1) Given:

$M = 30$

$N = 248$

$P = 1$

Here the condition to check is $N! = 0$

we have of $N = 248 \neq 0,$ so the condition is true then the True block is started to execute and return as a output.

No. Iteration	condition $N! = 0$	$P = N\% .10$	$M = M + N\% . P$	$N = N/10$	output Values of M|N|P
1	true $248! = 0$	$P = 248\% .10$ $= 8$	$M = 30 + 248\% .8$ $= 30 + 0$ $= 30$	$N = 248/10$ $N = 24$	30 (24) 8
2	After 1st iteration $N = 24! = 0$	$P = 24\% .10$ $= 4$	$M = 30 + 24\% . 4$ $= 30 + 0$ $= 30$	$N = 24/10$ $= 2$	30 (2) 4
3	Then; $N = 2! = 0$	$P = 2\% .10$	$M = 30 + 2\% .2$ $= 30 + 0$ $= 30$	0	30 (0) 2
4	$N = 0 = 0$				

In the 4th iteration the N value become 0 then the false block is return as a result, that is $\boxed{M = 30}$

2) A Given

$A = 62$

$B = 7$

condition to check $B! = 0$. Here the condition is ~~false~~

True so the True block is started to execute.

No. of Iteration	$B! = 0$	$D = A\% . 0$	$Q = A/10$	$D = D * 10$	$A = D + Q$	$A = A + 1$	$B = B - 1$
①	$7! = 0$	$D = 62\% .10$ $= 2$	$Q = 62/10$ $= 6$	$D = 2 * 10$ $= 20$	$A = 20 + 6$ $= 26$	$A = 26 + 1$ $= 27$	$B = 7 - 1$ $= 6$
②	$6! = 0$	$D = 27\% .10$ $= 7$	$Q = 27/10$ $= 2$	$D = 7 * 10$ $= 70$	$A = 70 + 2$ $= 72$	$A = 72 + 1$ $= 73$	$B = 6 - 1$ $= 5$

③	$5! = 0$	$D = 73 \% 10$ $= 3$	$Q = 73/10$ $= 7$	$D = 3 \times 10$ $= 30$	$A = 30 + 7$ $= 37$	$A = 37 + 1$ $= 38$	$B = 5 -$ $= 4$
④	$4! = 0$	$D = 38 \% 10$ $= 8$	$Q = 32/10$ $= 3$	$D = 8 \times 10$ $= 80$	$A = 80 + 3$ $= 83$	$A = 83 + 1$ $= 84$	$B = 3 -$ $= 2$
⑤	$3! = 0$	$D = 84 \% 10$ $= 4$	$Q = 84/10$ $= 8$	$D = 4 \times 10$ $= 40$	$A = 40 \times 8$ $= 48$	$A = 48 + 1$ $= 49$	$B = 3 -$ $- 2$
⑥	$2! = 0$	$D = 49 \% 10$ $= 9$	$Q = 49/10$ $= 4$	$D = 9 \times 10$ $= 90$	$A = 94 + 1$ $= 94$	$A = 94 + 1$ $= 95$	$B = 2 -$ $= 1$
⑦	$1! = 0$	$D = 95 \% 10$ $= 5$	$Q = 95/10$ $= 9$	$D = 5 \times 10$ $= 50$	$A = 50 + 9$ $= 59$	$A = 59 + 1$ $= 60$	$B = 1 - 1$ $= 0$
⑧	$0 = 0$						

In the 8th iteration the B value become 0 then the false block print A is return as a result that is 62

3)

Given :-

$$P = 5$$
$$q = 8$$
$$r = 4$$

$$\overset{\circ}{y} \, ((P \wedge q < (10 + P)) \qquad \left[\text{here } \wedge \text{ stands for Bitwise XOR operator so perform Bit wise XOR operation on 5 and 9.} \right]$$

$$
\begin{aligned}
5 &= 0101 \\
(XOR) \, 9 &= 1001 \\
\hline
P \wedge q = & \underline{1100} = 12
\end{aligned}
\qquad
\begin{aligned}
&= 10 + P \\
\text{And} \quad & 10 + 5 \\
&= 15
\end{aligned}
$$

$\therefore \overset{\circ}{y} \, ((12 < 15))$ The statement of condition is true Then we perform

$$P = q + q$$

that is , $P = 8 + 8$
$$= 16$$

Add, $p + q + \gamma = 16 + 8 + 4$

$\qquad = 28.$

4) Given $a = 6$

$\qquad b = 7$

$\overset{o}{\text{if}} \ (7 > 6 \ \&\& \ 6 > 3)$

$\qquad (T \ \&\& \ T) = \text{True}$

Then

$\qquad a = (7 + 1) + 6$

$\qquad = 8 + 6$

$\qquad = 14$

$\qquad b = 1 + 3 + 14$

$\qquad = 18$

return $14 - \text{funn}(18, 18)$

Again the function is called this time the $\overset{o}{\text{if}}$ condition is getting false ($18 > 6 \ \&\& \ 18 > 3$) so the else part is executed Then $18 - 1 = 17$.

$\qquad = 14 - 17$

$\boxed{\text{O/p} \quad = -3}$

5) Given

$\qquad a = 3$

$\qquad b = 4$

$\qquad c = 10$

$\qquad a = 10 + b$

$\qquad a = 10 + 4$

$\qquad a = 14$

$\overset{o}{\text{if}} ((14 + 4 + 10) < (4 + 10 + 14)) = 28 < 28$

$\overset{o}{\text{is}}$ False.

Then move on to next line of the program

$\overset{o}{\text{if}} ((4 + 14 + 7) < (5 + 10 + 4))$

$\qquad 25 < 19 \ \overset{o}{\text{is}}$ also false

Then move on to next line of the program

$\qquad$ else part

$\overset{o}{\text{if}} ((4 + 10) < (10 - 4))$

$14 < 6 \ \overset{o}{\text{is}}$ also false

Then the control $\overset{o}{\text{is}}$ move on to the last statement of the program.

print $a + b + c$

$\qquad = 14 + 4 + 10$

$\qquad = 28$

O/p :-

$\qquad 28.$