

SSC JE Mains 2022



Mechanical Engineering

**Most Expected
Questions**



BILINGUAL

Mechanical Engineering ka Mahapack

Live Class, Video Course
Test Series, Ebooks

SUBSCRIPTION FEATURES	CIVIL MAHA PACK
All Live Classes	Yes
All Test Series	Yes
All Mock Video Solutions	Yes
All Revision Batches	Yes
All Recorded Videos	Yes
All eBooks	Yes
Personality Development	Yes
Spoken English	Yes

12+12 Months
Double Validity

6+6 Months
Double Validity

$6+6 \rightarrow 12 \rightarrow \underline{\underline{2900}}$

$12+12 \rightarrow \underline{\underline{3400}}$

BILINGUAL



RRB JE Mechanical

Foundation Batch (CBT1+CBT2)
Complete Live Batch

9 AM to 10 PM

BILINGUAL



RRB ALP

Target Batch (CBT1+CBT2)
Trade-Mechanical

9 AM to 10 PM

BILINGUAL

BATCH CHANAKYA

For Mechanical

Complete Live Batch



Start Feb 6, 2023

10 AM to 11 PM

BILINGUAL



JKSSB JE

Mechanical

Selection Batch

9 AM to 7 PM

BILINGUAL

Mission SSC JE 2023

Mechanical Engineering 2.0

Foundation of your Success



Start Jan 16, 2023

9 AM to 11 PM

Q A cantilever of length 2 m carries a uniformly distributed load of 2 kN/m length over the whole length and a point load of 3 kN at the free end. Draw the shear force and bending moment diagrams. [15 Marks] ✓



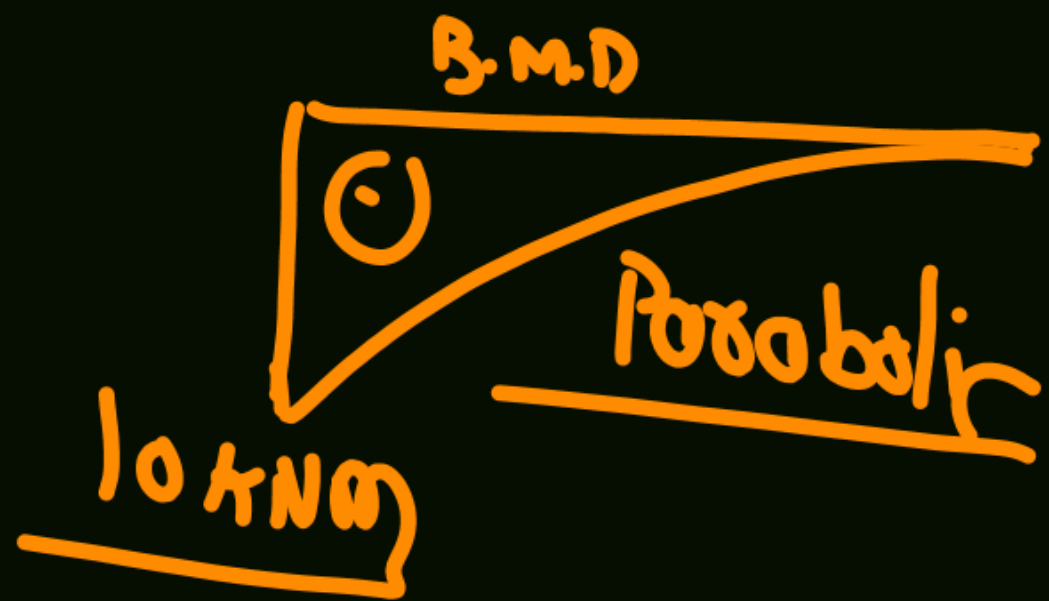
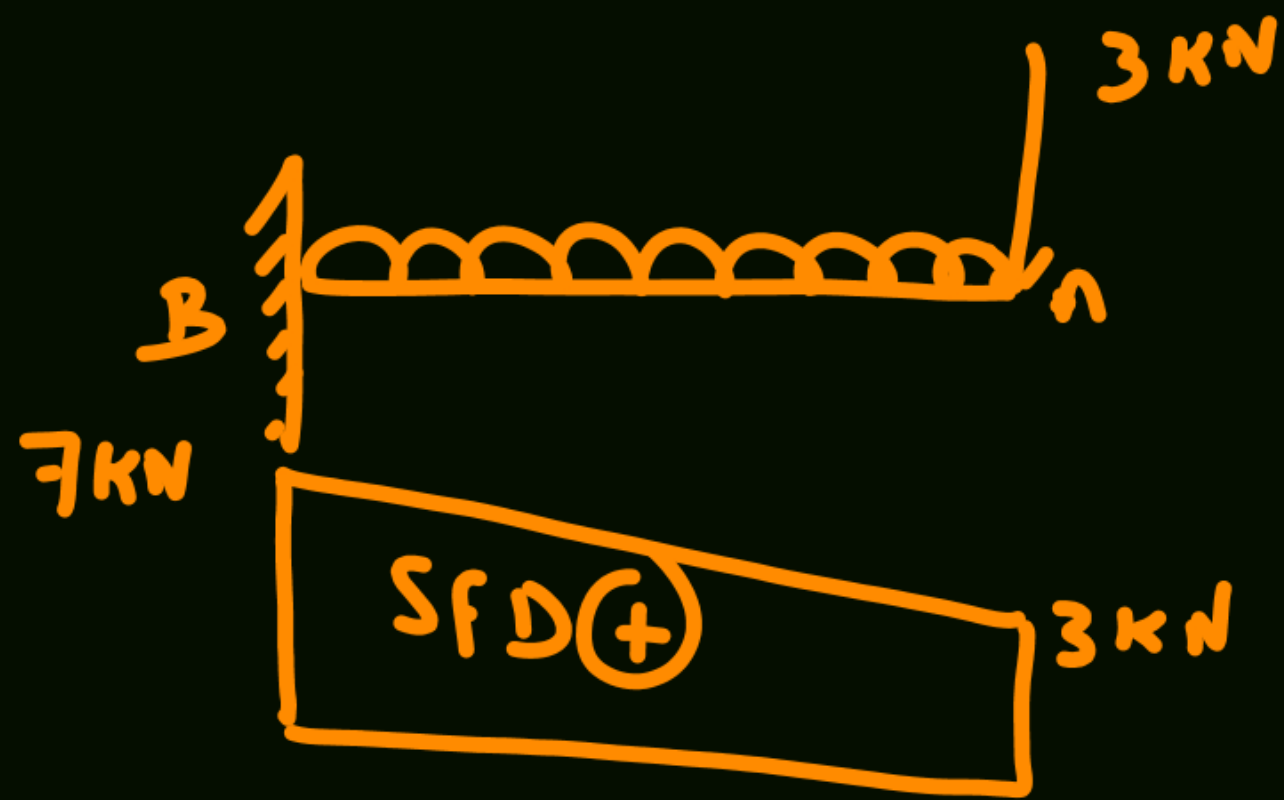
$$Sf \rightarrow Sf \text{ at } A = \underline{\underline{3 \text{ kN}}}$$

