MMTE-004(P)

## M.Sc. (MATHEMATICS WITH APPLICATIONS IN COMPUTER SCIENCE)
## M.Sc. (MACS)

### Term-End Practical Examination

00121

### December, 2017
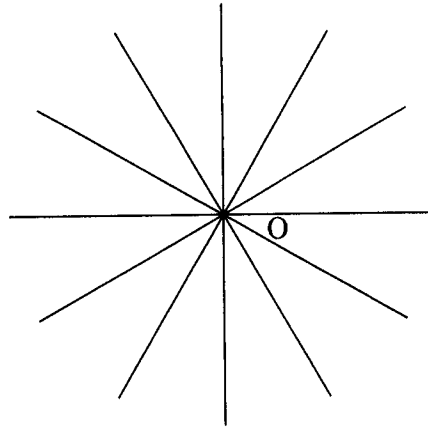
### MMTE-004(P) : COMPUTER GRAPHICS

*Time : $1\frac{1}{2}$ Hours*                                    *Maximum Marks : 40*

**Note :** (i) *There are two questions in this paper, totalling 30 marks.*

(ii) *Answer **both** of them.*

(iii) *Remaining 10 marks are for the viva-voce.*

1. Write a 'C' program using Bresenham's line algorithm to get the output as shown below :



   The end point of each segment from the point O is at a distance 6 cm and on the user's click of the mouse on window, the object starts rotating continuously until the user presses the mouse again.                                                    *15*

2. Write a 'C' program to implement the scan line polygon fill algorithm to fill a polygon whose vertices are $P_1 = (10, 20)$, $P_2 = (20, 0)$, $P_3 = (30, 10)$, $P_4 = (40, 0)$, $P_5 = (40, 40)$, $P_6 = (30, 30)$, $P_7 = (20, 40)$ and $P_8 = (30, 20)$.                 *15*