**ARKA JAIN University, Jharkhand**

1st Semester 1st Internal Examination – 2023-2024



**Subject: Human Anatomy & Physiology-I (Theory)**

**Course: B. Pharm** **Full Marks: 30**

**Time: 1hr**

* **All Questions are compulsory**.
1. **Multiple Choice Questions** $\left(10×1=10\right)$
2. **Microtubule organizing center is**
3. Microfilament b) Mitochondria
4. Golgi Complex d) Centrosome
5. **Which layer is absent in thin skin**
6. Stratum spinosum b) Stratum granulosum

c) Stratum lucidum d) Stratum corneum

1. **Which of the following cell organelles have vesicle which contains oxidases (oxidative enzymes) and catalase (decomposes hydrogen peroxide)**
2. Lysosome b) Peroxisome

c)Proteasome d)Mitochondria

1. **Merocrine gland is**
2. Salivary gland b)Mammary gland

c)Sebaceous gland d)Pancreas

1. **Coronal Suture is present between**
2. Parietal bone and Temporal bone
3. Frontal bone and parietal bone
4. Parietal bone and Occipital bone
5. Frontal bone and Temporal bone
6. **This event occurs during muscular contraction**

I. H-zone disappears

II. A band widens

III. I band shortens

IV. Width of A band is unaffected

V. M line and Z line get closer

1. I, II and III
2. I, III, IV and V
3. II, IV and V
4. I, II and V
5. **Which of the following cell junction do not link to adjacent cells**
6. Tight junction b) Gap Junction

c) Hemidesmosome d) Desmosome

1. **Match the following**

|  |  |
| --- | --- |
| 1. Osteoprogenitor cells
 | 1. Mature bone cells
 |
| 1. Osteoblast
 | 1. Derived from the fusion of monocytes
 |
| 1. Osteocytes
 | 1. Unspecialized bone stem cells
 |
| 1. Osteoclasts
 | 1. Bone-building cells
 |

1. A (I), B(II), C(III), D(IV)
2. A (III), B(IV), C(I), D(II)
3. A (II), B(III), C(IV), D(I)
4. A (I), B(III), C(IV), D(III)
5. **Which of the following cells are detect touch sensations**
6. Merkel cells b)Langerhans cells

c) Keratinocytes d)Melanocytes

1. **Osteon is**
2. Repeating unit of Spongy bone
3. Repeating unit of Cardiac mucle
4. Repeating unit of Muscle fibre
5. Repeating unit of Compact bone
6. **Long Answers (Answer 1 out of 2)** $\left(1×10=10\right)$
7. Define Tissue. Classify Epithelial tissue, Connective tissue, Muscular tissue & Nervous tissue.
8. Define joints. Classify it with location of joints.
9. **Short Answers (Answer 2 out of 3)**$ (2×5=10)$
10. Write about Mitochondria & Golgi apparatus.
11. Write structure & functions of Skin.
12. Write in details about total number of bones.