[scheme 2010]

1. Question paper pattern

Duration of Exam. : 3 Hrs.

Maximum marks   : 100

Part - A   Multiple choice / fill in the blanks type questions

Part - B   Short Answer type Questions with answer size up to 1 page per question.

Part - C Descriptive type Questions with answer size up to 2 to 3 pages per question.

Marks Distribution

Part	No. of questions.	Need to be answered	Marks/Question	Total
A	20	20	1	20
B	10	8	5	40
C	6	4	10	40
Total		32	…	100

Remarks:

1. Each part should cover questions from each module in the syllabus.

2. The level of difficulty shall be as follows

   i) Easy Questions   : 30% -40%
   ii) Intermediate level to difficult : 30% -40%
   iii) Difficult questions : 20% -30%

3. The question paper setters must prepare and submit the question papers as per the following guidelines.

   i)   Question paper must be designed and prepared to fit in an A4 size paper with one inch margin on all four sides.
   ii)   Prepare the Question in MS-Word/Open office-Write document format. Use only "TimesNewRoman" font with size 10. Align text to both left and right margins.
   iii)   Please leave 5 cm. free area at the top of the front page of each question paper to place examination details/Question paper header by the examination department.
   iv)   Avoid placing 1 or 2 questions in the last part in a fresh page, unless it is absolutely necessary. In such case, try to accommodate above questions in the previous page(s) by adjusting top/bottom margins and line spacing, if possible. This will reduce printing expenses.
   v)   Specify marks for each question/part clearly.
   vi)   Clearly specify the number of questions to be answered for each Part.
   vii)   Confirm that no questions in part B is repeated in Part C also.
   viii)   Avoid repeating questions in Part C from the immediate previous examination.
   ix)   Key for evaluation must be prepared and enclosed in a separate cover and should be submitted along with the question paper set. Key for evaluation must specify evaluation guidelines for each part in the question paper, otherwise the key prepared will be treated as incomplete.
   x)   Submit Question paper in Laser print out form only.   Hand written and printed in poor quality printers is not acceptable.

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[scheme 2010]   **2. Scheme for Continuous Evaluation.**

1. For Theory Papers :   Weightage

a). Average of minimum Two test papers   : 30 %
b). Average of minimum Two Assignments   : 30%
c). Score for Seminar   : 20%
d). Score for Class Attendance.   : 10%
e). Overall performance in the class.   : 10%

2. For Practical Papers :   Weightage

a). Average of minimum Two Lab tests   : 30 %
b). Average of minimum Two Lab Assignments   : 30%
c). Maintenance of Lab record   : 20%
d). Score for Lab Attendance.   : 10%
e). Overall performance in the Lab.   : 10%

3. Teachers shall submit Mark list for Continuous Evaluation to the Head of Institution in the following format.

Subject:

Sl no.	Regno.	Name	a.Test	b.Assignment	c.Seminar	d.Attend	e.Performance	Total

4. Head of Institution/Co-ordinator shall forward Continuous evaluation marks to the Examination Department in the following format only.

Centre:

Sl no.	Regno.	Name	PGDCA101 50	PGDCA102 50	PGDCA103 50	PGDCA104 50	PGDCA105 50

5. Continuos evaluation(sessional) marks must be published in the notice board at least one week before the commencement of theory examinations after getting approval from the Head of Institution/Co-ordinator.

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3. MODEL QUESTION PAPERS.

[scheme 2010]

PGDCA 101 COMPUTER ORGANIZATION AND OPERATING SYSTEMS

Time: 3 Hrs   Max:Marks:100

PART A
(Choose the correct Answer. Each question carries 1 mark)

1. Which of the following is a universal gate?
   A   AND   B. NOT   C. NAND   D. OR

2. Binary equivalent of the decimal number 25 is _____
   A. 11001   B. 10011   C. 1001   D. None of these

3. Find the odd one
   A. Keyboard   B. Mouse   C. Scanner   D. Printer

4. Which of the following is an Impact printer?
   A. Dotmatrix printer   B. Laser printer   C. Inkjet printer   D. None of these

