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SUMMER – 19 EXAMINATION

Subject Name: Engg. Drawing **Model Answer** Subject Code: **17205**
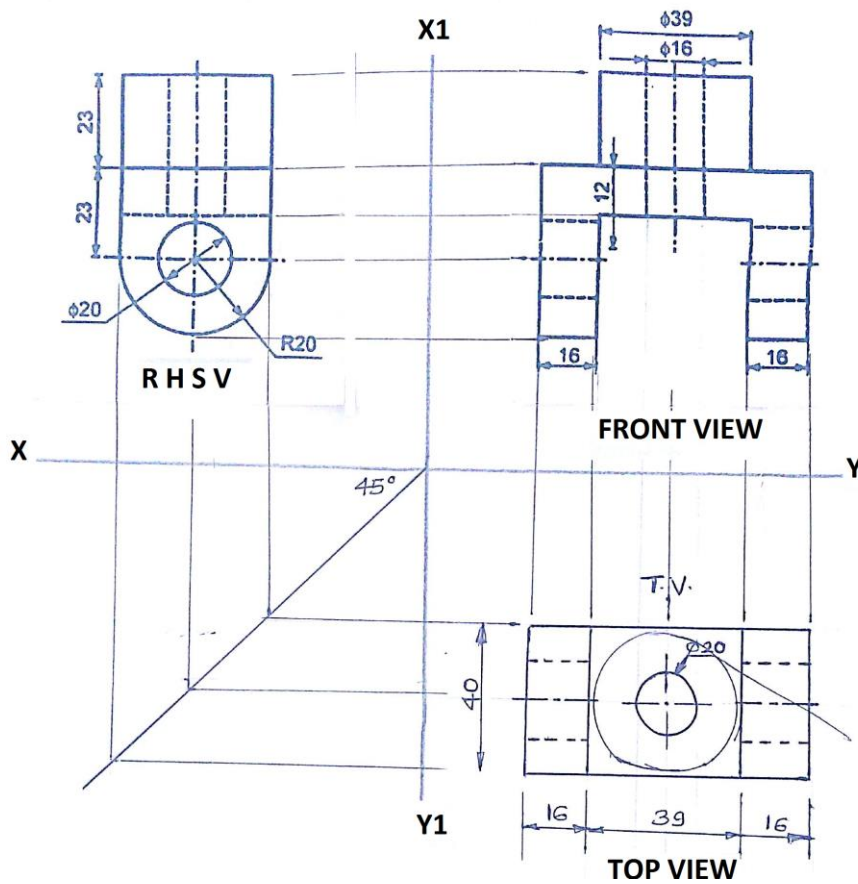
Important Instructions to examiners:

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 judgement 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.

Q. No.	Sub Q. N.	Answer	Marking Scheme
1	a	**SFV: 6M, TV: 3M & LHSV: 3M** 	

Q.No.	Sub Q.N.	Answer	Marking Scheme
	b	**FV: 2M TV: 4M RHSV:2M**	

RHSV — FRONT VIEW — TOP VIEW orthographic projection drawing with dimensions: Ø39, Ø16, 23, 23, Ø20, R20, 12, 16, 16, 45°, 40, 16, 39, 16, Ø20. Reference lines X–Y, X1–Y1.
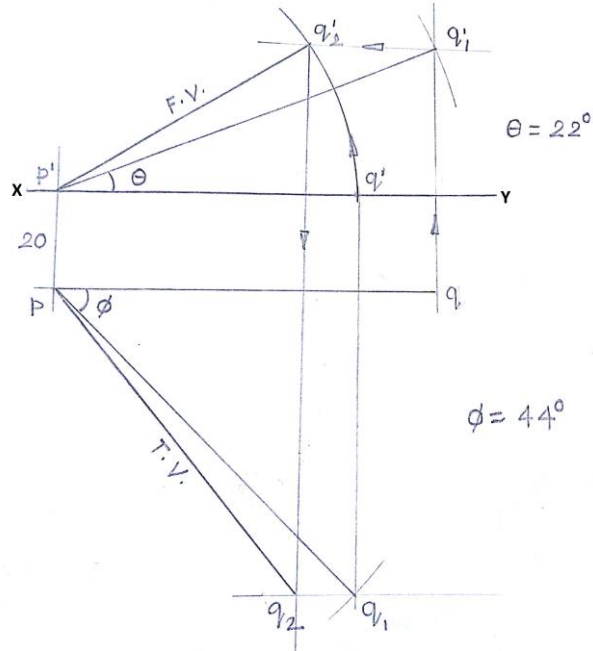
2	a	**LINE PROBLEM**	
		FV INITIAL & FINAL: 3M TV INITIAL & FINAL: 3M ANGLE MEASUREMENTS: 1M EACH	

