## **B.Voc. DEGREE EXAMINATION, APRIL – 2024**

## Second Semester

## **Software Development**

## WEB TECHNOLOGY

## (CBCS - 2022 onwards)

Time : 3 Hours

Maximum : 75 Marks

**Part A**  $(10 \times 1 = 10)$ 

Answer **all** the following objective questions by choosing the correct option.

- 1. Which of the following computer networks is built on the top of another network? (CO1, K3)
  - (a) overlay network (b) prime network
  - (c) prior network (d) chief network
- 2. The arrangement where all data pass through a central computer is known as ————. (CO1, K2)
  - (a) Ring topology (b) Mesh topology
  - (c) Star topology (d) Bus topology

- 3. A set of rules followed by each computer present on a network is called ————. (CO2, K1)
  - (a) Web (b) HTTP
  - (c) Domain (d) Protocol
- 4. What are shared on the Internet and are called as Web pages? (CO2, K3)
  - (a) Programs
  - (b) Cables
  - (c) Hypertext documents
  - (d) None of the above
- 5. The correct sequence of HTML tags for starting a webpage is \_\_\_\_\_\_. (CO3, K2)
  - (a) Head, Title, HTML, body
  - (b) HTML, Body, Title, Head
  - (c) HTML, Head, Title, Body
  - (d) None of the above
- 6. What is the default 'type' of type attribute of <input> element? (CO3, K5)
  - (a) Text (b) Password
  - (c) Numerals (d) Special Characters
    - 2

| 7.  | Java | ascript is an ———      |         | language.         | (CO4, K4)    |
|-----|------|------------------------|---------|-------------------|--------------|
|     | (a)  | Object-Oriented        | (b)     | Object-Based      |              |
|     | (c)  | Procedural             | (d)     | None of the abov  | re           |
| 8.  | In g | eneral, event handl    | er is : | nothing but ——    |              |
|     |      |                        |         |                   | (CO4, K4)    |
|     | (a)  | function               | (b)     | interface         |              |
|     | (c)  | event                  | (d)     | handler           |              |
| 9.  | Who  | developed the boot     | strap   | o?                | (CO5, K3)    |
|     | (a)  | James Gosling          |         |                   |              |
|     | (b)  | Mark Jukervich         |         |                   |              |
|     | (c)  | Dennis Ritchie         |         |                   |              |
|     | (d)  | Mark Otto and Ja       | .cob T  | `hornton          |              |
| 10. | Whi  | ch of the following    | g clas  | ss can be used to | o make the   |
|     | imag | ges and other cont     | tent i  | in a web page au  | itomatically |
|     | adju | sts to fit the size of | the s   | screen?           | (CO5, K3)    |
|     | (a)  | .img-rounded           | (b)     | .img-fluid        |              |
|     | (c)  | .img-circle            | (d)     | None of the abov  | re           |
|     |      |                        | 3       |                   | R0963        |

|     |       | Part B  | $(5 \times 5 = 25)$     |
|-----|-------|---|-------------------------|
| I   | Answe | er <b>all</b> the questions not more than 500 word        | ds each.                |
| 11. | (a)   | Why network seems to be complex? Expla                    | in.<br>(CO1, K2)        |
|     |       | Or  |                         |
|     | (b)   | Write short notes on recent trends in Inte                | ernet.<br>(CO1, K2)     |
| 12. | (a)   | Explain about types of application layer p                | orotocols.<br>(CO2, K3) |
|     |       | Or  |                         |
|     | (b)   | Write about the features of DNS in detail                 | . (CO2, K3)             |
| 13. | (a)   | Elucidate the basic syntax of XHTML.                      | (CO3, K2)               |
|     |       | Or  |                         |
|     | (b)   | Write a note on colspan and rowspan attr                  | ibutes.<br>(CO3, K2)    |
| 14. | (a)   | Explain about parts of Javascript with ex                 | ample.<br>(CO4, K4)     |
|     |       | Or  |                         |
|     | (b)   | Give short notes on functions in Javascrip                | ot.<br>(CO4, K4)        |
| 15. | (a)   | Compare mobile-first and desktop-first ap                 | oproach.<br>(CO5, K3)   |
|     |       | Or  |                         |
|     | (b)   | What arte the steps to create blog<br>Bootstrap? Explain. | layout in<br>(CO5, K3)  |

4

Part C  $(5 \times 8 = 40)$ 

Answer all the questions not more than 1000 words each.

