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**3 SEM TDC GECS (CBCS) GE 3 (A/B/C)**

**2023**

( Nov/Dec )

**COMPUTER SCIENCE**

( Generic Elective )

Paper : GE-3

Full Marks : 53

Pass Marks : 21

Time : 3 hours

*The figures in the margin indicate full marks  
for the questions*

Paper : GE-3A

**( Multimedia and Applications )**

1. Answer the following as directed :  $1 \times 5 = 5$

(a) FTP stands for \_\_\_\_\_.  
(Fill in the blank)

(b) JPEG stands for \_\_\_\_\_.  
(Fill in the blank)

(c) Name any one font used in multimedia.

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- (d) Name one example of search engine.
- (e) What is virtual reality?

2. Answer any *four* of the following questions :

2×4=8

(a) Mention any two disadvantages of HTML.

(b) What is bitmap image?

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=====  
=====  
=====  
Mention any two applications of multimedia.

(d) What is the role of multimedia in education?

(e) Name any two common types of image file format.

3. Answer any *five* of the following questions :

4×5=20

(a) Differentiate between hypertext and hypermedia.

(b) Differentiate between bitmap and vector image.

(c) Explain how MIDI works.

(d) Mention different types of applications of multimedia.

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(e) Mention the advantages of digital audio and MIDI files.

(f) Explain about any two video file formats.

4. Answer any *four* of the following : 5×4=20

(a) Explain any three audio file formats.

(b) Differentiate between analog and digital video.

(c) Explain the principles of animation in multimedia.

(d) Explain about 2D and 3D animation techniques in multimedia.

(e) Write short notes on (any two) :  $2\frac{1}{2}\times 2=5$

(i) HTML

(ii) Adobe Picasa

(iii) WWW

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Paper : GE-3B

( Programming in Python )

1. Answer the following questions :  $1 \times 3 = 3$

- (a) What are the elements of Python?
- (b) Give one example of ternary operator in Python.
- (c) What is the use of Python interpreter?

2. Answer any *five* of the following questions :  $2 \times 5 = 10$

- (a) What are the different relational operators available in Python?
- (b) State two differences between top-down and bottom-up programming.
- (c) What are the different types of documentation available?
- (d) What are the various list operations available in Python?
- (e) Define identifiers and keyword with example.
- (f) Define class with example.

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3. Answer any *five* of the following questions :  $4 \times 5 = 20$

- (a) Explain the structure of a Python program.
- (b) Explain how a nested condition works with a suitable example.
- (c) Explain how arguments work in a function with example.
- (d) Explain with sample code how string slice and string comparison can be performed.
- (e) State the difference among break, continue and pass.
- (f) Explain the stack diagrams used for recursive function.

4. Answer any *four* of the following questions :  $5 \times 4 = 20$

- (a) Explain insertion sort with example.
- (b) Write a Python program to generate Fibonacci series.
- (c) Write a Python program to create a list, find the list length and display the list.
- (d) Describe two-dimensional table.
- (e) Explain increment and decrement operators with example.

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Paper : GE-3C

( Programming in Visual Basic )

1. Answer the following questions :  $2 \times 5 = 10$

(a) State two applications of VB.

(b) What is user interface?

(c) What is a Toolbox?

(d) What is the use of frame in VB?

(e) What is debugging?

2. Explain the benefits of visual basic as a software development tool.  $3$

3. Answer any four of the following questions :  $10 \times 4 = 40$

(a) Explain the uses of labels, text box, frame, command button in VB.

(b) Explain the process of using loops in VB with examples.

(c) Explain the process of error handling in Visual Basic.

(d) Explain the process of Oracle database connectivity with VB.

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(e) Explain the use of nested if statement with proper examples in VB.

(f) Explain different datatypes in VB.

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