

BCA Non N&P

Roll No.

Total Pages : 3

3672

BCA/M-25

WEB DESIGNING USING ADVANCED TOOLS

Paper : BCA-361

Time : Three Hours]

[Maximum Marks : 80

Note : Question Number 1 is compulsory. Attempt *five* questions in all, selecting at least *one* question from each unit. All questions carry equal marks.

Compulsory Question

1. (a) List out any *two* differences between static and dynamic web pages.
(b) Differentiate == and === .
(c) What is the main purpose of Macromedia Flash?
(d) What are the variable naming conventions in VBScript?
(e) List any two advantages of PHP.
(f) What are the features of Macromedia Dreamweaver?
(g) How to use message box in VBScript?
(h) How to set background color in XML layout?

UNIT-I

2. (a) What are variables? How to assign values to variables in VBScript? What is the difference between Implicit and explicit declaration of variables?

3672/2900/KD/41

[P.T.O.

1/5

- (b) Describe various data types used in JavaScript.
Comment "JavaScript has dynamic type".

3. (a) What is Dynamic Array? How re-size dynamic arrays in VBScript? Explain with example.
(b) Explain various build-in functions used in VBScript.

UNIT-II

4. (a) How does ASP works? Explain the client server model of ASP.
(b) What are the various decision-making statements used in ASP?

5. What is PHP? Write some of the key features of PHP.
Why PHP is known as server side scripting language?
Differentiate ASP and PHP.

UNIT-III

6. (a) How would you give headers to the table columns in HTML? Also explain how to add a border to the table.
(b) Explain the various types of CSS with examples.

7. Write short note on following :

- (i) Dynamic Positioning.
(ii) Mouseovers.
(iii) Linking and embedding CSS in HTML.
(iv) Layered Object.

UNIT-IV

8. How can you apply a DTD to an XML document?
Describe the basic rules to write XML document?
Describe the structure of XML document.
9. Explain the different tools of Front page ToolBar. How to add scrollbar in Front page?

Roll No. Total Pages : 2

3666

BCA/M-25

ADVANCED DATA STRUCTURES

Paper : BCA-241

Time : Three Hours] [Maximum Marks : 80

Note : Attempt *five* questions in all, selecting at least *one* question from each section. Question No. 1 is compulsory. All questions carry equal marks.

Compulsory Question

1. Explain the following in brief :

- (i) Binary Search Tree.
- (ii) Binary Tree Representation in Computer memory.
- (iii) Directed Graph.
- (iv) Path Matrix in a Graph.
- (v) External Sorting.
- (vi) Linear Search Complexity.
- (vii) File Attributes.
- (viii) Hash Function.

(8×2=16)

2. What are the various ways to traverse a tree? Explain one way to traverse a binary tree by writing recursive and non-recursive algorithms and using suitable example.

(16)

3666/650/KD/164

[P.T.O.]

2/5

3. Write and explain the algorithms to delete an element from a binary search tree. (16)

UNIT-II

4. (a) Discuss the various ways to represent graphs in computer memory using suitable examples. (8)
(b) Discuss the procedure to insert an edge in an existing graph using suitable example. (8)
5. Write and explain the algorithm to find shortest path using Dijkstra's algorithm. (16)

UNIT-III

6. What is Heap sort? Explain by writing its algorithm and using suitable examples. Also comment on its complexity. (16)
7. Write and explain the recursive and non-recursive algorithms to search an element using binary search. (16)

UNIT-IV

8. What are the various classifications of a file? Explain in detail using suitable examples. (16)
9. Discuss various ways to handle collisions in hashing in detail. Provide suitable examples. (16)

Roll No.

Total Pages : 3

3673

BCA/M-25
OPERATING SYSTEM-II

Paper : BCA-362

Time : Three Hours] [Maximum Marks : 80

Note : Students will be required to attempt *five* questions in all selecting *one* question each from Unit-I to Unit-IV. Question No. 1 is compulsory. All questions carry equal marks.

