



SUMMER – 15 EXAMINATIONS

Subject Code: **17328**

Model Answer

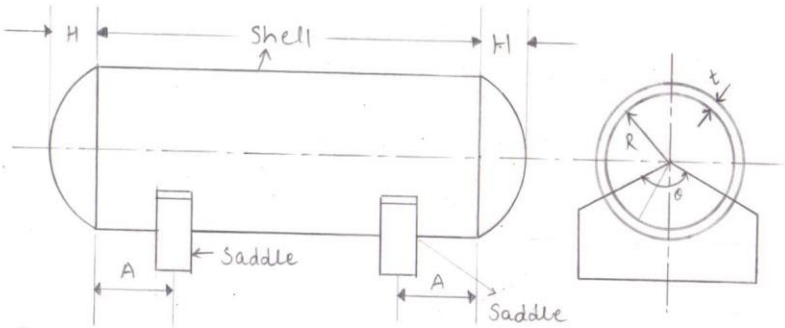
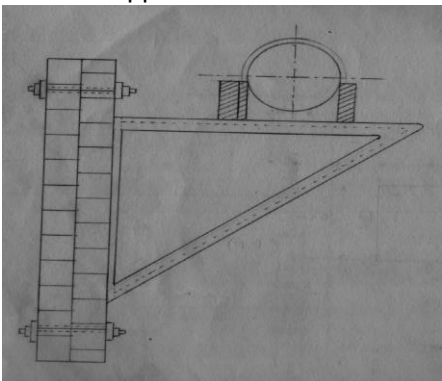
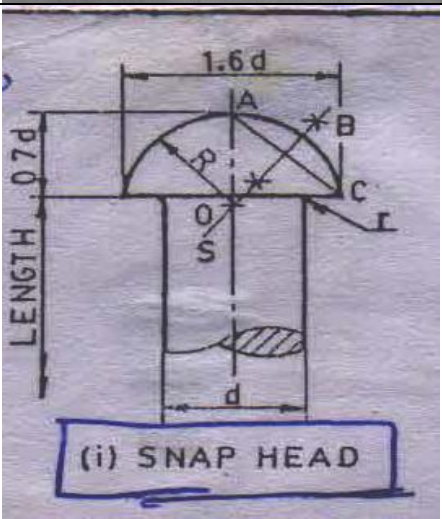
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Important Instructions to examiners:

- 1) The answers should be examined by key words and not as word-to-word as given in the model answer scheme.
- 2) The model answer and the answer written by candidate may vary but the examiner may try to assess the understanding level of the candidate.
- 3) The language errors such as grammatical, spelling errors should not be given more importance. (Not applicable for subject English and Communication Skills)
- 4) While assessing figures, examiner may give credit for principal components indicated in the figure. The figures drawn by candidate and model answer may vary. The examiner may give credit for any equivalent figure drawn.
- 5) Credits may be given step wise for numerical problems. In some cases, the assumed constant values may vary and there may be some difference in the candidate's answers and model answer.
- 6) In case of some questions credit may be given by judgment on part of examiner of relevant answer based on candidate's understanding.
- 7) For programming language papers, credit may be given to any other program based on equivalent concept.



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Q. N O.	MODEL ANSWER	MARKS	TOTAL MARKS
1	Attempt any five	5 X 4	20
1a (i)	<p>(i) SADDLE SUPPORTS</p>  <p>(a) PLATE TYPE</p>	2 mark	4 mark
1a (ii)	<p>Bracket supported Anchor</p> 	2mark	
1b (i)	 <p>(i) SNAP HEAD</p>	2mark	4 mark



1b (ii)		2mark	
1 (c)	<p>Globe valve</p> <p>(Elevation)</p> <p>(Plan)</p>	4 mark	4 mark
1d (i)	<p>Double bevel butt joint</p>	2 mark	4 mark
1d (ii)	<p>Spot weld</p>	2mark	
1e (i)	Prism to cylinder:---Curve of intersection	2mark	4mark



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1e (ii)	<p>Prism to prism :-----Line of intersection</p>	2mark	
1.f	<p>Note: there is no symbol for Double r butt weld ,there is symbol of double u butt weld or double v butt weld .</p>	4mark	4mark



