

Spardhaguru Skill Edge Aptitude Academy

1st Floor, 608, Panchamantra Rd, P and T Block, Jayanagar, Kuvempunagara, Mysuru, Karnataka 570023

Tier 1: RBI Grade B / Assistant Level (Logical Twists & Advanced Efficiency)

Q1 (RBI Grade B): Two pipes A and B can fill a cistern in 12 min and 16 min respectively. Both are opened together, but due to a partial block, only $\frac{7}{8}$ of full water flows through A and $\frac{5}{6}$ through B. After a certain time, the block is suddenly removed, and the cistern is filled in 3 minutes. How long after opening were the pipes operating under restricted flow?

- A) $4\frac{1}{2}$ min B) $5\frac{1}{2}$ min
C) $7\frac{1}{2}$ min D) $6\frac{1}{2}$ min

Q2 (RBI Grade B): A swimming pool is filled by 3 pipes. The first two pipes operating together take the same time to fill the pool as the third pipe alone. The second pipe fills the pool 5 hours faster than the first pipe and 4 hours slower than the third pipe. Find the time required by the first pipe alone.

- A) 10 hours B) 15 hours
C) 18 hours D) 20 hours

Q3 (RBI Grade B): Three pipes P, Q, and R can separately fill a cistern in 4, 8, and 12 hours. Pipe S can empty the full cistern in 10 hours. Which combination of pipes opened together will fill the empty cistern in the shortest time?

- A) P, Q, and S B) Q alone
C) P and S D) P, R, and S

Q4 (RBI Assistant): A cistern has three pipes A, B, and C. A and B can fill it in 3 hours and 4 hours respectively, while C can empty the full cistern in 1 hour. If they are opened in order at 3:00 PM, 4:00 PM, and 5:00 PM respectively, at what time will the cistern be empty?

- A) 8:12 PM B) 7:12 PM
C) 6:15 PM D) 8:35 PM

Q5 (RBI Grade B): Two pipes A and B can fill a tank in 24 min and 32 min respectively. Both are opened simultaneously, but after some time pipe B is closed so that the tank is filled in total 18 minutes. After how many minutes was B closed?

- A) 8 min B) 6 min
C) 4 min D) 2 min

Q6 (RBI Assistant): A tank is filled by two pipes A and B in 60 min and 40 min respectively. B is used for the first half of the total time taken to fill the tank, and both A and B fill it together for the second half. Find the total time taken to fill the tank from empty state.

- A) 20 mins B) 30 mins
C) 25 mins D) 15 mins

Q7 (RBI Grade B): Pipe A is 6 times faster than pipe B and takes 25 minutes less than pipe B to fill a tank. Find the time taken to fill the tank when both pipes are opened together.

- A) $\frac{30}{7}$ min B) $\frac{150}{7}$ min
C) $\frac{45}{7}$ min D) $\frac{25}{7}$ min

Q8 (RBI Assistant): Three taps A, B, and C connected to a tank. A and B together take 6 hours, B and C take 10 hours, and A and C take 7.5 hours to fill the tank. In how much time can C alone fill the tank?

- A) 12 hours B) 20 hours
C) 30 hours D) 10 hours

Q9 (RBI Grade B): Two pipes A and B can fill a tank in 15 h and 20 h respectively, while a third pipe C can empty it in 25 h. All three pipes are opened together, and after 10 h, pipe C is closed. In how much time total will the tank be filled?

- A) 12 h B) 14 h
C) 16 h D) 18 h

Q10 (RBI Assistant): A pump can fill a water tank in 2 hours. Due to a leak, it takes $\frac{7}{3}$ hours to fill the tank. In how many hours can the leak alone empty the full tank?

- A) 12 hours B) 14 hours
C) 16 hours D) 18 hours

Tier 2: Banking Sector (IBPS/SBI PO & Clerk Level)

Q11 (IBPS PO): Two pipes A and B can fill a tank in 20 and 30 minutes respectively. Both are kept open for 10 minutes, and then pipe A is shut off. How much more time will pipe B take to fill the remaining tank?

- A) 8 minutes B) 10 minutes
C) 12 minutes D) 15 minutes

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Q12 (SBI PO): Taps A and B can fill a bucket in 12 minutes and 15 minutes respectively. Both are opened, and A is closed after 3 minutes. How much further time will B take to fill the bucket?

