Question Number	Scheme	Marks
1(a)	<table><tr><td>**Singer**</td><td>*A*</td><td>*B*</td><td>*C*</td><td>*D*</td><td>*E*</td><td>*F*</td><td>*G*</td><td>*H*</td></tr><tr><td>**Jury rank**</td><td>2</td><td>4</td><td>1</td><td>5</td><td>8</td><td>7</td><td>3</td><td>6</td></tr><tr><td>**Audience rank**</td><td>2</td><td>1</td><td>3</td><td>4</td><td>7</td><td>8</td><td>5</td><td>6</td></tr></table>	M1
	$\left[\sum d^2 =\right] 0+9+4+1+1+1+4+0\ [=20]$	M1
	$\left[r_s =\right] 1-\dfrac{6\times"20"}{8\times(8^2-1)}=0.7619...\left[=\dfrac{16}{21}\right]$ **awrt 0.762**	dM1A1
		(4)
(b)	$H_0:\rho=0,\ H_1:\rho>0$	B1
	CV $r_s=0.6429$ or CR: $r_s>0.6429$	B1
	Reject H_0 or significant or ($r_s=0.762$) lies in the critical region or there is evidence of positive correlation	M1
	There is sufficient evidence of a **positive correlation** between the **rankings** of the **jury** and the **audience**.	A1ft
		(4)
(c)	The rankings for ***E*** and ***F*** would be the same	B1
		(1)

	Notes	Total 9
(a)	**M1**	For an attempt to rank the jury scores (at least four correct). May be implied by $\sum d^2=20$ Condone if ranking is not shown, and we have at least 4 correct differences squared
	M1	For an attempt to find the difference between each of the ranks (at least 3 correct) and evaluating $\sum d^2$. May be implied by awrt 0.762 or 20 (in formula) NB if no ranks for the jury, then it is M0
	dM1	**Dependent on 1st M1**. For using $r_s=1-\dfrac{6\times\sum d^2}{8\times(8^2-1)}$ with their $\sum d^2$
	A1	$\dfrac{16}{21}$ or awrt 0.762
(b)	**B1**	Both hypotheses correct. Must be in terms of ρ or ρ_s (allow something that looks like rho e.g. *p*). Must be attached to H_0 and H_1. (Do not allow hypotheses in words on their own)
	B1	CV of ±0.6429 or better. Sign should match their H_1 or r_s
	M1	For a correct statement comparing their CV ($\lvert CV\rvert<1$) with their r_s ($\lvert r_s\rvert<1$) - no context needed but do not allow contradicting non-contextual comments. If a comparison is made it must be correct e.g. 0.762 > 0.05 is M0) A correct contextual conclusion may imply this mark.
	A1ft	Correct conclusion in context for their value of r_s from (a) and their stated CV. Conclusion must refer to **positive correlation**, **jury**, **audience** and **rankings** o.e. (Use of "association" is A0)
	SC	For use of two tailed test: may score B0B1M1A0 (CV of ±0.7381)
(c)	**B1**	For the idea that both E and F will have the same rank (7.5). If the rank is stated it must be 7.5. Must mention both E and F (or imply) and allow explanations such as 'equal rank', 'average rank', tied 'rank'. If an incorrect rank or letter pairing is given then B0. Accept order for rank