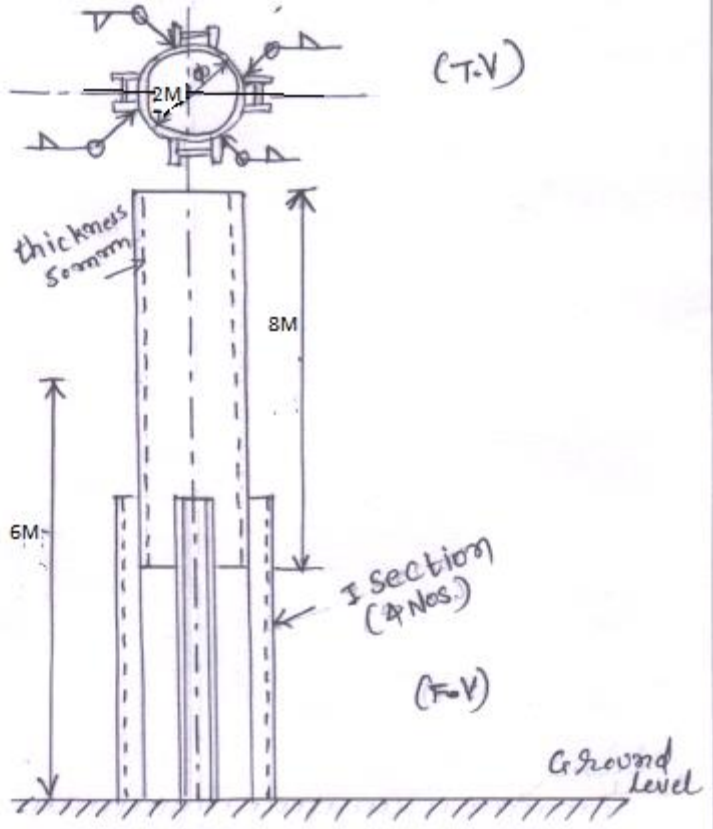
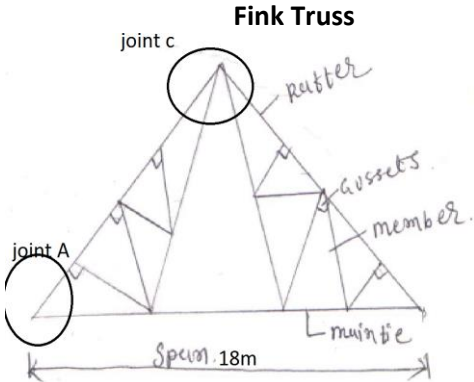
1g	<p>Single line orthographic layout:</p>	4 mark	4 mark
2	Attempt any two	8 x 2	16 m
2a)		4 mark- F.V 2 mark- T.V 2 mark- S.V	8 mark

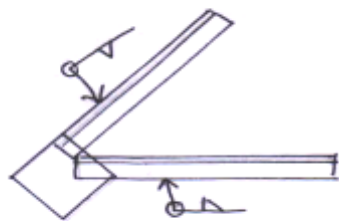


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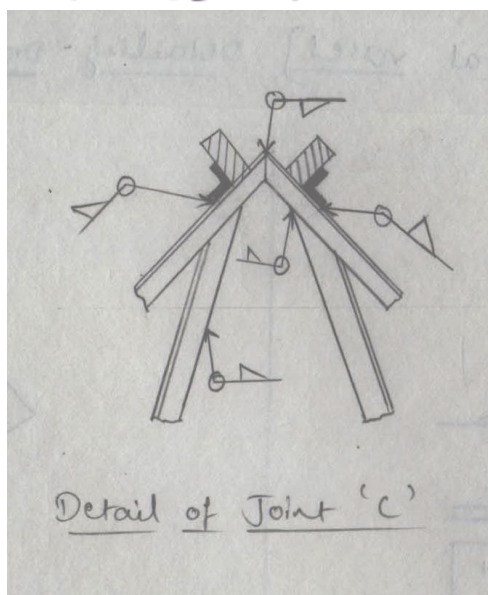
2b)		4 mark- F.V 2 mark- T.V 2 mark- S.V	8 mark
2c)		4 mark- F.V 2 mark- T.V 2 mark- S.V	8 mark
3	Attempt any two	8 x 2	16M



3a)	 <p style="text-align: center;">A vertical Tank</p>	4 mark- F.V 4 mark- T.V	8 mark
3b)	 <p style="text-align: center;">Fink Truss</p>	4mark- fink truss 4mark- welding symbol (any one)	8 mark



