

## V05/V06/V07/V14/Practical Examination Slip

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Course Name & Code: (DHW 102)/201605

Slip No.: 01

Time : 3 Hours

Marks : 60

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### Instructions:

1. Use Answers Sheets for practical Observation and write procedure and result.
  2. This practical slip must be attached to your answers-sheet.
  3. Figures to write are maximum marks for that Question/Option/ Activity.
  4. Draw observation tables and write conclusion, unites for the practical.
  5. Show the observation and conclusion /result to the Examiner.
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### Practical Title- Study of basic Gates.

- |  |    |
|--|----|
| 1. Define basic Gates.   | 15 |
| 2. Write the truth table for the basic gates.                          | 15 |
| 3. Verify the output of the gates and Show the result of the examiner. | 15 |
| 4. Draw the pin Configuration of any one IC.                           | 15 |
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### Material/Software Requirements:

1. Required IC
2. Wires
3. Bread board etc.



## V05/V06/V07/V14/Practical Examination Slip

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Course Name & Code: (DHW 102)/201605

Slip No.: 02

Time : 3 Hours

Marks : 60

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### Instructions:

1. Use Answers Sheets for practical Observation and write procedure and result.
  2. This practical slip must be attached to your answers-sheet.
  3. Figures to write are maximum marks for that Question/Option/ Activity.
  4. Draw observation tables and write conclusion, unites for the practical.
  5. Show the observation and conclusion /result to the Examiner.
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### Practical Title- Study of Derived gates.

- |  |    |
|--|----|
| 1. Define Derived gates.   | 15 |
| 2. Write the truth table for the Derived gates.                        | 15 |
| 3. Verify the output of the gates and Show the result of the examiner. | 15 |
| 4. Draw the pin Configuration of any one IC.                           | 15 |
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### Material/Software Requirements:

1. Required IC
2. Wires
3. Bread board etc.



## V05/V06/V07/V14/Practical Examination Slip

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Course Name & Code: (DHW 102)/201605

Slip No.: 03

Time : 3 Hours

Marks : 60

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### Instructions:

1. Use Answers Sheets for practical Observation and write procedure and result.
  2. This practical slip must be attached to your answers-sheet.
  3. Figures to write are maximum marks for that Question/Option/ Activity.
  4. Draw observation tables and write conclusion, unites for the practical.
  5. Show the observation and conclusion /result to the Examiner.
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### **Practical Title-** Study of Universal gates.

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|--|----|
| 1. What a Universal gates? What are the types of Universal gates?                      | 15 |
| 2. Explain why is a NAND gate is called as a universal gate.                           | 15 |
| 3. Write the number is ICs utility and draw their pin diagram                          | 15 |
| 4. Draw and note the truth table of the derived basic gates from both universal gates. | 15 |
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### Material/Software Requirements:

1. Required IC
2. Wires
3. Bread board etc.



## V05/V06/V07/V14/Practical Examination Slip

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**Course Name & Code: (DHW 102)/201605**

**Slip No.: 04**

**Time : 3 Hours**

**Marks : 60**

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**Instructions:**

1. Use Answers Sheets for practical Observation and write procedure and result.
  2. This practical slip must be attached to your answers-sheet.
  3. Figures to write are maximum marks for that Question/Option/ Activity.
  4. Draw observation tables and write conclusion, unites for the practical.
  5. Show the observation and conclusion /result to the Examiner.
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**Practical Title-** Study of Decoder

- |   |    |
|---|----|
| 1. What is a half adder? Draw its circuit diagram.        | 15 |
| 2. Draw a circuit diagram for half adder.                 | 15 |
| 3. Show the pin configuration of ICs used in the circuit. | 15 |
| 4. Show the Result to the examiner.                       | 15 |
- 

**Material/Software Requirements:**

1. Required IC
2. Wires
3. Bread board etc.



## V05/V06/V07/V14/Practical Examination Slip

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Course Name & Code: (DHW 102)/201605

Slip No.: 05

Time : 3 Hours

Marks : 60

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### Instructions:

1. Use Answers Sheets for practical Observation and write procedure and result.
  2. This practical slip must be attached to your answers-sheet.
  3. Figures to write are maximum marks for that Question/Option/ Activity.
  4. Draw observation tables and write conclusion, unites for the practical.
  5. Show the observation and conclusion /result to the Examiner.
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### **Practical Title-** Study of Counter

