

UNIVERSITY OF KERALA
First Degree Programme in Computer Applications
Model Question Paper
Semester I
Course Code- CP 1121
Introduction to Computer Science

TIME : 3 hrs

Maximum Mark: 80

SECTION A [Very Short Answer type]

(one word to maximum of one sentences, Answer ALL questions)

10 x 1 = 10 marks

1. What is a spreadsheet?
2. What is the function of Recycle Bin?
3. Define 'data' with example
4. How to represent memory capacity?
5. Binary equivalent of (63)₁₀ is
6. What is WORM?
7. Which is the hardware interface between a network and a workstation.
8. Which is the commonly used web browser.
9. What is a Compiler?
10. What is URL?

SECTION B [short answer]

[Not to exceed one paragraph, Answer any EIGHT questions.

Each question carries TWO marks]

8 x 2 = 16 marks

11. What is Booting?
12. What is an operating system?
13. What is a Modem?
14. Define ISP.
15. What do you mean by an Assembler?
16. What is called System Software?
17. What is Web Browser?
18. Define WWW.
19. What is a Word Processor?
20. Give the main difference between RAM and ROM.
21. What is MICR?
22. What is a Free Software?

SECTION C [short essay]

[Not to exceed 120 words, Answer any SIX questions.

Each question carries FOUR marks]

6 x 4=24 marks

23. Explain the term protocol. Give an example.
24. What are the types of memories available in the computer system?
25. What is system utility? Explain.

26. What is an email and how does it work?
27. What are the different types of Operating system?
28. Explain any two input devices.
29. What is difference between impact and non-impact printers?
30. Differentiate LAN, WAN and MAN.
31. What are pointing devices? Explain.

SECTION D [Long Essay]

*[Answer any **TWO** questions. Each question carries **15** marks]*

2 x 15 = 30 marks

32. Discuss the various secondary storage devices
33. Explain the application of IT in education and commerce.
34. What is meant by topology? Discuss the different topologies.
35. What are the different types of operating systems? Explain the features of any two GUI operating systems.

UNIVERSITY OF KERALA
First Degree Programme in Computer Applications
Model Question Paper
Semester I
Course Code- CP 1132
Digital Electronics

TIME : 3 hrs

Maximum Mark: 80

SECTION A [Very Short Answer type]

(one word to maximum of one sentences, Answer ALL questions)

10 x 1 = 10 marks

1. What is an IC chip?
2. What is the use of logic gates?
3. Which used as the passive component in electronic circuits?
4. What is the use of 2's complement?
5. What are oscillators?
6. How to represent a floating point number?
7. What are Venn diagrams?
8. BCD of decimal number 67 is
9. What is an inverter?
10. What is ASCII code?

SECTION B [short answer]

[Not to exceed one paragraph, Answer any EIGHT questions.

Each question carries TWO marks]

8 x 2 = 16 marks

11. What is the difference between digital and analog system?
12. What are the various components of a digital circuit?
13. What are Flip flops?
14. Draw a half adder logic diagram.
15. What are known as basic gates?
16. What is an inductor? What is the unit of inductance?
17. Draw the circuit diagram for the expression $A+B(A+C)+D$
18. Define Comparator.
19. Briefly explain about the counter?
20. List three types of latches?
21. Define pulse?
22. Define gray code with suitable example.

SECTION C [short essay]

[Not to exceed 120 words, Answer any SIX questions.

Each question carries FOUR marks]

6 x 4=24 marks

23. Define edge triggered flip flop
24. Write short note of shift registers?
25. a) Convert the binary number 100111001 to hexa decimal

- b) Convert the decimal number 123.345 to binary
- c) Subtract 10111 from 110001
- 26. Develop a truth table for the standard SOP expression $A'B'C+AB'C'+ABC$
- 27. Describe the function of Full Adder Circuit
- 28. What is the function of a rectifier? List the different types of rectifier?
- 29. Explain briefly about universal gates
- 30. Differentiate Decoder and Encoder circuit
- 31. What is meant by molecular electronics?