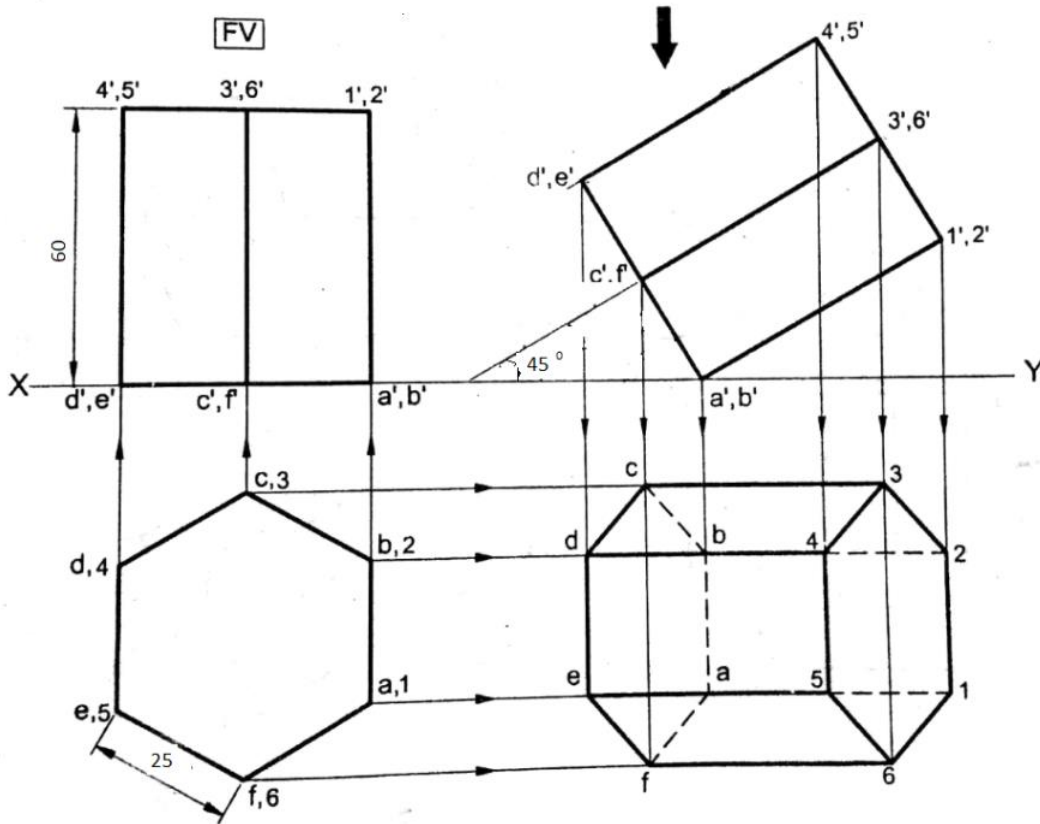|	b i)	**HEXAGONAL PLANE PROBLEM INITIAL VIEW 4M, FINAL 4M**	
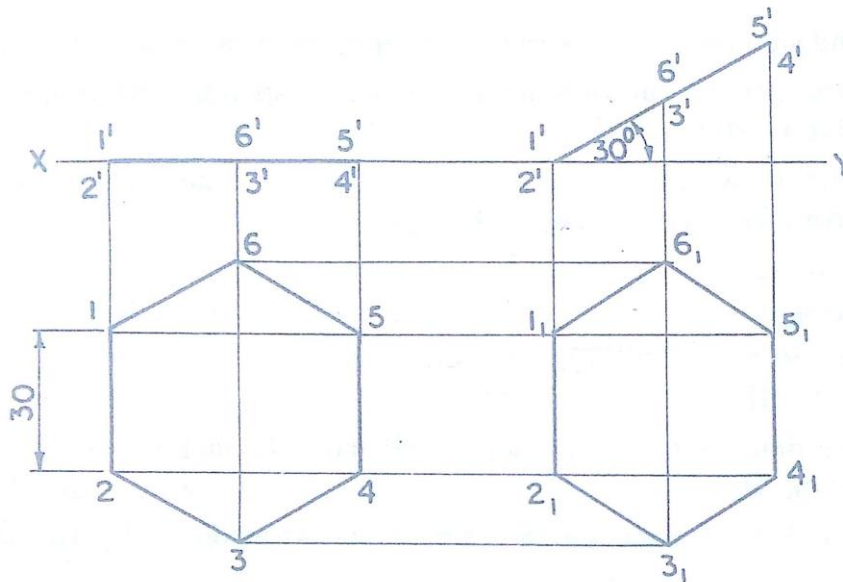
b ii)	**CIRCULAR PLATE PROBLEM: INITIAL VIEW 2M, FINAL 4M, FIND THETA: 2M**	

