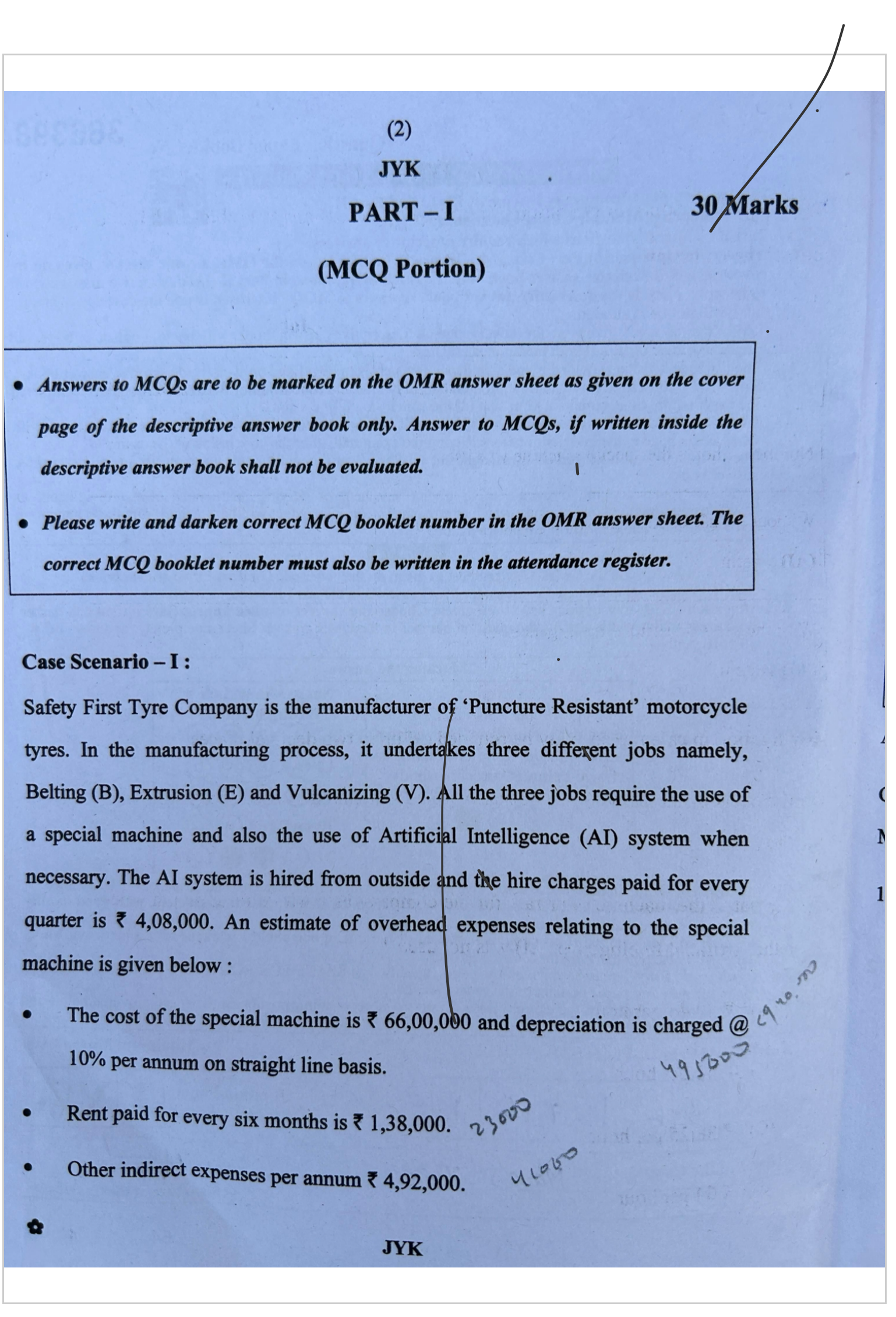
Cost

Monday, 11 May 2026 5:10 PM

Costing MCq



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PART – I

30 Marks

(MCQ Portion)

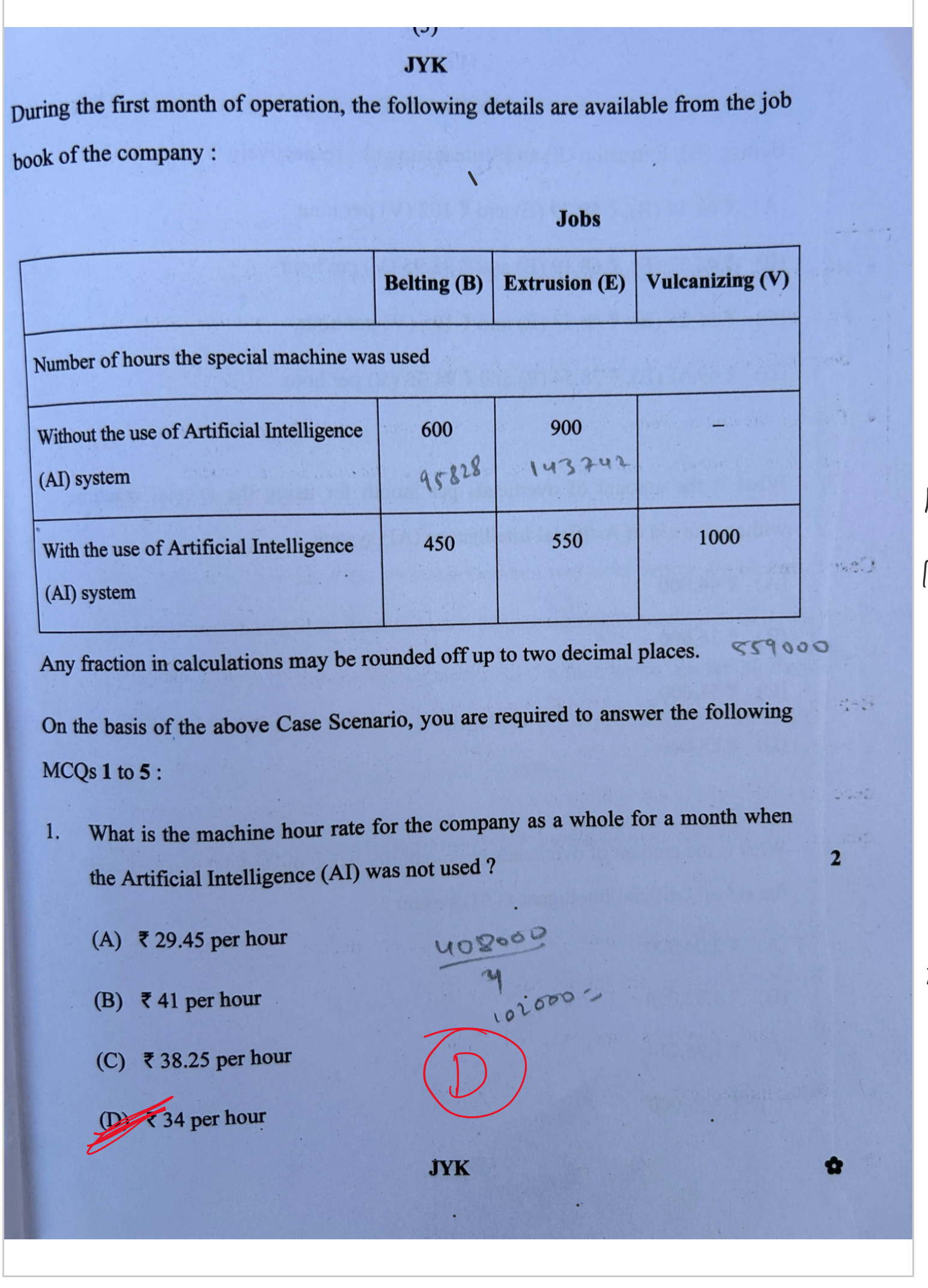
- ***Answers to MCQs are to be marked on the OMR answer sheet as given on the cover page of the descriptive answer book only. Answer to MCQs, if written inside the descriptive answer book shall not be evaluated.***
- ***Please write and darken correct MCQ booklet number in the OMR answer sheet. The correct MCQ booklet number must also be written in the attendance register.***