- |   |    |
|---|----|
| 1. What is a Counter? What are the types of counter?            | 15 |
| 2. Construct a synchronous counter and show it to the examiner. | 15 |
| 3. Explain a prestable counter.                                 | 15 |
| 4. Show the Result to the examiner.                             | 15 |
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### Material/Software Requirements:

1. Required IC
2. Wires
3. Bread board etc.



## V05/V06/V07/V14/Practical Examination Slip

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Course Name & Code: (DHW 102)/201605

Slip No.: 06

Time : 3 Hours

Marks : 60

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### Instructions:

1. Use Answers Sheets for practical Observation and write procedure and result.
  2. This practical slip must be attached to your answers-sheet.
  3. Figures to write are maximum marks for that Question/Option/ Activity.
  4. Draw observation tables and write conclusion, unites for the practical.
  5. Show the observation and conclusion /result to the Examiner.
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### **Practical Title-** Study of Multiplexer

- |  |    |
|--|----|
| 1. What is a Multiplexer? Draw a symbol for 4*1 multiplexer. | 15 |
| 2. Construct and verify 4*1 multiplexer.                     | 15 |
| 3. Draw the logic diagram and truth table 4*1 multiplexer.   | 15 |
| 4. Draw the pin configuration of ICs 74157                   | 15 |
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### Material/Software Requirements:

1. Required IC
2. Wires
3. Bread board etc.



## V05/V06/V07/V14/Practical Examination Slip

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Course Name & Code: (DHW 102)/201605

Slip No.: 07

Time : 3 Hours

Marks : 60

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### Instructions:

1. Use Answers Sheets for practical Observation and write procedure and result.
  2. This practical slip must be attached to your answers-sheet.
  3. Figures to write are maximum marks for that Question/Option/ Activity.
  4. Draw observation tables and write conclusion, unites for the practical.
  5. Show the observation and conclusion /result to the Examiner.
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### **Practical Title-** Study of Flip-Flops.

- |  |    |
|--|----|
| 1. What is a Flip-Flop? What are the types of Flip-Flops     | 15 |
| 2. Construct RS Flip-Flops using NOR gate.                   | 15 |
| 3. Draw the logic circuit and truth table for RS Flip-Flops. | 15 |
| 4. Show the Result to the examiner.                          | 15 |
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### Material/Software Requirements:

1. Required IC
2. Wires
3. Bread board etc.



## V05/V06/V07/V14/Practical Examination Slip

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**Course Name & Code: (DHW 102)/201605**

**Slip No.: 08**

**Time : 3 Hours**

**Marks : 60**

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**Instructions:**

1. Use Answers Sheets for practical Observation and write procedure and result.
  2. This practical slip must be attached to your answers-sheet.
  3. Figures to write are maximum marks for that Question/Option/ Activity.
  4. Draw observation tables and write conclusion, unites for the practical.
  5. Show the observation and conclusion /result to the Examiner.
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**Practical Title-** Constructing a JK Flip-Flop using a RS Flip-Flop.

- |    |  |    |
|----|--|----|
| 1. | Define JK Flip-Flop using a RS Flip-Flop.              | 15 |
| 2. | Construct a JK Flip-Flop using a RS Flip-Flop.         | 15 |
| 3. | Draw the circuit diagram and truth table for the same. | 15 |
| 4. | Show the Result to the examiner.                       | 15 |
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**Material/Software Requirements:**

1. Required IC
2. Wires
3. Bread board etc.





## V05/V06/V07/V14/Practical Examination Slip

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Course Name & Code: (DHW 102)/201605

Slip No.: 09

Time : 3 Hours

Marks : 60

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### Instructions:

1. Use Answers Sheets for practical Observation and write procedure and result.
  2. This practical slip must be attached to your answers-sheet.
  3. Figures to write are maximum marks for that Question/Option/ Activity.
  4. Draw observation tables and write conclusion, unites for the practical.
  5. Show the observation and conclusion /result to the Examiner.
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### **Practical Title-** Study of Shift register

