ESP32s3 GPIO Control (I) - Low-level handling

Preparation questions about the ESP32s3 GPIO low-level handling.

You should answer in the question order as most of the questions rely on the previous answer.

You have to read some parts of Section 6 of the reference manual to answer the questions. The subsections are specified in each questions.

Question 1: Number of GPIOs on ESP32s3 SoC.

✓   Correct!   ✕

Read **Section 6.1** of the reference manual and provide the number of GPIOs avalaible on the ESP32s3 SoC.

```
45
```

Question 2: GPIO registers base address

✓   Correct!   ✕

Read **Section 4.3.5.1** and provide the base address of the GPIO registers.

```
0x6000_4000
```

Question 3: Control register of the GPIOs

✓   Correct!   ✕

Read **Section 6.5.3** of the reference manual and provide the offset of the **GPIO 15** control register w.r.t base address provided in the previous question.

Hint: The answer is expected in decimal

```
1424
```

Question 4: Simple GPIO output field name

✓   Correct!   ✕

Read **Section 6.5.3** of the reference manual and provide the name of the field that must be set to configure a GPIO as a simple output.

```
GPIO_FUNCx_OUT_SEL
```

Question 5: Simple GPIO output field value

✓   Correct!   ✕

Read **Section 6.5.3** of the reference manual and provide the value to set in the field defined in the previous question to configure a GPIO as a simple output.

Hint: The answer is expected in hexadecimal

```
0x100
```

Question 6: GPIO write register - set operation

✓   Correct!   ✕

Read **Section 6.5.3** of the reference manual and provide the name of **the recommended** register used to **set** a GPIO output value.

```
GPIO_OUT_W1TS_REG
```

Question 7: GPIO write register - clear operation

✓   Correct!   ✕

Read **Section 6.5.3** of the reference manual and provide the name of **the recommended** register used to **clear** a GPIO output value.

```
GPIO_OUT_W1TC_REG
```

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