This short note concerns the paper mentioned in the title. The statement of Theorem 1.1(ii) and so that of Corollary 1.2 given in that paper is not correct. For the uniqueness of \( f \) and \( g \) some extra conditions are required. Since the proof of that particular portion of Theorem 1.1(ii) depends upon Lemma 2.11(ii), so the statement as well as the proof of Lemma 2.11(ii) should also be rectified. In the statement of Theorem 1.1(ii) and so in Corollary 1.2 the extra condition “and the two expressions \( \sum_{j=0}^{n+2} \left( \frac{f}{g} \right)^j \) have no common simple zeros” should be added. Naturally in the proof of the Lemma 2.11(ii) some more analysis regarding the zeros of \( \eta - u_k \) which are not the poles of \( g \) is required since the salient part of the proof is depending on the proof that \( \eta - u_k \) has multiple zeros. The corrected statements and proofs of Theorem 1.1(ii) and the corresponding Lemma 2.11(ii) are given below.

**Theorem 1.1.** Let \( f \) and \( g \) be two transcendental meromorphic functions such that \( f^n(af^2 + bf + c)f' \) and \( g^n(ag^2 + bg + c)g' \) where \( a \neq 0 \) and \( |b| + |c| \neq 0 \) share \( \alpha \). Then the following holds.

(ii) If \( b \neq 0, c \neq 0, n > \min \{ 12 - 2\Theta(\infty; f) - 2\Theta(\infty; g) \} \), the roots of the equation \( az^2 + bz + c = 0 \) are distinct, one of \( f \) and \( g \) is non entire meromorphic functions having only multiple poles and the two expressions \( \sum_{j=0}^{n+1} \left( \frac{f}{g} \right)^j \) and \( \sum_{j=0}^{n+2} \left( \frac{f}{g} \right)^j \) have no common simple zeros then \( f \equiv g \).

**Corollary 1.2.** Let \( f \) and \( g \) be two transcendental meromorphic functions, one of \( f \) and \( g \) is non entire meromorphic functions having only multiple poles and the two expressions \( \sum_{j=0}^{n+1} \left( \frac{f}{g} \right)^j \) and \( \sum_{j=0}^{n+2} \left( \frac{f}{g} \right)^j \) have no common simple
zeros, such that \( n > [12 - 2\Theta(\infty; f) - 2\Theta(\infty; g) - \min\{\Theta(\infty; f), \Theta(\infty; g)\}] \) be an integer. If \( af^n(f - \beta_1)(f - \beta_2)f' \) and \( ag^n(g - \beta_1)(g - \beta_2)g' \) share “(\( \alpha, 2 \))”, where \( \beta_1 \) and \( \beta_2 \) are the distinct roots of the equation \( az^2 + bz + c = 0 \) with \( |\beta_1| \neq |\beta_2| \), then \( f \equiv g \).

**Lemma 2.11.** Let \( F \) and \( G \) be given as in Lemma 2.9 and \( n(\geq 6) \) be an integer. Suppose \( F \equiv G \). Then the following holds.

(ii) If \( b \neq 0, c \neq 0 \), and the roots of the equation \( az^2 + bz + c = 0 \) are distinct and one of \( f \) and \( g \) is non entire meromorphic function having only multiple poles and the two expressions \( \frac{b}{n+2} g \sum_{j=0}^{n+1} \left( \frac{f}{g} \right)^j \) and \( \sum_{j=0}^{n+2} \left( \frac{f}{g} \right)^j \) have no common simple zero then \( f \equiv g \).

**Proof. Case 2.** Suppose \( b \neq 0 \) and \( c \neq 0 \). Then \( F \equiv G \) implies

\[
Af^{n+3} + Bf^{n+2} + Cf^{n+1} \equiv Ag^{n+3} + Bg^{n+2} + Cg^{n+1},
\]

where \( A = \frac{a}{n+3} \), \( B = \frac{b}{n+2} \) and \( C = \frac{c}{n+1} \).

Let us assume \( f \neq g \).

**Subcase 2.1.** Suppose the roots of the equation \( az^2 + bz + c = 0 \) are distinct. Since (1) implies \( f, g \) share \( (\infty, \infty) \) without loss of generality we may assume that \( g \) has some multiple poles. Putting \( \eta = \frac{f}{g} \) in (1) we get

\[
Ag^2(\eta^{n+3} - 1) + Bg(\eta^{n+2} - 1) + C(\eta^{n+1} - 1) \equiv 0.
\]

i.e.,

\[
Ag^2 \equiv -Bg \frac{\eta^{n+2} - 1}{\eta^{n+3} - 1} - C \frac{\eta^{n+1} - 1}{\eta^{n+3} - 1}.
\]

First we observe that since a meromorphic function can not have more than two Picard exceptional values, \( \eta \) takes at least \( n \) values among \( u_k = \exp(\frac{2k\pi i}{n+3}) \) where \( k = 1, 2, \ldots, n + 2 \).

Let \( z_0 \) be a pole of \( g \) with multiplicity \( p(\geq 2) \), which is not a root of \( \eta - u_k = 0 \). Then from (2) we have

\[
2p = p \quad \text{i.e.,} \quad p = 0,
\]

which is impossible.

Hence from (2) we see that the poles of \( g \) are precisely the roots of \( \eta - u_k = 0 \).

Suppose \( z_1 \) is a zero of \( \eta - u_k \) of multiplicity \( r \) which is a pole of \( g \) with multiplicity \( s \) (say) then from (2) we see that

\[
2s = r + s
\]

i.e.,

\[
r = s.
\]

Since \( g \) has no simple pole, it follows that such points are multiple zeros of \( \eta - u_k \).
From (2) we know

\[ Ag^2 \equiv - \frac{B g \sum_{j=0}^{n+1} \eta^j + C \sum_{j=0}^{n} \eta^j}{\sum_{j=0}^{n+2} \eta^j}. \]

Suppose \( z_2 \) be a simple zero of \( \eta - u_k \) where \( k = 1, 2, \ldots, n + 2 \), which is a zero of multiplicity \( q(\geq 2) \) of the numerator of (3). Then from (3), \( z_2 \) would be a zero of order \( q - 1 \) of \( g^2 \). So it follows that \( z_2 \) would be a zero of \( \sum_{j=0}^{n} \eta^j \). Since \( \sum_{j=0}^{n+2} \eta^j \) may have at most one common factor, we see that \( \eta - u_k \) has multiple zeros for at least \( n - 1 \) values of \( k \in \{1, 2, \ldots, n + 2\} \). Hence

\[ \Theta(u_k; \eta) \geq \frac{1}{2}, \]

for at least \( n - 1 \) values of \( k \), which implies a contradiction as \( n \geq 6 \). \( \square \)

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