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| --- | --- |
| **Assignment Case** |  |
| CPEN6098 | CPEN6108 | CPEN6109 | CPEN6098001  Computer Networks |
| **Computer Engineering** | **O223-CPEN6098-GE08-01** |
| ***Valid on*** *Odd Semester Year 2021/2022* | **Revision 00** |

1. Seluruh mahasiswa tidak diperkenankan untuk:

*All students are not allowed to:*

* + - Berdiskusi dan/atau bekerja sama dengan mahasiswa lainnya

*Discuss and/or work together with other student participants*

* + - Melihat sebagian atau seluruh jawaban mahasiswa lain

*Seeing a part or the whole answer from another student*

* + - Membuka dan menyalin dari **BUKU** atau **CATATAN**, **VIDEO** dari pengajar (recording kelas, VBL, Youtube, dsb) dan **REFERENSI** lainnya

*Open and copy from any resources such as notes, videos (class recording, VBL, Youtube, etc) and other references*

* + - Membuka dan menyalin jawaban dari internet (google, stackoverflow, dsb)

*Open and copy answer from the internet (google, stackoverflow, etc)*

* + - Mengerjakan soal yang tidak sesuai dengan tema yang ada di soal,

*Working with another theme which is not in accordance with the existing theme in the matter of the case,*

* + - Melakukan tindakan kecurangan lainnya,

*Committing other dishonest actions,*

* + - Secara sengaja maupun tidak sengaja melakukan segala tindakan kelalaian yang menyebabkan hasil karyanya berhasil dicontek oleh orang lain / kelompok lain.

*Accidentally or intentionally conduct any failure action that cause the results of the project was copied by someone else / other groups.*

1. Jika mahasiswa terbukti melakukan tindakan seperti yang dijelaskan butir 1 di atas, maka **nilai mahasiswa** yang melakukan kecurangan (menyontek maupun dicontek) akan di – **NOL** – kan.

*If the student is proved to the actions described in point 1 above, the score of the student which committed dishonest acts (cheating or being cheated) will be “Zero”*

1. Perhatikan jadwal pengumpulan jawaban, segala jenis pengumpulan jawaban di luar jadwal tidak dilayani.

*Pay attention to the submission schedule, all kinds of submission outside the schedule will not be accepted*

1. Bila Anda tidak membaca peraturan ini, maka Anda dianggap telah membaca dan menyetujuinya

*If you have missed to read these regulations, so you are considered to have read and agreed on it*

1. Persentase penilaiaan untuk matakuliah ini adalah sebagai berikut:

*Marking percentage for this subject is described as follows:*

|  |  |  |
| --- | --- | --- |
| **Tugas Mandiri**  *Assignment* | **Proyek**  *Project* | **UAP**  *Final Exam* |
| 100% | - | - |

1. Software yang digunakan pada matakuliah ini adalah sebagai berikut:

*Software will be used in this subject are described as follows:*

|  |
| --- |
| **Software**  *Software* |
| Cisco Packet Tracer 7.3.0  WinBox 3.24  VMware Workstation 15  VM MikroTik 6.45.9 |

## Ekstensi file yang harus disertakan dalam pengumpulan tugas mandiri untuk matakuliah ini adalah sebagai berikut:

*File extensions should be included in assignment collection for this subject are described as follows:*

|  |  |  |
| --- | --- | --- |
| **Tugas Mandiri**  *Assignment* | **Proyek**  *Project* | **UAP**  *Final Exam* |
| DOCX, PKA | - | - |

## Soal

*Case*

1. If you have two devices that is a **Switch** and **Router**, what **type of cable** will you use to connect the devices? Give the **order of colors** used from **left to right** for the **two ends of the cables**! **Please do not use image to answer**!
2. Starblitz Studio is a video game developer company that recently build new branch building. According to their plan, they must create **3 networks** under their main network which has **network address 192.168.20.0/24**. The details are written below:
   * **Sales Division – 15 computers**
   * **Finance Division – 25 computers**
   * **Developer Division – 35 computers**

This company wants you to handle the works. These are the details of the works:

1. Create a **new subnet mask and IP address range for every network** using **FLSM**. (**Network address, Broadcast address, Usable IP address, Subnet mask / CIDR**)
2. **Open the “Case 2.pka”** file and follow the instructions shown in the case to **create** **a LAN connection**. **Make sure that each PC is connected to each other**.
3. Over past days, as their sales goes up, StarBlitz Studio plan on relocating to a larger building. This time they also hire you to build their network. The company wants **4 sub-network** under its **network** with **address 172.16.17.0/16** The details are written below:
   * **Sales Division – 2000 computers**
   * **Finance Division – 500 computers**
   * **Developer Division – 4000 computers**
   * **Designer Division – 1000 computers**

This company wants you to make the sub-network using **VLSM**. (**Network address, Broadcast address, Usable IP address, Subnet mask / CIDR**)

1. You are asked to create a LAN **connection** based on the picture below. **Open** the “**Case** **4**.**pka**” file and follow the instructions shown in the case **to** **create the routing configuration using static routing**.

