

COPYRIGHT RESERVED VUG(4) — BCA (4002)

2022-25(Voc)

Time : 3 hours

Full Marks : 70

*Candidates are required to give their answers in
their own words as far as practicable.*

The figures in the margin indicate full marks.

Answer from both the Groups as directed.

Group – A

Answer any four questions of the following :

$$10 \times 4 = 40$$

1. How memory management is done in operating system and what are the different memory partitioning techniques ?
2. What is process control block and what are the different states of a process ?
3. What are the primary difference between Network operating system and Distributed Operating System ?

QE – 2/3

(Turn over)

4. Explain in detail direct access secondary storage devices.

H-604

P.T.O.

4. What is a system call ? How it is handled by an OS ?
5. What is virtual memory ? How it is implemented ?
6. Consider the following set of four processes. Each having its own unique burst time and arrival time :

Process	Arrival time	Burst time
P ₁	0	10
P ₂	1	6
P ₃	3	2
P ₄	5	4

Using the scheduling algorithm SJF, calculate average waiting time and average turn around time.

7. Calculate the number of page faults using 4 frames for LRU, FIFO and optimal page replacement algorithm. The page reference string is given as : 1, 2, 3, 4, 2, 1, 5, 6, 2, 1, 2, 3, 7, 6, 3, 2, 1, 2, 3, 6
8. Write short notes on file types and file access methods.

QE - 2/3

(2)

Contd.

Group - B

Answer all questions of the following:

$$3 \times 10 = 30$$

9. Give the view of O/S as a resource manager.
10. Differentiate tightly coupled systems and loosely coupled systems.
11. What are the use of job queue, ready queue and device queue ?
12. What are the various scheduling criteria for CPU scheduling ?
13. What are the common strategies to select a free hole from a set of available holes ?
14. What is fragmentation and what are its types ?
15. What are the different allocation methods of a file ?
16. What are the most common schemes for defining the logical structure of a directory ?
17. How free space is managed using bit vector implementation ?
18. What is demand paging ?



QE - 2/3 (600)

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2022-25(Voc)

Time : 3 hours

Full Marks : 70

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their own words as far as practicable.

The figures in the margin indicate full marks.

Answer from both the Groups as directed.

Group—A

Answer any four questions of the following :

$$10 \times 4 = 40$$

1. Write and explain the Hardware for multimedia computer.
2. Explain multimedia components.
3. Write and explain the applications areas of multimedia.
4. What is the concepts for distributed learning enviroment ? Discuss.
5. Write the features of Authoring Software.

QE – 1/2

(Turn over)

Authoring
Technique

6. Write about applications of Hypertext ?
7. Discuss about the Multimedia Application Planning.
8. Discuss about the Authoring Tools.

Group - B

Answer all questions :

$$3 \times 10 = 30$$

9. What is med-net ?
10. What is Hypertext ?
11. Write elements of Hypertext.
12. What is learning interface design ?
13. Write the software for multimedia.
14. What is multimedia production ?
15. What is publishing industry ?
16. Write about multimedia services ?
17. What is Animation ?
18. Write about the development tips of multimedia building blocks.

QE - 1/2 (600)

(2) VUG(4) — BCA (4001)

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2022-25(Voc)

Time : 3 hours

Full Marks : 70

*Candidates are required to give their answers in
their own words as far as practicable.*

The figures in the margin indicate full marks.

Answer from both the Sections as directed.

Section – A

Answer any four questions of the following :

$$10 \times 4 = 40$$

1. Define Protocols. Explain FTP and HTTP Protocol.
2. Define IP address. Specify IPvy address classes.
3. Discuss the concept of multiplexing. Explain various types of multiplexing.
4. Critically analyze the OSI reference model.

QE – 5/2

(Turn over)

- computer.
2. Explain multimedia components.
 3. Write and explain the applications areas of multimedia.
 4. What are the concepts for distributed learning environment? Discuss.
 5. Write the features of Authoring Software.

QE - 1/2

(Turn over)

5. What is the meaning of unguided transmission media and its benefits over guided media?
6. Explain the features of LAN, MAN and WAN.
7. Write short notes on the following:
 - (a) DNS
 - (b) Public key cryptography
 - (c) VPN
8. Draw and describe various layers of TCP/IP model. How is it different from OSI reference model?

Section - B

9. Answer all questions of the following: $3 \times 10 = 30$
 - (a) Explain the working of microwave transmission.
 - (b) Draw Internet Protocol Header.
 - (c) What is Hamming Distance?
 - (d) List advantages of fibre over copper wire.
 - (e) Define modulation.
 - (f) What is IEEE 802.3?

E - 5/2

(2)

Contd.

QE - 5/2 (600)

(3) VUG(4) — BCA (400)

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2022-25(Voc)

Time : 3 hours

Full Marks : 70

Candidates are required to give their answers in
their own words as far as practicable.

The figures in the margin indicate full marks.

Answer from both the Sections as directed.

Section – A

Answer any four questions of the following :

$$10 \times 4 = 40$$

1. What is HTML ? Explain its advantages and disadvantages.
2. How hyperlink is created in a web page ? Explain attributes of anchor tag.
3. Define table tag and its attributes with an example.

(Turn over)

QE – 3/2

- Define Protocols. Explain FTP and HTTP Protocol.
- Define IP address. Specify IPvy address classes.
- Discuss the concept of multiplexing. Explain various types of multiplexing.
- Critically analyze the OSI reference model.

QE - 5/2

(Turn over)

ons areas of
uted learning
oftware.

(Turn over)

TH-604

QE - 2/5

Techno

- Define frameset, frame tag. Divide the web page into four equal parts each individual part displays different web page.
- Define Form tag. Design a registration page by using all form controls.
- In how many ways we can insert CSS in web page ? Explain each with HTML code.
- (a) Why we use PHP ? Explain features of PHP.
(b) Write down the steps for connecting data base in PHP.
- Explain :
(a) Ordered list in HTML with example
(b) Basic feature of HTTP

Section – B

Answer all questions of the following:

$$3 \times 10 = 30$$

9. Explain tag and its attributes.

10. Explain selectors in CSS.

QE - 3/2

(2)

Contd.

QE - 3/2 (600)

(3) VUG(4) — BCA

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(Turn over)

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2022-25(Voc)

Time : 3 hours

Full Marks : 70

*Candidates are required to give their answers in
their own words as far as practicable.*

The figures in the margin indicate full marks.

Answer from both the Sections as directed.

Section – A

Answer any four questions of the following :

$$10 \times 4 = 40$$

1. Write about the following key components of dot net :
 - (a) Common Language Runtime
 - (b) Class Library
 - (c) Languages
2. What are the design principles of the dot net framework ?

QE – 4/2

(Turn over)

1. Explain its advantages and disadvantages. $10 \times 4 = 40$
2. How hyperlink is created in a web page ? Explain attributes of anchor tag.
3. Define table tag and its attributes with an example.

QE - 3/2

H-604

QE - 2/5

(Turn over)

(over)

Techno

3. What is data types ? What are the different types of datatypes in C# ? Discuss.

4. What is assembly in .Net ? Write about the shared assembly, how to generate a public key token ? And write the steps for creating a shared assembly.

5. What are the advantages of assemblies ? Also write about the private and shared assemblies.

6. Create a window program for performing the arithmetic operations.

7. Write about the following controls :

(a) Button

(b) Text boxes

(c) Check box

(d) Radiobutton

Also create a simple program using these controls.

8. What is ADO. #Net ? Write about some important classes of ADO. #Net.

QE - 4/2

(2)

Contd.

QE - 4/2 (600)

(3) VUG(4) — BCA (400)