<table>
<thead>
<tr>
<th>Q.No.</th>
<th>Question</th>
<th>Options</th>
<th>Ans</th>
<th>Marks</th>
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</thead>
<tbody>
<tr>
<td>1.</td>
<td>The sum of exponents of prime factors in the prime-factorisation of 196 is</td>
<td>(a) 3</td>
<td>(b) 4</td>
<td>1</td>
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<td></td>
<td></td>
<td>(c) 5</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>(d) 2</td>
<td></td>
<td></td>
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<tr>
<td></td>
<td>Ans: (b) 4</td>
<td></td>
<td></td>
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<td>2.</td>
<td>Euclid’s division Lemma states that for two positive integers a and b,</td>
<td>(a) 0 &lt; r &lt; b</td>
<td>(c) 0 ≤ r &lt; b</td>
<td>1</td>
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<td></td>
<td>there exists unique integer q and r satisfying a = bq + r, and</td>
<td>(b) 0 &lt; r ≤ b</td>
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<td></td>
<td></td>
<td>(d) 0 ≤ r ≤ b</td>
<td></td>
<td></td>
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<tr>
<td></td>
<td>Ans: (c) 0 ≤ r &lt; b</td>
<td></td>
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<tr>
<td>3.</td>
<td>The zeroes of the polynomial $x^2 - 3x - m(m + 3)$ are</td>
<td>(a) $m, m + 3$</td>
<td>(b) $-m, m + 3$</td>
<td>1</td>
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<td></td>
<td></td>
<td>(c) $m, -(m + 3)$</td>
<td></td>
<td></td>
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<tr>
<td></td>
<td></td>
<td>(d) $-m, -(m + 3)$</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Ans: (b) $-m, m + 3$</td>
<td></td>
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<td>4.</td>
<td>The value of k for which the system of linear equations $x + 2y = 3$,</td>
<td>(a) $-\frac{14}{3}$</td>
<td>(b) $\frac{2}{5}$</td>
<td>1</td>
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<tr>
<td></td>
<td>$5x + ky + 7 = 0$ is inconsistent is</td>
<td>(c) 5</td>
<td></td>
<td></td>
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<tr>
<td></td>
<td></td>
<td>(d) 10</td>
<td></td>
<td></td>
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<tr>
<td></td>
<td>Ans: (d) 10</td>
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<td>5.</td>
<td>The roots of the quadratic equation $x^2 - 0.04 = 0$ are</td>
<td>(a) $\pm 0.2$</td>
<td>(b) $\pm 0.02$</td>
<td>1</td>
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<td></td>
<td></td>
<td>(c) 0.4</td>
<td></td>
<td></td>
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<td></td>
<td></td>
<td>(d) 2</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Ans: (a) $\pm 0.2$</td>
<td></td>
<td></td>
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<tr>
<td>6.</td>
<td>The common difference of the A.P. $\frac{1}{p}, \frac{1-p}{p}, \frac{1-2p}{p}, \ldots$ is</td>
<td>(a) 1</td>
<td>(b) $\frac{1}{p}$</td>
<td>1</td>
</tr>
<tr>
<td></td>
<td></td>
<td>(c) $-1$</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>(d) $-\frac{1}{p}$</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Ans: (c) $-1$</td>
<td></td>
<td></td>
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<tr>
<td>7.</td>
<td>The $n^{th}$ term of the A.P. $a, 3a, 5a, \ldots$ is</td>
<td>(a) $na$</td>
<td>(b) $(2n - 1)a$</td>
<td>1</td>
</tr>
<tr>
<td></td>
<td></td>
<td>(c) $(2n + 1)a$</td>
<td></td>
<td></td>
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<tr>
<td></td>
<td></td>
<td>(d) $2na$</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Ans: (b) $(2n - 1)a$</td>
<td></td>
<td></td>
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<tr>
<td>8.</td>
<td>The point P on x-axis equidistant from the points A(−1, 0) and B(5, 0) is</td>
<td>(a) (2, 0)</td>
<td>(b) (0, 2)</td>
<td>1</td>
</tr>
<tr>
<td></td>
<td></td>
<td>(c) (3, 0)</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>(d) (2, 2)</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Ans: (a) (2, 0)</td>
<td></td>
<td></td>
<td></td>
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<tr>
<td>9.</td>
<td>The co-ordinates of the point which is reflection of point (−3, 5) in x-axis are</td>
<td>(a) (3, 5)</td>
<td>(b) (3, −5)</td>
<td>1</td>
</tr>
<tr>
<td></td>
<td></td>
<td>(c) (−3, −5)</td>
<td></td>
<td></td>
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<tr>
<td></td>
<td></td>
<td>(d) (−3, 5)</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Ans: (c) (−3, −5)</td>
<td></td>
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</tbody>
</table>
10. If the point P (6, 2) divides the line segment joining A(6, 5) and B(4, y) in the ratio 3 : 1, then the value of y is
   (a) 4  (b) 3  (c) 2  (d) 1
   Ans: 1 mark be awarded to everyone