inclination of plane with HP = 52^0

ϕ 60

35
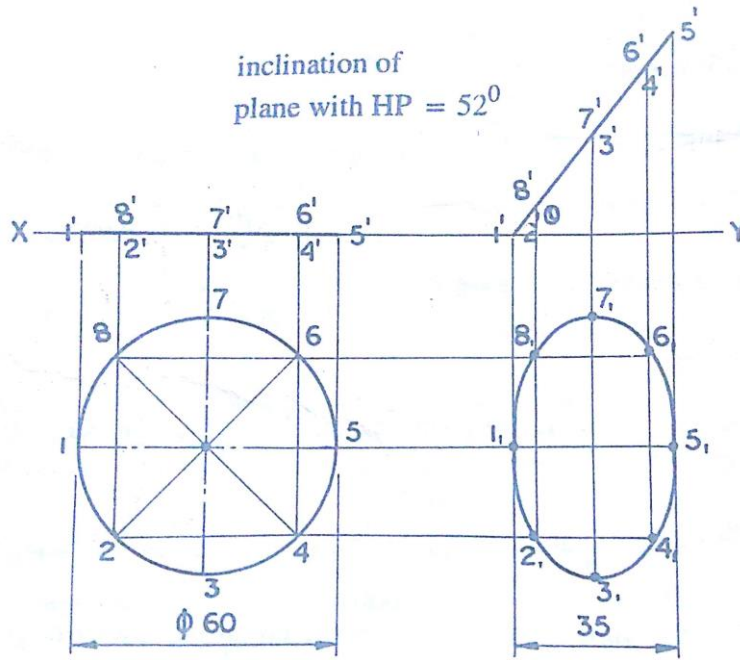
3	a	**HEXAGONAL PRISM (INITIAL VIEW: 3M, FINAL VIEW: 5M)**	

FV

4',5'   3',6'   1',2'

60

4',5'

3',6'

d',e'

c'.f'

1',2'

