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Reg. No. : .....

Code No. : 20342 E Sub. Code : ESMA 41

B.Sc. (CBCS) DEGREE EXAMINATION,  
NOVEMBER 2025.

Fourth Semester

Mathematics – Core

Skill Enhancement Course — GEOGEBRA

(For those who joined in July 2023 onwards)

Time : Three hours

Maximum : 75 marks

PART A — (10 × 1 = 10 marks)

Answer ALL questions.

Choose the correct answer.


- Which of the following is not found in Geogebra's use interface?
  - Graphics view
  - Algebra view
  - Document view
  - Spreadsheet view

2. A Geogebra file is saved with \_\_\_\_\_ extension.

- .gbg
- .gga
- .geb
- .ggb

3. A Geogebra file, points are named with \_\_\_\_\_.

- upper case letters
- lower case letters
- symbols
- all the above

4. The icon  represents a \_\_\_\_\_.

- line
- midpoint
- vector
- slider

5. The shortcut key to export the graphics view to the clipboard

- Ctrl + E
- Ctrl + shift + C
- Ctrl + shift + G
- Ctrl + G

6. When the graphics are refreshed, the base \_\_\_\_\_.

- (a) refreshes                      (b) enlarges  
(c) disappears                      (d) diminishes

7. The reflection of the point  $(3, -1)$  along  $y$ -axis is \_\_\_\_\_.

- (a)  $(3, 1)$                       (b)  $(-3, 1)$   
(c)  $(3, -1)$                       (d)  $(-3, -1)$

8. To fix the position of the text, we need to do \_\_\_\_\_.

- (a) Properties dialog – tab static  
(b) Properties dialog – tab basic  
(c) Properties dialog – tab dynamic  
(d) Properties dialog – tab slider

9. The default picture format setting in geogebra is \_\_\_\_\_.

- (a) .jpg                      (b) .png  
(c) .pdf                      (d) .dpi

10. When we use Record to spreadsheet tool and click on point  $A = (3, 1)$ , then the entry in spreadsheet cells are \_\_\_\_\_.

- (a)  $A1 = (3,1)$                       (b)  $A1 = 3, A2 = 1$   
(c)  $A1 = 3, B1 = 1$                       (d)  $A1 = 3, B2 = 1$

PART B —  $(5 \times 5 = 25$  marks)

Answer ALL questions, choosing either (a) or (b).

11. (a) Explain about Geogebra's user interface.

Or

(b) Write the method of saving geogebra files.

12. (a) How will you construct a square in geogebra?

Or

(b) Explain how sliders are used to modify parameters?

13. (a) How the pictures are exported to the clipboard in geogebra?

Or

(b) Describe how pictures are resized and reflected in geogebra.

14. (a) How do you insert static text and dynamic text in the graphics view of geogebra?

Or

- (b) The pyramid's base is a square with a side of length 35 meters. Determine the height of the pyramid using similar triangles.
15. (a) Explain how to use 'Record to spreadsheet' tool in geogebra?

Or

- (b) Write about geogebra tube and use forum.

PART C — (5 × 8 = 40 marks)

Answer ALL questions, choosing either (a) or (b).

16. (a) How will you construct a rectangle in geogebra?

Or

- (b) Explain drawing pictures and constructing geometric figures in geogebra.

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17. (a) Describe the method of constructing a regular hexagon.

Or

- (b) How do you construct tangents to a circle using graphics tools and using algebraic input commands?

18. (a) How do the parameters of a linear equation handled in geogebra?

Or

- (b) Explain the methods of creating games using geogebra.

19. (a) How do you solve a system of linear equations graphically in geogebra?

Or

- (b) Explain the method of rotating a polygon about the origin of a co-ordinate system.

20. (a) How are regression analysis done using geogebra's spreadsheet?

Or

- (b) Describe the method of creating dynamic worksheets in geogebra.

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