In Q. Nos. 11 to 15, fill in the blanks. Each question is of 1 mark.

11. In fig. 1, MN \parallel BC and AM : MB = 1 : 2, then \[ \frac{\text{ar(AMN)}}{\text{ar(ABC)}} = \text{_______}. \]

Ans: \( \frac{1}{9} \)

12. In given Fig. 2, the length PB = _______ cm.

Ans: 4

13. In \( \triangle ABC \), \( AB = 6\sqrt{3} \) cm, \( AC = 12 \) cm and \( BC = 6 \) cm, then \( \angle B = \text{_______} \).
   Ans: 90°

   OR

   Two triangles are similar if their corresponding sides are _______.
   Ans: proportional

14. The value of \((\tan 1^\circ \tan 2^\circ \ldots \tan 89^\circ)\) is equal to _______.
   Ans: 1

15. In Fig. 3, the angles of depressions from the observing positions \( O_1 \) and \( O_2 \) respectively of the object A are ________, ________.

Ans: 30°, 45°

\[ \frac{1}{2} + \frac{1}{2} \]
Q. Nos. 16 to 20 are short answer type questions of 1 mark each.

16. If \( \sin A + \sin^2 A = 1 \), then find the value of the expression \( \cos^2 A + \cos^4 A \).

   \[
   \begin{align*}
   \sin A &= 1 - \sin^2 A \\
   \sin A &= \cos^2 A \tag{1} \\
   \cos^2 A + \cos^4 A &= \sin A + \sin^2 A = 1 
   \end{align*}
   \]

   Ans: \( \frac{1}{2} \)

17. In Fig. 4 is a sector of circle of radius 10.5 cm. Find the perimeter of the sector.

   \[
   \text{Perimeter} = 2r + \frac{\pi r \theta}{180^\circ}
   \]

   \[
   = 2 \times 10.5 + \frac{22}{7} \times 10.5 \times \frac{60^\circ}{180^\circ}
   \]

   \[
   = 21 + 11 = 32 \text{ cm}
   \]

   Ans: \( \frac{1}{2} \)

18. If a number \( x \) is chosen at random from the numbers \(-3, -2, -1, 0, 1, 2, 3\), then find the probability of \( x^2 < 4 \).

   Ans: Number of Favourable outcomes = 3 i.e., \{-1, 0, 1\} \therefore P(x^2 < 4) = \frac{3}{7} \]

   OR

   What is the probability that a randomly taken leap year has 52 Sundays?

   Ans: \( P(52 \text{ sundays}) = \frac{5}{7} \)

19. Find the class-marks of the classes 10-25 and 35-55.

   Ans: Class Marks \( \frac{10 + 25}{2} = 17.5; \frac{35 + 55}{2} = 45 \)

20. A die is thrown once. What is the probability of getting a prime number.

   Ans: Number of prime numbers = 3 i.e. ; \{2, 3, 5\}

   \[
   P(\text{Prime Number}) = \frac{3}{6} \text{ or } \frac{1}{2}
   \]

   \[\frac{1}{2}\]
SECTION – B

Q. Nos. 21 to 26 carry 2 marks each

21. A teacher asked 10 of his students to write a polynomial in one variable on a paper and then to handover the paper. The following were the answers given by the students:

\[2x + 3, \ 3x^2 + 7x + 2, \ 4x^3 + 3x^2 + 2, \ x^3 + \sqrt{3x} + 7, \ 7x + \sqrt{7}, \ 5x^3 - 7x + 2, \ \]

\[2x^2 + 3 - \frac{5}{x}, \ 5x - \frac{1}{2}, \ ax^3 + bx^2 + cx + d, \ x + \frac{1}{x}.\]

Answer the following questions :
(i) How many of the above ten, are not polynomials ?
(ii) How many of the above ten, are quadratic polynomials ?

