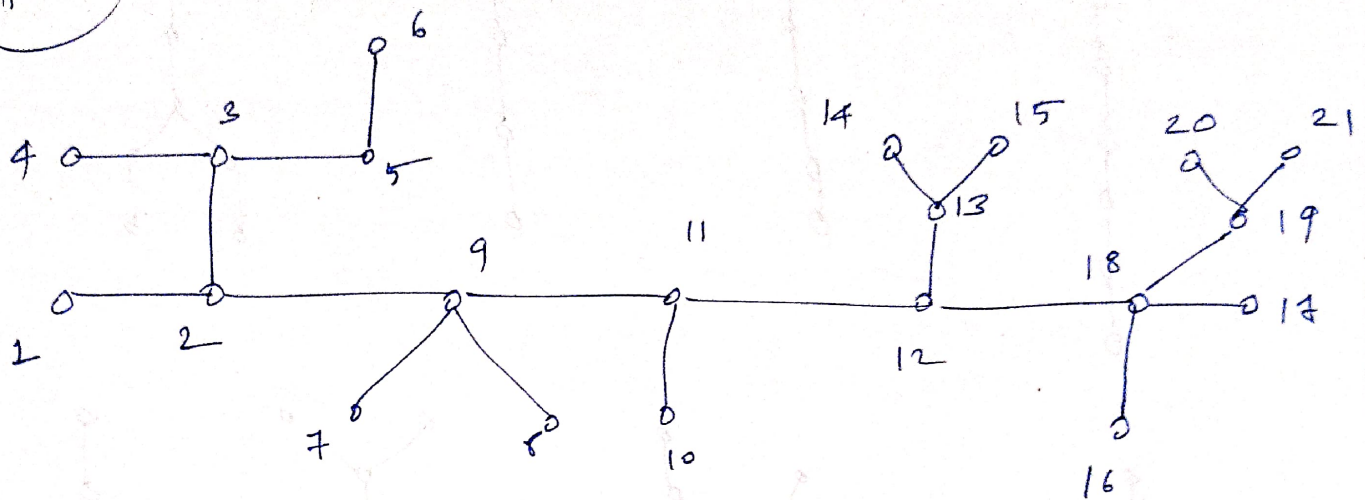


10/11/22

# Tutorial - 8

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PA20. A1

Q. 1

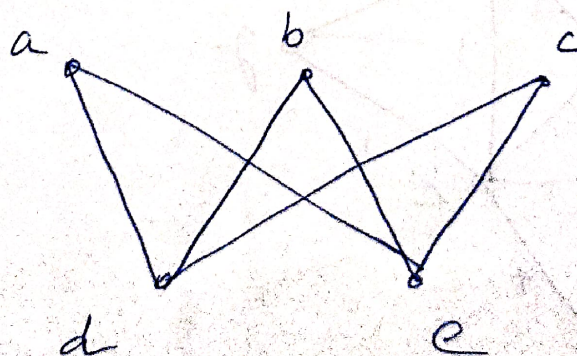


$e(1) = 7$	$e(2) = 6$	$e(3) = 7$	$e(4) = 8$
$e(5) = 8$	$e(6) = 9$	$e(7) = 6$	$e(8) = 6$
$e(9) = 5$	$e(10) = 5$	$e(11) = 5$	$e(12) = 6$
$e(13) = 7$	$e(14) = 8$	$e(15) = 8$	$e(16) = 8$
$e(17) = 8$	$e(18) = 7$	$e(19) = 8$	$e(20) = 9$
$e(21) = 9$			

$\therefore \text{Diameter} = 9 = e(6)$

Q. 2

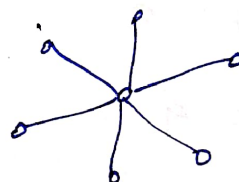
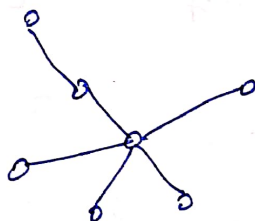
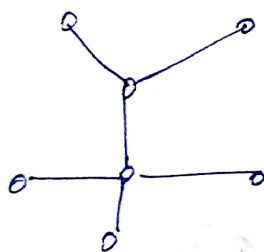
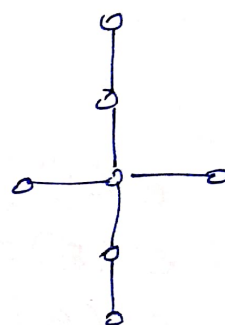
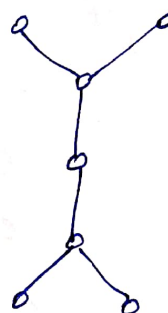
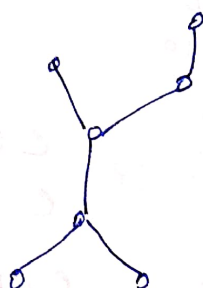
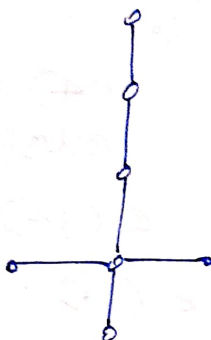
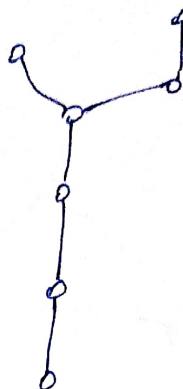
Complete Bipartite tree