Case Scenario – I :

Safety First Tyre Company is the manufacturer of 'Puncture Resistant' motorcycle tyres. In the manufacturing process, it undertakes three different jobs namely, Belting (B), Extrusion (E) and Vulcanizing (V). All the three jobs require the use of a special machine and also the use of Artificial Intelligence (AI) system when necessary. The AI system is hired from outside and the hire charges paid for every quarter is ₹ 4,08,000. An estimate of overhead expenses relating to the special machine is given below :

- The cost of the special machine is ₹ 66,00,000 and depreciation is charged @ 10% per annum on straight line basis. 495000
- Rent paid for every six months is ₹ 1,38,000. 23000
- Other indirect expenses per annum ₹ 4,92,000. 41000

JYK



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During the first month of operation, the following details are available from the job book of the company :

Jobs

	Belting (B)	Extrusion (E)	Vulcanizing (V)
Number of hours the special machine was used			
Without the use of Artificial Intelligence (AI) system	600	900	–
With the use of Artificial Intelligence (AI) system	450	550	1000

Any fraction in calculations may be rounded off up to two decimal places. 559000

On the basis of the above Case Scenario, you are required to answer the following MCQs **1** to **5** :

1. What is the machine hour rate for the company as a whole for a month when the Artificial Intelligence (AI) was not used ? **2**

(A) ₹ 29.45 per hour

(B) ₹ 41 per hour

(C) ₹ 38.25 per hour

(D) ₹ 34 per hour

408000/4 = 102000

D

JYK

600+900+450
+550+1000
= 3500 Hr

MHrs (without AI) = 1500 Hr

MHrs (with AI) = 2000 Hr

Machine Expenses (per month)

