# 2020-23 (Voc.)

*Full Marks* : 70

*Time* : 3 hours

Answer from **both** the Sections as directed.

*The figures in the right-hand margin indicate marks.*

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



## SECTION–A

Answer any *four* questions : 10 × 4

1. What is Microsoft . Net framework ? Discuss its architecture with components.

2. What are the design principles of .Net framework ?

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

4. What do you mean by Assembly in .Net ? What is private assembly ? And write a program for creating private DLL assembly.

5. What is public assembly ? How to build public assembly ? Explain with a program.

6. Write the notes on the following controls :

   (*a*) Labels

   (*b*) Buttons

   (*c*) Text Boxes

   (*d*) List box

7. Write a windows based program for creating a simple calculator.

8. What is Ado.net ? Write about the following terms : Data providers, connection, command, Data Adapter.





## SECTION–B

Answer *all* questions : 3 × 10

9. Write about the garbage collection.

10. What is common language interpreter ?

11. Write down about the advantages of C#.

12. What is string in C# ? Write a simple program with respect to string.

13. Write about bitwise operators.

14. What do you mean by side-by-side execution ?

15. What is the meaning of assembly versioning ?

16. Write down about the toolbox of visual studio IDE.

17. Create a window based program for adding two accepted values.

**18.** Explain any two properties of textbox control.

**VUG (4)– BCA (4003)**

# 2020-23 (Voc.)

*Full Marks* : 70

*Time* : 3 hours

Answer from **both** the Sections as directed.

*The figures in the right-hand margin indicate marks.*

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



## SECTION–A

Answer any *four* questions : 10 × 4

1. (*a*) Why HTML is called 'Hypertext' and 'Markup' language ?

   (*b*) Explain the purpose of heading tags with examples.

2. Explain with example :

   (*a*) Unordered list

(*b*) Ordered list

(*c*) Definition list

3. What are the difference between cellspacing and cellpadding ? Also write HTML code for the following HTML table :

<table>
<tr><td>A</td><td>B</td><td colspan="2">C</td></tr>
<tr><td rowspan="2">D</td><td>E</td><td>F</td><td>G</td></tr>
<tr><td>H</td><td colspan="2" rowspan="2">I</td></tr>
<tr><td>J</td><td>K</td></tr>
</table>

4. Why we use frames in web page ? Explain attributes of < frameset > tag and < frame > tag.

5. What are the purposes of CSS selectors ? Explain following selectors with example :

(*a*) Element selector

(*b*) Id selector

(*c*) Class selector





6. What do you mean by web techniques ? Explain with example.

7. (*a*) What is the role of HTTP ? Explain HTTP request and HTTP response.

(*b*) What is PHP ? Explain properties of PHP.

8. Write HTML code for designing HTML form using following controls

- Text box
- Password
- Text area
- Check box
- Radio box
- File upload box
- Submit button
- Reset button

## SECTION–B

Answer *all* questions : 3 × 10

9. What is marquee ? Explain its attributes.

10. How image is added in web page ?

11. How audio and video is added in web page ?

12. What is HTML Migration ?

13. What are text formatting tags used in HTML ?

14. What is internal CSS ? Give one example.

15. How hyperlink is created in a web page ?

16. Explain types of Button control.

17. How many tags can be used to separate a section of texts ?

18. What is PHP session ? Explain.

# 2020-23 (Voc.)

*Full Marks* : 70

*Time* : 3 hours

Answer from **both** the Sections as directed.

*The figures in the right-hand margin indicate marks.*

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



## SECTION–A

Answer any *four* questions : 10 × 4

1. What do you mean by computer network ? What is the need of network system ?

2. What are the different types of computer network ?

3. Explain Error detection and correction.

4. Explain IPv4 packet format.

5. Explain ISO/OSI reference model.

6. Explain the topologies of the network.

7. Write short notes about repeaters, routers and gateways.

8. Explain WWW and its usages.

## SECTION–B

Answer *all* questions : $3 \times 10$

9. What are the criteria necessary for an effective and efficient network ?

10. What is flow control ?

11. What is the need of internetwork ?

12. What is multicast ? What is the need for developing multicast ?

13. What is TCP ?

**14.** What are the functions of transport layer ?

**15.** Define network congestion ?

**16.** What are the two types of protocols used in Transport layer ?

**17.** What is SMTP used for ?

**18.** What are the responsibilities of Application Layer ?

VUG (4)– BCA (4002)

# 2020-23 (Voc.)

*Full Marks* : 70

*Time* : 3 hours

Answer from **both** the Groups as directed.

*The figures in the right-hand margin indicate marks.*

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



## GROUP–A

Answer any *four* questions : 10 × 4

1. Discuss the simple operating system structure. Describe the layered approach.

2. Explain different free space management techniques in detail.

3. Explain the basic concept of segmentation in detail.

4. Distinguish among the following terminologies :

   (*i*) Multiprogramming systems

   (*ii*) Multitasking systems

   (*iii*) Multiprocessor systems

5. What do you mean by PCB ? Where it is used ? What are its contents ? Explain.

6. What is demand paging ? Explain.

7. Explain Disk structure in detail.

8. Consider the following five processes, with the length of the CPU burst time given in milliseconds.

| Process | Burst time |
|---|---|
| $P_1$ | 10 |
| $P_2$ | 29 |
| $P_3$ | 3 |
| $P_4$ | 7 |
| $P_5$ | 12 |





( *Continued* )

Find out the average waiting time and average turn around time using Gantt chart for

(*i*) FCFS

(*ii*) Non preemptive SJF

(*iii*) Round-Robin (quantum = 10 ms)

## GROUP–B

Answer *all* questions : 3 × 10

**9.** Explain time sharing operating system.

**10.** What is meant by the state of the process ?

**11.** What is Fragmentation ?

**12.** List the various file attributes.

**13.** What are the principles of protections.

**14.** Explain two-level directory structure.

15. Explain the different category of system calls.

16. Define CPU scheduling.

17. What are the 3 different types of scheduling queue ?

18. What are pages and frames ?

VUG (4)– BCA (4001)

# 2020-23 (Voc.)

*Full Marks* : 70

*Time* : 3 hours

Answer from **both** the Sections as directed.

*The figures in the right-hand margin indicate marks.*

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

## SECTION–A

Answer any *four* questions : 10 × 4

1. Write and explain the hardware requirement for multimedia.

2. Explain multimedia components.

3. Discuss about the application are as for multimedia.

4. Write about the concepts for distributed learning environment.

5. Explain features of Authoring software.

6. Discuss :

   (*a*) Application of hypertext

   (*b*) Med net

7. Discuss about the planning the multimedia programme.

8. Write about the development TIPS of multimedia building blocks.

## SECTION–B

Answer *all* questions : 3 × 10

9. Write the software for multimedia.

10. Where multimedia system uses ?

11. What is the role of Interface designer ?

12. What is image processing ?

13. List the uses of Animation.

14. What is image Animation ?

15. What is multimedia design ?

16. What is interactive systems ?

17. What is authoring tools ?

18. Write elements of hypertext.

---