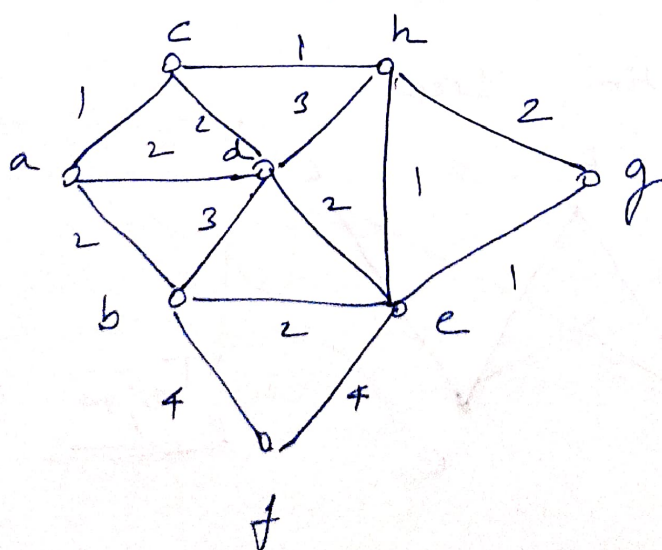
$T_{5,10}$

Vertices = 5  
edges = 10

Q.3. Draw All non-isomorphic trees on 7 vertices.

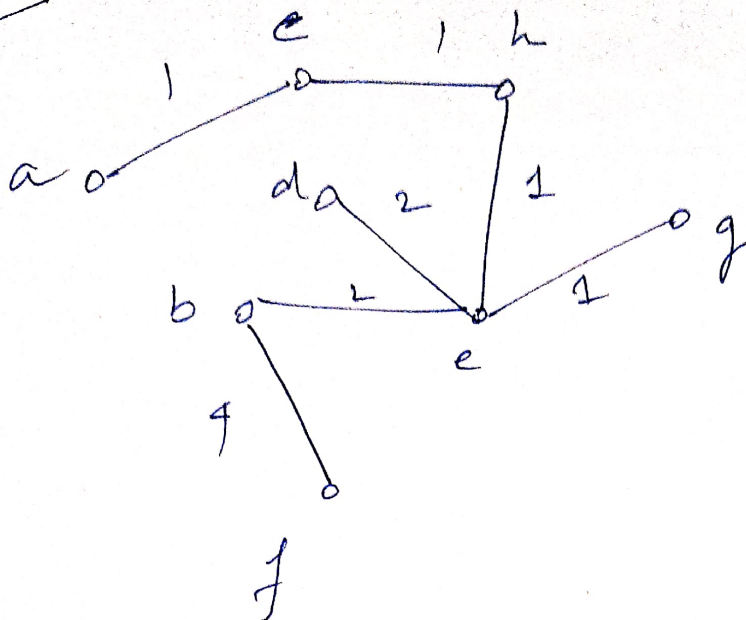


Q.4





Ans



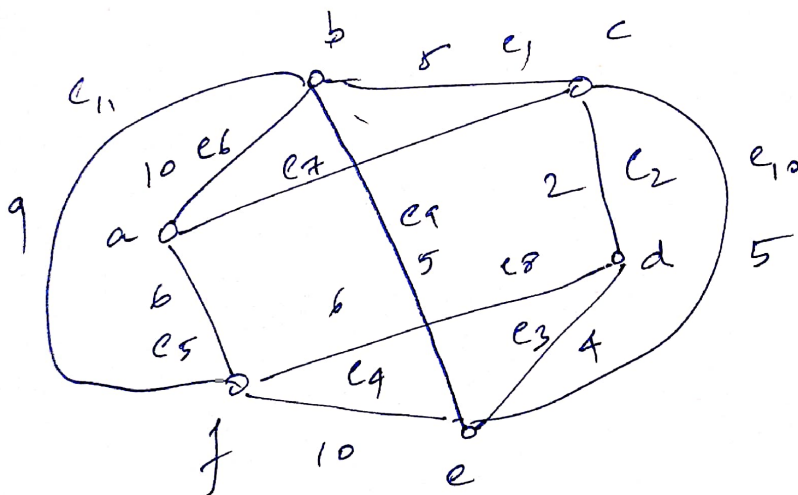
min wt =

$$1 + 1 + 1 + 1 +$$

$$2 + 4 + 2$$

$$= 12$$

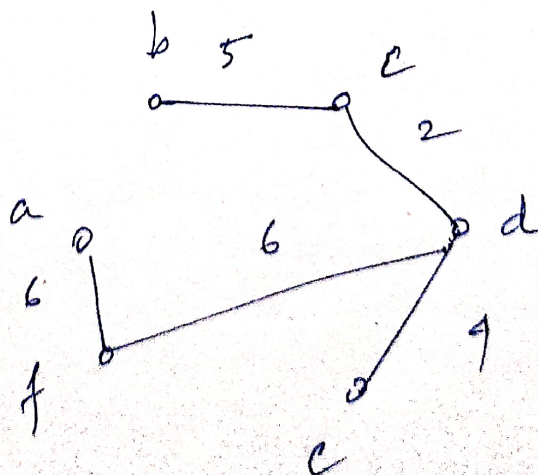
Q. 5



e <sub>1</sub>	5
e <sub>2</sub>	2
e <sub>3</sub>	4
e <sub>4</sub>	10
e <sub>5</sub>	6
e <sub>6</sub>	10
e <sub>7</sub>	7
e <sub>8</sub>	6
e <sub>9</sub>	5
e <sub>10</sub>	5
e <sub>11</sub>	11

⇒

2	e <sub>2</sub>
4	e <sub>3</sub>
5	e <sub>1</sub>
5	e <sub>9</sub>
5	e <sub>10</sub>
6	e <sub>5</sub>
6	e <sub>8</sub>
7	e <sub>7</sub>
10	e <sub>4</sub>
10	e <sub>6</sub>
11	e <sub>11</sub>



Min wt = 23