5. Flash memory is a type of _____ chip
   A. ROM   B. PROM   C. EEPROM   D. EPROM

6. The software used to translate assembly language program into a machine language program is called
   _____
   A. Assembler   B. Compiler   C. Interpreter   D. Linker

7. Which of the following is a multiuser operating system?
   A. MS DOS   B. PC DOS   C. Linux   D. None of these

8. Fragmentation problem can be reduced by _____
   A. Page fault   B. Compaction   C. Thrashing   D. Switching

9. FIFO scheduling is _____
   A. Preemptive   B. deadlock   C. Non preemptive   D. None of these

10. The delay between the job submission and job completion is _____
    A. Turn around time   B. Waiting time C. Scheduling time   D. None of these

11. The high speed memory placed between CPU and main memory is called _____

12. Special storage locations inside the CPU are called _____

13. _____ is a unidirectional bus

14. The power supply unit of a personal computer is _____

15. The device used to convert digital signals to analog signals and vice versa is called _____

16. An instance of a program in execution is called _____

17. POST stands for _____

18. _____ is a software which acts as an interface between user and hardware

19. _____ is used for deadlock prevention

20. _____occurs when two processes wait for the same resource.

[scheme 2010 – Model QP]   101 CO& OS

PART B
(Answer any **EIGHT** questions. Each question carries 5 marks)

21. Differentiate between RAM and ROM

22. Explain how data are stored on a hard disk

23. Write the specification os a present day desktop computer.

24. What is a port? What are the different types of ports?

25. What is an instruction cycle ?

26. Explain virtual memory

27. Explain basic file operation

28. Explain preemptive and non preemptive scheduling

29. Compare real time and mutiuser operating system

30. Explain SPOOLing and Buffering

PART C

(Answer any **FOUR** questions. Each question carries 10 marks)

31. Compare Windows and Linux operating system

32. Briefly explain the life cycle of a process

33. Explain dedicated, shared and virtual devices.

34. Briefly explain the different parts of the CPU

35. Write short notes on

    a)   Bio-metric access control devices

    b)   Motherboard

    c)   Optical storage devices

    d)   Addressing modes

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[scheme 2010]   Model Question Paper

PGDCA 102 PROGRAMMING TECHNIQUES

Part A
(Answer all questions.Each carries 1 mark.)

Choose the correct answer.

1. C language is available for which of the following Operating Systems?
   a)DOS   b) Windows c) Unix   d)All of these

2. Which of the following symbol is used to denote a pre-processor statement?
   a)!   b) #   c) ~   d) ;

3. Which of the following are tokens in C?
   a) Keywords   b)Variables   c)Constants   d)All of the above

4. What is the valid range of numbers for int type of data?
   a)0 to 256   b)-32768 to +32767   c)-65536 to +65536   d)No specific range

5. Which escape character can be used to beep from speaker in C?
   a)\a   b)\b   c)\m   d)\n

6. Which of the following is an example of compounded assignment statement?
   a)a = 5   b)a += 5   c)a = b = c   d) a = b

7. The bitwise AND operator is used for
   a)Masking   b)Comparison   c) Division   d)Shifting bits

8. Which operator has the highest priority?
   a)++   b) %   c) +   d) ||

9. Maximum number of elements in the array declaration int a[5][8] is
   a)28   b)32   c) 35   d)40

10. Array subscripts in C always start at
   a)-1   b)1   c) 0   d)Value provided by user

Fill in the blanks

11. The output of the expression 11 ^ 5 --------------------

12. An Ampersand before the name of a variable denotes ----------------------

13. ----------------- header file is essential for using strcmp() function?