Ans: (i) 3  
(ii) 1  

22. In Fig. 5, ABC and DBC are two triangles on the same base BC. If AD intersects BC at O, show that

\[\frac{\text{ar}(\Delta ABC)}{\text{ar}(\Delta DBC)} = \frac{AO}{DO}\]

Ans: Draw AX \perp BC, DY \perp BC

\[\Delta AOX \sim \Delta DOY\]

\[\frac{AX}{DY} = \frac{AO}{DO}\]  ... (i)  

\[\frac{\text{ar}(\Delta ABC)}{\text{ar}(\Delta DBC)} = \frac{\frac{1}{2} \times BC \times AX}{\frac{1}{2} \times BC \times DY}\]  

\[\frac{AX}{DY} = \frac{AO}{DO}\] (From (1))  

OR

In Fig. 6, if AD \perp BC, then prove that \(AB^2 + CD^2 = BD^2 + AC^2\).

Ans: In rt \(\Delta ABD\)

\[AB^2 = BD^2 + AD^2\]  ... (i)  

In rt \(\Delta ADC\)

\[CD^2 = AC^2 - AD^2\]  ... (ii)  

Adding (i) & (ii)

\[AB^2 + CD^2 = BD^2 + AC^2\]  

1
23. Prove that \(1 + \frac{\cot^2 \alpha}{1 + \csc \alpha} = \csc \alpha\)

\[\text{Ans: L.H.S} = 1 + \frac{\csc^2 \alpha - 1}{1 + \csc \alpha} = 1 + \frac{(\csc \alpha - 1)(\csc \alpha + 1)}{\csc \alpha + 1} = \csc \alpha = \text{R.H.S}\]

OR

Show that \(\tan^4 \theta + \tan^2 \theta = \sec^4 \theta - \sec^2 \theta\)

\[\text{Ans: L.H.S} = \tan^4 \theta + \tan^2 \theta = \tan^2 \theta \tan^2 \theta + 1 = (\sec^2 \theta - 1) \sec^2 \theta = \sec^4 \theta - \sec^2 \theta = \text{R.H.S}\]

24. The volume of a right circular cylinder with its height equal to the radius is \(25 \frac{1}{7}\) cm\(^3\). Find the height of the cylinder. (Use \(\pi = \frac{22}{7}\))

\[\text{Ans: Let height and radius of cylinder} = x \text{ cm}\]

\[V = \frac{176}{7} \text{ cm}^3\]

\[\frac{22}{7} \times x \times x = \frac{176}{7}\]

\[x^3 = 8 \Rightarrow x = 2\]

\[\therefore \text{height of cylinder} = 2 \text{ cm}\]

25. A child has a die whose six faces show the letters as shown below:

\[\text{A B C D E A}\]

The die is thrown once. What is the probability of getting (i) A, (ii) D?

\[\text{Ans: (i) } P(A) = \frac{2}{6} \text{ or } \frac{1}{3} \quad \text{(ii) } P(D) = \frac{1}{6}\]

26. Compute the mode for the following frequency distribution:

<table>
<thead>
<tr>
<th>Size of items (in cm)</th>
<th>0 – 4</th>
<th>4 – 8</th>
<th>8 – 12</th>
<th>12 – 16</th>
<th>16 – 20</th>
<th>20 – 24</th>
<th>24 – 28</th>
</tr>
</thead>
<tbody>
<tr>
<td>Frequency</td>
<td>5</td>
<td>7</td>
<td>9</td>
<td>17</td>
<td>12</td>
<td>10</td>
<td>6</td>
</tr>
</tbody>
</table>

\[\text{Ans: } l = 12 \quad f_0 = 9 \quad f_1 = 17 \quad f_2 = 12 \quad h = 4\]

\[\text{Mode} = 12 + \frac{17 - 9}{34 - 12} \times 4 = 14.46 \text{ cm (Approx)}\]

1/2
27. If \(2x + y = 23\) and \(4x – y = 19\), find the value of \((5y – 2x)\) and \(\frac{y}{x} - 2\)

**Ans:**

\[2x + y = 23\]
\[4x – y = 19\]