Rent $(1,38,000/6)$ = 23000

Dep $(66,00,000 \times 10\% \times 1/12)$ = 55,000

Indirect Exp $\left(\frac{4,92,000}{12}\right)$ = 41,000

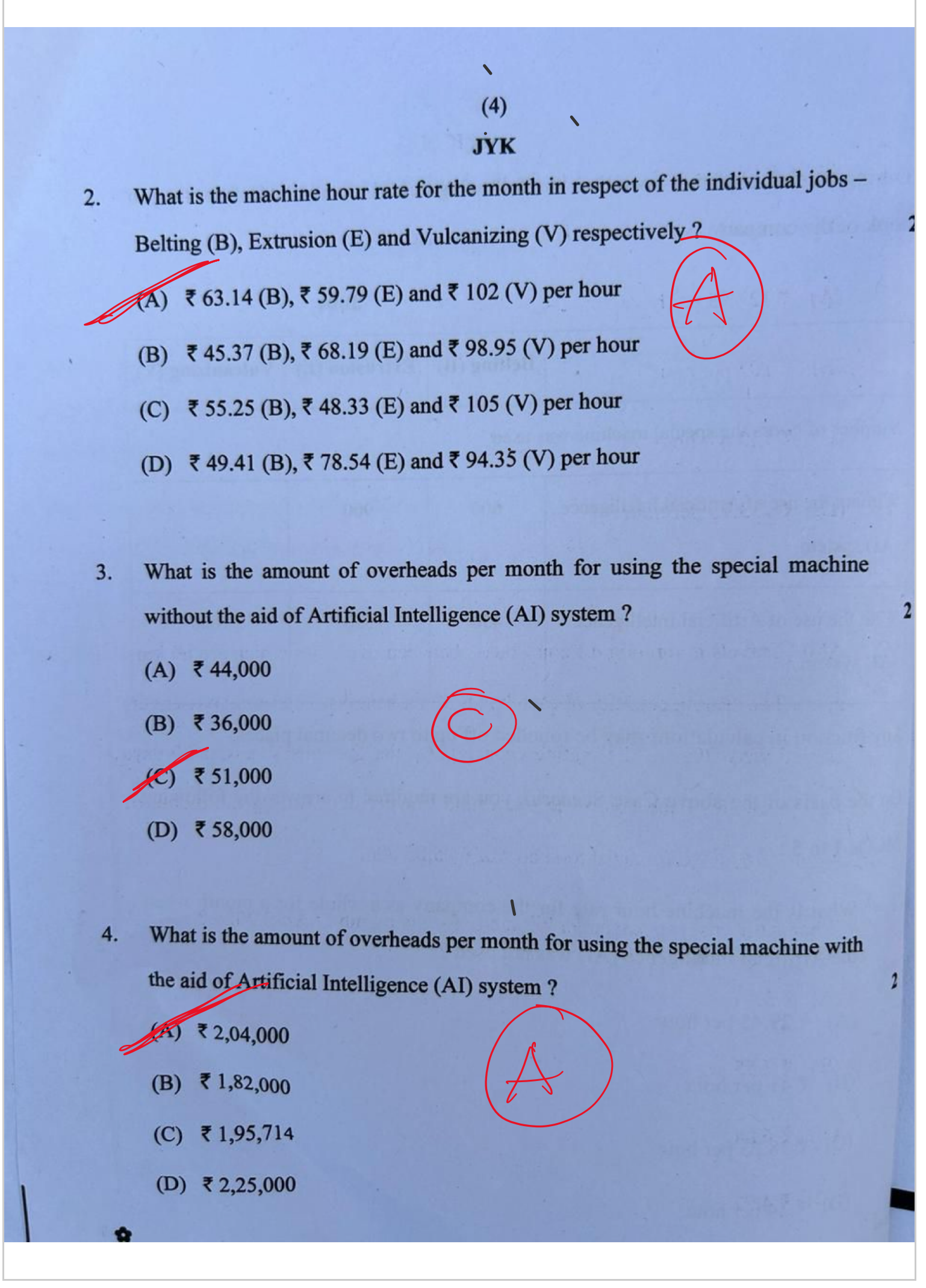
1,19,000

AI Hiring Charge $(4,08,000/3)$ 1,36,000

③ $\frac{1,19,000 \times 1500}{3500}$

= 51,000

$\frac{51,000}{1500\ Hr}$



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2. What is the machine hour rate for the month in respect of the individual jobs – Belting (B), Extrusion (E) and Vulcanizing (V) respectively ? **2**

(A) ₹ 63.14 (B), ₹ 59.79 (E) and ₹ 102 (V) per hour

(B) ₹ 45.37 (B), ₹ 68.19 (E) and ₹ 98.95 (V) per hour

(C) ₹ 55.25 (B), ₹ 48.33 (E) and ₹ 105 (V) per hour

(D) ₹ 49.41 (B), ₹ 78.54 (E) and ₹ 94.35 (V) per hour

A

3. What is the amount of overheads per month for using the special machine without the aid of Artificial Intelligence (AI) system ? **2**

(A) ₹ 44,000

(B) ₹ 36,000

(C) ₹ 51,000

(D) ₹ 58,000

C

4. What is the amount of overheads per month for using the special machine with the aid of Artificial Intelligence (AI) system ? **2**

(A) ₹ 2,04,000

(B) ₹ 1,82,000

(C) ₹ 1,95,714

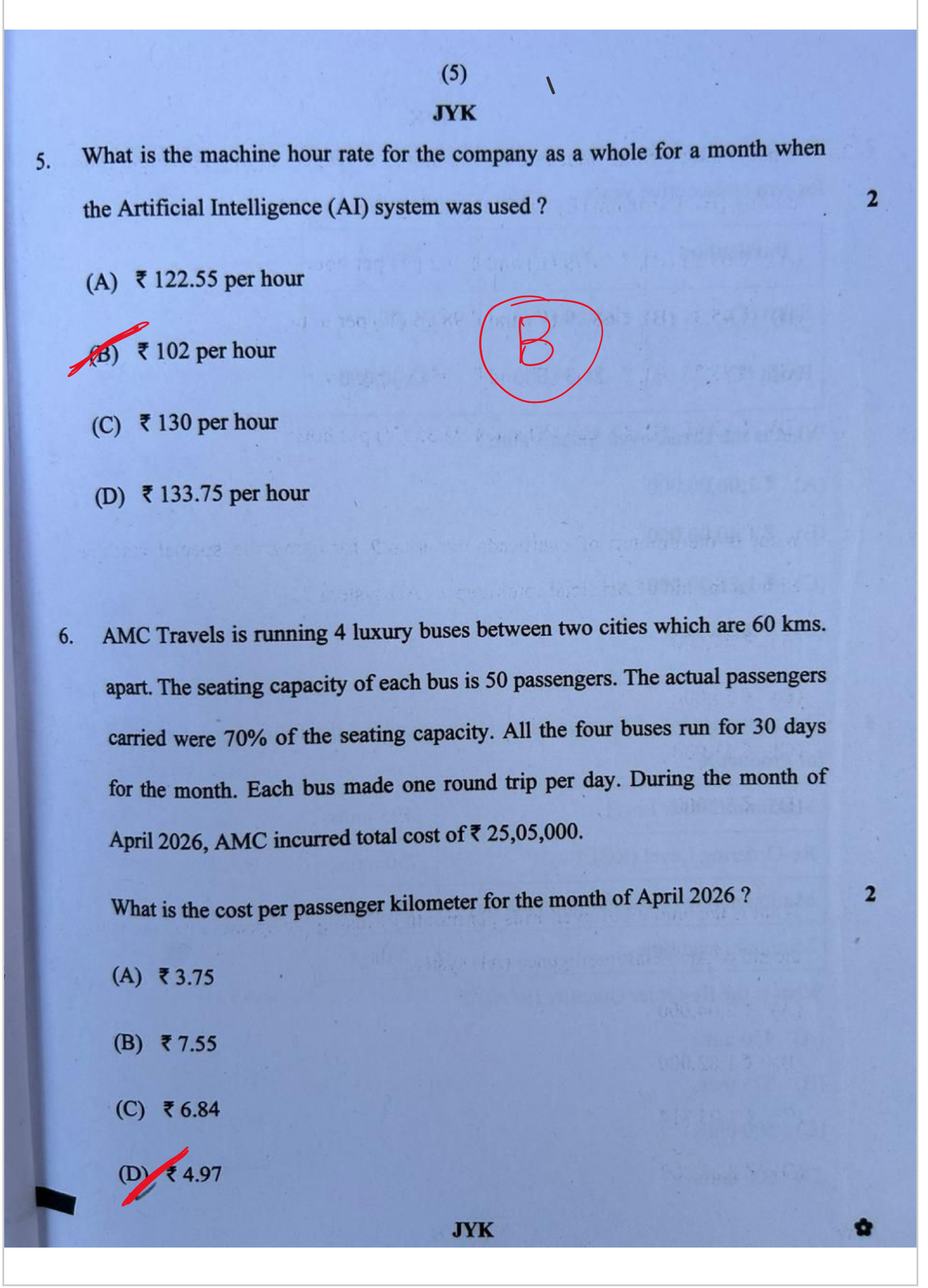
(D) ₹ 2,25,000

A

$\frac{1,19,000 \times 2000}{3500} + 1,36,000$

= 2,04,000

$\frac{2,04,000}{2000\ Hr}$ =



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5. What is the machine hour rate for the company as a whole for a month when the Artificial Intelligence (AI) system was used ? **2**

(A) ₹ 122.55 per hour

(B) ₹ 102 per hour

(C) ₹ 130 per hour

(D) ₹ 133.75 per hour

B

6. AMC Travels is running 4 luxury buses between two cities which are 60 kms. apart. The seating capacity of each bus is 50 passengers. The actual passengers carried were 70% of the seating capacity. All the four buses run for 30 days for the month. Each bus made one round trip per day. During the month of April 2026, AMC incurred total cost of ₹ 25,05,000.

