

## Unit 10 - Week 8

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## Assignment 8

The due date for submitting this assignment has passed.  
As per our records you have not submitted this assignment.

**Due on 2020-11-11, 23:59 IST.**

- 1) Stromal cells present in the bone marrow are required for maturation of B cells. Which of the following function of stromal cells help in the maturation process? 1 point
- A. They interact with pro-B cells via VCAM-1 ligand on the stromal cells.  
B. Stromal cells secrete IL-7 that induces the common lymphoid progenitor to mature into pro-B cells.  
C. The receptor tyrosine kinase Kit (CD117) on the surface of the pro-B cell binds to stem-cell factor (SCF) on the stromal cell.  
D. All of the above  
E. Both A and C
- A.  
 B.  
 C.  
 D.  
 E.
- No, the answer is incorrect.  
Score: 0  
Accepted Answers:  
D.
- 2) During B cell maturation, in which of the following stage the surrogate light chain complexed with the heavy chain start expressing? 1 point
- A. Pro-B cell  
B. Pre-B cell  
C. Immature B cell  
D. Mature B cell
- A.  
 B.  
 C.  
 D.
- No, the answer is incorrect.  
Score: 0  
Accepted Answers:  
B.
- 3) Which of the following fates may occur to a B cell that reacts to a self-antigen? 1 point
- A. Receptor editing  
B. Apoptosis  
C. Anergic B-cells  
D. All of the above
- A.  
 B.  
 C.  
 D.
- No, the answer is incorrect.  
Score: 0  
Accepted Answers:  
D.
- 4) Interaction of a naïve T cell with an APC induces the expression of both IL-2 and IL2 receptor on naïve T cells. IL-2 binds to the IL-2R on the same T cells to induce their proliferation. This is an example of – 1 point
- A. Paracrine function  
B. Autocrine function  
C. Endocrine function  
D. Exocrine function
- A.  
 B.  
 C.  
 D.
- No, the answer is incorrect.  
Score: 0  
Accepted Answers:  
B.
- 5) Centroblasts move to the light zone of germinal centre because CXCR5 shows high affinity for - 1 point
- A. CXCL7  
B. CD 28  
C. Both A and B  
D. CXCL13
- A.  
 B.  
 C.  
 D.
- No, the answer is incorrect.  
Score: 0  
Accepted Answers:  
D.
- 6) B cell receptors having high affinity for antigen are selected in light zone. This process is known as – 1 point
- A. Affinity maturation  
B. Affinity tagging  
C. Recombination  
D. All of the above
- A.  
 B.  
 C.  
 D.
- No, the answer is incorrect.  
Score: 0  
Accepted Answers:  
A.
- 7) Interactions between B cells and T<sub>H</sub> cells which initiate the process of class switching of B cells are – 1 point
- A. MHC II –TCR interaction  
B. CD40 – CD40L interaction  
C. Both A and B  
D. None of the above
- A.  
 B.  
 C.  
 D.
- No, the answer is incorrect.  
Score: 0  
Accepted Answers:  
C.
- 8) Availability of different cytokines lead to differentiation of T cells into its several subtypes. Match the following cytokines with the respective T cell subtypes. 1 point
- |                         |                      |
|-------------------------|----------------------|
| i. IL-12                | a. T <sub>H</sub> 2  |
| ii. IL-4                | b. T <sub>H</sub> 17 |
| iii. IL-6, TGF- $\beta$ | c. T <sub>H</sub> 1  |
- A. i – c, ii – a, iii – b  
B. i – a, ii – c, iii – b  
C. i – a, ii – b, iii – c  
D. None of the above
- A.  
 B.  
 C.  
 D.
- No, the answer is incorrect.  
Score: 0  
Accepted Answers:  
A.
- 9) ITAMs present on the cytosolic domains of I $\alpha$  and I $\beta$  transduce the signal for B cell activation. What are ITAMs? 1 point
- A. Immunoreceptor Tyrosine-based Accelerator Motif  
B. Immunoreceptor Tyrosine-based Activation Motif  
C. Immunoreceptor Threonine-based Accelerator Motif  
D. None of the above
- A.  
 B.  
 C.  
 D.
- No, the answer is incorrect.  
Score: 0  
Accepted Answers:  
B.
- 10) Which is the site for activation, proliferation and differentiation of B cells? 1 point
- A. Germinal center of lymph node  
B. MALT  
C. Blood  
D. All the above
- A.  
 B.  
 C.  
 D.
- No, the answer is incorrect.  
Score: 0  
Accepted Answers:  
A.