20100304

QP CODE: 20100304

Reg No : .....

Name : .....

UNDERGRADUATE (CBCS) EXAMINATION, FEBRUARY 2020

Fifth Semester

(Offered by the Board of Studies in Electronics)

Open Course - EL5OPT03 - ELECTRONIC COMMUNICATION

2017 Admission Onwards

A04FC996

Time: 3 Hours Maximum Marks :80

Part A

*Answer any **ten** questions.*

*Each question carries **2** marks.*

1. What do you mean by megahertz and gigahertz?
2. Define noise in communication system.
3. What is line of sight communication?
4. Draw frequency spectrum of AM wave.
5. Define phase modulation.
6. Define SDM.
7. Why is synchronization needed in a TDM system?
8. What are the three major classes of guided media?
9. What do you mean by sky wave propagation?
10. What is the disadvantage of optical fiber as a transmission medium?
11. What is commonly used unit for measuring the speed of modem?
12. What do you mean by an internal modem?

(10×2=20)

Part B

*Answer any **six** questions.*

*Each question carries **5** marks.*

13. Draw the basic block diagram of electronic communication system and expain function of each block.
14. What is the reationship between frequency and wavelenghth for a given, fixed velocity? What happens to one as the other increases / decreases?
15. Discuss the concept of adjacent channel.
16. Discuss the need for modulation. Also define what is over modulation.
17. Expain the term demoduation. What is the function of demodulator?
18. Distinguish between frequency modulation, phase modulation and amplitude modulation using figures.
19. In which situation multiplexing is used? Also explain which multiplexing technique transmit digital signals.
20. Write a note on twisted pair wire?
21. Differentiate between synchronous modem and asynchronous modems.

(6×5=30)

Part C

*Answer any **two** questions.*

*Each question carries **15** marks.*

22. Draw the structure of electromagnetic spectrum and explain different frequency bands.
23. With neat diagrams of different waveforms explain frequency modulation technique.
24. What do you mean by multiplexing? With the help of a schematic block explain frequency division multipexing.
25. Differentiate between analog signal and digital signal. Also disuss various advantages of digital system.

(2×15=30)

20100193

QP CODE: 20100193

Reg No : .....

Name : .....

BSc DEGREE (CBCS) EXAMINATION, FEBRUARY 2020

Fifth Semester

B.Sc Electronics Model III

Core Course - EL5CRT16 - COMPUTER HARDWARE

2017 Admission Onwards

B495A1DF

Time: 3 Hours Maximum Marks :80

Part A

*Answer any **ten** questions.*

*Each question carries **2** marks.*

1. What is the basic principle involved in optical mouse?
2. What is a cache memory?
3. What was the basic factors contributed for the evolution of a chipset?
4. What is an I/O bus?
5. Why do we need a CMOS battery?
6. What are the features of RDRAM?
7. Where is SCSI commonly used?
8. What do you mean by CHS addressing?
9. What do you mean by cylinder in a HDD?
10. What is a game port?
11. What are the uses of LPT1 port?
12. What is AGP and what are its uses in interfacing?

(10×2=20)

Part B

*Answer any **six** questions.*

*Each question carries **5** marks.*

13. What are the major types of keyboard switches? Explain.
14. Explain the working of a dot matrix printer.
15. What are the features of BTX form factor?
16. Describe the features of a super I/O chip.
17. Describe the ROM shadowing and its uses.
18. Compare FPM RAM and EDO RAM
19. Compare between CD, DVD and BD interms of performance characteristics.
20. Explain the levels of RAID technology.
21. Write short note on CNR.

(6×5=30)

Part C

*Answer any **two** questions.*

*Each question carries **15** marks.*

22. Discuss about 'online' and 'offline' UPS with necessary block diagrams.
23. With neat figure explain intel Hub architecture.
24. Explain POST and Post Sequence steps.
25. Discuss about various Hard disk interfacing standards?

(2×15=30)

20100192

QP CODE: 20100192

Reg No : .....

Name : .....