What is the cost per passenger kilometer for the month of April 2026 ? **2**

(A) ₹ 3.75

(B) ₹ 7.55

(C) ₹ 6.84

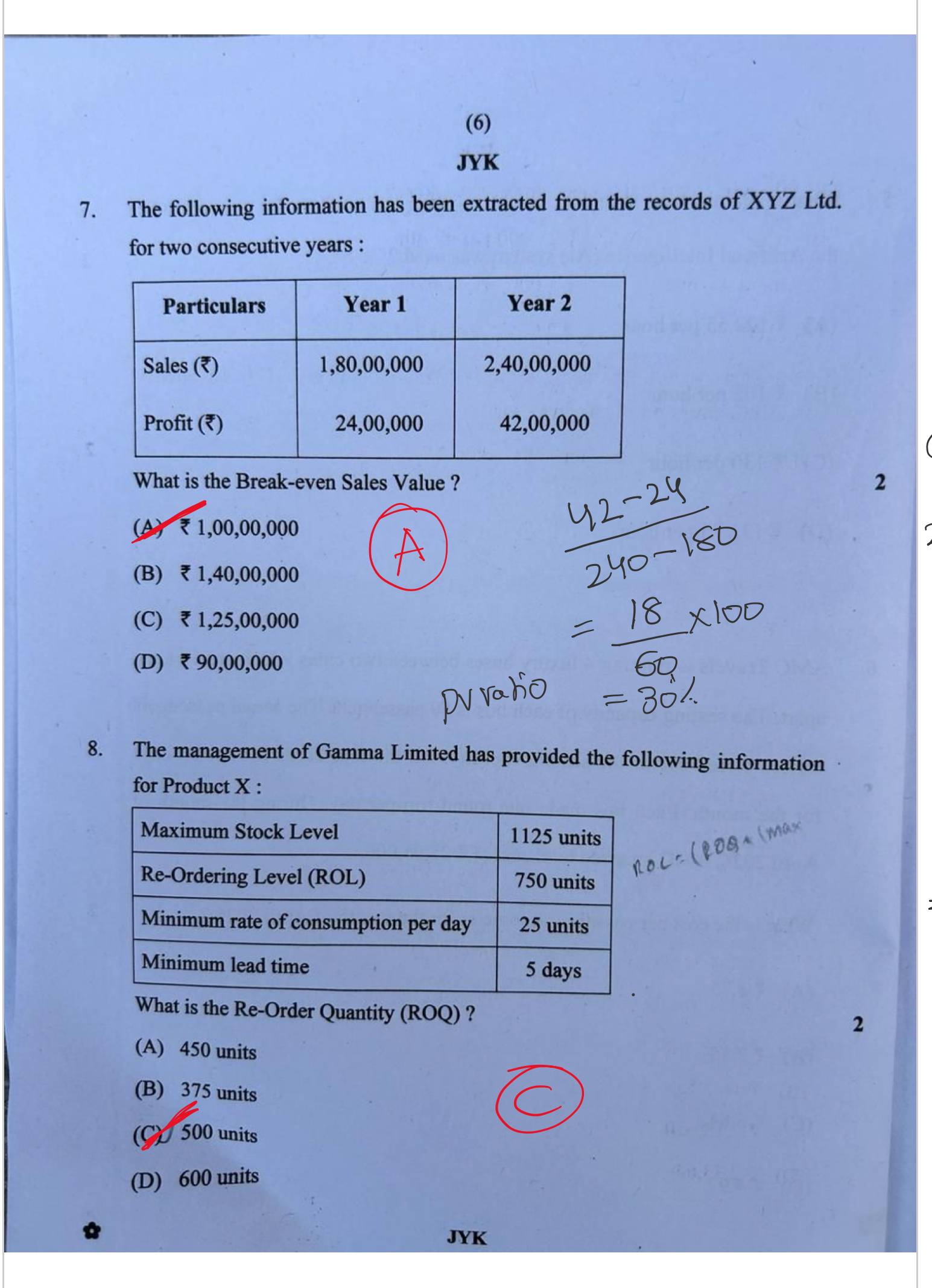
(D) ₹ 4.97

JYK

$4 \times 1 \times 2 \times 30 \times 60 \times 50 \times 70\%$
= 5,04,000 passg km

Cost/passg km = $\frac{25,05,000}{5,04,000\ passg\ km}$

= 4.97/passg km



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7. The following information has been extracted from the records of XYZ Ltd. for two consecutive years :

Particulars	Year 1	Year 2
Sales (₹)	1,80,00,000	2,40,00,000
Profit (₹)	24,00,000	42,00,000

What is the Break-even Sales Value ? **2**

(A) ₹ 1,00,00,000

(B) ₹ 1,40,00,000

(C) ₹ 1,25,00,000

(D) ₹ 90,00,000

A

$\frac{42-24}{240-180}$

$= \frac{18}{60} \times 100$

PV ratio = 30%

8. The management of Gamma Limited has provided the following information for Product X :

Maximum Stock Level	1125 units
Re-Ordering Level (ROL)	750 units
Minimum rate of consumption per day	25 units
Minimum lead time	5 days

