1284 **Code : 15EC51T**

Register Number | | | | | | | |

V Semester Diploma Examination, April/May-2018

ORGANISATIONAL MANAGEMENT AND ENTREPRENEURSHIP

Time : 3 Hours] **[Max. Marks : 100**

Note : (i) Answer any **six** full questions from Part – **A**. (5 × 6 = **30** Marks)

(ii) Answer any **seven** full questions from Part – **B**. (7 × 10 = **70** Marks)

PART – A 5 × 6 = 30

1. Write a note on inter-personal skills.

2. Explain the methods of purchasing.

3. Explain Pareto chart of TQM.

4. Describe the benefits of TPM.

5. Explain indirect losses due to accident.

6. Mention the duties of safety inspector.

7. Explain project planning.

8. Write scope and role of small scale industries.

9. Write the different areas of employment opportunities.

PART-B

10. Write about working principle of Microwave cooking and write the block diagram of Microwave oven. **10**

11. What is a calculator ? With a neat diagram explain Internal organisation of a Calculator. **10**

12. Explain the following :
    (a) ABS **5**
    (b) Solar automobiles. **5**

13. With block diagram explain vehicle proximity detection system. **10**

14. With relative diagram explain any two microphone. **10**

15. (a) Draw the block diagram of Colour TV Receiver. **5**
    (b) Mention the features of digital camera **5**

16. (a) Write a note on electronic guitar. **5**
    (b) Write a short note on video gaming system. **5**

17. Analyse the non-servo control system and servo control system in robotic application. **10**

18. (a) Explain degrees of freedom. **5**
    (b) List advantages and disadvantages of Robot. **5**

19. (a) Define Sensors. Classify different Robotic sensors. **5**
    (b) Define Actuators. Explain electrical actuators. **5**

1182

Code : 15EC52T

Register Number

V Semester Diploma Examination, Nov./Dec.-2018

ARM CONTROLLER

Time : 3 Hours] **[Max. Marks : 100**

Note : (i) Answer any **six** questions from Part – **A**.
(ii) Answer any **seven** questions from Part – **B**.

PART – A

1. List any five features of ARM design philosophy. **5**

2. Explain MRS Instruction. **5**

3. Differentiate between ARM and THUMB Instruction. **5**

4. Discuss Assembler Directive : **5**
   (a) DCB
   (b) ALIGN

5. Explain Exception handling schemes. **5**

6. Discuss Interrupt Latency. **5**

7. List any five features of LPC 2148. **5**

8. List features of USB. **5**

9. Explain Pin Connect Block of LPC 2148. **5**

[Turn over

PART – B

10.	Sketch the block diagram of data flow model and explain.		10
11.	Explain the bit structure of CPSR.		10
12.	Implement Multiple Load Concept using LDMIA.		10
13.	(a)	Explain BL Instruction.	5
	(b)	Explain SWAP Instruction.	5
14.	Discuss the Interworking of ARM and THUMB.		10
15.	Explain the nested interrupt handler with a neat sketch.		10
16.	Sketch the block diagram of LPC 2148.		10
17.	Explain procedure and with example PLL frequency calculation.		10
18.	Discuss GPIO and its Registers.		10
19.	Explain the architecture of TIMER module of LPC 2148.		10

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Code : 15EC53T

Register Number | | | | | | | | | | |

V Semester Diploma Examination, Nov./Dec.-2018

ADVANCED COMMUNICATION

Time : 3 Hours] [Max. Marks : 100

Note : (i) Answer any **six** questions from Part – **A.**
(ii) Answer any **seven** questions from Part – **B.**

PART – A

1. Define and sketch the figures of IMPATT and TRAPATT diodes. 5

2. List the Antenna Scanning and Tracking methods. 5

3. Compare A-scope and PPI displays. 5

4. Explain Uplink and Downlink frequencies. 5

5. Explain Single Conversion transponder with neat sketch. 5

6. List satellite applications in different areas. 5

7. Explain GPS. 5

8. Explain the Capacity Expansion Techniques. 5

9. Write the importance of frequency reuse in mobile communication. 5

[Turn over

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PART – B

10.	Explain construction and working of TWT.	10
11.	Explain the construction and working of a TRAPATT diode.	10
12.	Explain the working of CW Doppler RADAR.	10
13.	Illustrate the working of GCA Landing System for aircrafts.	10
14.	Compare LEO, MEO and GEO satellite.	10
15.	Explain the working of TTC satellite subsystem with neat block diagram.	10
16.	Explain DTH system with neat figure.	10
17.	List the features of CDMA 2000 system.	10
18.	With a neat block diagram explain the architecture of GSM.	10
19.	Discuss the network topologies and applications of Zigbee.	10