BSc DEGREE (CBCS) EXAMINATION, FEBRUARY 2020

Fifth Semester

Core Course - EL5CRT15 - ENVIRONMENTAL AWARENESS, E-WASTE MANAGEMENT AND HUMAN RIGHTS

B.Sc Electronics and Computer Maintenance Model III, B.Sc Electronics Model III

2017 Admission Onwards

0B021D5C

Time: 3 Hours Maximum Marks :80

Part A

*Answer any **ten** questions.*

*Each question carries **2** marks.*

1. What are six major natural resource categories on Earth?
2. Explain harmful effects of Land Degradation.
3. Define Decomposers.
4. Define a Forest ecosystem.
5. What do you mean by Species diversity?
6. Define direct value of biodiversity.
7. Mention the three main causes for loss of biodiversity.
8. Define Endemic Species.
9. What are the pollutants in Liquid Crystal Displays?
10. What are the pollutants in Flame retardants?
11. With a neat sketch, explain the steps in efficient recycling of e-waste components.
12. What do you mean by Human rights?

(10×2=20)

Part B

*Answer any **six** questions.*

*Each question carries **5** marks.*

13. Explain the need of Public Awareness in Environmental Studies.
14. What are the causes of Deforestation?
15. Explain Grazing Food Chain with Example.
16. Explain the different soil pollutants and health effects caused by it.
17. Explain the preventive measures to be taken to avoid Noise pollution.
18. What are the steps taken for discarding Solid Waste?
19. Define E-Wate. Give two examples.
20. Explain the five stages of element detemination process.
21. List out different treaty based bodies under United Nations.

(6×5=30)

Part C

*Answer any **two** questions.*

*Each question carries **15** marks.*

22. What are the components of an eco system.Explain each systm with suitable example.
23. Explain Air pollution in detail.Also give different air pollutants,effects and remedies.
24. Explain Hazard of E-waste and also explain different ways to minimize it.
25. Explain HR and CEDAW Committees.

(2×15=30)

20100191

QP CODE: 20100191

Reg No : .....

Name : .....

BSc DEGREE (CBCS) EXAMINATION, FEBRUARY 2020

Fifth Semester

Core Course - EL5CRT14 - MICROCONTROLLERS AND APPLICATIONS

B.Sc Electronics and Computer Maintenance Model III,B.Sc Electronics Model III

2017 Admission Onwards

95EC2186

Time: 3 Hours Maximum Marks :80

Part A

*Answer any **ten** questions.*

*Each question carries **2** marks.*

1. What is the role of CY bit in PSW register?
2. What is direct addressing mode in 8051?
3. What is indexed addressing mode in 8051?
4. What CPU action occurs by the instruction DIV AB?
5. Write codes to send 55 H to P1 and P2 using their addresses?
6. Write the insructions to to move the value FD H into Register A and value AA H into register B ?
7. What are the widely used data types for for 8051 C?
8. Name the registers of timer 1 and their bit capacity?
9. What is the use of SM0 and SM1 bits in the SCON register ?
10. Under what condition RI flag in SCON is raised?
11. What is the use of RS pin in an LCD module?
12. What is the meaning of WR signal in an ADC ?

(10×2=20)

Part B

*Answer any **six** questions.*

*Each question carries **5** marks.*

13. Explain the parallel ports in 8051?
14. Explain the memory organisation of 8051?
15. What are the addressing modes 8051 supports?
16. Explain the instruction JC target with a suitable example ?
17. Add a value 01 to the A register using five different instructions?
18. Write a program to divide the content of RAM location 45H by the content of 46H, and store the result in next RAM locations.
19. Explain TMOD register?
20. Explain the IE register of 8051 ?
21. Draw the diagram of a 4X4 matrix key board connected to the two ports of 8051

(6×5=30)

Part C

*Answer any **two** questions.*

*Each question carries **15** marks.*

22. Explain the functional block diagram of 8051?
23. Explain the 8 bit registers,register banks and rgister operations of 8051?
24. Explain the operation of the instructions with suitable examples ? (1) XCH A,Direct (2) CPL A (3) ORL C,bit.
25. Explain Interrupt Enable register and interrupt priority register?

(2×15=30)