What is the Re-Order Quantity (ROQ) ? **2**

(A) 450 units

(B) 375 units

(C) 500 units

(D) 600 units

C

JYK

Profit = Cont − FC

24,00,000 = 1,80,00,000 × 30% − FC

Fixed Cost = 30,00,000

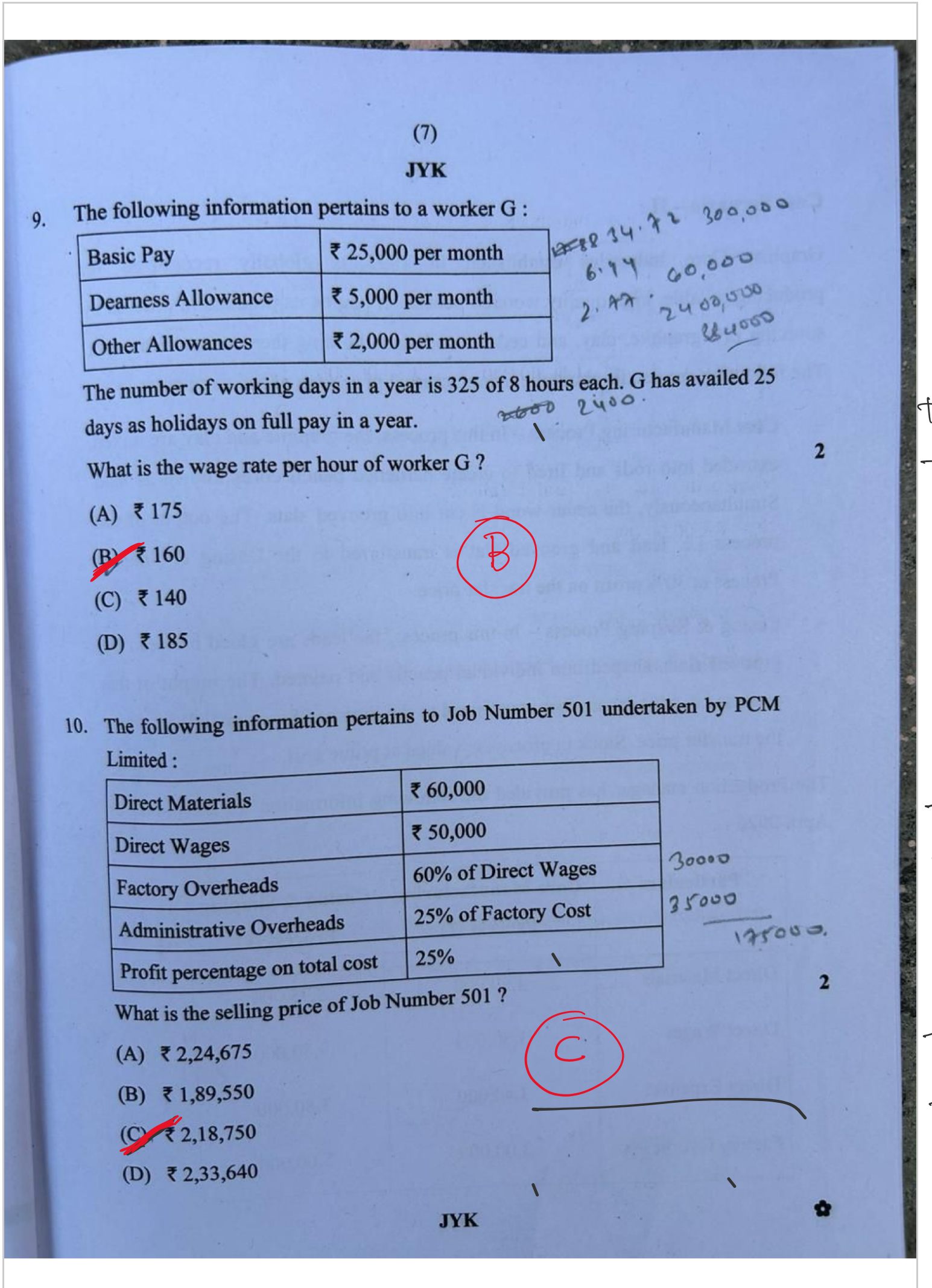
BEP = $\frac{FC}{PV\ ratio} = \frac{30L}{30\%}$

= 1 crore

Max Level = ROL + ROQ − (min con × Min Lead time)

⇒ 1125 = 750 + ROQ − (25×5)

⇒ ROQ = 500 units ✓



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9. The following information pertains to a worker G :

Basic Pay	₹ 25,000 per month
Dearness Allowance	₹ 5,000 per month
Other Allowances	₹ 2,000 per month

300,000
60,000
24000
384000

The number of working days in a year is 325 of 8 hours each. G has availed 25 days as holidays on full pay in a year. 2400

What is the wage rate per hour of worker G ? **2**

(A) ₹ 175

(B) ₹ 160

(C) ₹ 140

(D) ₹ 185

B

10. The following information pertains to Job Number 501 undertaken by PCM Limited :

Direct Materials	₹ 60,000
Direct Wages	₹ 50,000
Factory Overheads	60% of Direct Wages
Administrative Overheads	25% of Factory Cost
Profit percentage on total cost	25%