Compulsory Question

1. (a) Write the characteristics and requirements of critical region.
- (b) How hash table is used for directory implementation?
- (c) Write short notes on swap space management.
- (d) Define rotational latency and disk access time.
- (e) How do I shutdown, reboot and logout the Linux system from the command-line?
- (f) Use sort and uniq command to sort a file and print unique values using piping in Linux.
- (g) Write about cron command in Linux with example.
- (h) What is a superblock in shell scripting? Differentiate between \$@ and \$*.
(8×2=16)

3673/3050/KD/161

[P.T.O.]
5/5

UNIT-I

2. (a) What is deadlock and starvation? Explain necessary conditions for a deadlock to occur.
- (b) What is Process Synchronization? Explain the Critical Section problem with example. (8+8=16)
3. (a) What operations can be performed on a semaphore? Write the steps for the Dining Philosopher Problem solution using semaphores.
- (b) Briefly explain different types of directory structures. (8+8=16)

UNIT-II

4. Write the importance of disk scheduling algorithms? Consider a disk queue with I/O requests on the following cylinders in their arriving order : 37, 56, 98, 32, 108, 78, 44, 78, 67, 69, 100. The disk head is assumed to be at Cylinder 40 and moving in the direction of decreasing number of cylinders. The disk consists of total 150 cylinders. Calculate and show with diagram the disk head movement using SSTF and SCAN disk scheduling algorithms. (16)
5. (a) Write the procedure of remote login. Discuss about NVT character set.
- (b) Explain different types of process migration in distributed system. (8+8=16)

UNIT-III

6. Outline and explain the structure of LINUX. What are the features of Linux operating system? How will you differentiate Linux with other operating systems? (16)
7. (a) Write the purpose and syntax of the following Linux commands :
(i) awk (ii) grep (iii) touch (iv) nslookup (v) ping (vi) renice.
- (b) Discuss the different types of Redirections and how to use Redirections in Linux? (8+8=16)

UNIT-IV

8. (a) What are the different type of files? Write file permissions. Provide an example of changing permissions and ownership of a file.
- (b) Define vi Editor and explain its modes. Brief about the commands used in the vi Editor. (8+8=16)
9. (a) How do you assign values to shell variable? Briefly discuss about shell control structures.
- (b) Write a shell program for counting characters, words and line? (8+8=16)

9. (a) Prove that the characteristic roots of a Skew-Hermitian matrix are either zero or purely imaginary. (8)

- (b) Diagonalize the matrix, if possible :

$$\begin{bmatrix} 2 & 1 \\ 2 & 3 \end{bmatrix} \quad (8)$$

$$\begin{bmatrix} 1 & 1 & 1 \\ 1 & 1 & 1 \\ 1 & 1 & 1 \end{bmatrix} \begin{bmatrix} x \\ y \\ z \end{bmatrix} = \begin{bmatrix} 0 \\ 0 \\ 0 \end{bmatrix}$$

SECTION-IV

$$\begin{bmatrix} 1 & 0 & 0 \\ 0 & 1 & 0 \\ 0 & 0 & 1 \end{bmatrix} = A$$

$$\begin{bmatrix} 1 & 1 & 1 \\ 1 & 1 & 1 \\ 1 & 1 & 1 \end{bmatrix} = A$$

Note : Attempt five questions in all, selecting at least one question from each Section. Question No. 1 is compulsory.

Compulsory Question

1. (a) Construct a truth table for $\sim p \Rightarrow \sim q$. (4)
- (b) Let $G = \{0, 1, 2, 3, 4, 5\}$. Find the order of elements of the group G under the binary operation addition modulo 6. (4)
- (c) Find a matrix Y such that $2A + B + Y = 0$, where

$$A = \begin{bmatrix} -1 & 2 \\ 3 & 4 \end{bmatrix}, B = \begin{bmatrix} 3 & -2 \\ 1 & 5 \end{bmatrix} \quad (4)$$