- A) 6 min 15 sec B) 7 min 15 sec
C) 8 min 15 sec D) 5 min 15 sec

Q13 (IBPS Clerk): Pipe A can fill a tank in 10 min and pipe B can empty it in 15 min. If both are opened in an empty tank, the time taken to fill the tank is:

- A) 20 min B) 25 min
C) 30 min D) 35 min

Q14 (SBI Clerk): A tap can fill a tank in 6 hours. After half the tank is filled, 3 more similar taps are opened. What is the total time taken to fill the tank completely?

- A) 3 hours 45 mins B) 3 hours 30 mins
C) 2 hours 45 mins D) 2 hours 30 mins

Q15 (IBPS PO): Pipe A can fill a tank in 5 hours, pipe B in 10 hours, and pipe C in 30 hours. If all three are open, in how many hours will the tank be filled?

- A) 2.5 hours B) 3 hours
C) 3.5 hours D) 2 hours

Q16 (SBI PO): Pipes A and B fill a tank in 15 min and 12 min respectively. Pipe C empties at 2 L/min. If all three are opened, the tank is filled in $8\frac{4}{7}$ min (or 60/7 min). Find the capacity of the tank.

- A) 75 L B) 60 L
C) 90 L D) 80 L

Q17 (IBPS Clerk): Two pipes can fill a tank in 10 h and 16 h respectively, and a third can empty it in 32 h. If all three function simultaneously, time taken to fill the tank is:

- A) $7\frac{3}{13}$ h B) $6\frac{5}{13}$ h
C) $8\frac{4}{13}$ h D) $7\frac{5}{13}$ h

Q18 (SBI Clerk): One-fourth of a tank can be filled in 3 hours by pipe A, and one-third of the same tank can be filled in 2 hours by pipe B. How long will it take for the tank to be filled if both are open?

- A) $2\frac{1}{2}$ h B) 2 h
C) 4 h D) 5 h

Q19 (IBPS PO): Pipe A alone can fill a tank in 20 h, B in 10 h, and A, B, C together in 7.5 h. How many hours will C alone take to empty the full tank?

- A) 45 h B) 30 h
C) 60 h D) 90 h

Q20 (SBI PO): Two pipes A and B can fill a cistern in 4 hours and 5 hours respectively. After how much time must pipe B be closed so that the cistern is filled in 3 hours completely?

- A) 1.25 h B) 2.5 h
C) 3 h D) 3.5 h

Tier 3: Railway NTPC & Group D Level (Standard & Speed-Oriented)

Q21 (RRB NTPC): A bath tub is filled by pipe A in 4 min and emptied by pipe B in 5 min. If both are opened together, time taken to fill is:

- A) 15 min B) 20 min
C) 25 min D) 18 min

Q22 (RRB Group D): Tap A and B can fill a tank in 2 h and 5 h respectively, and C can empty in 8 h. If all are open, time to fill is:

- A) $\frac{40}{13}$ h B) $\frac{30}{11}$ h
C) $\frac{25}{9}$ h D) $\frac{35}{12}$ h

Q23 (RRB ALP): Tap M and N together fill a cistern in $\frac{48}{13}$ min. N alone fills in 6 min. How much time will M alone take?

- A) 9 min B) 9.4 min
C) 9.6 min D) 8.6 min

Q24 (RRB Group D): A tank has two inlets filling in 7 h and 9 h, and an outlet emptying in 21 h. Time taken to fill the empty tank when all three are open:

- A) $4\frac{7}{16}$ h B) $5\frac{1}{16}$ h
C) $4\frac{9}{16}$ h D) $4\frac{5}{16}$ h

Q25 (RRB NTPC): Two pipes fill a tank in 20 min and 24 min, and a third empties at 3 gallon/min. If all are open, tank fills in 15 min. Capacity of tank is:

- A) 180 gallons B) 150 gallons
C) 120 gallons D) 60 gallons

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Q26 (RRB Group D): A tank is filled by two pipes in 20 min and 30 min. If both are open, time taken is:

- A) 10 min B) 12 min
C) 15 min D) 20 min

Q27 (RRB NTPC): A cistern is filled in 9 hours but due to a leak takes 10 hours. Time leak takes to empty the full cistern:

- A) 20 hours B) 80 hours
C) 90 hours D) 100 hours

Q28 (RRB Group D): Two pipes can fill a tank in 2 h and 3 h. If both are opened together, time taken is:

- A) 1.20 h B) 1.12 h
C) 1.50 h D) 1.25 h

Q29 (RRB ALP): Pipe A can fill a tank in 16 h while pipe B empties it in 32 h. Time taken to fill the empty tank if both are open:

- A) 16 h B) 32 h
C) 48 h D) 64 h

Q30 (RRB Group D): Two pipes fill at 2 L/min and 3 L/min, and a third empties at 6 L/min. Tank capacity is 100 L. When full, all three are open; time to empty is:

- A) 50 min B) 75 min
C) 100 min D) 125 min

Tier 4: SSC CGL Tier 1 & Tier 2 Level

Q31 (SSC CGL): Pipe A can fill a tank in 10 min and pipe B can empty in 15 min. Opened in an empty tank, time taken:

- A) 20 min B) 25 min
C) 30 min D) None of these

Q32 (SSC CHSL): An electric pump fills a tank in 3 hours. Due to a leak, it takes $3\frac{1}{2}$ hours. Time leak takes to empty:

- A) 12 h B) 21 h
C) 24 h D) 10.5 h

Q33 (SSC CGL): A cistern is normally filled in 8 h but takes 2 h more due to a leak. If full, time leak takes to empty:

- A) 16 h B) 20 h
C) 32 h D) 40 h

Q34 (SSC CPO): Two pipes A and B fill in 4 h and 5 h. After what time must B be closed so cistern fills in 3 h?

- A) 1.25 h B) 2.5 h
C) 3 h D) 3.5 h

Q35 (SSC CGL): Two pipes A and B fill a tank in 6 h and 4 h. Opened alternately for 1 h each starting with A, time taken:

- A) 4 h B) 5 h
C) $4\frac{1}{2}$ h D) $5\frac{1}{2}$ h

Q36 (SSC CHSL): Two pipes A and B fill in 24 min and 32 min. After how much time should B be closed so tank fills in 18 min?

- A) 2 min B) 4 min
C) 6 min D) 8 min

Q37 (SSC CGL): A tank has two pipes, first fills in 45 min, second empties in 1 h (60 min). Opened in alternate minutes, time to fill empty tank:

- A) 2 h 55 min B) 3 h 40 min
C) 4 h 48 min D) 5 h 53 min

Q38 (SSC CPO): Three pipes A, B, C fill a tank in 6 h. After working together for 2 h, C is closed and A & B fill remaining in 8 h. Time C alone takes:

- A) 8 h B) 9 h
C) 10 h D) 12 h

Q39 (SSC MTS): Three pipes A, B, C fill in 30, 20, 10 min. Chemical solutions P, Q, R are discharged. Part of solution R in tank after 3 min is:

- A) $\frac{3}{11}$ B) $\frac{6}{11}$
C) $\frac{4}{11}$ D) $\frac{5}{11}$

Q40 (SSC CGL): If pipe A is 5 times faster than pipe B and takes 32 min less, time taken when both are open:

- A) $6\frac{2}{3}$ min B) $5\frac{1}{3}$ min
C) $4\frac{2}{3}$ min D) $3\frac{1}{3}$ min

Tier 5: FCI (Food Corporation of India) Level

Q41 (FCI Assistant Grade III): Two pipes A and B can fill a cistern in 10 and 15 minutes. If both are open, time to fill is:

- A) 5 min B) 6 min
C) 8 min D) 12 min

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Q42 (FCI Manager): A tank is filled by an inlet in 5 hours and emptied by an outlet in 4 hours when full. If both are open in an empty tank, what happens?