30000
35000
175000

What is the selling price of Job Number 501 ? **2**

(A) ₹ 2,24,675

(B) ₹ 1,89,550

(C) ₹ 2,18,750

(D) ₹ 2,33,640

C

JYK

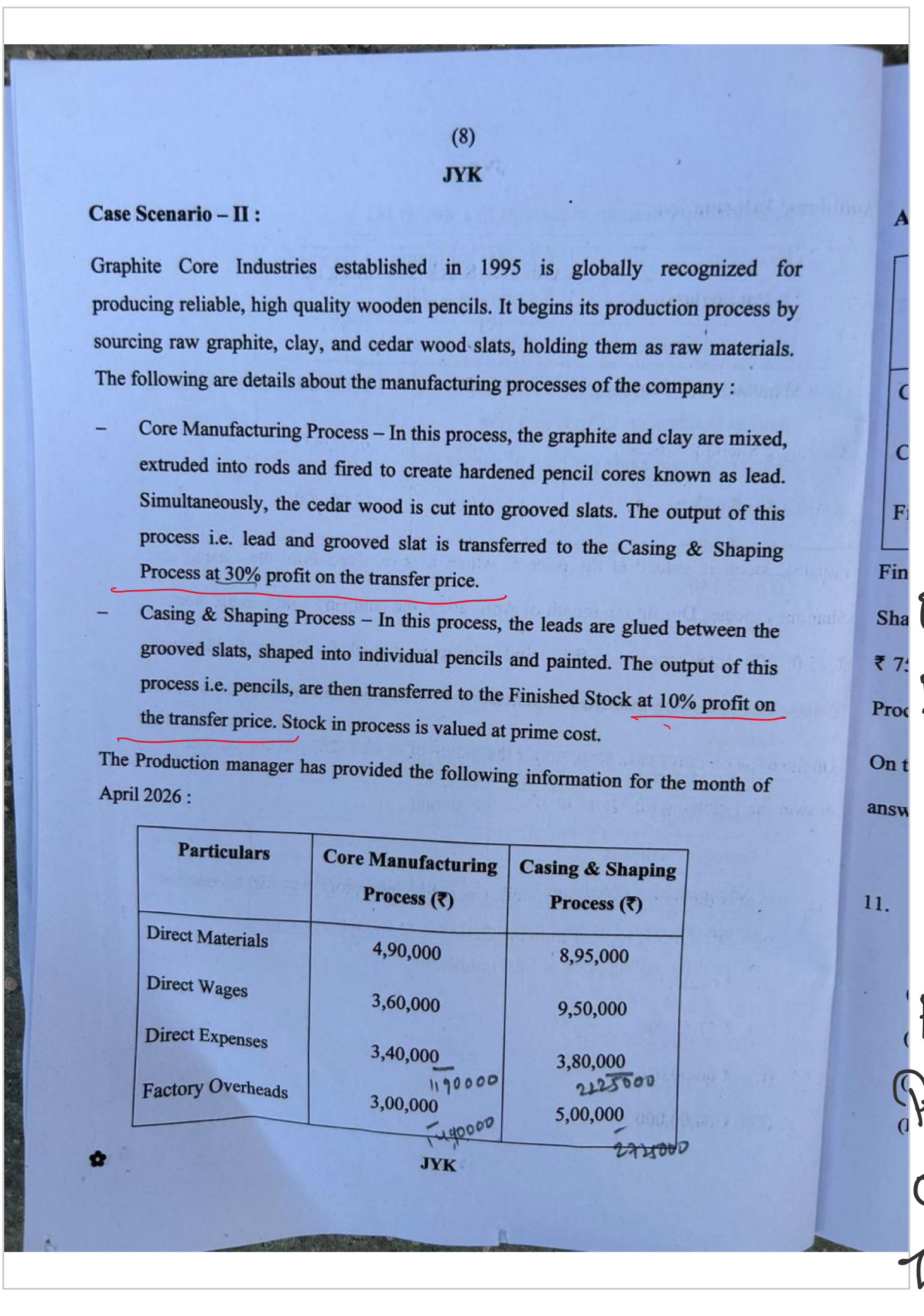
325
− 25
300 × 8
= 2400 Hr

Basic 25000×12 = 3,00,000
+ DA 5000×12 = 60,000
+ Other allowance 2000×12 = 24,000
3,84,000

Wage Rate/Hr = $\frac{3,84,000}{2400\ Hr}$

= 160/Hr ✓

60,000
+ 50,000
+ 30,000
1,40,000 Factory cost
+ 35,000 Admin OH
TC 1,75,000
+25% 43,750
2,18,750



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Case Scenario – II :

Graphite Core Industries established in 1995 is globally recognized for producing reliable, high quality wooden pencils. It begins its production process by sourcing raw graphite, clay, and cedar wood slats, holding them as raw materials. The following are details about the manufacturing processes of the company :

- Core Manufacturing Process – In this process, the graphite and clay are mixed, extruded into rods and fired to create hardened pencil cores known as lead. Simultaneously, the cedar wood is cut into grooved slats. The output of this process i.e. lead and grooved slat is transferred to the Casing & Shaping Process at 30% profit on the transfer price.
- Casing & Shaping Process – In this process, the leads are glued between the grooved slats, shaped into individual pencils and painted. The output of this process i.e. pencils, are then transferred to the Finished Stock at 10% profit on the transfer price. Stock in process is valued at prime cost.

The Production manager has provided the following information for the month of April 2026 :

Particulars	Core Manufacturing Process (₹)	Casing & Shaping Process (₹)
Direct Materials	4,90,000	8,95,000
Direct Wages	3,60,000	9,50,000
Direct Expenses	3,40,000	3,80,000
Factory Overheads	3,00,000	5,00,000