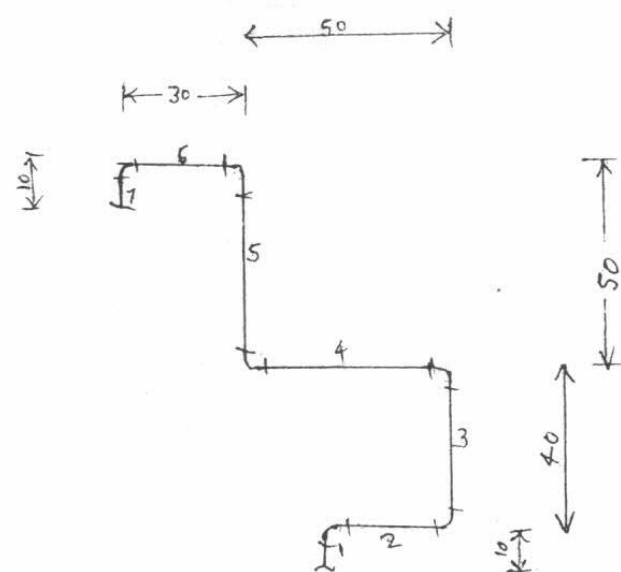
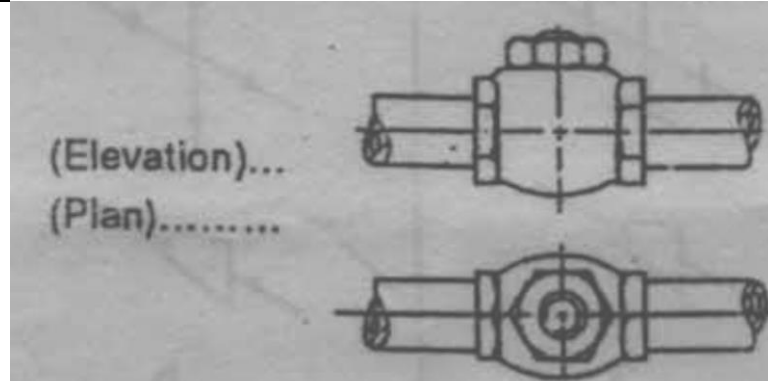
'DETAIL OF JOINT A'



Detail of Joint 'C'

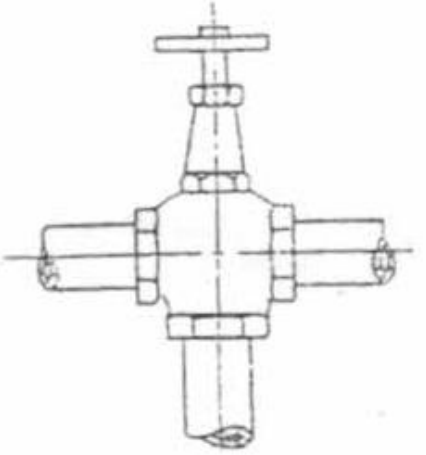
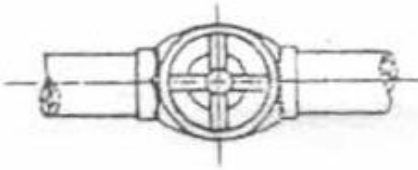
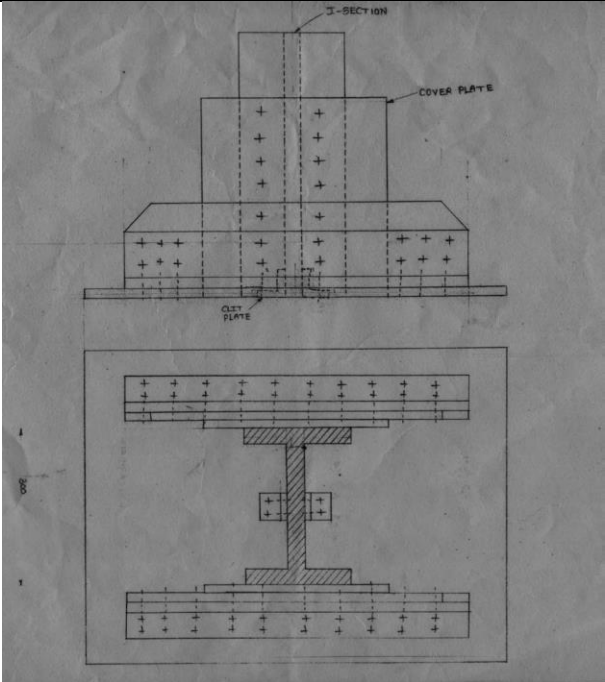