16. (a) Elaborate seven layers of OSI model with neat sketch. (CO1, K3)

 $\mathbf{Or}$ 

- (b) How to covert text to multimedia through Internet? Explain. (CO1, K3)
- 17. (a) How to represent document with HTML? Explain with example. (CO2, K3)

Or

(b) Illustrate FTP connection during the session with paradigm.

(CO2, K3)

18. (a) Elaborate the structure of standard HTML document with example. (CO3, K5)

Or

- (b) How to create Wikipedia web page using hypertext links? Explain. (CO3, K5)
- 19. (a) Explain about general syntactic characteristics of Javascript in detail. (CO4, K4)

## Or

 $\mathbf{5}$ 

(b) Describe in detail about the elements of textbox in Event handling. (CO4, K4)

20. (a) What are the five key techniques in mobile-first design approach? Explain. (CO5, K5)

Or

(b) How to implement bootstrap base CSS? Explain. (CO5, K5)

6

## **B.Voc. DEGREE EXAMINATION, APRIL - 2024**

# Second Semester

## Software Development

# INTRODUCTION TO MULTIMEDIA

# (CBCS – 2022 onwards)

| Time : 3 Hours |              |                       |                                      | Maxi                     | mum : 75 Marks                          |
|----------------|--------------|-----------------------|--------------------------------------|--------------------------|---|
| An             | swer         | <b>all</b> the follow | Part A<br>wing objecti<br>correct op | ve questions b<br>tions. | $(10 \times 1 = 10)$<br>by choosing the |
| 1.             | Whio<br>mult | ch of the<br>timedia? | following                            | is not the               | component of<br>(CO1, K1)               |
|                | (a)          | Text                  | (b)                                  | Animation                |   |
|                | (c)          | Audio                 | (d)                                  | Advertiseme              | ents                                    |
| 2.             | Туре         | efaces have o         | lifferent sty                        | le and size kn           | own as ———<br>(CO1, K2)                 |
|                | (a)          | bold                  | (b)                                  | font                     |   |
|                | (c)          | italics               | (d)                                  | underline                |   |
| 3.             | The          | expansion fo          | or MIDI is –                         |                          | (CO2, K3)                               |
|                | (a)          | Musical In            | strument D                           | igital Interfac          | e                                       |
|                | (b)          | Musical In            | strument D                           | ata Interface            |   |
|                | (c)          | Musical Ins           | structions L                         | Digital Interfac         | ce                                      |
|                | (d)          | Musical Int           | formation D                          | ata Interface            |   |
| 4.             | The<br>time  | amount of is called — | data transr                          | nitted for a g           | given amount of<br>(CO2, K4)            |
|                | (a)          | Bandwidth             | (b)                                  | Frequency                |   |
|                | (c)          | Noise                 | (d)                                  | Signal powe              | r                                       |

5. JPEG may be expanded as ———

(CO3, K4)

- (a) Joint photographic Exports Group
- (b) Joint Physical Experts Group
- (c) Joint Physical Exports Group
- (d) Joint Photographic Experts Group