- (d) Prove the following by the principle of Induction for an $n \in \mathbb{N}$:

$$1.2 + 2.2^2 + 3.2^3 + \dots + n.2^n = (n-1)2^{n+1} + 2. \quad (4)$$

SECTION-I

2. (a) Using truth table prove that $p \vee (q \wedge r) \equiv (p \vee q) \wedge (p \vee r)$. (8)

- (b) Using principle of mathematical Induction, prove that for all $n \in \mathbb{N}$:

$$(2n + 7) < (n + 3)^2. \quad (8)$$

3. (a) Prove that $[(p \Leftrightarrow q) \wedge ((q \Rightarrow r) \wedge r)] \Rightarrow r$ is a tautology. (8)
 (b) Prove that $3^{2n+2} - 8n - 9$ is divisible by 64. (8)

SECTION-II

4. (a) If a group has four elements, show that it must be abelian. (8)
 (b) A subgroup H of G is normal iff $gHg^{-1} \subseteq H$ for all $g \in G$. (8)

5. (a) Prove that the intersection of two subrings is a ring. (8)

- (b) Find the characteristic of ring $(\mathbb{Z}_{10}, +, \times)$. (8)

SECTION-III

6. (a) Find the value of x and y from the equation

$$2 \begin{bmatrix} x & 5 \\ 7 & y-3 \end{bmatrix} + \begin{bmatrix} 3 & -4 \\ 1 & 2 \end{bmatrix} = \begin{bmatrix} 7 & 6 \\ 15 & 14 \end{bmatrix}. \quad (8)$$

- (b) Find the row rank of the matrix

$$\begin{bmatrix} 3 & 4 & 1 & 2 \\ 3 & 2 & 1 & 4 \\ 7 & 6 & 2 & 5 \end{bmatrix}. \quad (8)$$

7. (a) Check whether the following system of equations is consistent or not, if it is consistent then solve the system

$$4x + 3y + 2z = -7$$

$$2x + y - 4z = -1$$

$$x + 2y + z = 1. \quad (8)$$

- (b) For what value of λ , does the system

$$\begin{bmatrix} -1 & 2 & 1 \\ 3 & -1 & 2 \\ 0 & 1 & \lambda \end{bmatrix} \begin{bmatrix} x \\ y \\ z \end{bmatrix} = \begin{bmatrix} 1 \\ 1 \\ 1 \end{bmatrix}$$

- has (i) No solution (ii) Unique solution. (8)

SECTION-IV

8. (a) Prove that

$$A = \begin{bmatrix} 2 & 6 & 1 \\ 0 & 1 & -6 \\ 3 & 4 & 2 \end{bmatrix}$$

- satisfies its characteristic equation. Also find its inverse, if it exists. (8)

- (b) Find the characteristic vectors of the matrix

$$A = \begin{bmatrix} 1 & 2 & 3 \\ 0 & -4 & 2 \\ 0 & 0 & 7 \end{bmatrix}. \quad (8)$$

Roll No. Total Pages : 3

3675

BCA/M-25

INTERNET TECHNOLOGIES

Paper : BCA-364

Time : Three Hours] [Maximum Marks : 80

Note : Attempt *five* questions in all, selecting exactly *one* question from each unit. Question No. 1 is compulsory. All questions carry equal marks.

Compulsory Question

1. (a) What are the various ways to search for information on the web?
(b) What is meant by WWW?
(c) What is DNS mapping?
(d) What is a remote procedure call?
(e) What is meant by web-based mail?
(f) State the purpose of VoIP.
(g) What is meant by NAT?
(h) Comment on e-mail security. (8×2=16)

UNIT-I

2. (a) Discuss the client-server architecture in detail. (8)
(b) Discuss the architecture of TCP/IP in detail. (8)

3675/2850/KD/116

[P.T.O.
12/5

3. Write short notes on (i) Web Browsers (ii) URL (iii) HTTP (iv) Search Engine. (16)

UNIT-II

4. Differentiate between IPv4 and IPv6 working, addressing, and packet formats. (16)

5. Compare between following :

- (i) ARP and RARP. (16)
(ii) ICMP and IGMP.