- A) Fills in 20 hours B) Empties in 20 hours
C) Cannot be filled D) Fills in 10 hours

Q43 (FCI Depot): Three taps fill a tank in 12, 15, and 20 hours. Time taken together:

- A) 3 hours B) 4 hours
C) 5 hours D) 6 hours

Q44 (FCI Assistant): A tap fills a tank in 12 hours. Due to a leak, it fills in 15 hours. Time leak takes to empty:

- A) 40 hours B) 50 hours
C) 60 hours D) 80 hours

Q45 (FCI Manager): Pipe A fills in 10 min, B in 20 min, C empties in 30 min. All open together, time to fill:

- A) $9\frac{3}{7}$ min B) $8\frac{4}{7}$ min
C) $7\frac{2}{7}$ min D) $10\frac{1}{7}$ min

Q46 (FCI Depot): One pipe fills 3 times as fast as another. Together they fill in 36 min. Slower pipe alone takes:

- A) 132 min B) 140 min
C) 144 min D) 150 min

Q47 (FCI Assistant): A tank contains 20 gallons. A pump takes $(12 - x/10)$ min to pump x gallons out. Time to empty tank:

- A) $240 - 2x$ B) $222 - x$
C) Data inadequate D) None of these

Q48 (FCI Manager): Two pipes fill in 20 and 30 min. Kept open for 10 min, then first closed. Remaining filled in:

- A) 5 min B) 10 min
C) 15 min D) 8 min

Q49 (FCI Depot): A cistern filled in 8 h, but takes 2 h longer due to leak. Leak empties in:

- A) 16 h B) 20 h
C) 32 h D) 40 h

Q50 (FCI Assistant): Pipe A and B fill in 12 and 16 min. Opened for 4 min, then A closed. Extra time by B:

- A) $4\frac{1}{3}$ min B) $5\frac{1}{3}$ min
C) $6\frac{1}{3}$ min D) $7\frac{1}{3}$ min

Tier 6: Defense Exams (CDS, AFCAT, Agniveer)

Q51 (CDS): Two pipes A and B fill a tank in 6 h and 4 h. Opened alternatively for 1 h each starting with A:

- A) 4 h B) 5 h
C) $4\frac{1}{2}$ h D) $5\frac{1}{2}$ h

Q52 (AFCAT): An electric pump fills a tank in 3 hours. Due to a leak, it takes $3\frac{1}{2}$ hours. Leak empties in:

- A) 10 h B) 12 h
C) 21 h D) 24 h

Q53 (Agniveer Army): Pipe A fills in 20 min, B in 30 min. Together, time taken:

- A) 10 min B) 12 min
C) 15 min D) 18 min

Q54 (CDS): A cistern can be filled by a tap in 4 hours and emptied by another in 9 hours. Both opened simultaneously, time to get filled:

- A) 7.1 hours B) 7.2 hours
C) 7.3 hours D) 7.4 hours

Q55 (AFCAT): Two pipes fill a tank in 12 and 15 min. Opened together, A closed after 3 min. Further time by B:

- A) 5 min 15 sec B) 6 min 15 sec
C) 7 min 15 sec D) 8 min 15 sec

Q56 (CDS): Tap A is 6 times faster than B and fills tank in 25 min less. Time when both open:

- A) $\frac{30}{7}$ min B) $\frac{150}{7}$ min
C) $\frac{25}{7}$ min D) $\frac{45}{7}$ min

Q57 (Agniveer Navy): A tank is filled by 3 pipes. First two fill in same time as 3rd alone. 2nd fills 5 h faster than 1st and 4 h slower than 3rd. Time by 1st pipe:

- A) 10 h B) 15 h
C) 17 h D) 18 h

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Q58 (CDS): Two pipes A and B fill in 20 and 24 min. Third empties at 3 gal/min. All open, filled in 15 min. Capacity:

- A) 60 B) 120
C) 150 D) 180

Q59 (AFCAT): A tank has two inlets filling in 7 h and 9 h, and outlet emptying in 21 h. Time to fill:

- A) $4\frac{7}{13}$ h B) $4\frac{11}{13}$ h
C) $5\frac{2}{13}$ h D) $5\frac{5}{13}$ h

Q60 (CDS): Two pipes A and B fill in 5 h and 4 h. Opened on alternate hours with A first, total time:

- A) 4.0 h B) 4.5 h
C) 5.2 h D) 6.0 h

Tier 7: UP State Exams

(UPSSSC, UP Police, UPPCS CSAT)

Q61 (UP Police Constable): Two pipes A and B fill a tank in 10 and 15 minutes. Opened together, time taken:

- A) 5 min B) 6 min
C) 8 min D) 12 min

Q62 (UPSSSC PET): A tap fills a tank in 4 hours, another empties in 9 hours. Both open, time to fill:

