**Daffodil International University**

**Department of Pharmacy**

**Faculty of Allied Health Sciences**

**Final Examination: Fall - 2018**

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| **Course Code:** | **BPH-215** | **Time: 2 hour 30 mins** |
| **Course Title:** | **Pharmaceutical Microbiology-I** | **Full Marks: 50** |
| **Course Teacher:** | **Sharifa Sultana (SS), Aklima Akter (AA)** |  |

**(Answer any 10 questions of the following) 10X5=50**

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| 1. | a) Why viruses are considered at the borderline between living and non-living things?  b) Describe the genomic structure of virus and draw the structure of HIV virus. | 2.5  1.25+1.25 |
| 2. | a) What is bacteriophage? Draw the structure of T2-phage virus.  b) Describe the lysogenic cycle of virus. | 1+1  3 |
| 3. | a) How viruses play roles in nanotechnology, vaccines production and agricultural sciences.  b) Write the causative agent, symptom and treatment of dengue fever. | 3  2 |
| 4. | a) Mention the diseases produce by yeast.  b) How is yeast reproduced by asexually and sexually? | 1  4 |
| 5. | a) Why yeast is beneficial in culinary sciences?  b) “Innate immunity is passed from generation to generation” – explain. | 2.5  2.5 |
| 6. | a) What is antigen? Classify it with example.  b) Differentiate between innate and adaptive immunity. | 1+1.5  2.5 |
| 7. | a) Distinguish among different rickettsial fevers.  b) How can you manage rickettsial diseases? | 3  2 |
| 8. | a) Define magnification and resolving power of microscope.  b) Contrast between dark field, fluorescence and scanning electron microscope. | 1+1  3 |
| 9. | a) Write a short note on staining.  b) Which microorganism can suppress the body immunity? Describe the process. | 2.5  2.5 |
| 10. | Describe the growth curve of bacteria. | 5 |
| 11. | a) What are the growth factors of bacteria?  b) Describe the major elements, their sources and functions in bacterial cells. | 1  4 |
| 12. | Write short note on:   1. Human papilloma viruses b) Antibody c) Infection d) Acid fast staining e) Lyophilization technique | 1x5 |