



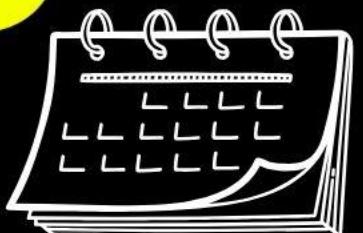
MISSION IBPS 2024



LIVE
11:00 AM

TOP 100
MATHS
QUESTIONS

कृत्य बच



DAY -5





$$P \rightarrow (+17, +15) \quad Q \rightarrow (+18, +16)$$

$$P < Q$$

$$P > Q$$

Question 1-

(i) $p^2 - 32p + 255 = 0$

(ii) $q^2 + 288 = 34q$

$$q^2 - 34q + 288 = 0$$

$\begin{array}{r} 12 | 288 \\ 12 | 144 \\ 12 | 72 \\ 12 | 36 \\ 12 | 18 \\ \hline 3 | 18 \\ 3 | 6 \\ \hline 1 \end{array}$

(i) $p = q$ or relation can't be established,

(ii) $p < q$

(iii) $p \geq q$

(iv) $p \leq q$

(v) $p > q$



$$\begin{aligned} P &= (-8, +7) \rightarrow (+16, +7) \\ P &< q \\ P &= q \end{aligned}$$

Question 2- $P^2 + P - 56 = 0$

- (i) $p(p+1) = 14$ of 4
- (ii) $q^2 + 112 - 23q = 0$
- (i) $p = q$ or relation can't be established,
- (ii) $p < q$
- (iii) $p \geq q$
- (iv) $p \leq q$
- (v) $p > q$



$$P \rightarrow +32$$

$$q = +3$$

$$\frac{1}{q^3} = \frac{1}{2197}$$

$$\begin{matrix} P > q \\ \equiv \end{matrix}$$

$$q^3 = 2197$$

$$q = \sqrt[3]{2197}$$

Question 3-

(i) $p = \sqrt{1024}$

(ii) $q^{-3} = \frac{13}{28561}$

(i) $p = q$ or relation can't be established,(ii) $p < q$ (iii) $p \geq q$ (iv) $p \leq q$ (v) $p > q$



$$P \rightarrow (+17, +8) \rightarrow (+32, +9)$$

Question 4-

(i) $p^2 - 25p + 136 = 0$

(ii) $q^2 + 288 = 41q$

~~(i)~~ p = q or relation can't be established,

(ii) $p < q$

(iii) $p \geq q$

(iv) $p \leq q$

(v) $p > q$

$$\begin{cases} P < q \\ P > q \end{cases}$$



$$P^2 - 2P - 99 = 0$$

$$\Rightarrow P = (+11, -9) \quad Q = (-16, -9)$$

$$\begin{cases} P > q \\ P = q \\ P < q \end{cases} \Rightarrow P \geq q$$

Question 5-

- (i) $P^2 = 33$ of $3 + 2P$
- (ii) $Q^2 + 25Q + 144 = 0$

- (i) $p = q$ or relation can't be established,
- (ii) $p < q$
- (iii) ~~$p \geq q$~~
- (iv) $p \leq q$
- (v) $p > q$



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Question 6- A person bought some article for Rs 10800. In which he sell **2/3** at **5% loss**. At what percent profit should he sell the remaining article so that there is a profit of 13% on whole.

प्रश्न 6- एक व्यक्ति ने 10800 रुपये में कुछ वस्तु खरीदी। जिसमें वह $\frac{2}{3}$ को 5% हानि पर बेचता है। उसे शेष वस्तु को कितने प्रतिशत लाभ पर बेचना चाहिए ताकि पूरे पर 13% का लाभ हो?

- A. 19%
- B. 21%
- C. 29%
- D. 49%

E. None of these
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$\frac{2}{5} \rightarrow -5\%$
 $\frac{2}{5} \rightarrow \text{Total}$

$$\frac{2(-5) + 1(P)}{5} = 13$$

$$-10 + P = 39$$

$$P = \underline{\underline{49\%}}$$



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4100
193Question 7- $40\% \text{ of } 1775 + (64)^2 + \frac{87}{348 \div 4} = ?$ प्रश्न 7- $1775 \text{ का } 40\% + (64)^2 + 348 \div 4 = ?$

$$= \frac{2}{5} \times 1775 + 4096 + 87$$

$$= 710 + 4096 + 87$$

$$= \underline{\underline{4893}}$$

- A. 4093
- B. 4493
- C. 5133
- D. 4893
- E. None of these



$$\text{Question 8- } (20)^2 + (8)^3 + (1024)^{\frac{1}{5}} = (x)^2 - 3^2 \times 5$$

$$\left[4^5 \right]^{\frac{1}{5}} = 4$$

Question (16) (a)

$$400 + 512 + 4 + 45 = x^2$$
$$x^2 = 961$$
$$x = 31$$

- A. 61
 - B. 31
 - C. 961
 - D. 41
 - E. None of these



$$(30+3)(30-3)$$

$$\begin{aligned} & 3000 \\ & 1900 \\ & 200 \\ \cancel{5111} &) = \frac{4}{5} \times 3545 + 891 + 1384 \\ & = 2856 + 891 + 1384 \\ & = \underline{\underline{5111}} \end{aligned}$$

Question 9- $80\% \text{ of } 3545 + 33 \times 27 + \frac{1}{3} \text{ of } 4152 = ?$

प्रश्न 9- $3545 \text{ का } 80\% + 33 \times 27 + 4152 \text{ का } \frac{1}{3} = ?$