- A) 7.0 h B) 7.1 h
C) 7.2 h D) 7.3 h

Q63 (UPPCS CSAT): Pipe A fills in 5 h, B in 10 h, C in 30 h. All open, time to fill:

- A) 2 h B) 2.5 h
C) 3 h D) 3.5 h

Q64 (UP Police SI): A leak empties full tank in 6 h. Inlet fills at 4 L/min. Tank full, inlet opened, due to leak empty in 8 h. Capacity in liters:

- A) 5750 L B) 5760 L
C) 5770 L D) 5780 L

Q65 (UPSSSC VDO): Tank filled by tap in 20 min and another in 60 min. Both kept open for 10 min, then first shut. Extra time for second:

- A) 5 min B) 10 min
C) 15 min D) 20 min

Q66 (Karnatka Police Constable): Cistern filled in 9 hours, due to leak takes 10 hours. Time leak takes to empty:

- A) 20 h B) 80 h
C) 90 h D) 100 h

Q67 (UPPCS CSAT): Taps A and B fill a bucket in 12 and 15 min. Both open, A closed after 3 min. Further time by B:

- A) 6 min 15 sec B) 7 min 15 sec
C) 8 min 15 sec D) 5 min 15 sec

Q68 (UPSSSC Junior Assistant): Two pipes fill in 6 h and 4 h. Opened alternately for 1 h each starting with A:

- A) 4 h B) 4.5 h
C) 5 h D) 5.5 h

Q69 (UP Police SI): Pipe A fills in 16 min more than (A + B) together, and B fills in 25 min more than (A + B). Time taken by (A + B) together:

- A) 18 min B) 20 min
C) 28 min D) 41 min

Q70 (UPSSSC Lower PCS): Two pipes fill in 2 h and 3 h. Opened together, tank filled in:

- A) 1.12 h B) 1.20 h
C) 5.00 h D) 6.00 h

Tier 8: Other Competitive Exams
(LIC, State PSCs, MBA Entrances)

Q71 (LIC AAO): Pipe A fills in 20 h, B in 10 h, and A, B, C together in 7.5 h. C alone empties full tank in:

- A) 30 h B) 45 h
C) 60 h D) 90 h

Q72 (Karnataka PG CET): Two pipes A and B fill in 15 h and 20 h, C empties in 25 h. Open for 10 h, then C closed. Total time to fill:

- A) 12 h B) 14 h
C) 16 h D) 18 h

Q73 (MAT): Electric pump fills in 3 h, due to leak takes $3\frac{1}{2}$ h. Leak empties in:

- A) 10.5 h B) 12 h
C) 21 h D) 24 h

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Q74 (State PSC): Tap M and N together fill in $\frac{48}{13}$ min.

N alone in 6 min. M alone takes:

- A) 9 min B) 9.4 min
C) 9.6 min D) 8.6 min

Q75 (LIC ADO): Two pipes fill in 10 h and 16 h, third empties in 32 h. Time to fill:

- A) $7\frac{5}{13}$ h B) $7\frac{3}{13}$ h
C) $8\frac{4}{13}$ h D) $6\frac{5}{13}$ h

Q76 (MBA Entrance): Two pipes fill in 24 min and 32 min. After how much time should B be closed so tank fills in 18 min?

- A) 2 min B) 4 min
C) 6 min D) 8 min

Q77 (State PSC): A tank has two inlets filling in 7 h and 9 h, outlet emptying in 21 h. Time to fill:

- A) $4\frac{7}{13}$ h B) $4\frac{11}{13}$ h
C) $5\frac{2}{13}$ h D) $5\frac{5}{13}$ h

Q78 (NICL AO): Pipe A is 6 times faster than B and takes 25 min less. Time when both open:

- A) $\frac{30}{7}$ min B) $\frac{150}{7}$ min
C) $\frac{25}{7}$ min D) $\frac{45}{7}$ min

Q79 (State PSC): Two pipes fill in 5 h and 4 h. Opened on alternate hours with A first:

- A) 4.0 h B) 4.5 h
C) 5.2 h D) 6.0 h

Q80 (Management Entrance): Two pipes A and B fill a tank in 6 h and 4 h. Opened alternately for 1 h each starting with A:

- A) 4 h B) 5 h
C) $4\frac{1}{2}$ h D) $5\frac{1}{2}$ h