

**PSG COLLEGE OF ARTS & SCIENCE**  
(AUTONOMOUS)  
**BSc DEGREE EXAMINATION MAY 2017**  
(Third Semester)

Branch - **MATHEMATICS WITH COMPUTER APPLICATIONS**

**VISUAL BASIC**

Time : Three Hours

Maximum : 75 Marks

**SECTION-A (20 Marks)**

Answer **ALL** questions

**ALL** questions carry **EQUAL** marks (10 x 2 = 20)

- 1 What is visual basic?
- 2 Define variable.
- 3 List out logical operators.
- 4 Write the syntax of for-next.
- 5 Write the syntax of Msg box.
- 6 What is the use of input box?
- 7 What is array?
- 8 How to declaring array?
- 9 Define file.
- 10 What is sequential data file?

**SECTION - B (25 Marks)**

Answer **ALL** Questions

**ALL** Questions Carry **EQUAL** Marks (5 x 5 = 25)

- 11 a Explain about object-related concepts.  
OR  
b Write down library functions.
- 12 a Discuss about branching with the if-then block.  
OR  
b Explain about looping with Do-loop.
- 13 a Explain about Menu enhancement.  
OR  
b Write a VB program to find Fibonacci series.
- 14 a Write down array characteristics.  
OR  
b Write a VB program to draw different shapes using menu editor.
- 15 a Explain about data file characteristics.  
OR  
b Write about processing the data file.

**SECTION - C (30 Marks)**

Answer any **THREE** Questions

**ALL** Questions Carry **EQUAL** Marks (3 x 10 = 30)

- 16 Briefly explain about operators with example.
- 17 Discuss about forms and controls.
- 18 Write in details about building drop-down menu.
- 19 Briefly explain about dynamic array with example.
- 20 Write down binary files.

**PSG COLLEGE OF ARTS & SCIENCE**  
(AUTONOMOUS)  
**BSc DEGREE EXAMINATION MAY 2017**  
(Third Semester)

Branch - **MATHEMATICS WITH COMPUTER APPLICATIONS**

**DIGITAL ELECTRONICS**

Time : Three Hours

Maximum : 75 Marks

**SECTION-A (20 Marks)**

Answer **ALL** questions

**ALL** questions carry **EQUAL** marks (10x2 = 20)

- 1 List the number systems.
- 2 Find the excess 3 code for 47 & 65.
- 3 Draw the Not Gate circuit and write the truth table.
- 4 Define duality theorem.
- 5 Add the given binary number (i) 1011 with 1110 (ii) 1000 with 1010.
- 6 What is encoder?
- 7 Write few lines about shift register. %
- 8 Define counter.
- 9 What is binary ladder?
- 10 Write few lines about accuracy.

**SECTION - B (25 Marks!)**

Answer **ALL** Questions

**ALL** Questions Carry **EQUAL** Marks (5x5 = 25)

IT a Describe the parity codes.

OR

b Do'the following using decimal to binary conversion, (i) 25 (ii) 0.85.

12 a Explain the following gate (i) NAND (ii) NOR.

OR

b Deduce the following k map

	CD	CD	CD	CD
AB	0	0	0	0
AB	0	1	0	0
AB	1	r	1	1
AB	1	1	1	1

13 a Give an account on de-multiplexer.

OR

b Enumerate 4 bit parallel binary adder.

14 a Write short note for j-k flip flop.

OR

b Describe the working of delade counter.

15 a Give an account on weighted resistors of D/A converters.

OR

Distinguish accuracy and resolution.

**SECTION - C (30 Marks)**

Answer any **THREE** Questions

**ALL** Questions Carry **EQUAL** Marks (3x10 = 30)

- 16 Enumerate TTL to cmos interface.
- 17 Elucidate De-morgan's theorem.
- 18 Describe the function of decoder.
- 19 Give an account of D Flip Flop.
- 20 Explain A/P converter of counter type.