**BAIT1013 Introduction to Computer Networks**

Marks

/20

**Subnetting Calculation Test–MARKING SCHEME**

**Name: \_\_Lee Kai Yang\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_Duration: 20 minutes**

**Programme: \_\_RSF\_\_\_\_Tutorial Group: \_\_\_G1\_\_\_ Date:** **26.8.20 (Week 11)**

**Instruction to Candidates: Answer ALL the questions.**

You are given a network address of **192.168.10.0** to do subnetting in order to provide an IP addressing scheme for a network. Design an IP addressing scheme for a minimum of 28 subnets.

1. What is the address class for above network address? [2 marks]

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| **C** |

1. How many bits are required to borrow in order to create the above number of subnets?

[2 marks]

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| **5** |

1. How many subnets are created? [2 marks]

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| **32** |

1. What is the custom subnet mask for the subnet? [2 marks]

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| **255.255.255.248** |

1. How many usable hosts addresses per subnet? [2 marks]

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| **6** |

1. Compute and list the ***address range*** information for the first **THREE** (3) subnets. Write your answer in dotted decimal format. [6 marks]

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| Subnet 1 | **192.168.10.1 – 192.168.10.6** |
| Subnet 2 | **192.168.10.9 – 192.168.10.14** |
| Subnet 3 | **192.168.10.17 – 192.168.10.22** |

1. What is the broadcast address in the first subnet? [2 marks]

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| **192.168.10.7** |

1. What is the last usable host address in the second subnet? [2 marks]

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| **192.168.10.14** |