UNIT-III

6. What are the various for file access and transfer? Explain. (16)

7. (a) What are the major differences between RTSP and RTP? (8)
(b) If you use a smartphone with a limit on the number of data bytes received each month, would you prefer POP3 or IMAP4? Explain. (8)

UNIT-IV

8. (a) Discuss the concept of VPN Addressing and Forwarding. (8)
(b) Does it make sense to use SNMP to manage all devices? Why or why not? (8)

9. (a) Some organizations use firewalls to isolate groups of users internally. Give examples of ways that internal firewalls can improve network performance and examples of ways internal firewalls can degrade network performance. (8)

- (b) What is meant by IPsec? Explain along with the IPsec authentication header. (8)

Roll No.

Total Pages : 3

3669

BCA/M-25

RELATIONAL DATABASE MANAGEMENT SYSTEM

Paper : BCA-244

Time : Three Hours]

[Maximum Marks : 80

Note : Students will be required to attempt *five* questions in all selecting *one* question each from Unit-I to Unit-IV. Question No. 1 is compulsory. All questions carry equal marks.

Compulsory Question

1. (a) What is entity, tuple and attribute in Relational Database Management System?
- (b) How do we use renaming in relational algebra?
- (c) What is the condition to ensure that the relation is in first normal form?
- (d) What do you mean by transitive functional dependency? State rule.
- (e) What are indexes? How do we create index in SQL?
- (f) Briefly explain any *four* aggregate functions in SQL.
- (g) How should comments be written in PL/SQL code?
- (h) Tell the importance of %TYPE and %ROWTYPE data types in PL/SQL. (8×2=16)

3669/700/KD/220

[P.T.O.]
13/5

UNIT-I

2. What are the uses of relational algebra? How relational algebra is different from relational calculus? Explain the following operations with example :

- (i) Intersection.
- (ii) Cartesian Product.
- (iii) Project.
- (iv) Join.

3. (a) Differentiate between Tuple Relational Calculus (TRC) and Domain Relational Calculus (DRC).
How do we express query in TRC and DRC? State example.

- (b) How was Dr. Edgar F. Codd? Discuss 3rd, 7th, 10th and 12th rule of Dr. Codd. (8+8=16)

UNIT-II

4. (a) What is functional dependency? Differentiate between full and partial functional dependency. State example.

- (b) Why we need decomposition? What is its need? What are the steps involved in decomposing the relations? (8+8=16)

5. Explain Boyce-Codd Normal Form with example. How it is different from 3rd Normal Norm? Discuss about insert, update and delete anomalies. 16

UNIT-III

6. What data types are used in SQL? Write the syntax and example to create relations using primary key, foreign key, check, null and default constraints. 16

7. (a) Write the definition, syntax and example for the following :

- (i) Alter.
- (ii) Drop.
- (iii) Insert.

(b) How do we write SQL queries using where, group by and order by clause? State example. (8+8=16)

UNIT-IV

8. (a) Differentiate between PL/SQL and SQL*Plus. Outline and explore PL/SQL block structure.

- (b) State examples illustrating the use of control structure in PL/SQL. (8+8=16)

9. Why do we use cursors and triggers in PL/SQL? Write the syntax to create trigger (before/after with insert/delete/update) in PL/SQL. 16

Roll No.

Total Pages : 3

3676

BCA/M-25

ADVANCED PROGRAMMING WITH VISUAL BASIC

Paper : BCA-365

Time : Three Hours] [Maximum Marks : 80

Note : Question No. 1 is compulsory. In addition to that attempt *four* more questions, selecting *one* question from each unit. All questions carry equal marks.

Compulsory Question

1. (a) What is the difference between loading and showing a form?
(b) What is meant by dynamic forms?
(c) How can you create a shortcut and access keys to a menu?
(d) How can you use slider control in VB?
(e) What is the purpose of EOF and LOF in a file?
(f) State the purpose of the paint method.
(g) Enlist the major properties of a DAO control in VB.
(h) Enlist the major operations that can take place on a database.

