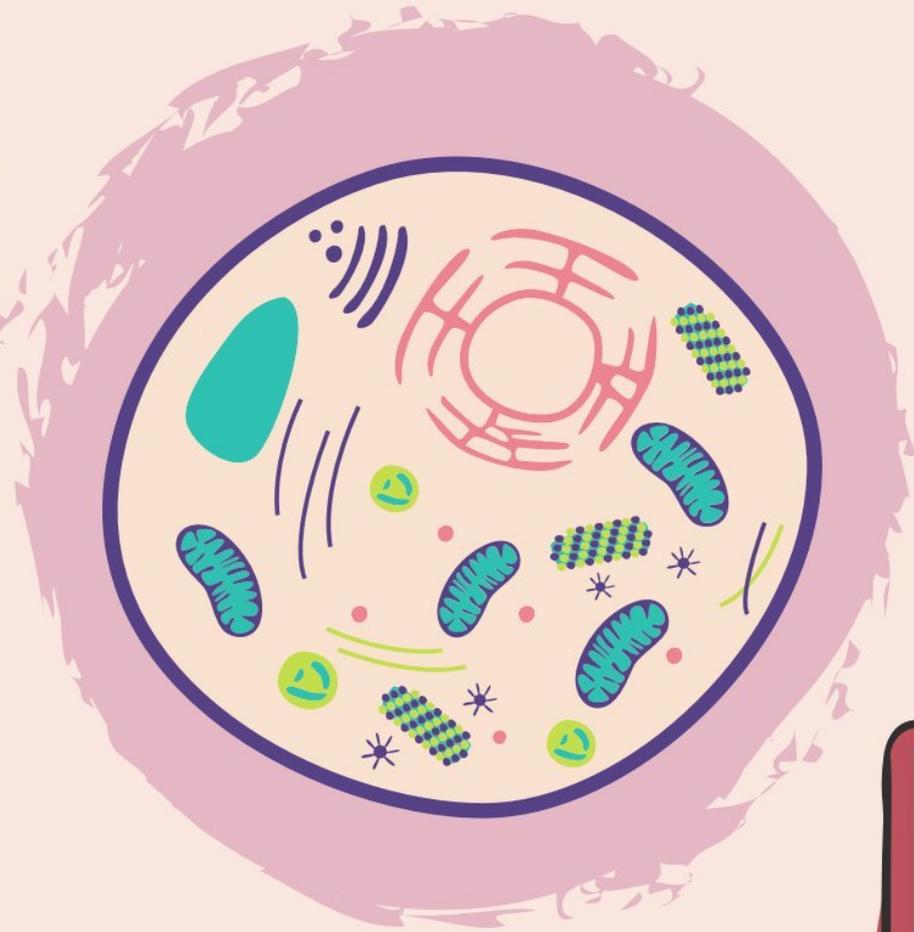


Level-1 Semester-2

Histology - MSS



MCQ Lecture 3

BONE-1

DR M. YUSUF



MCQ on Bone-1

<p>1. <u>Which of the following is found in Howship's lacuna:-</u></p> <ul style="list-style-type: none"> a) Osteoblast b) Osteoclast c) Osteocytes d) Osteoprogenitor cells e) Pericytes 	B
<p>2. <u>The cell responsible for synthesis of bone matrix is:-</u></p> <ul style="list-style-type: none"> a) Osteoclast b) Chondrocyte c) Chondrogenic cell d) Osteogenic cell e) Osteoblast 	E
<p>3. <u>Osteogenic cells:-</u></p> <ul style="list-style-type: none"> a) Cannot divide b) Exist on inner layer of periosteum c) Are absent in cancellous bone d) Differentiate into osteoclasts e) Present inside lacuna 	B
<p>4. <u>What is the main type of collagen present in osteoid matrix of bone:-</u></p> <ul style="list-style-type: none"> a) Type I b) Type II c) Type III d) Type IV e) Type V 	A
<p>5. <u>Bone eating cells are:-</u></p> <ul style="list-style-type: none"> a) Osteoblasts b) Osteoclasts c) Osteocytes d) Osteogenic cells e) Osteoprogenitor cells 	B



<p>6. <u>Regarding osteocytes:-</u></p> <ul style="list-style-type: none"> a) Oval cell with oval nucleus and deep basophilic cytoplasm b) Capable of dividing c) Present in groups in their lacunae d) Maintain bone integrity e) Can be found in the periosteum 	D
<p>7. <u>Ruffled border of osteoclast is also known as:-</u></p> <ul style="list-style-type: none"> a) Striated zone b) Clear zone c) Vesicular zone d) Basal zone e) Apical zone 	A
<p>8. <u>The most common constituent in the organic component of bone is:-</u></p> <ul style="list-style-type: none"> a) Type II collagen b) Sulfated GAGs c) Protein d) Glycoproteins e) Type I collagen 	E
<p>9. <u>Osteoclasts:-</u></p> <ul style="list-style-type: none"> a) Have acidophilic cytoplasm b) Usually have a single nucleus c) Synthesize bone matrix d) Exist mainly in periosteum e) Have regular shape 	A
<p>10. <u>The bone is characterized by the following except:-</u></p> <ul style="list-style-type: none"> a) It has hard matrix b) It is calcified epithelial tissue c) It is rich in Ca salts d) It is rich in blood supply e) It is rich in collagen type 1 	B