SECTION D [Long Essay]

*[Answer any **TWO** questions. Each question carries 15 marks]*

2 x 15 = 30 marks

- 32. a) Explain about Multiplexer and De-multiplexer
- b) State De Morgan's theorem and apply it on the expression $(A+B+C)' + (D'E)'$
- 33. Explain briefly about Numeric codes with suitable examples.
- 34. What are active and passive components? Explain in detail about the applications of electronics?
- 35. Discuss the different CMOS and ECL families

UNIVERSITY OF KERALA
First Degree Programme in Computer Applications
Model Question Paper
Semester I
Course Code- CP 1141
Programming in C

TIME : 3 hrs

Maximum Mark: 80

SECTION A [Very Short Answer type]

(one word to maximum of one sentences, Answer ALL questions)

10 x 1 = 10 marks

1. What are variables?
2. What is meant by associativity?
3. What is the use of 'continue' statement?
4. What is the use of address operator?
5. What is meant by exit controlled loop?
6. What is 'Enum' identifier?
7. Name the basic data types?
8. How to read a character form a file
9. What are pointers?
10. What is meant by recursion?

SECTION B [short answer]

*[Not to exceed one paragraph, Answer any EIGHT questions.
Each question carries TWO marks]*

8 x 2 – 16 marks

11. Why do we need to use comments in programs?
12. Explain sizeof() operator?
13. Define C tokens?
14. Write a program to reverse a number.
15. What is meant by conditional operator? With suitable examples?
16. Define implicit Type conversion?
17. What you meant by recursion?
18. What do you mean by dynamic memory allocation?
19. Explain the switch case and it syntax
20. Describe the symbols used in the flow chart
21. Write a program to reverse a number?
22. What is the need define statement in a program?

SECTION C [short essay]

*[Not to exceed 120 words, Answer any SIX questions.
Each question carries FOUR marks]*

6 x 4=24 marks

23. Write a short note on structure of C programs?
24. What is the difference between structure and union? Explain with example?
25. Distinguish between call by value and call by reference.

26. What is the use of malloc()?
27. Write a program to read a list of number and store the odd numbers to the file “ODD” and store the even numbers the file “EVEN”?
28. Write a program to find the product of two metrics?
29. Write a C program to accept a number in numerals and convert it into words
(Eg: 134 will be displayed as -> one three four)
30. What are language translators?
31. What are loops? Discuss different types

SECTION D [Long Essay]

*[Answer any **TWO** questions. Each question carries **15** marks]*

2 x 15 = 30 marks

32. Write a program to create files and store data on that file and retrieve data from that file and print it on the screen?
33. What is the string handling functions? Explain any 4 of them with suitable example.
34. Discuss the different class of pointers in C
35. What are structures? Write a program to discuss the operations on structures?

UNIVERSITY OF KERALA
First Degree Programme in Computer Science
Model Question Paper
Semester I
Course Code- CS 1121
INTRODUCTION TO INFORMATION TECHNOLOGY

TIME : 3 hrs

Maximum Mark: 80

SECTION A [*Very Short Answer type*]
(one word to maximum of one sentences, Answer ALL questions)

10 x 1 = 10 marks

1. What is meant by word length of a computer?
2. What is the need of secondary storage devices?
3. What are ASCII codes?
4. What are Joysticks?
5. What is multiprogramming?
6. What are registers?
7. What is meant by time sharing system?
8. What is firmware?
9. What is IP address?
10. What are search engines?

SECTION B [short answer]
[Not to exceed one paragraph, Answer any EIGHT questions.
Each question carries TWO marks]

8 x 2 = 16 marks

11. What is a workstation?
12. State two characteristics of digital signals.
13. What is a MODEM?
14. What is a binary digit?
15. What is flash memory?
16. Give differences between CD – R and CD – RW.
17. Expand the term POST
18. State features of a GUI system
19. What is LaTeX?
20. What is HTTP?
21. What is a URL?
22. Write notes on pointing devices?