6. TIFF are used for ———. (CO3, K5)

- (a) Vector Graphics (b) Bitmap
- (c) both (a) and (b) (d) none of these
- - (a) Spatial and Temporal
  - (b) Interaframe and Interframe
  - (c) Quantization and Entropy
  - (d) Transform Coding and Predictive Coding
- 8. The default tool in Adobe Premiere Pro CC is the selection tool, which keyboard shortcut used to change it? (CO4, K1)
  - (a) S (b) X (c) X
  - (c) Y (d) V
- 9. Which process is creating interactive multimedia applications that can be delivered through various mediums? (CO5, K2)
  - (a) Multimedia anchoring
  - (b) Multimedia authoring
  - (c) both (a) and (b)
  - (d) none of these
- 10. Macromedia Director is a multimedia authoring system that runs on ————. (CO5, K2)
  - (a) macintosh (b) PC computer
  - (c) both (a) and (b) (d) none of these
    - $\mathbf{2}$

Answer **all** the questions not more than 500 words each.

| 11. | (a) | Write any two applications in multimedia in detail. |
|-----|-----|---|
|     |     | (CO1, K1)   |

# $\mathbf{Or}$

|     | (b) | Discuss about text usage in multimedia.       | (CO1, K1)               |
|-----|-----|---|-------------------------|
| 12. | (a) | Describe in detail about sound synthesis.     | (CO2, K3)               |
|     |     | Or  |                         |
|     | (b) | Write a note on MIDI.                         | (CO2, K3)               |
| 13. | (a) | Differentiate GIF and PNG.                    | (CO3, K4)               |
|     |     | Or  |                         |
|     | (b) | List down the advantages of Imag<br>Software. | ge editing<br>(CO3, K4) |
| 14. | (a) | Compare analog and digital video.             | (CO4, K4)               |
|     |     | Or  |                         |
|     | (b) | How do you edit video using adobe prime       | r? Explain.             |
|     |     |   | (CO4, K4)               |
| 15. | (a) | Write a short note on macromedia flash.       | (CO5, K2)               |
|     |     | Or  |                         |
|     | (b) | Explain the feature of Authoring Tools.       | (CO5, K2)               |
|     |     | 3   | R0964                   |

Part C  $(5 \times 8 = 40)$ 

Answer **all** the questions not more than 1000 words each.

16. (a) What are the techniques available in digital fonts? (CO1, K2)

Or

- (b) Illustrate the components of multimedia with architecture. (CO1, K2)
- 17. (a) Discuss in detail about compression and transmission of audio on internet. (CO2, K4)

Or

```
(b) Discuss in detail about decibel system. (CO2, K4)
```

18. (a) Discuss about the types of color models in detail with neat diagram. (CO3, K5)

Or

- (b) Explain about image compression file format with example. (CO3, K5)
- 19. (a) Illustrate the architecture of MPEG-4. (CO4, K1)

Or

- (b) Write a detailed note on Morphing. (CO4, K1)
- 20. (a) Explain the various types of tools used in Multimedia Authoring. (CO5, K5)

 $\mathbf{Or}$ 

(b) Write the steps to create animation using flash. (CO5, K5)

4

## **B.Voc. DEGREE EXAMINATION, APRIL - 2024**

#### Fourth Semester

## Software Development

## INTRODUCTION TO PYTHON PROGRAMMING CONCEPTS

## (CBCS – 2022 onwards)

Time : 3 Hours

Maximum : 75 Marks

# Part A $(10 \times 1 = 10)$

Answer **all** the following objective questions by choosing the correct option.

- 1. <u>—</u> is defined as graphical representation of the logic for problem solving. (CO1, K1)
  - (a) Flow chart (b) Function
  - (c) Iteration (d) Control Flow
- 2. What is an example of top-down programming in Python? (CO1, K1)
  - (a) A function that calculates the factorial of a number
  - (b) A class that represents a bank account
  - (c) A program that sorts a list of numbers
  - $(d) \quad \ \ {\rm All \ of \ the \ above}$
- 3. \_\_\_\_\_ is used to define a block of code in Python language. (CO2, K3)
  - (a) Indentation (b) Key
  - (c) Brackets (d) All of the above