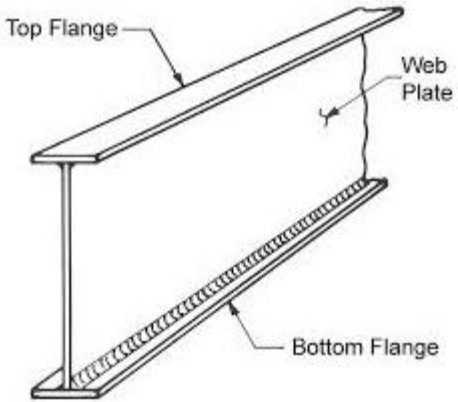
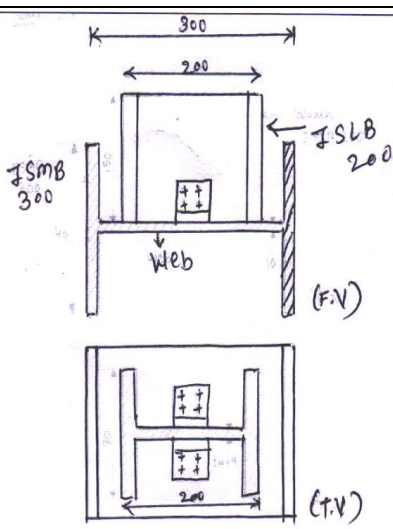
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3c i)	<p>Single Line Developed view.</p> 	4 mark-	8 mark
3c (ii) i)	 <p>DOUBLE LINE Check valve</p>	2mark-	