Solving, we get \(x = 7\), \(y = 9\)

\[5y – 2x = 31, \quad \frac{y}{x} - 2 = \frac{-5}{7}\]

**OR**

Solve for \(x\):

\[\frac{1}{x+4} - \frac{1}{x+7} = \frac{11}{30}, \quad x \neq -4, 7\]

**Ans:**

\[\frac{1}{x+4} - \frac{1}{x+7} = \frac{11}{30} \Rightarrow \frac{-11}{(x+4)(x-7)} = \frac{11}{30}\]

\[\Rightarrow x^2 - 3x + 2 = 0\]

\[\Rightarrow (x - 2)(x - 1) = 0\]

\[\Rightarrow x = 2, 1\]

The Following solution should also be accepted

\[\frac{1}{x+4} - \frac{1}{x+7} = \frac{11}{30} \Rightarrow \frac{x+7-x-4}{(x+4)(x-7)} = \frac{11}{30}\]

\[\Rightarrow 11x^2 + 121x + 218 = 0\]

Here, \(D = 5049\)

\[x = \frac{-121 \pm \sqrt{5049}}{22}\]

**28.** Show that the sum of all terms of an A.P. whose first term is \(a\), the second term is \(b\) and the last term is \(c\) is equal to \(\frac{(a + c)(b + c - 2a)}{2(b - a)}\)

**Ans:**

Here \(d = b - a\)

Let \(c\) be the \(n^{th}\) term

\[\therefore c = a + (n - 1)(b - a)\]

\[\Rightarrow n = \frac{c + b - 2a}{b - a}\]

\[\Rightarrow S_n = \frac{c + b - 2a}{2(b - a)}(a + c)\]
Solve the equation: \(1 + 4 + 7 + 10 + \ldots + x = 287\).

**Ans:** Let sum of \(n\) terms = 287

\[
\frac{n}{2} [2 \times 1 + (n - 1)3] = 287
\]

\[3n^2 - n - 574 = 0\]  

\[(3n + 41)(n - 14) = 0\]

\[n = 14 \quad (\text{Reject } n = \frac{-41}{3})\]

\[x = a_{14} = 1 + 13 \times 3 = 40\]

29. In a flight of 600 km, an aircraft was slowed down due to bad weather. The average speed of the trip was reduced by 200 km/hr and the time of flight increased by 30 minutes. Find the duration of flight.

**Ans:** Let actual speed = \(x\) km/hr

A.T.Q

\[\frac{600}{x - 200} = \frac{600}{x} - \frac{1}{2}\]

\[x^2 - 200x - 240000 = 0\]

\[(x - 600)(x + 400) = 0\]

\[x = 600 \quad (x = -400 \text{ Rejected})\]

Duration of flight = \(\frac{600}{600} = 1 \text{ hr}\)

30. If the mid-point of the line segment joining the points \(A(3, 4)\) and \(B(k, 6)\) is \(P(x, y)\) and \(x + y - 10 = 0\), find the value of \(k\).

**Ans:**

\[x = \frac{3 + k}{2} \quad y = 5\]

\[x + y - 10 = 0 \quad \Rightarrow \quad \frac{3 + k}{2} + 5 - 10 = 0\]

\[\Rightarrow k = 7\]

OR

Find the area of triangle \(ABC\) with \(A(1, -4)\) and the mid-points of sides through \(A\) being \((2, -1)\) and \((0, -1)\).

**Ans:** \(B(3, 2), \ C(-1, 2)\)

\[\text{Area} = \frac{1}{2} \left| (2 - 2) + 3(2 + 4) - 1(-4 - 2) \right| = 12 \text{ sq.units}\]
31. In Fig. 7, if ΔABC ~ ΔDEF and their sides of lengths (in cm) are marked along them, then find the lengths of sides of each triangle.