1190000 · 1490000 · 2225000 · 2725000

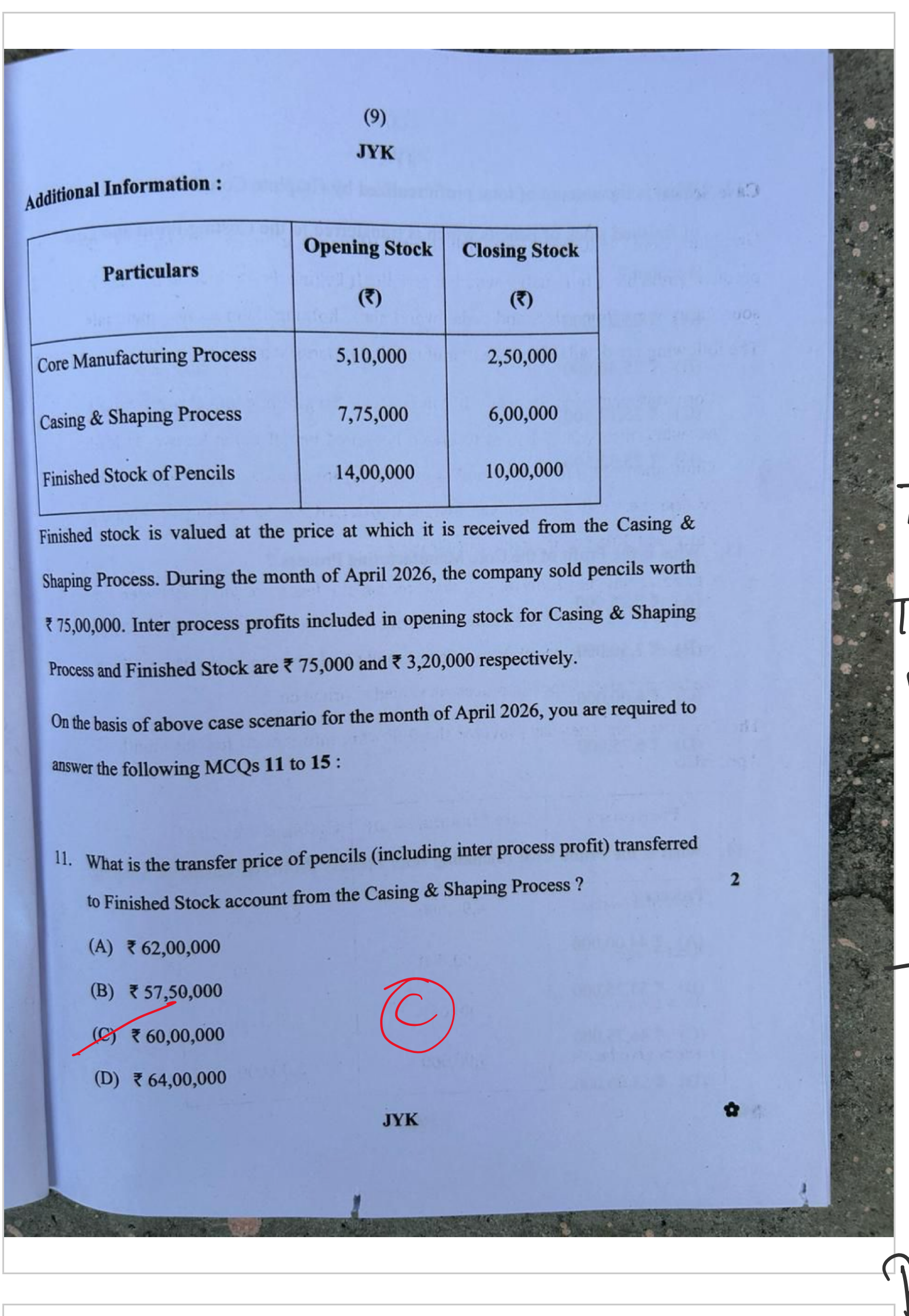
JYK

Core Mfrg Process

Total	Cost	Profit		Total	Cost	Profit
OP 5,10,000	5,10,000	—	By	25,00,000	17,50,000	7,50,000
DM 4,90,000	4,90,000	—				
DW 3,60,000	3,60,000	—	By Cl. St	2,50,000	2,50,000	—
DE 3,40,000	3,40,000	—				
PC 17,00,000	17,00,000	—				
FOH 3,00,000	3,00,000	—				
Process Cost 20,00,000	20,00,000					
Com profit 7,50,000		7,50,000				
27,50,000	20,00,000	7,50,000		27,50,000	20,000	7,50,000

17,50,000

70 C
30 P
100 TP = $\frac{17,50,000 \times 30}{70}$
= 7,50,000



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Additional Information :

Particulars	Opening Stock (₹)	Closing Stock (₹)
Core Manufacturing Process	5,10,000	2,50,000
Casing & Shaping Process	7,75,000	6,00,000
Finished Stock of Pencils	14,00,000	10,00,000

Finished stock is valued at the price at which it is received from the Casing & Shaping Process. During the month of April 2026, the company sold pencils worth ₹ 75,00,000. Inter process profits included in opening stock for Casing & Shaping Process and Finished Stock are ₹ 75,000 and ₹ 3,20,000 respectively.

On the basis of above case scenario for the month of April 2026, you are required to answer the following MCQs **11** to **15** :

11. What is the transfer price of pencils (including inter process profit) transferred to Finished Stock account from the Casing & Shaping Process ? **2**