$$Sf \text{ at } B = 3 + 2 \times 2 = 7 \text{ kN}$$

$$Bm \text{ at } A = 0$$

$$Bm \text{ at } B = (3 \times 2 + 4 \times 1) \\ = (6 + 4) \times 1 = \underline{\underline{-10 \text{ kNm}}}$$

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Q Effect of super heating and sub cooling in VCRS Cycle
 SSC JE Mains -pyq 2017 **15** Marks

Sol. → 4 min

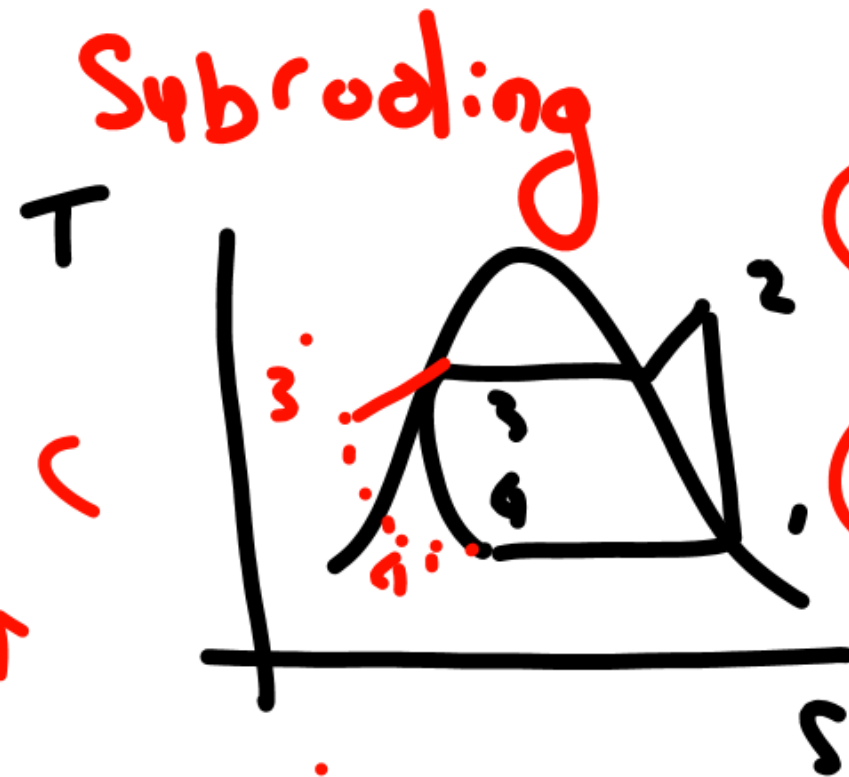
Effect

(1) $w_c = c (h_2 - h_1) = c$

(2) $RE \uparrow \rightarrow h_1 - h_4' \uparrow$

(3) $COP = RE/w \uparrow$

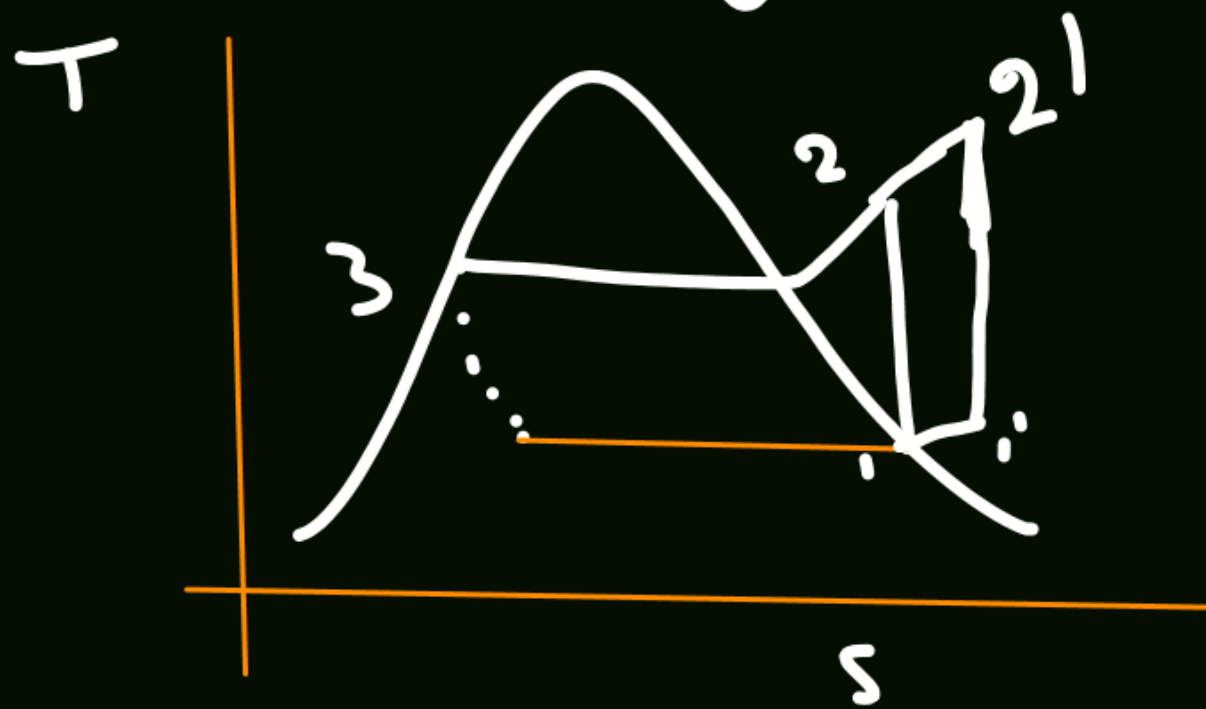
(4) $O_R \uparrow$



(5) $\eta_v = c$

(6) mass flow rate refrigerant ↓

Superheating



$$COP = \frac{R.E}{W}$$

Effect

- (1) RE ↑
- (2) OR ↑
- (3) $\eta = c$
- (4) mass flow rate ↓
- (5) w some case T ↓
- (6) COP → ? maybe ↑ maybe decrease

PYQ →:

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