![Fig. 7]

**Ans:** As ΔABC ~ ΔDEF

\[
\frac{2x - 1}{18} = \frac{3x}{6x}
\]

\[x = 5\]

\[AB = 9 \text{ cm} \quad DE = 18 \text{ cm}\]

\[BC = 12 \text{ cm} \quad EF = 24 \text{ cm}\]

\[CA = 15 \text{ cm} \quad FD = 30 \text{ cm}\]

32. If a circle touches the side BC of a triangle ABC at P and extended sides AB and AC at Q and R, respectively, prove that

\[\text{AQ} = \frac{1}{2} (BC + CA + AB)\]

**Ans:** Correct Fig

\[\text{AQ} = \frac{1}{2} (2AQ)\]

\[= \frac{1}{2} (AQ + AQ)\]

\[= \frac{1}{2} (AQ + AR)\]

\[= \frac{1}{2} (AB + BQ + AC + CR)\]

\[= \frac{1}{2} (AB + BC + CA)\]

∴ [BQ = BP, CR = CP]

33. If \(\sin \theta + \cos \theta = \sqrt{2}\), prove that \(\tan \theta + \cot \theta = 2\).

**Ans:** \(\sin \theta + \cos \theta = \sqrt{2}\)

\[\tan \theta + 1 = \sqrt{2} \sec \theta\]

Squ. both sides

\[\tan^2 \theta + 1 + 2 \tan \theta = 2 \sec^2 \theta\]

\[\tan^2 \theta + 1 + 2 \tan \theta = 2(1 + \tan^2 \theta)\]

\[\tan^2 \theta + 1 + 2 \tan \theta = 2 + 2 \tan^2 \theta\]

\[2 \tan \theta = \tan^2 \theta + 1\]

\[2 = \tan \theta + \cot \theta\]
<table>
<thead>
<tr>
<th>Question</th>
<th>Description</th>
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</thead>
</table>
| 34. | The area of a circular play ground is 22176 cm². Find the cost of fencing this ground at the rate of ₹ 50 per metre.  
**Ans:** Let the radius of playground be \( r \) cm  
\[ \pi r^2 = 22176 \text{ cm}^2 \]  
\[ r = 84 \text{ cm} \]  
Circumference = \[ 2\pi r = 2 \times \frac{22}{7} \times 84 = 528 \text{ cm} \]  
Cost of fencing = \[ \frac{50}{100} \times 528 = ₹ 264 \] |
| 35. | Prove that \( \sqrt{5} \) is an irrational number.  
**Ans:** Let \( \sqrt{5} \) be a rational number.  
\[ \sqrt{5} = \frac{p}{q} , \text{ } p \text{ and } q \text{ are coprimes and } q \neq 0 \]  
\[ 5q^2 = p^2 \Rightarrow 5 \text{ divides } p^2 \Rightarrow 5 \text{ divides } p \text{ also Let } p = 5a, \text{ for some integer } a \]  
\[ 5q^2 = 25a^2 \Rightarrow q^2 = 5a^2 \Rightarrow 5 \text{ divides } q^2 \Rightarrow 5 \text{ divides } q \text{ also} \]  
\[ \therefore 5 \text{ is a common factor of } p, q, \text{ which is not possible as } p, q \text{ are coprimes.} \]  
Hence assumption is wrong \( \sqrt{5} \) is an irrational number. |
| 36. | It can take 12 hours to fill a swimming pool using two pipes. If the pipe of larger diameter is used for four hours and the pipe of smaller diameter for 9 hours, only half of the pool can be filled. How long would it take for each pipe to fill the pool separately?  
**Ans:** Let time taken by pipe of larger diameter to fill the tank be \( x \) hr  
Let time taken by pipe of smaller diameter to fill the tank be \( y \) hr  
A.T.Q  
\[ \frac{1}{x} + \frac{1}{y} = \frac{1}{12}, \frac{4}{x} + \frac{9}{y} = \frac{1}{2} \]  
Solving we get \( x = 20 \) hr \( y = 30 \) hr |
| 37. | Draw a circle of radius 2 cm with centre O and take a point P outside the circle such that OP = 6.5 cm. From P, draw two tangents to the circle.  
**Ans:** Correct construction of circle of radius 2 cm  
Correct construction of tangents.  
**OR**  
Construct a triangle with sides 5 cm, 6 cm and 7 cm and then construct another triangle whose sides are \( \frac{3}{4} \) times the corresponding sides of the first triangle.  
**Ans:** Correct construction of given triangle  
Construction of Similar triangle |
38. From a point on the ground, the angles of elevation of the bottom and the top of a tower fixed at the top of a 20 m high building are 45° and 60° respectively. Find the height of the tower.