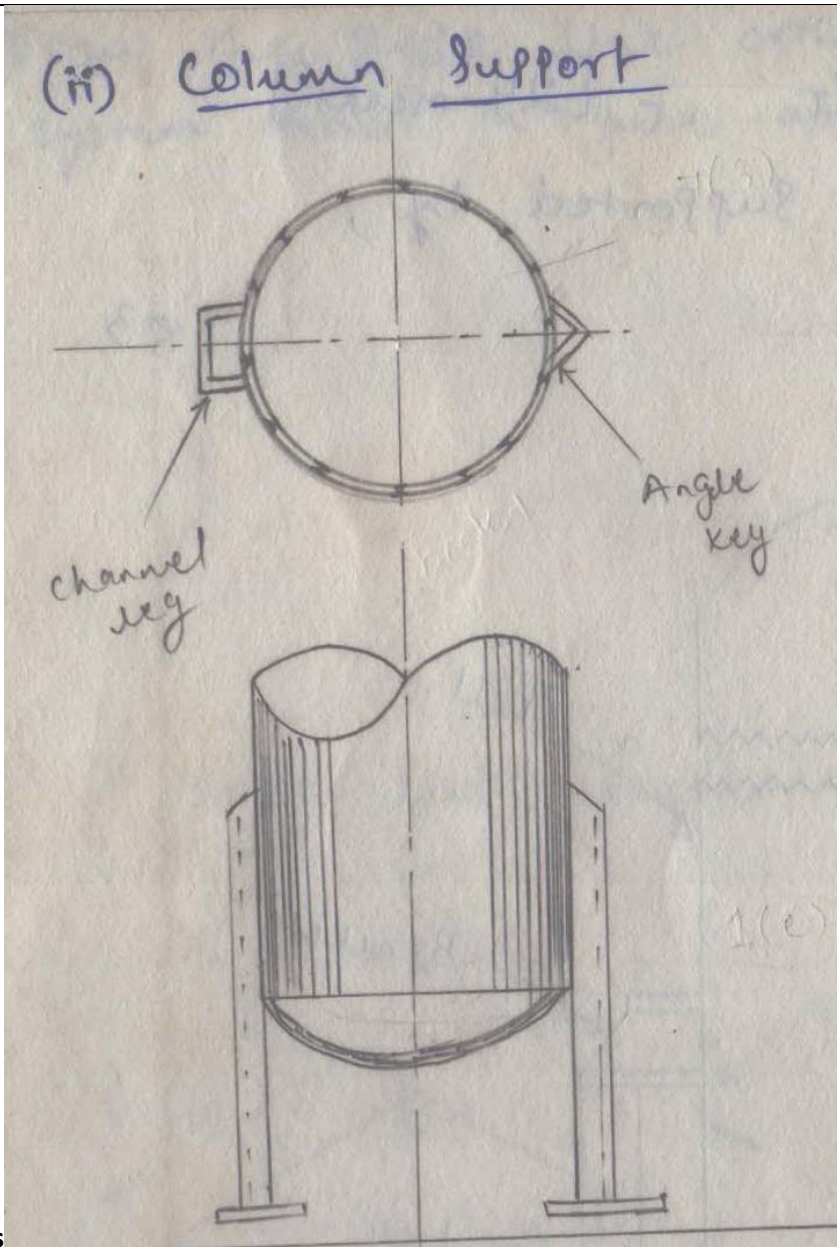


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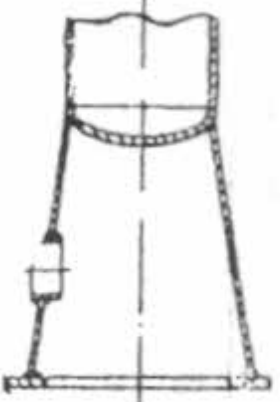
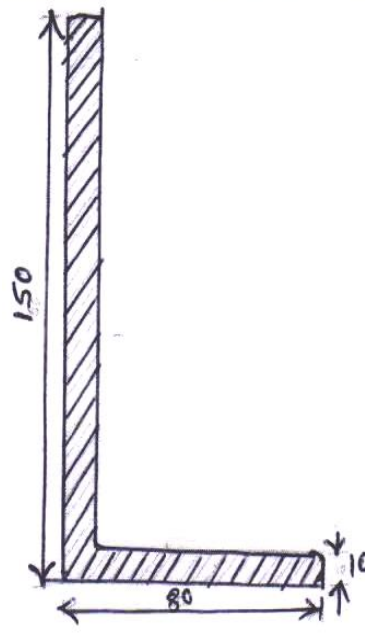
<p>3c (ii) ii)</p>	<p>Cross or 3-way valve</p> <p>(Elevation)...</p>  <p>(Plan).....</p> 	<p>2 mark</p>	
<p>4</p>	<p style="text-align: center;">Attempt any four</p>	<p>4 x 4</p>	<p>16M</p>
<p>4 a)</p>	 <p>riveted base gusseted column</p>	<p>4mark</p>	<p>4mark</p>

<p>4 b)</p>	 <p>plate girder</p>	<p>4mark</p>	<p>4mark</p>
<p>4 c)</p>	 <p>beam to beam connection</p>	<p>2 mark- T.V 2 mark- F..V</p>	<p>4 mark</p>



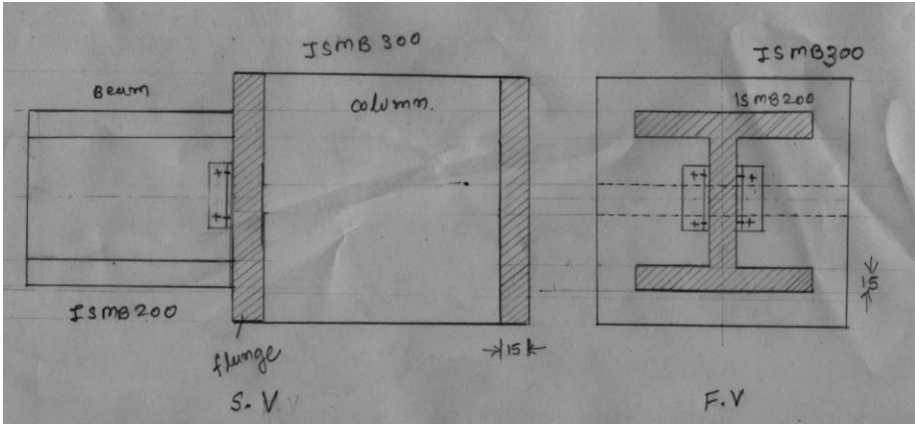
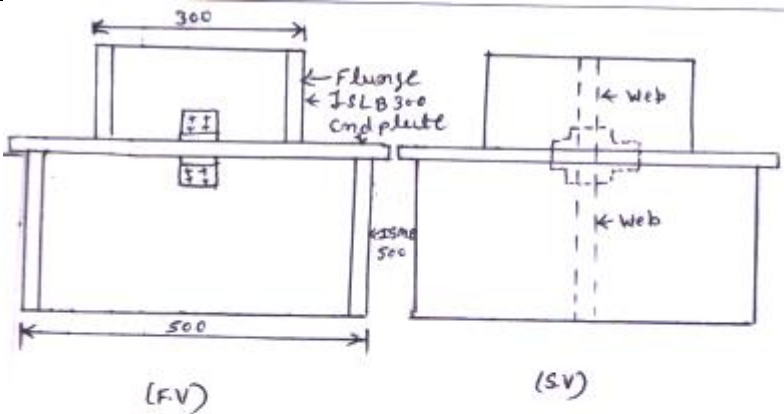
4d ii	<p>(ii) <u>Column Support</u></p>  <p>S</p>	2 mark	4mark
4d ii	ANGULAR SKIRT SUPPORT	2 mark-	