| (a)        | 4   | (1)    |                   |   |  |
|------------|---|--------|-------------------|---|--|
| (a)        |   | (b)    | 2                 |   |  |
| (C)        | 1   | (d)    | 8                 |   |  |
|            | ——— function i  | s use  | d to get input fr | om the user.<br>(CO3, K4)   |  |
| (a)        | Input ()  | (b)    | rawinput ()       |   |  |
| (c)        | raw_input ()  | (d)    | string ()         |   |  |
| How        | many times will t   | he loo | p run?            | (CO3, K4)   |  |
| i=2        |   |        |                   |   |  |
| whil       | e(i>0);   |        |                   |   |  |
| i=i-1      |   |        |                   |   |  |
| (a)        | 2   | (b)    | 3                 |   |  |
| (c)        | 1   | (d)    | 0                 |   |  |
| d = {      | ("john":40, "peter":4   | 15}.   |                   | (CO4, K3)   |  |
| The<br>num | above programmin<br>ber of entries in —   | ng co  | mmand is used t   | to obtain the   |  |
| (a)        | d.size()  | (b)    | len(d)            |   |  |
| (c)        | size(d)   | (d)    | d.len()           |   |  |
|            | ——— keyword is  | used   | l for function.   | (CO4, K3)   |  |
| (a)        | Fun   | (b)    | Define            |   |  |
| (c)        | def   | (d)    | Function          |   |  |
| Abst       | ract data type (AD  | T) is  |                   | (CO5, K4)   |  |
| (a)        | A mathematical r  | nodel  | for data types    |   |  |
| (b)        | b) A collection of components and their interactions  |        |                   |   |  |
| (c)        | (c) A data type defined by its behavior   |        |                   |   |  |
| (d)        | All of the above  |        |                   | []  |  |
|            |   | 2      |                   | R0965   |  |
|            | (a)<br>(c)<br>How<br>i=2<br>whill<br>i=i-1<br>(a)<br>(c)<br>d = {<br>The<br>num<br>(a)<br>(c)<br>(a)<br>(c)<br>(a)<br>(c)<br>Abst<br>(a)<br>(b)<br>(c)<br>(d) |        |                   | Image: constraint of the second se |  |

| 10. |       | —————————————————————————————————————— |                  | OOP.                     |                          |
|-----|-------|--|------------------|--------------------------|--------------------------|
|     |       |  |                  |                          | (CO5, K4)                |
|     | (a)   | Encapsulation                          | (b)              | Inheritance              |                          |
|     | (c)   | Instantiation                          | (d)              | Polymorphism             |                          |
|     |       | Pa                                     | art B            |                          | $(5 \times 5 = 25)$      |
| L   | Answe | er <b>all</b> the question             | s not n          | nore than 500 wo         | ords each.               |
| 11. | (a)   | Differentiate                          | top-o            | lown and                 | bottom-up                |
|     |       | Programming.                           |                  |                          | (CO1 V1)                 |
|     |       |  | 0                |                          | (CO1, K1)                |
|     |       |  | Or               |                          |                          |
|     | (b)   | Explain about F                        | lowcha           | rts with suitable        | example.<br>(CO1, K1)    |
| 12. | (a)   | Write a note on I                      | Python           | Interpreter.             | (CO2, K3)                |
|     |       |  | Or               |                          |                          |
|     | (b)   | Illustrate Struc<br>neat sketch.       | ture o           | f Python Progra          | mming with<br>(CO2, K3)  |
| 13. | (a)   | Compare Break,                         | Conti            | nue and Pass sta         | tements.<br>(CO3, K4)    |
|     |       |  | Or               |                          |                          |
|     | (b)   | Write a Python<br>is PALINDROM         | Progra<br>E OR I | m to check the g<br>NOT. | iven number<br>(CO3, K4) |
| 14. | (a)   | Discuss about py                       | ython r          | nodules with exa         | mple.<br>(CO4, K3)       |
|     |       |  | Or               |                          |                          |
|     | (b)   | Write a Pythor<br>value using Fun      | n Prog<br>ction. | gram to print            | FACTORIAL<br>(CO4, K3)   |
| 15. | (a)   | Explain try. Exc                       | ept blo          | ock with example         | . (CO5, K4)              |
|     |       | -                                      | Or               | -                        |                          |
|     | (b)   | Illustrate ADT w                       | vith ne          | at sketch.               | (CO5, K4)                |
|     |       |  | 3                |                          | R0965                    |