3676/2950/KD/120

[P.T.O.
15/5

UNIT-I

2. Differentiate between array and collection. How can you use a collection? Explain by writing a suitable program for creating, using, and manipulating a collection. (16)

3. (a) What is manual drag? How can you perform it? Explain using suitable examples. (8)
(b) Write a simple VB program using multiple forms. (8)

UNIT-II

4. Explain the following in detail :

- (i) Tree View. (16)
(ii) Progress Bar. (16)

5. How can you create a menu in VB? Explain the procedure in brief. Also, discuss the procedure to add a dynamic submenu to a menu using suitable examples. (16)

UNIT-III

6. (a) How can you draw freehand with the mouse in VB? Explain with a suitable example. (8)
(b) Write a program to draw a smiley face in VB. (8)

7. Describe various types of files in VB. How various operations can be performed on files? Explain with appropriate examples in each case. (16)

UNIT-IV

8. What do you understand by data controls and data-bound controls? Explain each in detail using suitable examples. (16)

9. Using any method create a project for maintaining, using and manipulating the student database. Show the design and write the requisite coding for the same. (16)

Roll No.

UNIT-II

Total Pages : 2

3668

BCA/M-25

E-COMMERCE

Paper : BCA-243

Time : Three Hours]

[Maximum Marks : 80

Note : Attempt *five* questions in all, selecting at least *one* question from each Unit. Question No. 1 is compulsory. All questions carry equal marks.

Compulsory Question

1. Answer the following :

- (a) Briefly explain the term E-Commerce with examples.
- (b) What do the terms B2B and B2C stand for? Give *one* example of each.
- (c) What is a Secure Electronic Transaction (SET)?
- (d) Name any *two* applications of E-Commerce in the travel and tourism industry.

UNIT-I

2. Compare and contrast E-Commerce practices with traditional business practices. Provide examples.
3. Describe the process of an online credit card transaction. What security protocols ensure safe payments?

3668/550/KD/201

[P.T.O.]

9/5

UNIT-II

4. Discuss the impact of E-Commerce on disintermediation and reintermediation in the global market.
5. Explain the concept of government-to-business (G2B) and citizen-to-government (C2G) interactions in E-Governance with suitable examples.

UNIT-III

6. Explain the success factors of E-Brokers in an online business environment.
7. What are E-Auctions? Explain their benefits, implementation, and impact on businesses and consumers.

UNIT-IV

8. Discuss the key technologies and architectural models used in B2B E-Commerce.
9. What are the major Internet security and legal issues involved in E-Commerce, especially in the Indian scenario?

Roll No. Total Pages : 3

3664

BCA/M-25

STRUCTURED SYSTEM ANALYSIS AND DESIGN

Paper : BCA-125

Time : Three Hours] [Maximum Marks : 80

Note : Attempt *five* questions in all, selecting *one* question from each unit. Question No. 1 is compulsory. All questions carry equal marks.

Compulsory Question

1. (a) Differentiate between open and closed systems.
(b) Discuss the structure of decision table.
(c) Differentiate between tangible and intangible costs.
(d) Differentiate between adaptive and perfective maintenance.

UNIT -1

2. (a) Explain the difference between physical and abstract systems, providing examples of each.
(b) How does the role of a system analyst evolve throughout the different phases of the System Development Life cycle (SDLC)?

3664/500/KD/1447

WS [P.T.O.
16/6

3. (a) Discuss the various phases of the System Development Life Cycle (SDLC) and their significance in system development.
- (b) What are some examples of subsystems within larger systems, and how do they contribute to the overall functionality?

UNIT-II

4. (a) How do Data Flow diagrams facilitate understanding and communication of system processes and data flow within a project? Explain using suitable example.
- (b) Discuss the role of interviews as a fact-gathering technique in system analysis, including best practices for conducting effective interviews.

UNIT-III

6. (a) Describe the goals of database design in terms of ensuring data integrity, security, and efficiency.
- (b) What factors should be considered when designing forms within a system, and how does effective form design contribute to data accuracy and user satisfaction?

