Name: Line Concepts

**Chapter: Fundamental Geometrical Concepts** 

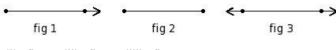
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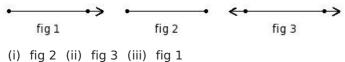
1. Which of the following figures represent a line?



2. Which of the following figures represent a ray?



- (i) fig 1 (ii) fig 3 (iii) fig 2
- 3. Which of the following figures represent a line segment?



4. Identify the figure below



5. Multiple lines drawn on a plane are called

(i) perpendicular lines (ii) intersecting lines (iii) parallel lines (iv) coplanar lines (v) concurrent lines

6. Multiple lines which do not meet each other are called

(i) parallel lines (ii) intersecting lines (iii) coplanar lines (iv) concurrent lines (v) perpendicular lines

7. Multiple lines which pass through the same point are called

(i) coplanar lines (ii) perpendicular lines (iii) intersecting lines (iv) parallel lines (v) concurrent lines

8. The following lines represent



(i) concurrent lines (ii) coplanar lines (iii) intersecting lines (iv) perpendicular lines (v) parallel lines

9. The following lines represent



(i) coplanar lines (ii) intersecting lines (iii) concurrent lines (iv) parallel lines (v) perpendicular lines

10. Consider the following figure $\overrightarrow{kG}$ . State which of the following statements are true?
a) K,I,N,G,V are points on the line KG
b) K,G are end points of line segment $\overline{\text{KG}}$
c) K,G are points on the line segment $$\overline{\text{IV}}$$
d) N,V are end points of line segment $$\overline{\mbox{VK}}$$
e) K,G are end points of line segment $\overline{\text{IV}}$
<
(i) {a,b} (ii) {e,c,a} (iii) {d,b} (iv) {d,b,a} (v) {c,a}
11. The representation K indicates
(i) line segment (ii) ray (iii) line (iv) arc (v) angle
12. The representation GH indicates
(i) line (ii) line segment (iii) angle (iv) ray (v) arc
13. The representation $\overrightarrow{EF}$ indicates  (i) line (ii) ray (iii) angle (iv) line segment (v) arc
14. In the figure below, if IJ = 5.00 cm and JK = 10.10 cm, find IK = ?
ı J K
(i) 17.10 cm (ii) 16.10 cm (iii) 14.10 cm (iv) 15.10 cm (v) 13.10 cm
15. Which of the following are true?
<ul><li>a) Small letters are used to represent lines</li><li>b) A ray has an infinite number of points on it</li></ul>
c) The length of a line segment cannot be determined
<ul><li>d) Capital letters are used to represent points</li><li>e) A line has an infinite number of points on it</li></ul>
(i) {c,d} (ii) {c,e,a} (iii) {a,b,d,e} (iv) {c,b} (v) {c,a}
16. Which of the following are true?
<ul><li>a) A straight line meets another straight line at atmost one point</li><li>b) Only one straight line can be drawn between any two points</li></ul>
c) If two lines have no common point, then the lines are parallel
<ul><li>d) If a line cuts another line at more than one point, then one of the line is curved</li><li>e) If two lines have infinite common points, then the two lines are concurrent</li></ul>
(i) {e,a} (ii) {e,d,a} (iii) {e,c} (iv) {e,b} (v) {a,b,c,d}

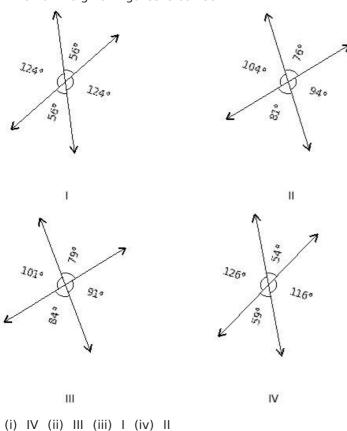
## 17. Which of the following are true?

- a) If  $w \perp x$  and  $w \perp y$  , then  $x \perp y$
- b) If two lines are parallel to the same line, then they are perpendicular to each other
- c) If  $w \perp x$  and  $x \perp y$ , then  $w \perp y$
- d) If  $w \parallel x$  and  $x \parallel y$  , then  $w \parallel y$
- e) If two lines are parallel to the same line, then they are parallel to each other
- (i) {d,e} (ii) {b,e} (iii) {a,d} (iv) {c,a,d} (v) {b,e,d}

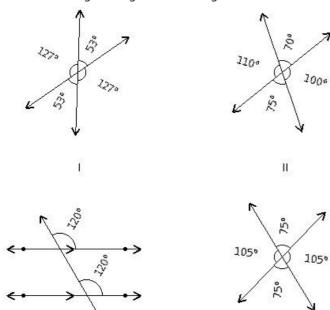
## 18. Which of the following are true with respect to lines h, i, j, k where $h \parallel i, i \perp j, j \perp k$ ?

- a) i∥k
- b) h | k
- c) h∥j
- d) h⊥k
- e) j∥k
- (i) {a,b} (ii) {e,c,a} (iii) {c,a} (iv) {d,b} (v) {d,b,a}

## 19. Which of the given figures is correct?



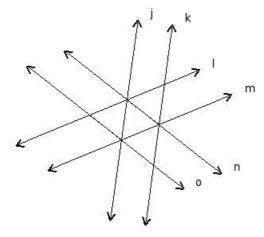
## 20. Which of the given figures is wrong?



- (i) IV (ii) III (iii) I (iv) II
- 21. In the given figure, j, k, l, m, n, o are lines in a plane. By looking at the figure, which of the following are true?

IV

- a) nis the transversal of I&m
- b) mis the transversal of j&k
- c) ois the transversal of I&j
- d) j∥m
- e) j∥k
- f) jis the transversal of I&n



(i)  $\{d,f,c\}$  (ii)  $\{a,b,c,e\}$  (iii)  $\{f,b\}$  (iv)  $\{d,e,a\}$  (v)  $\{d,a\}$ 

Assignment Key						
1) (i)	2) (i)	3) (i)	4) (ii)	5) (iv)	6) (i)	
7) (v)	8) (v)	9) (ii)	10) (i)	11) (iii)	12) (ii)	
13) (ii)	14) (iv)	15) (iii)	16) (v)	17) (i)	18) (i)	
19) (iii)	20) (iv)	21) (ii)				

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