			
4 e)	 ISNL 150,b=80,t=10	4mark	4mark
4 f) i)	Area of application for penetration of solids are as follows. a) It is used in chemical plants. b) It is used in production of engineering components. c) It is used in piping joints. d) It is used in fabrication of pressure vessels. e) It is used in coupling joints and engine components.	2mark	4mark
4 F ii)	1. Faces of both prisms are equally inclined to V.P 2. Horizontal prism's axis is parallel to H.P and V.P and 10 mm away from the axis of vaerical solid.	2mark	

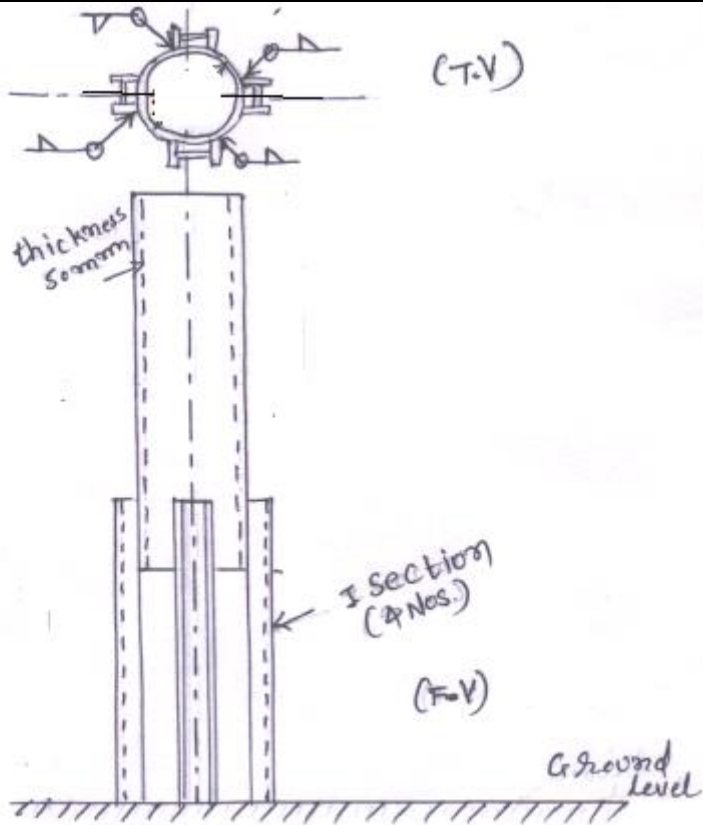


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5	Attempt any two	8 x 2	16m
5 a) i	 <p>beam to column connection at flange</p>	4mark	8mark
5 a) ii	 <p>column to column connection</p>	4mark	