7. (a) Discuss the trade-offs between storage efficiency and data access speed in different file organization and database design approaches.
- (b) How do you prioritize between various costs and benefits during a cost/benefit analysis to make informed decisions about system development?

UNIT-IV

8. (a) Discuss strategies for reducing maintenance costs in software development projects while maintaining or improving system reliability and performance.
- (b) Outline the main objectives of system testing and explain how they contribute to the overall success of a project?

9. (a) Discuss the importance of effective planning in testing and how it helps in identifying risks, allocating resources and ensuring thorough test coverage?
- (b) Explain the goal of quality assurance in software development, and how does it differ from quality control?

9. Which factors contribute towards successful interview ?
Explain the important non-verbal aspects at the time of interview. 10

सफल साक्षात्कार में कौनसे कारक योगदान करते हैं ? साक्षात्कार के समय महत्वपूर्ण गैर-मौखिक पहलुओं की व्याख्या कीजिए ।

Roll No.

Total Pages : 04

PSEC/M-25

13314

BUSINESS COMMUNICATION

Time : Three Hours]

[Maximum Marks : 50

Note : Attempt *Five* questions in all. Q. No. 1 is compulsory.

Attempt *four* more questions selecting *one* question from each Unit. All questions carry equal marks.

कुल पाँच प्रश्नों के उत्तर दीजिए । प्रश्न संख्या 1 अनिवार्य है । प्रत्येक इकाई से एक प्रश्न चुनते हुए, अन्य चार प्रश्न कीजिए । सभी प्रश्नों के अंक समान हैं ।

Compulsory Question (अनिवार्य प्रश्न)

1. Write short notes on the following : 4×2.5=10

- (a) Diagonal communication
- (b) Telegram
- (c) Post script
- (d) Visual aids.

निम्नलिखित पर संक्षिप्त टिप्पणियाँ लिखिए :

- (अ) विकर्ण संचार

(ब) टेलीग्राम

(स) पोस्ट स्क्रिप्ट

(द) दृश्य सहायताएँ ।

Unit I (इकाई I)

2. What types of barriers emerge in business communication ?
How can these be minimized ? 10

व्यावसायिक संचार में किस प्रकार की बाधाएँ आती हैं ? इन्हें कैसे कम किया जा सकता है ?

3. How does a grapevine operate in an organization ? How
can its harmful effects be controlled ? 10

किसी संगठन में अफवाह (ग्रेपवाइन) कैसे फैलती है ? इसके हानिकारक प्रभावों को कैसे नियंत्रित किया जा सकता है ?

Unit II (इकाई II)

4. Explain the format of report writing. What points to be
taken care of while writing a good report ? 10

रिपोर्ट लेखन के प्रारूप की व्याख्या कीजिए । एक अच्छी रिपोर्ट लिखते समय किन बातों का ध्यान रखना चाहिए ?

5. Differentiate between notice and circular. How notice is
drafted in official communication ? 10

नोटिस और परिपत्र के बीच अंतर बताइये । आधिकारिक संचार में नोटिस कैसे तैयार किया जाता है ?

Unit III (इकाई III)

6. Explain the role of content, clarity of thought and its
expression in group discussion. 10

समूह चर्चा में विषय-वस्तु, विचारों की स्पष्टता और उसकी अभिव्यक्ति की भूमिका की व्याख्या कीजिए ।

7. What are interview skills ? What considerations should
be taken while self-introduction and panel addressing
during interviews ? 10

साक्षात्कार कौशल क्या हैं ? साक्षात्कार के दौरान आत्म-परिचय और पैनल संबोधन करते समय किन बातों का ध्यान रखना चाहिए ?

Unit IV (इकाई IV)

8. What types of audio-visual aids can be used in
business communication ? How their use can be made
effective ? 10

व्यावसायिक संचार में किस प्रकार के दृश्य-श्रव्य साधनों का उपयोग किया जा सकता है ? उनका उपयोग कैसे प्रभावी बनाया जा सकता है ?