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|--|----|
| 1. What is a shift register? What are the types of shift register. | 15 |
| 2. Draw a circuit diagram of a 4-bit shift register.               | 15 |
| 3. Draw the Timing diagram.  | 15 |
| 4. Show the Result to the examiner.                                | 15 |
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### Material/Software Requirements:

1. Required IC
2. Wires
3. Bread board etc.



## V05/V06/V07/V14/Practical Examination Slip

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Course Name & Code: (DHW 102)/201605

Slip No.: 10

Time : 3 Hours

Marks : 60

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### Instructions:

1. Use Answers Sheets for practical Observation and write procedure and result.
  2. This practical slip must be attached to your answers-sheet.
  3. Figures to write are maximum marks for that Question/Option/ Activity.
  4. Draw observation tables and write conclusion, unites for the practical.
  5. Show the observation and conclusion /result to the Examiner.
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### Practical Title- Study of Full adder.

- |   |    |
|---|----|
| 1. Define a Full adder. Draw a circuit diagram.           | 15 |
| 2. Construct a Full adder.                                | 15 |
| 3. Show the pin configuration of ICs used in the circuit. | 15 |
| 4. Show the Result to the examiner.                       | 15 |
- 

### Material/Software Requirements:

1. Required IC
2. Wires
3. Bread board etc.



## V05/V06/V07/V14/Practical Examination Slip

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Course Name & Code: (DHW 102)/201605

Slip No.: 11

Time : 3 Hours

Marks : 60

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### Instructions:

1. Use Answers Sheets for practical Observation and write procedure and result.
  2. This practical slip must be attached to your answers-sheet.
  3. Figures to write are maximum marks for that Question/Option/ Activity.
  4. Draw observation tables and write conclusion, unites for the practical.
  5. Show the observation and conclusion /result to the Examiner.
- 

### Practical Title- Study of Encoder.

1. Define a decimal to BCD encoder. 15
  2. Draw a circuit diagram for decimal to BCD encoder. 15
  3. What is the 4 bit output when switch 4 is pressed? 9 is Pressed. 15
  4. Construct and verify the circuit. Show the result to the examiner. 15
- 

### Material/Software Requirements:

1. Required IC
2. Wires
3. Bread board etc.



## V05/V06/V07/V14/Practical Examination Slip

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Course Name & Code: (DHW 102)/201605

Slip No.: 12

Time : 3 Hours

Marks : 60

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### Instructions:

1. Use Answers Sheets for practical Observation and write procedure and result.
  2. This practical slip must be attached to your answers-sheet.
  3. Figures to write are maximum marks for that Question/Option/ Activity.
  4. Draw observation tables and write conclusion, unites for the practical.
  5. Show the observation and conclusion /result to the Examiner.
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### Practical Title- Study of Decoder.

- |   |    |
|---|----|
| 1. Define a Decoder. What are the types of Decoder.                   | 15 |
| 2. Draw a circuit diagram for a 1*16 Decoder.                         | 15 |
| 3. Write the truth table for the 1*16 Decoder.                        | 15 |
| 4. Construct and verify the circuit. Show the result to the examiner. | 15 |
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### Material/Software Requirements:

1. Required IC
2. Wires
3. Bread board etc.



## V05/V06/V07/V14/Practical Examination Slip

---

Course Name & Code: (DHW 102)/201605

Slip No.: 13

Time : 3 Hours

Marks : 60

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### Instructions:

1. Use Answers Sheets for practical Observation and write procedure and result.
  2. This practical slip must be attached to your answers-sheet.
  3. Figures to write are maximum marks for that Question/Option/ Activity.
  4. Draw observation tables and write conclusion, unites for the practical.
  5. Show the observation and conclusion /result to the Examiner.
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### **Practical Title-** Study of Multiplexer

- |  |    |
|--|----|
| 1. What is a Multiplexer? Draw a symbol for 2*1 Multiplexer. | 15 |
| 2. Construct and Verify 2*1 Multiplexer.                     | 15 |
| 3. Draw the logic diagram and truth table 2*1 Multiplexer.   | 15 |
| 4. Draw the pin configuration of ICs 74157.                  | 20 |
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### Material/Software Requirements:

1. Required IC
2. Wires
3. Bread board etc.