(A) ₹ 62,00,000

(B) ₹ 57,50,000

(C) ₹ 60,00,000

(D) ₹ 64,00,000

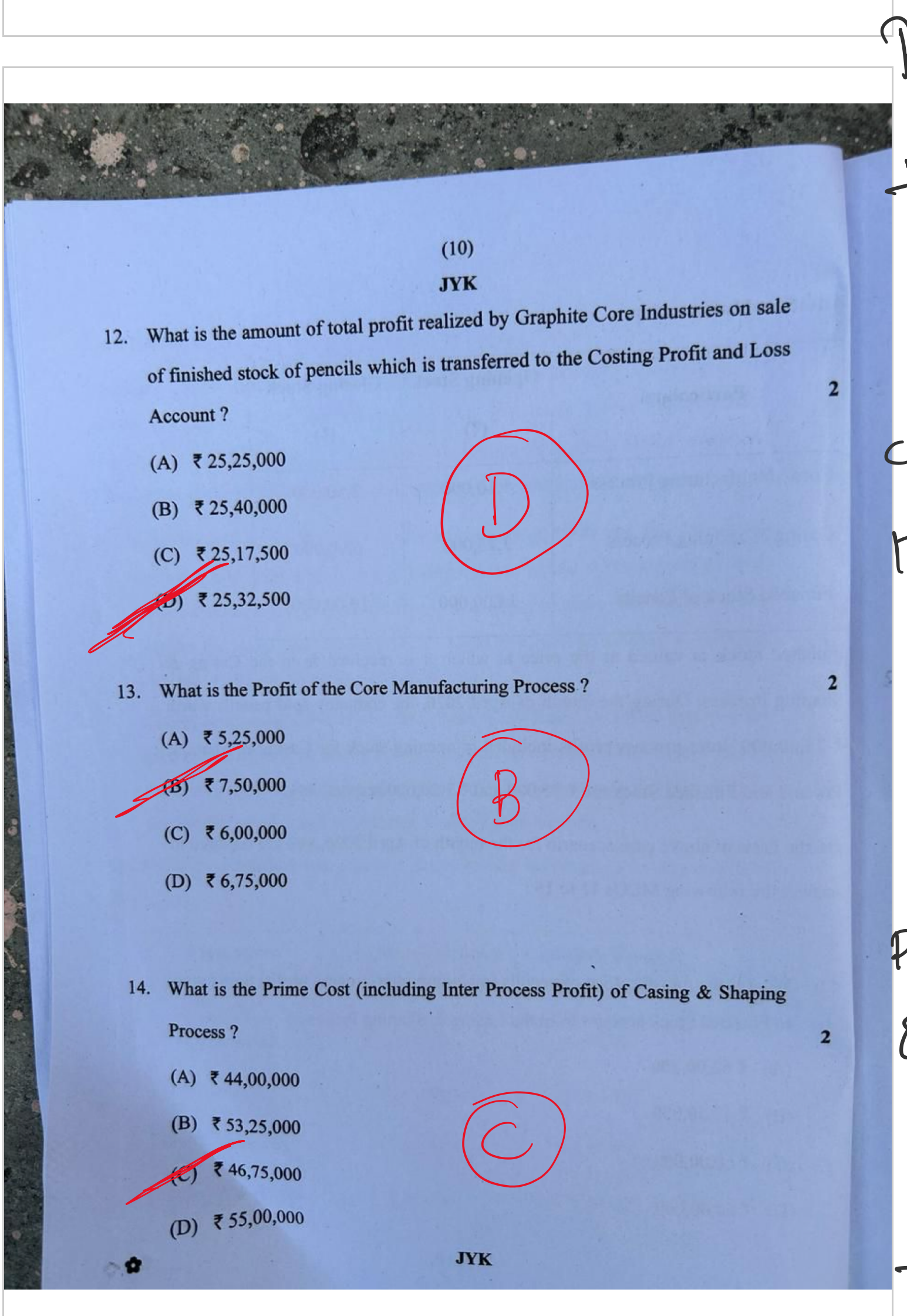
C

JYK

Casing & Shaping Process

Total	Cost	Profit		Total	Cost	Profit
To P-I 25,00,000	17,50,000	7,50,000	By F Stk			
To OP 7,75,000	7,00,000	75,000				
DM 8,95,000	8,95,000	—				
DW 9,50,000	9,50,000	—				
DE 3,80,000	3,80,000	—				
55,00,000	46,75,000	8,25,000				
− Cl. Stock 6,00,000	5,10,000	90,000				
49,00,000	41,65,000	7,35,000				
+ FOH 5,00,000	5,00,000	—				
Process Cost 54,00,000	46,65,000	7,35,000				
+ Com Profit 6,00,000		6,00,000				
60,00,000	46,65,000	13,35,000				

90 C 54,00,000
10 P 6,00,000
100 TP 60,00,000



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12. What is the amount of total profit realized by Graphite Core Industries on sale of finished stock of pencils which is transferred to the Costing Profit and Loss Account ? **2**

(A) ₹ 25,25,000

(B) ₹ 25,40,000

(C) ₹ 25,17,500

(D) ₹ 25,32,500

D

13. What is the Profit of the Core Manufacturing Process ? **2**

(A) ₹ 5,25,000

(B) ₹ 7,50,000

(C) ₹ 6,00,000

(D) ₹ 6,75,000

B

14. What is the Prime Cost (including Inter Process Profit) of Casing & Shaping Process ? **2**

(A) ₹ 44,00,000

(B) ₹ 53,25,000

(C) ₹ 46,75,000

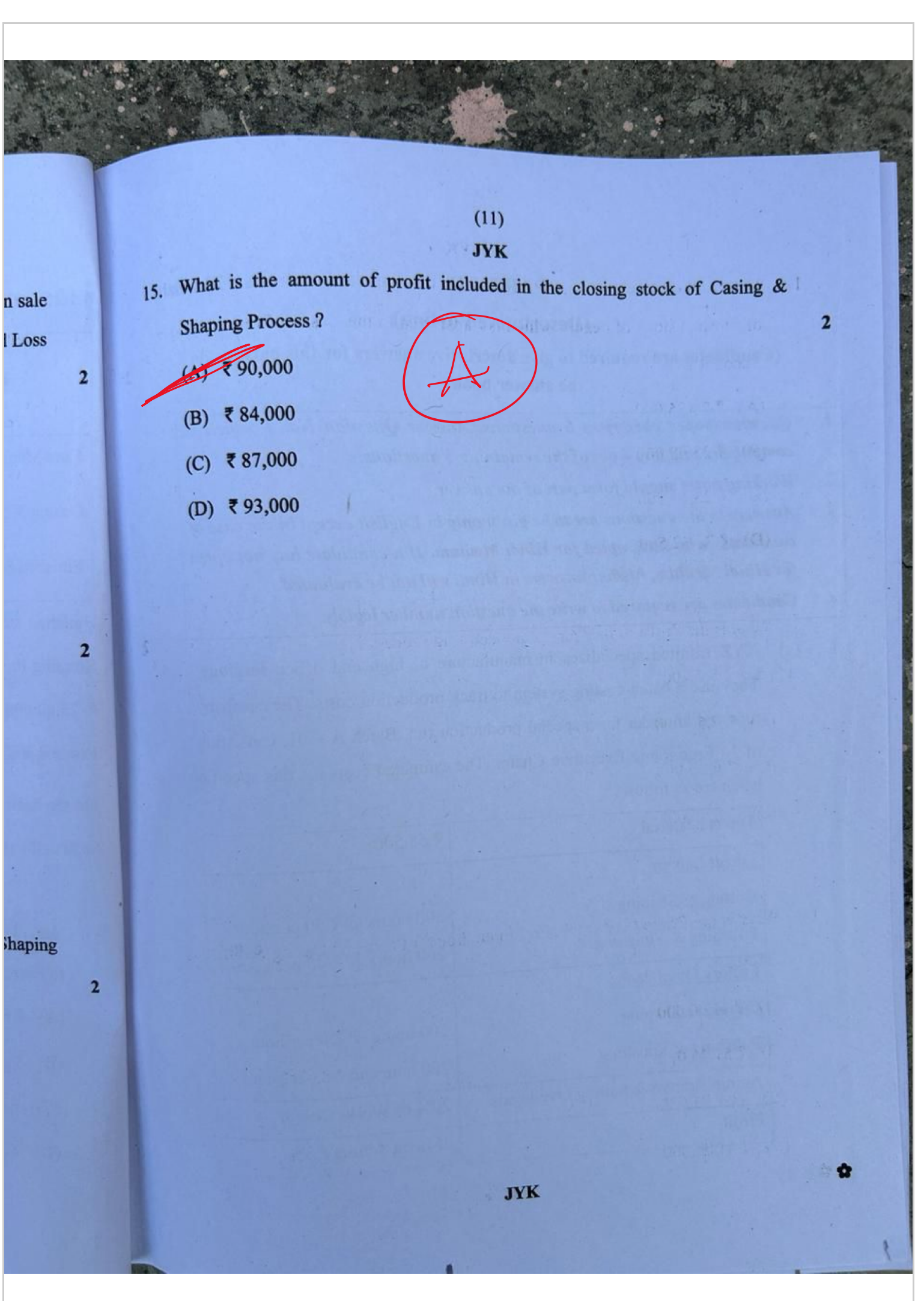
(D) ₹ 55,00,000

C

JYK

Finish Stk A/c

I	C	P		I	C	P
P-II 60,00,000	46,65,000	13,35,000		75,00,000		
OP 14,00,000	10,80,000	3,20,000				
74,00,000	57,45,000	16,55,000				
Cl. S 10,00,000	7,77,500	2,22,500				
64,00,000	49,67,500	14,32,500				



(11)

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15. What is the amount of profit included in the closing stock of Casing & Shaping Process ? **2**

(A) ₹ 90,000

(B) ₹ 84,000

(C) ₹ 87,000

(D) ₹ 93,000

A

JYK