14. The operator << is called ------------------

15 In C++ a function contained with in a class is called --------------------------

16. Symbolic constants can be defined using ---------------------------

17. Null character is represented by -----------------

18. -------------- operator in C is called a ternary operator

19. Array subscripts in C always start at -----------------

20. When a language has the capability to produce new data type, it is called---------------.

[scheme 2010 – Model QP]   102 PT

PART B

(Answer any eight questions. Each question carries five marks)

21. Explain briefly about the steps in program development.

22. Explain compiling, linking and executing a program.

23. Explain the different types of constants in C.

24. Explain bitwise operators in C.

25. Explain nested if statement with example.

26. What are the different loops available in C. Explain with example.

27. What is an array in C. Explain how arrays can be used for storing and manipulating multiple values.

28. What is a string. Explain how character array can be used for manipulating string.

29. What is formal arguments and actual arguments in a C function. Explain with example.

30. Compare structure, union and enumerated data types.

PART C

(Answer any four. Each question carries 10 marks)

31. a) Draw a flowchart to find the largest element from a set of n elements.   (5)

    b) Write a program to generate prime numbers below 100.   (5)

32. Write a program using a recursive function to find the sum of digits of a no.   (10)

33. Write a program using dynamic memory allocation method to allocate n elements in

    memory and sort elements in ascending order.   (10)

34. Write a program to create a text file and display the contents.   (10)

35. Explain the features of object oriented programming.   (10)

36. Write short notes on the following.   (10)

    a) Inheritance   b) command line arguments

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[scheme 2010]   Model Question Paper

PGDCA 103 SOFTWARE ENGINEERING & DATABASE MANAGEMENT SYSTEMS

Part A
(Answer all questions.Each carries 1 mark.)

Choose the correct answer.

1. _____ data independence insulates user from making changes to internal level.
   a)physical   b)logicalc) internal   d)external

2. In SQL _____ command is used to confirm transaction.
   a) alter table   b)commit   c)rollback   d)udpate

3. A schema is written using _____ language.
   a)DDL   b)DML c)QBE d)SQURE

4. Which of the following is not a group function.
   a) max   b)sum   c)round d)avg

5. _____symbol in an ER Diagram to represent relationship sets.
   a) rectangle   b)circle c)diamond   d) arrow

6. The number of tuples in a relation is called _____.
   a) degree   b)cardinality   c) attribute   d)domain

7. ____ is table of contingencies for a defining a problem and the action to be taken.
   a)DFD b)decision table   c)structure chart d) FAT

8. _____feasibility centres around the existing system hardware,software etc.
   a)technical   b) behavioral   c)economical   d)all of these

9. _____ structured repository of data about data.
   a) view   b)table   c)data dictionary d)data flow diagram

10. _____ is a technique used for generating new ideas and obtaining general information requirements.
    a) prototyping   b) questionare   c)brain storming d)none of these

Fill in the blanks.

11. The view is a _____ table.

12. The record type at the top of the tree structure is _____.

13. If the records in a file are physically ordered on a non key field ,that field is called   _____.

14.UML stands for _____ .

15. _____ implies that goals are achieved through differing courses of action and a variety of paths.

State whether True or False.

16. An open system receives inputs from and delivers outputs to the outside world.

17. Structured English is best for logic verifications.

18. A relation can have more than one candidate key.

19. A dense index saves storage space.

20. An application form is an example for action form.

[scheme 2010 – Model QP]   103 SE & DB

Part B

Answer any 8 questions. Each carries 5 marks.

21. What do you mean by feasibility study ?

22. Briefly describe an activity diagram.

23. Describe the different categories of database users.

24. Explain the skills of a system analyst.

25. What are the rules to draw a DFD ?

26. Discuss the recovery techniques in databases.

27. Distinguish between open system and closed system.

28. Discuss briefly cost /benefit analysis.

29. Briefly discuss the process of normalization.

30. What are the different types of locks available in databases.

Part C

Answer any 4 questions. Each carries 10 marks.

31. a) Briefly explain the characteristics of a system.   (5)

    b) What is a system model ?   (5)

32. Explain the various criteria for software selection.   (10)

33. Discuss various mapping cardinalities in databases.   (10)

34. a) What is meant by hashing?   (5)

    b) What are the different types of keys in relational model.   (5)

35. Explain different information gathering tools.   (10)

36. Write short notes on   (10)

    a) feasibility analysis   b) DML

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