Part C  $(5 \times 8 = 40)$ 

Answer all the questions not more than 1000 words each.

16. (a) Explain the types of errors in programming. (CO1, K1)

Or

- (b) Write a detailed note on Debugging. (CO1, K1)
- 17. (a) Discuss about types of Literals in detail with neat sketch. (CO2, K3)

Or

- (b) Explain in detail about types of Operators in python with example program. (CO2, K3)
- 18. (a) Describe in detail about Conditional Statements with suitable program. (CO3, K4)

Or

- (b) Discuss about Iteration statement in detail with example. (CO3, K4)
- 19. (a) Explain in detail about list and its various operations with example. (CO4, K3)

Or

| (b) Write short notes on functions in detail. (CO4, | K3) |
|---|-----|
|---|-----|

20. (a) Describe about Exception Handling in detail. (CO5, K4)

 $\mathbf{Or}$ 

(b) Elaborate the concept of Inheritance with example.  $({\rm CO5},\,{\rm K4})$ 

4

## **B.Voc. DEGREE EXAMINATION, APRIL - 2024**

#### Fourth Semester

## Software Development

#### COMPUTER NETWORKS AND ADMINISTRATION

## (CBCS – 2022 onwards)

Time : 3 Hours

Maximum : 75 Marks

Part A

 $(10 \times 1 = 10)$ 

Answer **all** the following objective questions by choosing the correct options.

- 1. A collection of hyperlinked documents on the internet forms the \_\_\_\_\_ (CO1, K3)
  - (a) World Wide Web (WWW)
  - (b) E-mail system
  - (c) Mailing list
  - (d) Hypertext Markup Language

2. Wireless transmission media is also known as ———

(CO1, K1)

- (a) Guided transmission media
- (b) Unguided transmission media
- (c) Bounded transmission media
- (d) All of the above
- 3. Which layer is used to link the network support layers and user support layers? (CO2, K4)
  - (a) session layer (b) data link layer
  - (c) transport layer (d) network layer

| . TCl<br>mod | P/IP model does n<br>del have this laver.  | TCP/IP model does not have ———————————————————————————————————— |  |
|--------------|--|---|--|
| (a)          | session layer                              | (b)   | transport layer  |
| (c)          | application layer                          | (d)   | network layer  |
| . Wh<br>net  | ich of the following<br>work?              | g is n  | not a phase of virtual circuit<br>(CO3, K2)                              |
| (a)          | Setup phase                                |   |  |
| (b)          | Data transfer pha                          | .se   |  |
| (c)          | Termination phas                           | e   |  |
| (d)          | Teardown phase                             |   |  |
| . A l<br>net | ocal telephone netv<br>work.               | vork  | is an example of a <u>(CO3, K2)</u>                                      |
| (a)          | Packet switched                            | (b)   | Circuit switched   |
| (c)          | Bit switched                               | (d)   | Line switched  |
| . An         | algorithm in encryp                        | tion i  | s called ——— (CO4, K2)   |
| (a)          | Algorithm                                  | (b)   | Procedure  |
| (c)          | Cipher                                     | (d)   | Module   |
| . Wh<br>aut  | en a hash function<br>hentication, the has | on is<br>sh fu  | s used to provide message<br>nction value is referred to as<br>(CO4, K5) |
| (a)          | Message Field                              | (b)   | Message Digest   |
| (c)          | Message Score                              | (d)   | Message Leap   |
| . Per        | formance managem                           | ent is  | s closely related to ————(CO5, K1)                                       |
| (a)          | Proactive Fault M                          | lanag   | rement   |
| (b)          | Fault Managemer                            | nt  |  |
| (c)          | Reactive Fault Ma                          | anage   | ement  |
| (d)          | Preventive Fault                           | Mana  | agement  |
|              |  |   |  |