**Ans:** Let height of tower = \(h\) m

In rt. \(\triangle BCD\) 
\[
\tan 45° = \frac{BC}{CD}
\]
\[
1 = \frac{20}{CD}
\]
\[
CD = 20 \text{ m}
\]

In rt. \(\triangle ACD\) 
\[
\tan 60° = \frac{AC}{CD}
\]
\[
\sqrt{3} = \frac{20 + h}{20}
\]
\[
h = 20(\sqrt{3} - 1) \text{ m}
\]

39. Find the area of the shaded region in Fig. 8, if \(PQ = 24\) cm, \(PR = 7\) cm and \(O\) is the centre of the circle.

**Ans:** \(\angle P = 90°\)
\[
RQ = \sqrt{(24)^2 + 7^2} = 25 \text{ cm}, \ r = \frac{25}{2} \text{ cm}
\]

Area of shaded portion = Area of semi circle – ar \((\triangle PQR)\)
\[
= \frac{1}{2} \times \frac{22}{7} \times \left(\frac{25}{2}\right)^2 - 84
\]
\[
= 161.54 \text{ cm}^2
\]

OR

Find the curved surface area of the frustum of a cone, the diameters of whose circular ends are 20 m and 6 m and its height is 24 m.

**Ans:** \(R = 10\) m \(\quad r = 3\) m \(\quad h = 24\) m
\[
l = \sqrt{(24)^2 + (10 - 3)^2} = 25 \text{ m}
\]
\[
CSA = \pi(10 + 3)25 = 325 \pi \text{ m}^2
\]

40. The mean of the following frequency distribution is 18. The frequency \(f\) in the class interval 19 – 21 is missing. Determine \(f\).

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</thead>
<tbody>
<tr>
<td>Frequency</td>
<td>3</td>
<td>6</td>
<td>9</td>
<td>13</td>
<td>(f)</td>
<td>5</td>
<td>4</td>
</tr>
</tbody>
</table>
### Ans:

<table>
<thead>
<tr>
<th>C.I</th>
<th>f</th>
<th>x</th>
<th>xf</th>
</tr>
</thead>
<tbody>
<tr>
<td>11-13</td>
<td>3</td>
<td>12</td>
<td>36</td>
</tr>
<tr>
<td>13-15</td>
<td>6</td>
<td>14</td>
<td>84</td>
</tr>
<tr>
<td>15-17</td>
<td>9</td>
<td>16</td>
<td>144</td>
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<tr>
<td>17-19</td>
<td>13</td>
<td>18</td>
<td>234</td>
</tr>
<tr>
<td>19-21</td>
<td>f</td>
<td>20</td>
<td>20f</td>
</tr>
<tr>
<td>21-23</td>
<td>5</td>
<td>22</td>
<td>110</td>
</tr>
<tr>
<td>23-25</td>
<td>4</td>
<td>24</td>
<td>96</td>
</tr>
</tbody>
</table>

\[
\frac{\sum \text{xf}}{\sum f} = \frac{704 + 20f}{40 + f} = 18 \implies f = 8
\]

### OR

The following table gives production yield per hectare of wheat of 100 farms of a village:

<table>
<thead>
<tr>
<th>Production yield</th>
<th>40-45</th>
<th>45-50</th>
<th>50-55</th>
<th>55-60</th>
<th>60-65</th>
<th>65-70</th>
</tr>
</thead>
<tbody>
<tr>
<td>No. of farms</td>
<td>4</td>
<td>6</td>
<td>16</td>
<td>20</td>
<td>30</td>
<td>24</td>
</tr>
</tbody>
</table>

Change the distribution to a ‘more than’ type distribution and draw its ogive.

### Ans:

<table>
<thead>
<tr>
<th>Production yield</th>
<th>Number of farms</th>
</tr>
</thead>
<tbody>
<tr>
<td>More than or equal to 40</td>
<td>100</td>
</tr>
<tr>
<td>More than or equal to 45</td>
<td>96</td>
</tr>
<tr>
<td>More than or equal to 50</td>
<td>90</td>
</tr>
<tr>
<td>More than or equal to 55</td>
<td>74</td>
</tr>
<tr>
<td>More than or equal to 60</td>
<td>54</td>
</tr>
<tr>
<td>More than or equal to 65</td>
<td>24</td>
</tr>
</tbody>
</table>

Plotting of points (40, 100) (45, 96) (50, 90) (55, 74) (60, 54) (65, 24) join to get ogive.