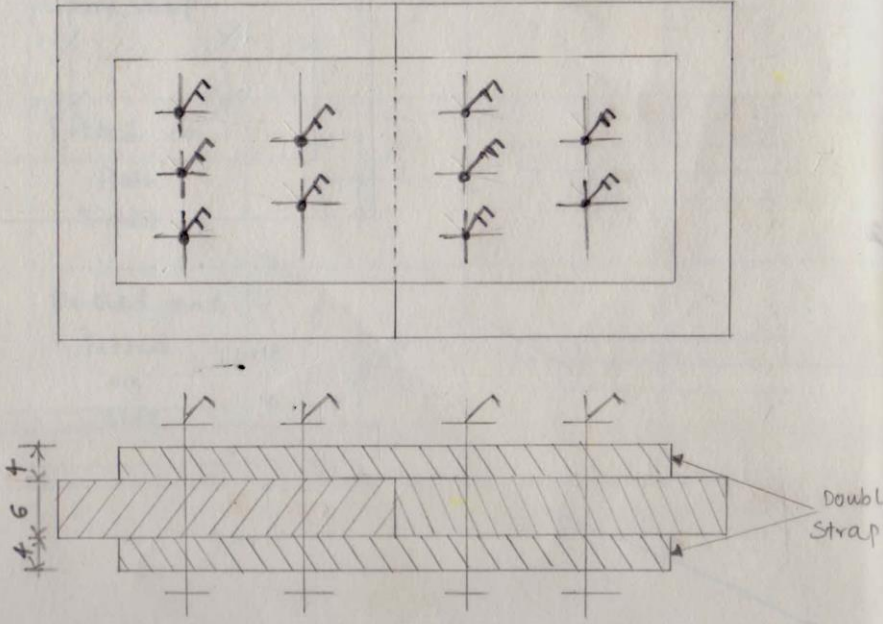
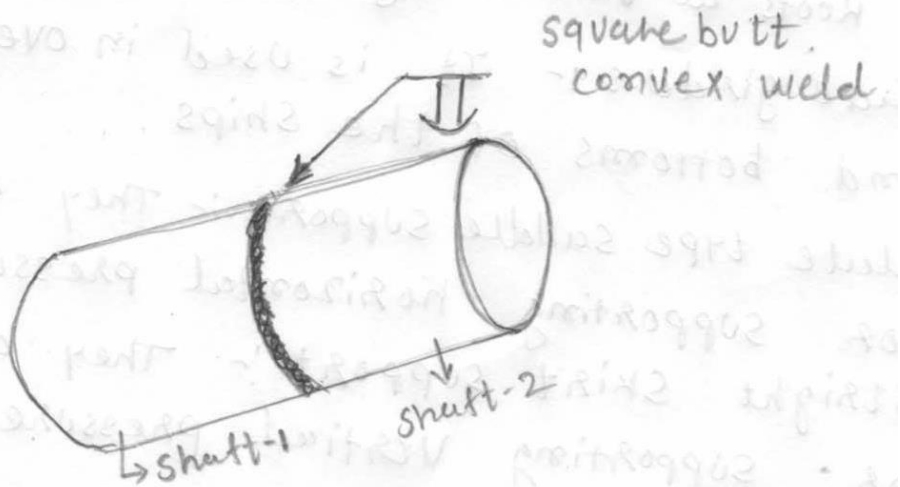


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5 b) (i)		4mark	8mark												
5 b) (ii)	<div>Bill of Material</div> <table><tr><th>Sr.No.</th><th>Item Description</th><th>Quantity</th></tr><tr><td>1</td><td>Pipe</td><td>-</td></tr><tr><td>2</td><td>90° Elbow</td><td>6</td></tr><tr><td>3</td><td>Cap</td><td>2</td></tr></table>	Sr.No.	Item Description	Quantity	1	Pipe	-	2	90° Elbow	6	3	Cap	2	4mark	
Sr.No.	Item Description	Quantity													
1	Pipe	-													
2	90° Elbow	6													
3	Cap	2													



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<p>5 c) (i)</p>		<p>4mark</p>	<p>8mark</p>
<p>c) (ii)</p>		<p>4mark</p>	
<p>6</p>	<p>Attempt any two</p>	<p>8 x 2</p>	<p>16m</p>



