Estrogen b) Progesterone c) Testosterone d) Prolactin → **Ans: c**
16. Menstrual cycle is regulated mainly by
a) Enzymes b) Minerals c) Hormones d) Vitamins → **Ans: c**
17. Ovulation usually occurs around
a) 7th day b) 14th day c) 21st day d) 28th day → **Ans: b**
18. Normal duration of menstrual cycle is
a) 14 days b) 21 days c) 28 days d) 35 days → **Ans: c**
19. Progesterone is secreted mainly by
a) Ovary b) Testis c) Adrenal gland d) Thyroid → **Ans: a**
20. Pigment responsible for skin colour is
a) Keratin b) Collagen c) Melanin d) Elastin → **Ans: c**

SECTION – B: Fill in the Blanks

1. The basic contractile unit of muscle is sarcomere.
2. Actin and myosin are contractile proteins.
3. Calcium ions are released from sarcoplasmic reticulum.
4. Muscle is attached to bone by tendon.
5. Melanin is responsible for skin colour.
6. Hair and nails are made up of keratin.
7. Loss of bone density with age leads to osteoporosis.
8. Fertilization occurs in the fallopian tube.
9. Fusion of gametes forms a zygote.
10. Labour is initiated by oxytocin.
11. Childbirth process is called parturition.
12. Formation of sperms is spermatogenesis.
13. Formation of ova is oogenesis.
14. Ovulation occurs around the 14th day of cycle.
15. Monthly shedding of uterine lining is menstruation.
16. Female sex hormone is estrogen.
17. Male sex hormone is testosterone.
18. Implantation occurs in the uterus.
19. Normal menstrual cycle lasts for 28 days.
20. Age-related muscle wasting is atrophy.

SECTION-C Descriptive Questions

1. Describe the mechanism of muscle contraction according to the Sliding Filament Theory with a neat diagram.
2. Explain the functions of the skeletal system.

3. Describe the physiology of the integumentary system with reference to skin colour, hair and nail growth.
4. Describe the mechanism of fertilization events.
5. Explain the physiology of parturition (birth).