- A. 4111
- B. 3111
- C. 5111
- D. 6111
- E. None of these

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$$x = 6\frac{1}{3} + 3\frac{3}{4} + 7\frac{2}{5} - 5\frac{5}{6}$$

Question 10- $6\frac{1}{3} + 2\frac{3}{4} + 7\frac{2}{5} = ? + 3\frac{5}{6}$

A. $12\frac{11}{20}$

B. $11\frac{13}{20}$

C. $12\frac{13}{20}$

D. $7\frac{1}{3}$

E. None of these

$$\begin{aligned} &= (6+3+7-5) + \left[\frac{1 \times 20}{3 \times 20} + \frac{3 \times 15}{4 \times 15} + \frac{2 \times 12}{5 \times 12} - \frac{5 \times 10}{6 \times 10} \right] \\ &= 12 + \left[\frac{3}{60} + \frac{13}{60} \right] \Rightarrow 12\frac{13}{60} \end{aligned}$$



$$| 6 - 4^2$$

$$[4^3]^2$$

$$4^6$$

Question 11- $4^4 \times 4^{16} \div 2^4 \times 64^2 = 2^?$

$$\frac{4^4 \times 4^{16}}{4^2} \times 4^6 = 2^x$$

$$\begin{array}{l|l} 2^x = 4^4 & 2^x = 4^8 \\ 2^x = (2^2)^4 & 2^x = 2^8 \\ 2^x = 2^8 & \hline x = 8 & \end{array}$$

- A. 16
- B. 32
- C. 34
- D. 48**
- E. None of these



Question 12- In an election between two candidates 75% of the voters cast their votes out of which 2% declared invalid. A candidate got 9261 votes which were 75% of the valid votes. Find the total number of enrolled voters.

प्रश्न 12- दो उम्मीदवारों के बीच एक चुनाव में 75% मतदाताओं ने मतदान किया, जिसमें से 2% को अवैध घोषित कर दिया गया। एक उम्मीदवार को 9261 वोट मिले जो वैध वोटों का 75% था। नामांकित मतदाताओं की कुल संख्या ज्ञात कीजिए।

- A. 16000
- B. 16400
- C. 16800
- D. 18000
- E. None of these

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① Let total votes $\rightarrow 1000$



Vote Cast $\Rightarrow 75\% \text{ of } 1000$

750
- 20%

Valid voters $\rightarrow 98\% \text{ of } 750$

75% of 98% of 750 = 9261

$$\frac{3}{4} \times \frac{7}{4} \times \frac{5}{50} \times 150 = 9261$$

~~63 21
44
3087
9261~~

$$I = \frac{21 \times 4}{5}$$

$$I = \frac{84}{5}$$

$$1000 = \frac{84}{5} \times \cancel{1000}^{200}$$

$$= \underline{\underline{16800}}$$



Question 13- P and Q can do a work in 60 days. However P is 40% more efficient than Q. If they together worked for 50 days then find time taken by Q to complete the remaining work.

प्रश्न 13- P और Q एक कार्य को 60 दिनों में कर सकते हैं। हालाँकि, P, Q की तुलना में 40% अधिक कुशल है। यदि वे एक साथ 50 दिनों तक काम करते हैं, तो Q द्वारा शेष कार्य को पूरा करने में लिया गया समय ज्ञात कीजिये।

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- A. 20 days
- B. 24 days
- C. 30 days
- D. 40 days
- E. None of these



① P Q
7 5

$$\frac{40}{5} = \frac{2}{5}$$
$$w = (7+5) \times 60$$
$$= 120$$
$$(P+Q) 50 D = (7+5) \times 50$$
$$= 600$$

$$T_Q = \frac{120 - 600}{5}$$
$$= \frac{120}{5} = 24 \text{ days}$$



Question 14- A bag contains 4 pink, 6 white, and 3 yellow balls. If three balls are drawn at random then what is the probability that no ball is white.

प्रश्न 14- एक बैग में 4 गुलाबी, 6 सफेद और 3 पीली गेंदें हैं। यदि तीन गेंदों को यादृच्छिक रूप से खींचा जाता है, तो कोई भी गेंद सफेद नहीं होने की प्रायिकता क्या है?

$$\textcircled{1} \quad P(E) = \frac{{}^7 C_3}{{}^{13} C_3} = \frac{7 \times 6 \times 5}{13 \times 12 \times 11} \quad 22$$

$\underline{\underline{\frac{30}{206}}}$

- A. $31/221$
- B. $21/286$
- C. $35/286$
- D. $41/83$
- E. None of these



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Question 15- A boat takes 9 hours to cover a 810 km distance in downstream. If the speed of current is 40 km/hr then find distance covered by boat in 9 hours and 36 minutes in still water.

प्रश्न 15- एक नाव धारा के अनुकूल 810 किमी की दूरी तय करने में 9 घंटे का समय लेती है। यदि धारा की गति 40 किमी/घंटा है, तो स्थिर पानी में नाव द्वारा 9 घंटे और 36 मिनट में तय की गई दूरी ज्ञात कीजिये।

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- A. 240 km
- B. 300 km
- C. 480 km
- D. 500 km
- E. None of these



$$\textcircled{1} \quad B + \psi = \frac{810}{g} = 90 \text{ km/h.}$$

$$B = 90 - 40$$

$$B = 50 \text{ km/h.}$$

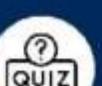
$$D = 50 \times \frac{40}{5}$$
$$= \underline{\underline{400 \text{ km.}}}$$

$$g \frac{360}{60} = \frac{40}{5} h.$$

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-  Direct Interaction with me
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