45°

X————d',e'   c',f'   a',b'   a',b'————Y

c,3   c   3

b,2   d   b   4   2

d,4

a,1   e   a   5   1

e,5

25

f,6   f   6

b	**TETRAHEDRAN (INITIAL VIEW: 3M, FINAL VIEW: 5M)**	
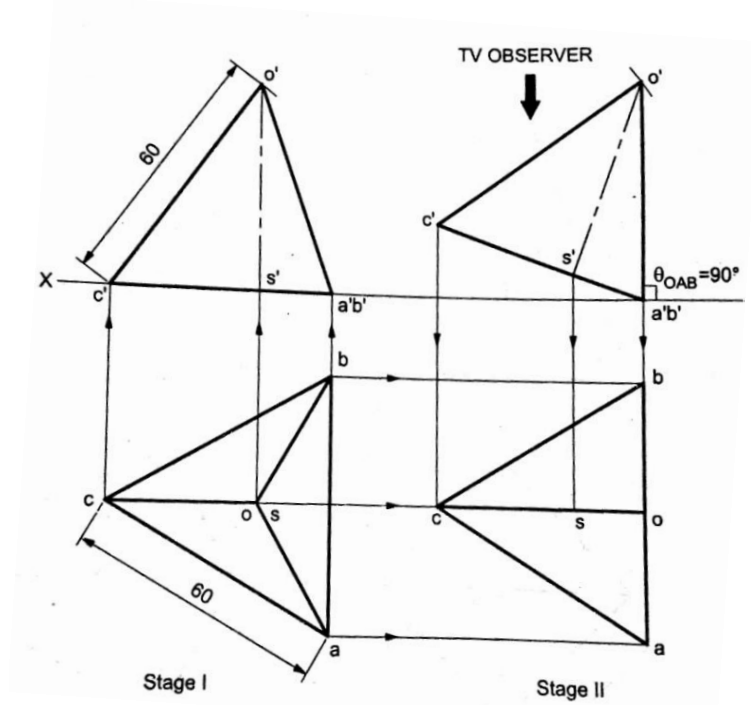
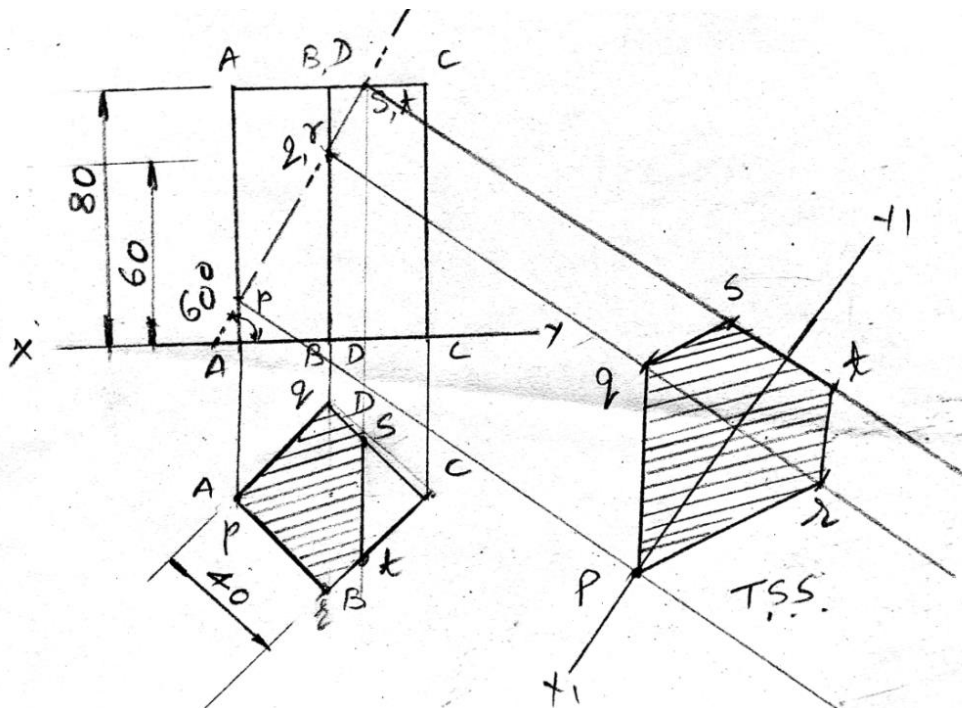| c	**CONE PROBLEM (INITIAL VIEW: 3M, FINAL VIEW: 5M)**	
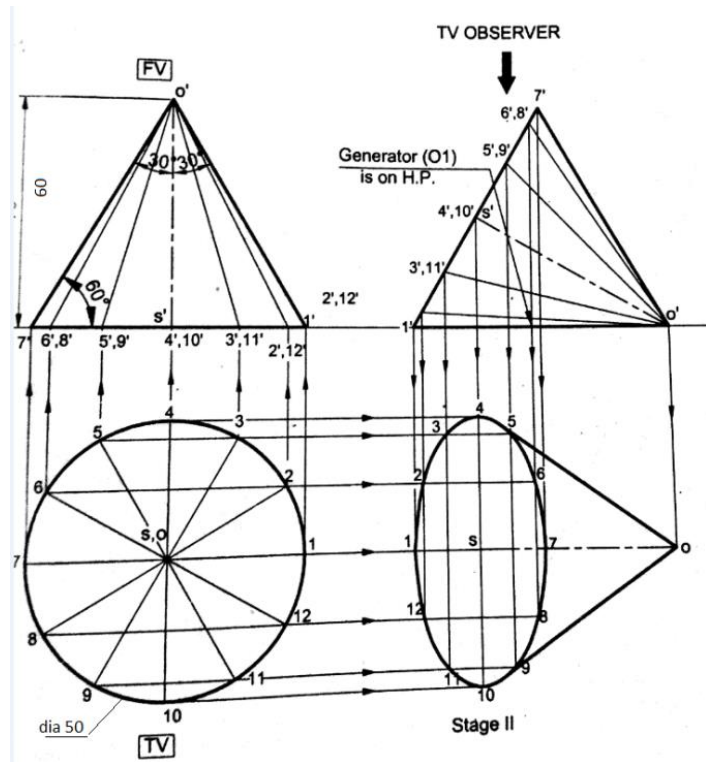