Roll No.

Total Pages : 3

3665

BCA/M-25

PERSONALITY DEVELOPMENT

Paper : BCA-126

Time : Three Hours]

[Maximum Marks : 80

Note : Attempt *five* questions in all, selecting at least *one* question from each unit. Question No. 1 is compulsory.

Compulsory Question

1. (a) Identify the causes of personality disorders or deranged personality and explain their effects on personal and professional life. (4)
- (b) What are the best practices for managing and mentoring junior employees in a professional environment? (4)
- (c) Why is clarity of thought important in both group discussions and presentations? How can it be developed? (4)
- (d) How can understanding the intent of an interview help a candidate perform better? (4)

UNIT-I

2. (a) Define personality and personal grooming. How do they contribute to an individual's overall impression in professional and social settings? (8)

3665/400/KD/1569

481 [P.T.O.
18/6

(b) Discuss how a positive or negative self-concept can impact personal growth and interpersonal relationships. (8)

3. Discuss the significance of etiquette in social and professional interactions. How do cultural differences influence social and dining etiquette in a globalized world? (16)

UNIT -II

4. Discuss the importance of teamwork and collaboration in maintaining healthy relationships with colleagues. How can effective conflict resolution skills enhance cooperation and reduce misunderstandings among co-workers? (16)

5. Discuss how to ensure clear communication and respect while working with contract or temporary workers. What challenges may arise in managing contract workers, and how can interpersonal skills help overcome them? (16)

UNIT -III

6. Describe the qualities of a good participant in a group discussion. How can one contribute meaningfully without dominating the conversation? (16)

7. What are the essential components of a powerful presentation? Explain how body language, visuals, and voice modulation contribute to it. (16)

UNIT-IV

8. Explain different types of interviews. How can time management and goal setting contribute to better interview preparation? (16)

9. (a) What are the key points to include in a professional self-introduction during an interview? How can a well-structured self-introduction set the tone for a successful interview? (8)

(b) What strategies should be followed while addressing a panel of interviewers confidently and respectfully? (8)

Roll No.

Total Pages : 3

3663

BCA/M-25

OFFICE AUTOMATION TOOLS

Paper : BCA-124

Time : Three Hours]

[Maximum Marks : 80

Note : Attempt *five* questions in all, selecting *one* question from each unit. First question is compulsory.

Compulsory Question

1. (a) What is the primary purpose of desktop publishing software?
- (b) What is the advantage of using master pages in desktop publishing software?
- (c) What is PageMaker?
- (d) What are the main advantages of using PageMaker for desktop publishing?
- (e) What is the purpose of spell check in word processing?
- (f) How does word processing software handle document editing compared to pen and paper?
- (g) What is a slide in PowerPoint?
- (h) How do you start a slideshow in PowerPoint?

(8×2=16)

3663/600/KD/1426

431 [P.T.O.
14/6

UNIT-I

2. (a) How did the release of PageMaker for Windows impact the adoption of desktop publishing in business and education sectors? (8)
- (b) Discuss the key features of PageMaker tailored specifically for the Windows environment. (8)

3. Analyse the role of desktop publishing packages in enabling businesses to create professional-looking marketing materials, such as brochures, flyers, and advertisements. How do these packages contribute to branding and promotional efforts? (16)

UNIT-II

4. (a) Discuss the importance of leading (line spacing) in text formatting and how it can be adjusted in PageMaker? (8)
- (b) What are the options for aligning text in PageMaker? (8)
5. (a) Explain the process of adjusting the font size in PageMaker. (8)
- (b) How can you modify text content within a publication using PageMaker? (8)

UNIT-III

6. Explore the key features and functionalities of word processing software, including text editing, formatting, spell checking, grammar checking, and document organization. How do these features contribute to the efficiency and effectiveness of document creation and editing? (16)

7. Explain the concept of Mail Merge in Microsoft Word. How does it allow users to personalize and automate the process of creating bulk documents such as letters, envelopes, and labels? (16)

UNIT-IV

8. Examine the various tools and functionalities available in PowerPoint for designing and formatting slides. (16)
9. (a) Explain the process of adding animation to objects, text, and slides in PowerPoint. (8)
- (b) Explore the various types of animations available in PowerPoint. (8)

Roll No.