| 10. | Cont<br>char | rol of users access to network resour<br>ges is the main responsibility of ———— | ces through<br>(CO5, K3) |  |  |  |
|-----|--------------|---|--------------------------|--|--|--|
|     | (a)          | Reactive Fault Management   |                          |  |  |  |
|     | (b)          | Reconfigured Fault Management   |                          |  |  |  |
|     | (c)          | Accounting Management   |                          |  |  |  |
|     | (d)          | Security Management   |                          |  |  |  |
|     |              | Part B  | $(5 \times 5 = 25)$      |  |  |  |
| A   | nswe         | r <b>all</b> the questions not more than 500 wo                                 | rds each.                |  |  |  |
| 11. | (a)          | Compare software and hardware networ  | ·k.(CO1, K1)             |  |  |  |
|     |              | Or  |                          |  |  |  |
|     | (b)          | Write a note on twisted pairs.  | (CO1, K1)                |  |  |  |
| 12. | (a)          | Explain about physical layer in OSI mod   | lel.                     |  |  |  |
|     |              |   | (CO2, K3)                |  |  |  |
|     |              | Or  |                          |  |  |  |
|     | (b)          | Discuss about role bf transport layer protocol suite.                           | r in TCP/IP<br>(CO2, K3) |  |  |  |
| 13. | (a)          | Write about data link layer in IEEE star  | ndards.<br>(CO3, K2)     |  |  |  |
|     |              | Or  |                          |  |  |  |
|     | (b)          | Elaborate the characteristics of LAN.   | (CO3, K2)                |  |  |  |
| 14. | (a)          | What are the security services available Explain.                               | in network?<br>(CO4, K5) |  |  |  |
|     |              | Or  |                          |  |  |  |
|     | (b)          | Discuss the criteria of hash function in a                                      | letail.<br>(CO4, K5)     |  |  |  |
| 15. | (a)          | Why do we need network management?  | Explain.<br>(CO5, K3)    |  |  |  |
|     |              | Or  |                          |  |  |  |
|     | (b)          | Differentiate authentication and author   | ization.<br>(CO5, K3)    |  |  |  |
|     |              | 3   | R0966                    |  |  |  |

| Part C | $(5 \times 8 = 40)$ |
|--------|---------------------|
|--------|---------------------|

Answer **all** the questions not more than 1000 words each.

16. (a) Write about types of network hardware in detail. (CO1, K3)

| Or  |     |  |
|-----|-----|--|
|     | (b) | Explain about wireless transmission waves in detail. (CO1, K3)             |
| 17. | (a) | Illustrate the layers of OSI model in detail.                              |
|     |     | (CO2, K3)  |
|     |     | Or   |
|     | (b) | Explain about TCP/IP protocol suite in detail.<br>(CO2, K3)                |
| 18. | (a) | Illustrate architecture of LAN with neat sketch.<br>(CO3, K2)              |
|     |     | Or   |
|     | (b) | How to work with wireless LAN? Explain with example. (CO3, K2)             |
| 19. | (a) | Differentiate symmetric and asymmetric key<br>cryptography. (CO4, K2)      |
|     |     | Or   |
|     | (b) | Explain about message authentication in detail.<br>(CO4, K2)               |
| 20. | (a) | What are the protocols available in network management? Explain. (CO5, K1) |
|     |     | Or   |
|     | (b) | Compare reactive and proactive fault management.                           |

(CO5, K1)

 $\mathbf{4}$