<p>11. <u>The bone forming cells include the following except:-</u></p> <ul style="list-style-type: none">a) Osteocytesb) Osteoblastsc) Osteoclastsd) Osteogenic cellse) None of the above	C
<p>12. <u>Osteoclasts are derived from:-</u></p> <ul style="list-style-type: none">a) Osteogenic cellsb) Monocytesc) Osteoblastsd) Pericytese) Lymphocytes	B
<p>13. <u>Osteogenic cells are present in:-</u></p> <ul style="list-style-type: none">a) Endosteumb) Periosteumc) Bone marrow cavitiesd) All of the abovee) None of the above	D
<p>14. <u>Osteoblast is characterized by:-</u></p> <ul style="list-style-type: none">a) Acidophilic cytoplasmb) Multi- nucleatedc) Well-developed Golgi apparatusd) Ruffled zonee) None of the above	C
<p>15. <u>Osteocyte is characterized by:-</u></p> <ul style="list-style-type: none">a) Acidophilic cytoplasmb) Multilobed nucleusc) Branched cells inside lacunaed) Simple columnar ciliatede) Capable of dividing	C



<p>16. <u>Organic component of the bone matrix contains the following Except:-</u></p> <ul style="list-style-type: none"> a) Collagen type II b) Collagen type I c) Osteonectin d) Osteocalcin e) Sulfated GAGs 	A
<p>17. <u>Each of the following statements concerning osteocytes is true except:-</u></p> <ul style="list-style-type: none"> a) They are present singly inside bony lacunae b) Their cytoplasm contains alkaline phosphatase c) They originate from blood monocytes d) They maintain hardness of bone matrix by deposition of calcium salt e) They are bone forming cells 	C
<p>18. <u>All the following statements regarding osteoclasts are correct except:-</u></p> <ul style="list-style-type: none"> a) They are large multinucleated cells b) They are found in Howship's lacunae c) They have foamy acidophilic cytoplasm d) They communicate through canaliculi connecting their lacunae together e) They contain many lysosomes 	D
<p>19. <u>Which of the following is not a feature of bone:-</u></p> <ul style="list-style-type: none"> a) It is calcified hard tissue b) It is highly vascular c) Its lacunae contain groups of chondrocytes d) It contains a system of canals and canaliculi e) It contains cells found singly inside lacunae 	C
<p>20. <u>Which of the following is feature of osteoclasts:-</u></p> <ul style="list-style-type: none"> a) Are found in Howship's lacunae b) Are derived from fibroblasts c) Are mature bone forming cells d) Have basophilic cytoplasm containing alkaline phosphatase e) Present in the inner layer of the periosteum 	A



<p>21. Regarding osteoclasts which of the following statements is true:-</p> <ul style="list-style-type: none">a) Their cytoplasm contains alkaline phosphataseb) They are branched basophilic cellsc) They originate from osteogenic cellsd) They are present singly inside Howship's lacunaee) They maintain hardness of bone matrix by deposition of calcium salt	D
<p>22. Which of the following is true about osteoblasts:-</p> <ul style="list-style-type: none">a) Are large rounded cells with eccentric nucleib) Are derived from blood monocytesc) Are bone eating cellsd) Have dark acidophilic cytoplasme) Contain acid phosphatase enzyme	A
<p>23. Bone matrix:-</p> <ul style="list-style-type: none">a) Forms irregular lamellae in compact boneb) Is non-vascularc) Contains canaliculi connecting lacunaed) Contains no lacunaee) Is hard due to periosteum	C
<p>24. Bone maintaining cell is:-</p> <ul style="list-style-type: none">a) Osteogenic cellb) Osteoblastc) Osteocyted) Osteoclaste) Fibroblast	C
<p>25. Which of the following bone cells needs an acidic medium to act well:-</p> <ul style="list-style-type: none">a) Osteoclastb) Osteoprogenitor cellc) Osteoblastd) Osteocytee) Fibroblasts	A



<p>26. <u>Which of the following bone cells have the ability to divide:-</u></p> <ul style="list-style-type: none">a) Osteoblastb) Osteocytec) Osteoclastd) Osteoprogenitor celle) Bone macrophage	D
<p>27. <u>Bone marrow cavity is lined by:-</u></p> <ul style="list-style-type: none">a) Periosteumb) Internal lamellaec) External lamellaed) Endosteume) Fibers of Sharpy	D
<p>28. <u>Which cells are responsible for bone calcification:-</u></p> <ul style="list-style-type: none">a) Fibroblastsb) Osteogenic cellsc) Osteocytesd) Osteoblastse) Osteoclasts	D
<p>29. <u>Which of the following is an inorganic component of bone matrix:-</u></p> <ul style="list-style-type: none">a) Sulfated GAGsb) Type 1 collagenc) Osteonectind) Hydroxyapatitee) Osteocalcin	D