SECTION C [short essay]

*[Not to exceed 120 words, Answer any **SIX** questions.
Each question carries **FOUR** marks]*

6 x 4=24 marks

23. Describe the Von Neumann model.
24. Classify computers according to size.
25. Differentiate between RAM and ROM.
26. Distinguish between CRT and LCD.
27. Compare Compilers and Interpreters.
28. Differentiate between a word processor and spreadsheet.
29. List the various types of internet connections.
30. Distinguish between Internet and WWW.
31. Explain the types of RAMs

SECTION D [Long Essay]

*[Answer any **TWO** questions. Each question carries **15** marks]*

2 x 15 = 30 marks

32. Give a brief history on the evolution of computers
33. Classify the various types of Operating Systems.
34. Describe the components required in building a network.
35. Discuss various output devices

UNIVERSITY OF KERALA
First Degree Programme in Computer Science
Model Question Paper
Semester I
Course Code- CS 1132
Digital Electronics & Data Communication

TIME : 3 hrs

Maximum Mark: 80

SECTION A [Very Short Answer type]

(one word to maximum of one sentences, Answer ALL questions)

10 x 1 = 10 marks

1. What are Bipolar transistors?
2. What is the need of Karnaugh map?
3. What are universal gates?
4. What are TTLs?
5. How to make 2's complement of a number?
6. What are half-adders?
7. What are shift registers?
8. What is meant by VLSI design?
9. What is a parallel adder?
10. What is a multiplexer?

SECTION B [short answer]

[Not to exceed one paragraph, Answer any EIGHT questions.

Each question carries TWO marks]

8 x 2 = 16 marks

11. What is function of Overflow bit.
12. How to build derived gate.
13. List out the basic laws of Boolean algebra.
14. What is clocked D flip-flop?
15. What is J-K flip-flop?
16. Explain 1's & 2's complement.
17. What are inductors?
18. What do you mean by fanout?
19. What are oscillators and where it is used?
20. What are shift registers?
21. What is a truth table, give an example.
22. What do you mean by SSI and MSI

SECTION C [short essay]

[Not to exceed 120 words, Answer any SIX questions.

Each question carries FOUR marks]

6 x 4=24 marks

23. Explain Gray code in brief?
24. Describe ASCII code in detail.
25. Convert (268.75)₁₀ to binary, octal, hexadecimal A92H
26. What is RC Coupled Feedback Amplifiers?

27. What are the uses of Resistors and Capacitors?
28. What are the challenges of Floating point representation?
29. What do you mean by Universal Gates?
30. Write a short note in full and half adders.
31. Differentiate between minterm and maxterm

SECTION D [Long Essay]

*[Answer any **TWO** questions. Each question carries **15** marks]*

2 x 15 = 30 marks

32. What are flip flops? Explain the different types of flip flops with neat diagrams.
33. Explain the different types of multiplexers and demultiplexers and describe advantages and disadvantages of multiplexer and demultiplexer.
34. What are Karnaugh maps. Explain the use of Karnaugh maps with suitable example.
35. Explain the concept of number system bases – binary, decimal and hexadecimal number systems and conversion between each.

UNIVERSITY OF KERALA
First Degree Programme in Computer Science
Model Question Paper
Semester I
Course Code- CS 1141
Introduction to Programming

TIME : 3 hrs

Maximum Mark: 80

SECTION A [Very Short Answer type]

(one word to maximum of one sentences, Answer ALL questions)

10 x 1 = 10 marks

1. How to define symbolic constants?
2. What are entry control loops?
3. What is the use of 'goto' statement?
4. What is the purpose of 'switch' statement?
5. What are enumerated data types?
6. What is the need of structures?
7. How to declare a pointer?
8. What is the use of storage classes?
9. What is the basic difference between Union and structure?
10. What are escape sequences?

