+ +

Multiplying by

+=\_\_\_\_\_\_(vii)

From (vii) -=

+

( +)

The auxiliary equation is

+ = 0

= +ἰn

= cos(nsin(n\_\_\_\_\_(viii)

Again from (vii)

+

+0

Multiplying by R

+0

Which is parametric Bessel equation.Its solution is

= ( r) + r)\_\_\_(ix)

Put the value of ,, in (ii)

( r) + cos(nsin(ncos (mz) + sin (mz).cos(cx) +sin(cx)

Is the required solution of given equation.