Total Pages : 2

3677

BCA/M-25

PROGRAMMING IN CORE JAVA

Paper : BCA-366

Time : Three Hours]

[Maximum Marks : 80

Note : Attempt any *five* Questions. Selecting at least *one* from each unit. Question No. 1 is Compulsory. All Questions carry equal marks.

Compulsory Question

1. Explain the following :

- (a) Operators and expressions in java.
- (b) Wrapper classes in java.
- (c) Use of 'super' and 'this' keywords.
- (d) Different types of Applet.
- (e) Graphics functions in Applet.

UNIT-I

2. Explain various access specifiers in Java? What are static variables and static methods in java? How they are accessed?

3. Explain the following :

- (a) Java keywords.
- (b) Identifiers.
- (c) Loop Structure.

3677/2950/KD/123

P.T.O.
19/5

UNIT-II

4. Write program to find the area of rectangle using
(i) Function overloading (ii) Inheritance.
5. Discuss different types of Array in java. Write java code to Add and Multiply 2 matrices.

UNIT-III

6. What are various ways of code reusability in JAVA?
Discuss package in detail with example.
7. Write program to display your own name using the concept of (i) Constructor (ii) Package.

UNIT-IV

8. Write an Applet program to add two Integers, entered in Textfields and their SUM should be displayed in Third Textfield.
9. Can we use Multiple Catch blocks in Exception Handling?
Write Java code to handle your own exception.

3. Explain the following :

- (a) java keywords
- (b) Identifiers
- (c) Loop structures

UNIT-II

4. Write program to find the area of rectangle using
(i) Function overloading (ii) Inheritance.
5. Discuss different types of Array in java. Write java code to Add and Multiply 2 matrices.

UNIT-III

6. What are various ways of code reusability in JAVA?
Discuss package in detail with example.
7. Write program to display your own name using the concept of (i) Constructor (ii) Package.

UNIT-IV

8. Write an Applet program to add two Integers, entered in Textfields and their SUM should be displayed in Third Textfield.
9. Can we use Multiple Catch blocks in Exception Handling?
Write Java code to handle your own exception.

Roll No.

UNIT-I

Total Pages : 2

3671

BCA/M-25

MANAGEMENT INFORMATION SYSTEM

Paper : BCA-246

Time : Three Hours] [Maximum Marks : 80

Note : Attempt *five* questions in all, selecting *one* from each Unit.
Question No. 1 is compulsory.

Compulsory Question

1. (a) What is the difference between a system and a subsystem? (4)
(b) What is the need of decision-making? (4)
(c) What is adaptive maintenance? (4)
(d) What are e-business systems? (4)

UNIT-I

2. (a) Distinguish between :
(i) Open & Closed Systems. (10)
(ii) Deterministic & Probabilistic Systems. (10)
(b) Discuss the relevance and role of information in decision-making. (6)
3. What is an information system? Explain the sub-systems of an information system. (16)

3671/550/KD/124

45 [P.T.O.]

20/5

UNIT-II

4. Discuss the importance of management information system. Explain the characteristics and components of management information system. (16)

5. Differentiate between following :

- (a) Structured and Un-Structured Decisions.
- (b) Formal and Informal Systems. (16)

UNIT-III

6. (a) Elaborate the symbols used in constructing DFDs. Write basic rules for constructing a DFD. (8)
- (b) What is the difference between analysis and design? How would an analysis determine the users' needs for a system? (8)

7. Discuss the pitfalls in MIS development. Also explain various design problems and the solution strategies for the same. (16)

UNIT-IV

8. Discuss the following :

- (a) Production Information System.
- (b) Human Resource/Personnel Management System. (16)

9. What are Decision Support Systems? Explain the characteristics and functions of Decision Support Systems. How is DSS useful in planning and control? (16)