SECTION B [short answer]

*[Not to exceed one paragraph, Answer any EIGHT questions.
Each question carries TWO marks]*

8 x 2 = 16 marks

11. What is the difference between two operator = and ==? Explain with example.
12. Differentiate between call by value and call by reference.
13. Write a C statement to evaluate the equation $h = b^2 + a^2$.
14. Distinguish between logical and bitwise operators.
15. What are the escape sequences?
16. Write a program to find the simple interest.
17. What is a loop? Why it is necessary in the program?
18. Mention the difference between character array and integer array
19. What is pre-processor directive?
20. How structure elements are stored in memory?
21. What is meant by dynamic memory allocation?
22. Compare between printf and fprintf function.

SECTION C [short essay]

*[Not to exceed 120 words, Answer any SIX questions.
Each question carries FOUR marks]*

6 x 4=24 marks

23. What is initialization? Why is it important?
24. Describe the four basic data types. Explain it with suitable example.

25. Write a program to find the sum of the squares of 10 numbers.
26. How does an append mode differs from a write mode?
27. What is a union in C? How data is stored using union?
28. Write a program to arrange a list of numbers in ascending order using function.
29. What is recursion? Explain types of recursions.
30. What is the NULL character? Why is it important?
31. Write a program to check whether the given number is Armstrong or not.

SECTION D [Long Essay]

*[Answer any **TWO** questions. Each question carries **15** marks]*

2 x 15 = 30 marks

32. Write a program to combine contents of two files in a third file. Add the line number at the beginning of each line.
33. Write a program to add two matrices using pointers.
34. Explain various predefined macros in ctype.h
35. Discuss different control structures in C

UNIVERSITY OF KERALA
First Degree CBCSS BSc Degree Examinations
Model Question Paper
Semester I
Course Code: CS1131.2/CS1131.3
Introduction to Information Technology

TIME : 3 hrs

Maximum Mark: 80

SECTION A [*Very Short Answer type*]

(one word to maximum of one sentences, Answer ALL questions)

10 1 = 10 marks

1. What is a nibble?
2. What makes difference between RAM and ROM
3. What is the need of registers?
4. What is the function of a plotter?
5. Expand VGA
6. What is meant by multi-tasking?
7. What is firmware?
8. What is meant by auxiliary storage?
9. What is WWW?
10. What is IP address?

SECTION B [short answer]

[Not to exceed one paragraph, Answer any EIGHT questions.

Each question carries TWO marks]

8 x 2 = 16 marks

11. What is a Workstation?
12. Compare digital and analog computers.
13. Define a Database.
14. What is a binary digit?
15. What are the essential components of a digital computer?
16. Give differences between Static and Dynamic RAM.
17. What are peripherals?
18. State the features of a GUI operating system.
19. What is LaTeX?
20. Explain about free and open source software.
21. Differentiate between a switch and a router.
22. What is a browser?

SECTION C [short essay]

*[Not to exceed 120 words, Answer any **SIX** questions.
Each question carries **FOUR** marks]*

6 x 4=24 marks

23. Describe the Von Neumann model.
24. Classify computers according to size.
25. What is RDRAM?
26. Distinguish between Primary and Secondary memory.
27. Explain the term booting.
28. Differentiate between a word processor and spreadsheet.
29. What are utility programs?
30. Distinguish between Internet and WWW.
31. How to protect computers from viruses?

SECTION D [Long Essay]

*[Answer any **TWO** questions. Each question carries **15** marks]*

2 x 15 = 30 marks

32. What are the various input devices used in a computer? Discuss.
33. Discuss the features of word processors.
34. Describe the components required in building a network
35. Explain classification of computers

UNIVERSITY OF KERALA
First Degree CBCSS BA Degree Examination November/December 2013
Model Question Paper
Semester I
Course Code- CS 1131.1
INTRODUCTION TO INFORMATION TECHNOLOGY
(for English) (2013 admission)

TIME : 3 hrs

Maximum Mark: 80

SECTION A [Very Short Answer type]

(one word to maximum of one sentences, Answer **ALL** questions)

10 x 1 = 10 marks

1. What is meant by word length of a computer?
2. What is the need of secondary storage devices?
3. What are registers?
4. Expand ASCII?
5. What is the use of read only memory?
6. What are computer viruses?
7. What is meant by firmware?
8. What is IP address?
9. What is WWW?
10. What are plotters?