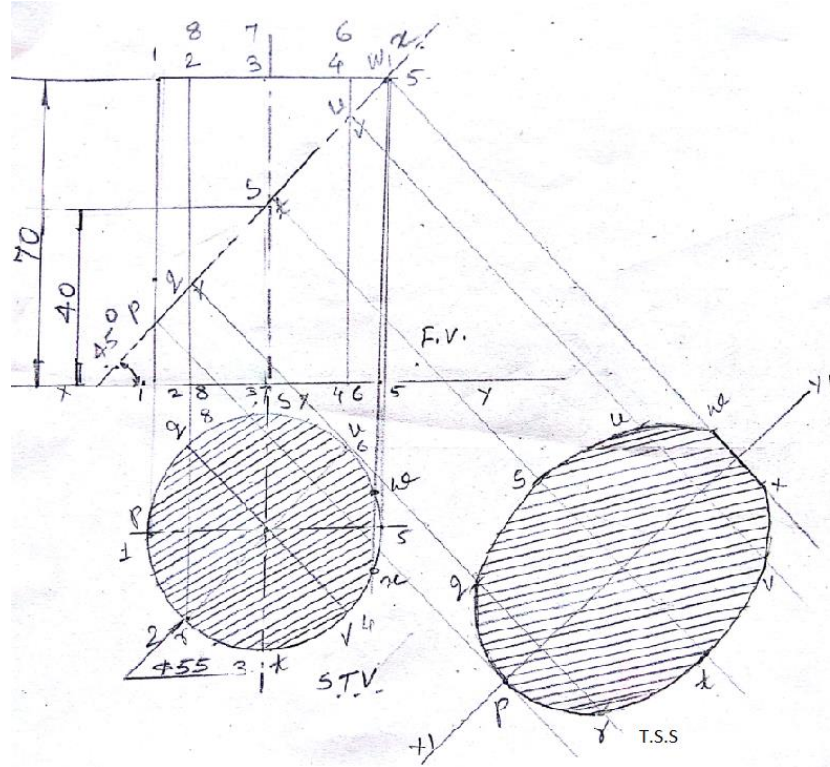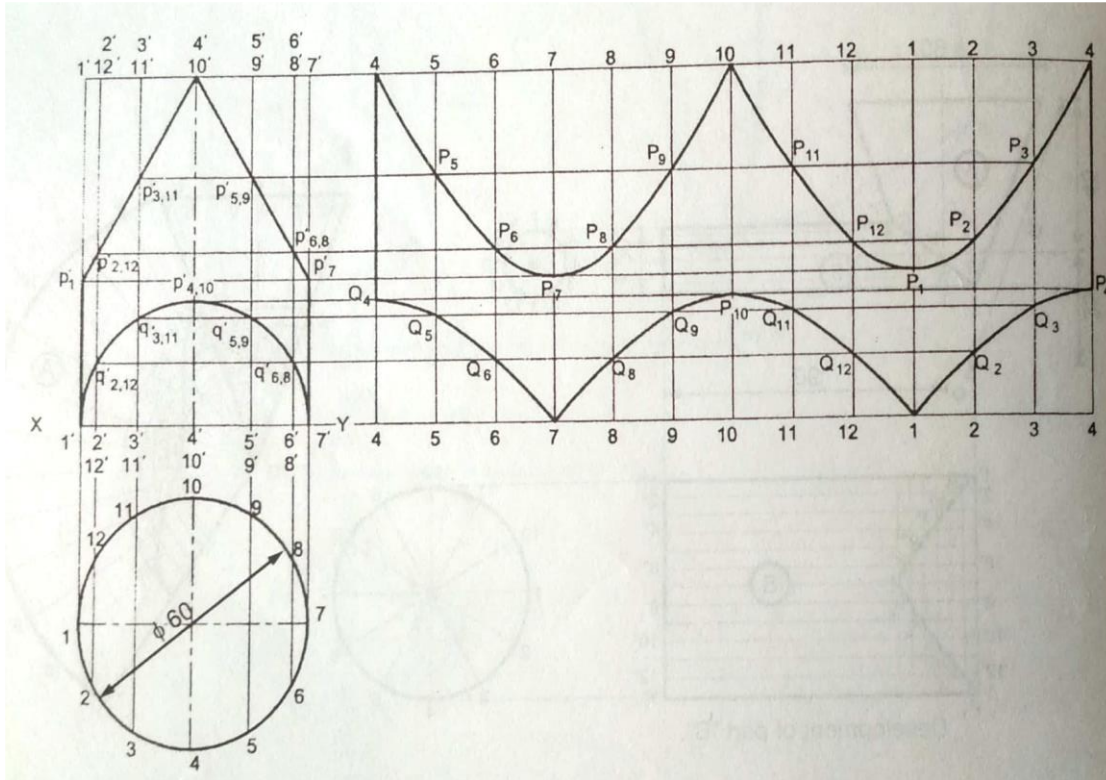| 4	a	**PENTAGONAL PYRAMID (FV: 3M, TV: 3M, TSS: 2M) NOTE : TV DRAWN WITH BASE EDGE PARALLEL TO VP CAN ALSO BE CONSIDERED AS CORRECT**	