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Code : 15EC54T

Register Number | | | | | | | | | | |

V Semester Diploma Examination, Nov./Dec.-2018

APPLICATIONS OF ELECTRONICS ENGINEERING

Time : 3 Hours] **[Max. Marks : 100**

Note : (i) Answer any six questions from Part – A. ($6 \times 5 = 30$)
(ii) Answer any seven questions from Part – B. ($7 \times 10 = 70$)

PART – A

1. Write note on Refrigeration. **5**

2. List the needs of electronics in automobile. **5**

3. Mention the features of microphone. **5**

4. Explain the operation of any one microphone with neat figure. **5**

5. Compare LED, LCD, HDTV. **5**

6. Write a note on Smart T.V. **5**

7. Explain the features of Video gaming systems. **5**

8. Explain the working of LCD projector. **5**

9. List the qualities of robot. **5**

[Turn over

PART – B

10. Explain the working principle of washing machine. 10

11. With an example explain how calculator works and with a neat diagram explain internal organisation of a calculator. 10

12. Explain :
    (a) Electronic ignition 5
    (b) Ultrasonic car safety belt system 5

13. Analyse the block diagram of vehicle navigation. 10

14. (a) Explain how basic loudspeaker works. 5
    (b) Compare basic loudspeaker and crystal loudspeaker. 5

15. With neat block diagram explain working of colour TV transmitter. 10

16. (a) Explain the concept of Interactive video system. 5
    (b) Write a short note on video gaming system. 5

17. (a) Explain working of pick and place robot. 5
    (b) Write a note on drive system. 5

18. (a) List the advantages and disadvantages of robot. 5
    (b) Briefly explain robotic vision system. 5

19. Analyse the non-servo control system and servo control system in robotic applications. 10

PART – B $7 \times 10 = 70$

10. List the functions of management and explain them.

11. Explain stores management system.

12. Illustrate the types of production with their characteristics.

13. Explain MRP and ERP.

14. Describe flow chart and control chart of TQM.

15. Write the procedures to attain ISO registration.

16. Illustrate the general safety rules.

17. Explain the factors which influence entrepreneurship.

18. Explain the sources of finance to start an enterprise.

19. Explain the sources of recruitment.

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Code : 15EC51T

Register Number | | | | | | | |

V Semester Diploma Examination, Nov./Dec. 2017

ORGANISATIONAL MANAGEMENT AND ENTREPRENEURSHIP

Time : 3 Hours | **| Max. Marks : 100**

Note : (1) Answer any **six** questions from Part – **A.** (6 × 5 = 30)

(2) Answer any **seven** full questions from Part – **B.** (7 × 10 = 70)

PART – A

1. List the benefits of SWOT-Analysis. **5**

2. Define MRP and ERP. **5**

3. List the types of TQM tools. **5**

4. Explain ISO 9000 series quality standards. **5**

5. Mention the duties of safety supervisor. **5**

6. Explain the indirect losses due to accident. **5**

7. Define entrepreneur and entrepreneurship. **5**

8. Summarise the factors that influence entrepreneurship. **5**

9. Mention the important causes for unemployment. **5**

PART – B

10.	(a)	Compare Team and Group.	5
	(b)	Analyse the importance of knowing yourself.	5
11.		Classify and explain production process.	10
12.		Explain break-even analysis with breakeven chart.	10
13.		Illustrate the various inventory control techniques.	10
14.		Describe Flow chart and Pareto chart of TQM with neat diagrams.	10
15.		Illustrate the different types of inspections.	10
16.		Describe the types of fire extinguishers.	10
17.		Explain the sources of finance to start an enterprise.	10
18.		Write a note on market survey and market risks.	10
19.	(a)	Write and explain the different employment opportunities in India.	5
	(b)	Express the steps/process in selection.	5

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Code : 15EC52T

Register Number | | | | | | | |

V Semester Diploma Examination, Nov./Dec. 2017

ARM CONTROLLER

Time : 3 Hours | **| Max. Marks : 100**

Note : (1) Answer any **six** questions from Part – **A**. (6 × 5 = 30 Marks)

(2) Answer any **seven** full questions from Part – **B**. (7 × 10 = 70 Marks)

PART – A

1. List the applications of ARM processor. **5**

2. Explain Barrel shifter with a neat sketch. **5**

3. Describe the following directives : **5**

   EQU, SPACE, ALIGN, DCD, DCW

4. Explain ARM-THUMB networking using BLX instruction. **5**

5. Write code for disabling IRQ and FIQ interrupts. **5**

6. Explain interrupt stack design with a neat sketch. **5**

7. List any five features of RTC. **5**

8. Name any five features of I^2C. **5**

9. Explain the bit structure of PLL STAT register. **5**

PART – B

10. (a) Explain ARM CORE data flow model. 8
    (b) Justify the features that improves code density. 2