SECTION B [short answer]

[Not to exceed one paragraph, Answer any **EIGHT** questions.

Each question carries **TWO** marks]

8 x 2 = 16 marks

11. What is a workstation?
12. State two characteristics of digital signals.
13. What is a MODEM?
14. What is a binary digit?
15. What is flash memory?
16. Give differences between CD – R and CD – RW.
17. Expand the term POST
18. State features of a GUI system
19. What is LaTeX?
20. What is HTTP?
21. Name two popular E-mail software
22. What is a URL?

SECTION C [short essay]

[Not to exceed 120 words, Answer any **SIX** questions.

Each question carries **FOUR** marks]

6 x 4=24 marks

23. Describe the Von Neumann model.
24. Classify computers according to size.

25. Differentiate between RAM and ROM.
26. Distinguish between CRT and LCD.
27. Compare Compilers and Interpreters.
28. Differentiate between a word processor and spreadsheet.
29. List the various types of internet connections.
30. Distinguish between Internet and WWW.
31. Write notes on free softwares

SECTION D [Long Essay]

[Answer any **TWO** questions. Each question carries **15** marks]

2 x 15 = 30 marks

32. Give a brief history on the evolution of computers
33. Explain the various types of Operating Systems.
34. Describe the components required in building a network.
35. Discuss the uses of Internet

UNIVERSITY OF KERALA
First Degree CBCSS Examination in November/December 2013
Model Question Paper
Semester I
Course Code- PC 1171
FUNDAMENTALS OF COMPUTER

TIME : 3 hrs

Maximum Mark: 80

SECTION A [Very Short Answer type]
(one word to maximum of one sentences, Answer ALL questions)

10 x 1 = 10 marks

1. What is ASCII?
2. Convert $(01002)_2$ to octal.
3. What you mean by word-length of a computer?
4. Draw the truth table of OR gate
5. What is flip-flop?
6. What are microprocessors?
7. What is SDLC?
8. What is access time?
9. What is meant by track in a CD.
10. What you mean by the base of a number system?

SECTION B [short answer]
[Not to exceed one paragraph, Answer any EIGHT questions.
Each question carries TWO marks]

8 x 2 = 16 marks

11. What is cache memory?
12. Explain about assembly and machine level languages.
13. Difference between static and dynamic RAM.
14. Illustrate MOV, ADD, LDA instructions.
15. What is an interrupt.
16. What is meant by boot sector of a hard disk?
17. What is an instruction cycle?
18. What is magnetic disk?
19. What is POST?
20. What are the advantages of database over file systems.
21. Explain flash memory, with an example?
22. What are the fact finding techniques used for developing a system?

SECTION C [short essay]

*[Not to exceed 120 words, Answer any **SIX** questions.
Each question carries **FOUR** marks]*

6 x 4=24 marks

23. Difference between RAM and ROM
24. Explain about printers.
25. Differentiate between a half adder and a full adder?
26. Write a program to add two numbers using 8085 microprocessor instructions. Explain
27. Write down the differences between Compiler and Interpreter.
28. Explain Combinational circuit and Sequential circuit?
29. Describe DMA transfer
30. What is a real time operating system?
31. Explain the concept of virtual memory.

SECTION D [Long Essay]

*[Answer any **TWO** questions. Each question carries **15** marks]*

2 x 15 = 30 marks

32. Explain the internal architecture of 8085 microprocessor.
33. Discuss the working of J K flip-flop.
34. Explain input output devices in detail.
35. Describe functions of an operating system.