

**C-3831**

**Sub. Code**

**82346**

**B.Voc. DEGREE EXAMINATION**

**INDUSTRIAL AUTOMATION**

**APRIL 2021 EXAMINATION**

**&**

**APRIL 2020 ARREAR EXAMINATION**

**Fourth Semester**

**DIGITAL ELECTRONICS**

**(2019 onwards)**

Duration: 3 Hours

Maximum : 75 Marks

**Part A**

(10 × 2 = 20)

Answer **all** questions.

1. Define Karnaugh map.
2. Give the truth table for OR and NOR gates.
3. Define demultiplexer.
4. What is parity generator?
5. Define flip flop and its types.
6. What are shift counters?
7. Why is RAM so important?

8. Where are ROM used or?
9. What is synchronous sequential circuit?
10. Explain Hazard free switching circuits.

**Part B**

(5 × 5 = 25)

Answer **all** questions.

11. (a) Explain the Products Of Sum (POS).

Or

- (b) Draw the logical circuit for the following Boolean expression

(i)  $Y = ABC + \bar{D}$

(ii)  $Y = (\bar{E}G + B)H$ .

12. (a) Construct the full adder circuit and explain its operation.

Or

- (b) Compare binary multiplier and binary divider.

13. (a) Draw the following circuits of SR and JK flip flops.

Or

- (b) Write in brief about Modulo-N counter.

14. (a) Explain the read and write operation of ROM.

Or

- (b) Write briefly about Programmable Logic Array (PLA).

15. (a) Discuss the classification of synchronous sequential circuits.

Or

- (b) Give a short note on design of hazard free switching circuits.

**Part C** (3 × 10 = 30)

Answer **all** questions.

16. (a) Describe the functions of Exclusive-OR and Exclusive-NOR gates using its truth table and logic gate diagrams.

Or

- (b) Compare the operations of parallel binary adder and subtractor along with its circuits.

17. (a) Explain the D and T flip flops with its characteristic table and circuit diagram.

Or

- (b) With the neat sketch explain the asynchronous up and down counters.

18. (a) Discuss elaborately about RAM and the various types.

Or

- (b) Explain details about the combinational and sequential circuits.

**C-3830**

**Sub. Code**

**82333**

**B.Voc. DEGREE EXAMINATION**

**INDUSTRIAL AUTOMATION**

**APRIL 2021 EXAMINATION**

**&**

**APRIL 2020 ARREAR EXAMINATION**

**Third Semester**

**DIGITAL LITERACY**

**(2019 onwards)**

Duration: 3 Hours

Maximum : 75 Marks

**Part A**

(10 × 2 = 20)

Answer **all** questions.

1. List any two options in font dialog box.
2. What is fill handle in Excel? Write its use.
3. Name any two internet learning platforms.
4. What is advanced search in Google? Give an example.
5. Name any two social networks available today.
6. Can you create a you tube channel? What are the requirements to do so?
7. What are the ethics to be followed in social networks?

8. How many characters a tweet can contain?
9. What is the protection given by gmail when you try to login into your mail account in a computer other than the one you use regularly?
10. How your money transactions are secured by a network?

**Part B** (5 × 5 = 25)

Answer **all** questions, choosing either (a) or (b).

11. (a) Bring out the salient features of Excel package in MS-Office suite.

Or

- (b) Illustrate the creation of anyone chart in Excel.

12. (a) Write short notes on using youtube for learning.

Or

- (b) Explain briefly about the terms WiFi, Bluetooth and Hotspot Tethering.

13. (a) Explain the salient features of google as a search engine.

Or

- (b) Explain the procedure to pay your phone bill using anyone mobile app.

14. (a) Explain the features of WhatsApp mobile app.

Or

- (b) Explain briefly about following terms related to your mail account: Trash, Draft, Spam and Bcc.

15. (a) Explain the rules recommended for making a secured password. What are username, password and OTP? Explain.

Or

- (b) Write short notes on threats for your private transactions.

**Part C**

(3 × 10 = 30)

Answer **all** questions, choosing either (a) or (b).

16. (a) Explain paragraph formatting and table handling in Word.

Or

- (b) Explain about data sorting and filtering in Excel.

17. (a) Elaborate on the benefits of digital learning.

Or

- (b) “Internet based learning platform” — Discuss the Pros and Cons.

18. (a) How will you manage your privacy and security on social networks? Explain.

Or

- (b) How online and network transactions are secured? Explain briefly.