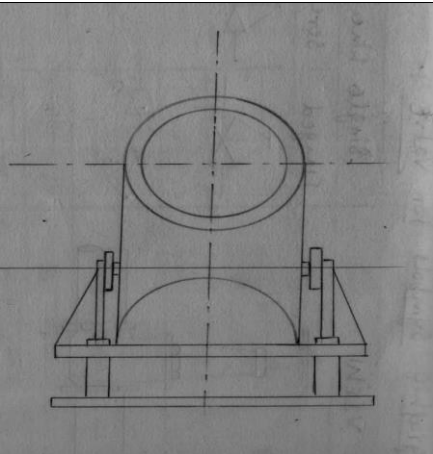
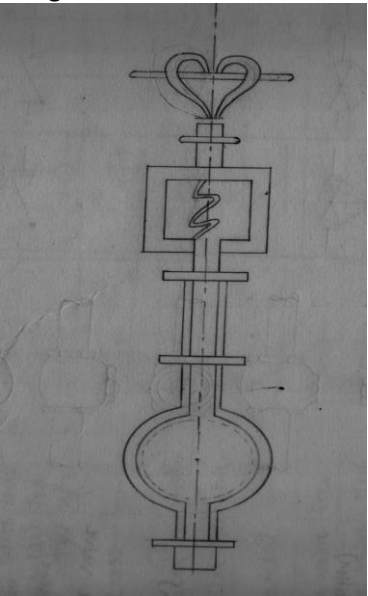
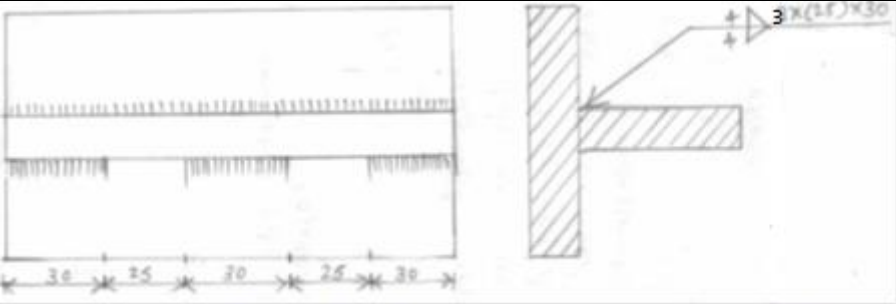
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6 a) i	Sr. No.	Description	FLANGED	4mark- 1mark for each. (any four)	8mark
	①	Joint / coupling			
	②	Elbow - 90°			
	③	Elbow - 45°			
	④	Elbow - Turned UP			
	⑤	Elbow - Turned down			
	⑥	Elbow - Long Radius			
	⑦	Reducing Elbow			
	⑧	Tee			
	⑨	Tee - outlet up/turned up			
	⑩	Tee - outlet down or turned down			
	⑪	Side outlet Tee - outlet up			
⑫	Cross				

6 a) ii i)	Roller	2mark
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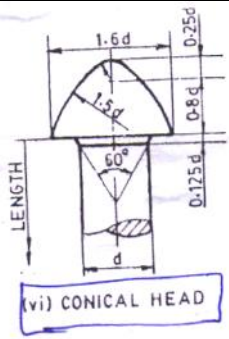
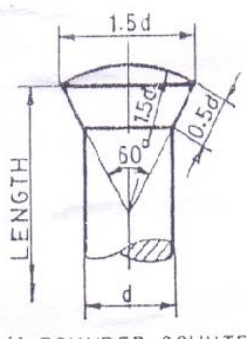


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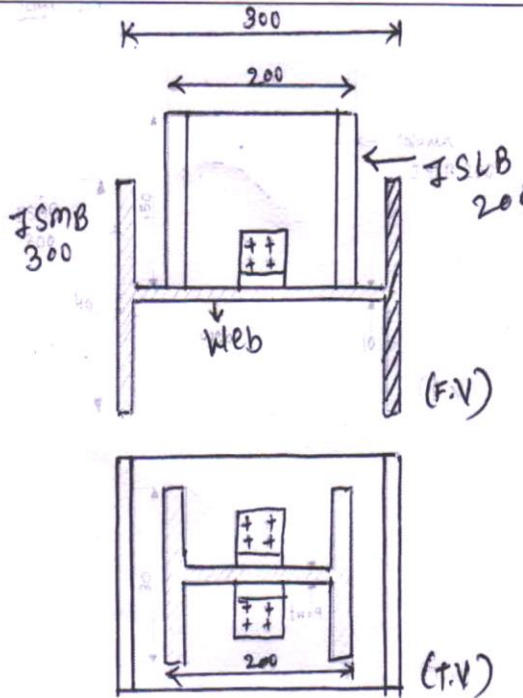
			
6 a) ii ii)	<p>Hanger</p> 	2mark	
6 b) i		4mark	8mark



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6 b) ii (i)	 <p>(vi) CONICAL HEAD</p>	2mark	
6b ii (ii)	 <p>(vi) ROUNDED COUNTER-SUNK HEAD</p>	2mark	
6 c) i	<p>(1)Application of flink truss: It is used for stiffening and supporting of roots at various big structures</p> <p>(2)Plate girders: It is used in overbridges and bottoms of ships.</p> <p>(3)Plate type saddle supports: They are used for supporting horizontal pressure vessels.</p> <p>(4)Stright skit support: They are used for supporting vertical pressure vessels.--</p>	4mark (1mark- 1 applicati on)	8mark
6		4mark	



<p>c) ii</p>	<p>Beam to column connection</p> 		
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