	b	**SQUARE PRISM (FV: 3M, TV: 3M, TSS: 2M)**	
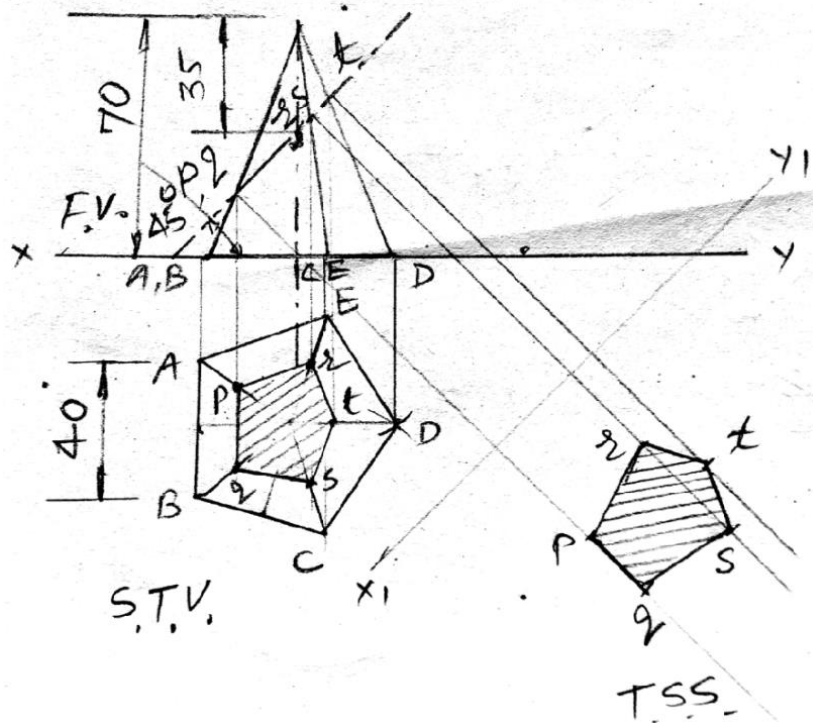
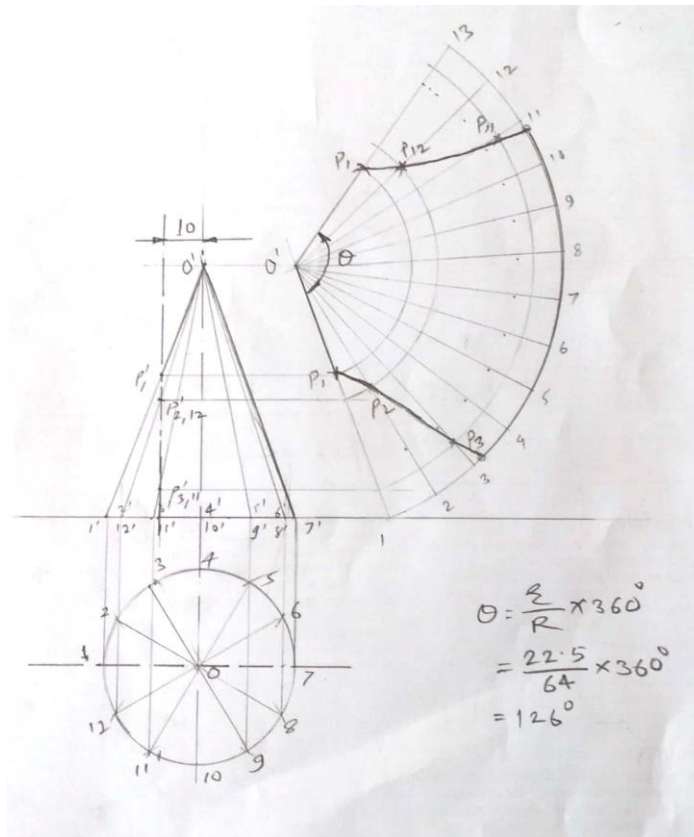| c | **CYLINDER PROBLEM   (FV: 3M, TV: 3M, TSS: 2M)** |