11. (a) Explain bit structure of CPSR. 8
    (b) Justify how ARM is suitable for mobile applications. 2

12. (a) Explain MVN, MRS and MSR instruction with example. 6
    (b) Distinguish between post and pre indexed addressing mode with an example. 4

13. (a) Test whether the following instructions are pre or post index addressing mode : 5
        (i) STR R6, [R4, #4]
        (ii) LDR R3, [R12], #6
        (iii) LDRB R4, [R3, R2]
        (iv) LDR R6, [R0, R1, ROR # 6]
        (v) STR R3, [R0, R5, LSL # 3]
    (b) Calculate the effective address of the following instructions if Register R3 = 0 × 4000 & register R4 = 0 × 20. 5
        (i) STRH R9, [R3, R4]
        (ii) LDRB R8, [R3, R4, LSL #3]
        (iii) LDR R7, [R3], R4
        (iv) STRB R6, [R3], R4, ASR #2
        (v) LDR R0, [R3, –R4, LSL #3]

14. (a) Compare ARM and THUMB instructions. 5
    (b) Write an ALP to find largest number in an array. 5

15. (a) Explain non-nested interrupt handler with a neat sketch. 6
    (b) List the interrupt handling schemes. 4

16. Sketch a memory map of LPC 2148. 10

17. (a) Calculate the values of PLL configuration register (PLLCFG) for the following frequency specification CCLK = 60 MHz, PCLK = 15 MHz, FCCO is 156 MHz to 320 MHz, FOSC = 10 MHz. 6
    (b) List any four features of Timer in LPC2148. 4

18. (a) Write C program to interface LEDs to all pins in port 0 (P0.0 to Po.15) make repeatedly blink all LEDs high then low, then high and so on (introduce some delay). 6
    (b) List any four applications of GPIO. 4

19. (a) Sketch a neat block diagram of TIMER. 8
    (b) List the Legacy GPIO registers. 2

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Code : 15EC53T

Register Number | | | | | | | |

V Semester Diploma Examination, Nov./Dec. 2017

ADVANCED COMMUNICATION

Time : 3 Hours | **| Max. Marks : 100**

Note : (i) Answer any **six** questions from Part – **A** (5 × 6 = 30 marks).
(ii) Answer any **Seven** questions from Part – **B**. (10 × 7 = 70 marks)

PART – A

1. List the applications of microwave signal. **5**

2. Explain the factors that influence Rader range. **5**

3. Compare A-scope and PPI display. **5**

4. Define satellite and explain the satellite orbits. **5**

5. With a block diagram, explain satellite communication system. **5**

6. List the satellite applications for different areas. **5**

7. Explain the earth observation application of satellite. **5**

8. Explain Handoff strategies. **5**

9. Write the importance of cell-splitting and cell-sectoring in mobile networks. **5**

PART – B

10.		Explain the construction, working and application of magnetron.	10
11.		Sketch the construction of a TWT and explain its working.	10
12.		Derive the radar range equation.	10
13.		Illustrate the working of ILS method of aircraft landing system.	10
14.	(a)	Define LEO, MEO & GEO.	5
	(b)	Explain apogee and perigee heights with a neat sketch.	5
15.	(a)	List the different types of satellite-subsystems.	5
	(b)	Explain single conversion transponder with a neat sketch.	5
16.		Explain GPS system with a neat sketch.	10
17.	(a)	Define mobile communication and list the generations of mobile communications.	5
	(b)	List the features of GSM system.	5
18.		Explain the network topologies and applications of ZIGBEE.	10
19.		Explain the features of Wi-Fi and Hot-Spot technology.	10

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Code : 15EC54T

Register Number | | | | | | | |

V Semester Diploma Examination, Nov./Dec. 2017

APPLICATIONS OF ELECTRONICS ENGINEERING

Time : 3 Hours] **[Max. Marks : 100**

Note : (i) Answer any **six** questions from Part-**A**. **(6 × 5 = 30)**

(ii) Answer any **seven** full questions from Part-**B**. **(7 × 10 = 70)**

PART-A

1. Write short notes on Xerox Machine. **5**

2. Explain Electronic ignition lock system. **5**

3. List different types of Microphones headphones and Loud Speakers. **5**

4. Explain the operation of any one headphone with neat figure. **5**

5. List image / video capturing and displaying electronic devices. **5**

6. Write a note on Smart TV. **5**

7. Mention atleast five electronic Musical Instruments. **5**

8. Mention the applications of virtual reality. **5**

9. Define robotics and list applications of robotics. **5**