| 5 | a | **SQUARE PRISM DEVELOPMENT FV: 1M, TV: 1M DEVLOPMENT: 6M** |

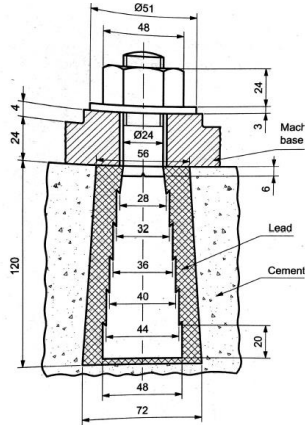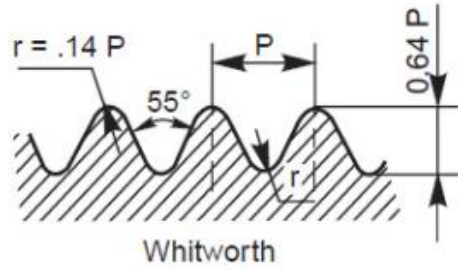| b | **DEVELOPMENT OF CYLINDER   FV: 1M, TV: 1M DEVLOPMENT: 6M** | |

| c | **DEVELOPMENT OF CONE   FV: 1M, TV: 1M DEVLOPMENT: 6M** | |
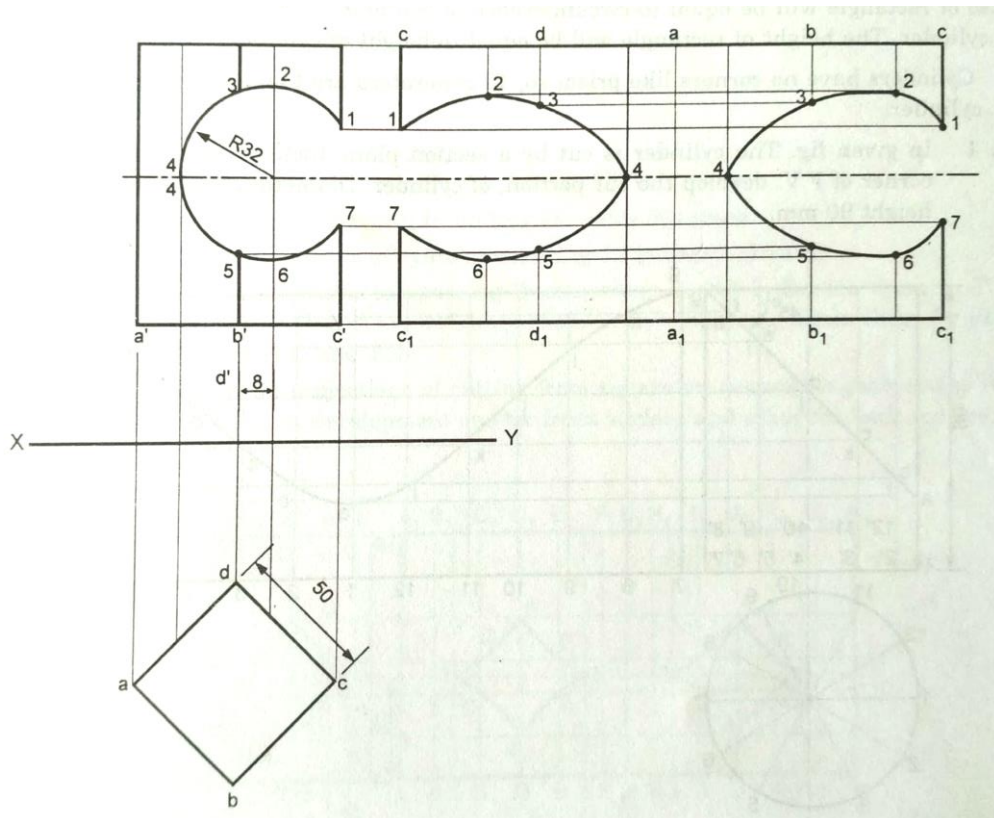
$$\theta = \frac{r}{R} \times 360°$$
$$= \frac{22 \cdot 5}{64} \times 360°$$
$$= 126°$$

| 6 | a | **4M EACH** |

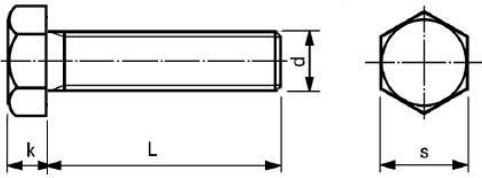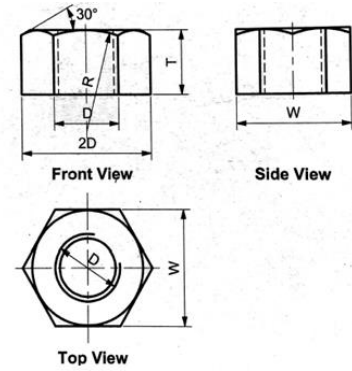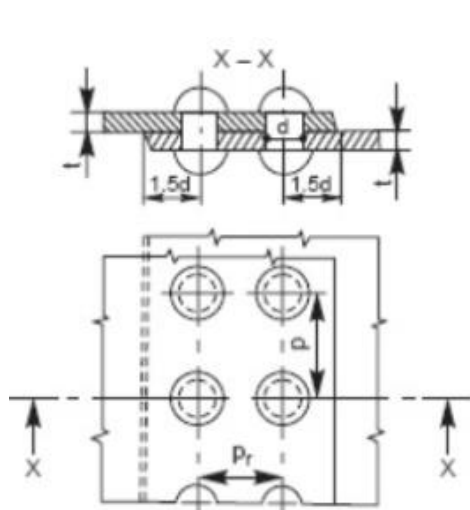**RAG FOUNDATION BOLT**   **WHITWORTH THREAD**   **HEX. NUT**

HEX. HEADED BOLT

DOUBLE RIVETTED LAP JOINT   **LIFTING EYE BOLT OR EYE FOUNDATION BOLT**