Table 1: The Scott-Knott ranks (r), and the mean and std, denoted as Mean (std). The green cells denote the one with the best rank over all the approaches.

	'		ΑQ		AQHP		AQSB	_	AQLB		ADF	ADFHP	HP HP	₹	ADFSB	*	ADFLB		EIDIG	E	EIDIGHP		EIDIGSB	EI	EIDIGLB
Dataset	metric	٠ «	Mean (std)	٠	Mean (std)		Mean (std)	٠ ،	Mean (std)	٠ ٠	Mean (std) 7	7 Me.	Mean (std) 7	7 -	Mean (std)		Mean (std)	٠ ٠	Mean (std)		Mean (std)	٠, -	Mean (std)	, .	Mean (std)
	TSA	0 4	70.04 (0.21)	ი_	54 53 (2.76)	٠,	74.03 (0.03)	۰ ر	(2.00) (2.00)	v 6	56 59 (0.23)	1 547		1 6	(74.0) 16.47	7 -	72.04 (0.70)	v 60	73.32 (0.20)	t c	56.45 (1.86)	,	74.03 (0.01)	7 -	70.07 (0.90)
BANK	NC	r 00	71.31 (0.20)	r 4	64.02 (1.27)	4 -	74.14 (1.73)	a 65	71.06 (2.69)		71.46 (0.31)	4 53.8			74.52 (1.19)		69:04 (3:04)	2 0	71.67 (0.16)	J 4	63.71 (0.90)	٠ -	74.21 (2.39)	, ₀	68.86 (2.80)
	NBC	ec	10.13 (0.31)	4	9.38 (1.58)	3	10.11 (1.52)	П	15.69 (1.04)	6	10.93 (0.20) 4	4 9.14		2 12	12.84 (0.94)	-	15.88 (1.32)	ec	10.59 (0.29)	ec	10.83 (1.82)	2	12.47 (1.52)	-	15.97 (1.03)
	SNAC	3	15.31 (0.21)	4	12.99 (1.33)	3	15.55 (0.71)	1	19.55 (0.59)	33	15.11 (0.08) 4	4 12.8	_		15.23 (0.54)	2	18.37 (0.37)	3	15.36 (0.24)	4	13.09 (1.70)	3	15.33 (0.58)	2	18.57 (0.64)
	DSA	2	75.43 (0.15)	2	69.23 (1.74)	3	72.73 (0.92)	1	77.72 (1.35)	2	75.08 (0.21) 4	4 70.7	70.73 (1.14)	3 72	72.68 (0.78)	1	77.40 (0.90)	2	75.10 (0.32)	4	70.51 (0.98)	2	75.59 (0.72)	1	77.32 (0.80)
	LSA	2	61.63 (0.27)	2	53.04 (3.04)	3	58.41 (0.60)	-	64.77 (1.70)	2	61.46 (0.28) 4	4 55.4	55.47 (0.77)	3 58	58.88 (0.57)	1	65.04 (1.70)	2	61.56 (0.18)	4	55.41 (0.92)	2	61.96 (0.59)	1	64.96 (2.03)
ADULT	NC	3	71.08 (0.31)	4	69.42 (3.20)	2	76.01 (1.02)	2	74.47 (1.38)	4	69.32 (0.15) 3	3 70.5	70.94 (3.29)	1 76	76.02 (1.08)	.,	74.66 (1.42)	3	71.28 (0.17)	3	70.79 (2.22)	Т	76.71 (0.78)	2	74.87 (1.56)
	NBC	4	10.62 (0.35)	3	11.71 (1.11)	4	10.60 (1.78)	1	19.04 (1.04)	3	11.95 (0.45) 2	2 13.0			11.36 (1.53)	-	18.84 (1.43)	2	13.50 (0.24)	7	13.57 (1.60)	3	11.36 (1.73)	1	18.82 (1.25)
	SNAC	4	15.98 (0.17)	33	17.96 (1.47)	1	19.50 (0.91)	3	17.69 (0.66)	2	+		+	2 18	18.45 (0.89)	£	17.45 (0.75)	33	17.51 (0.20)	4	16.27 (1.94)	2	18.76 (0.79)	2	17.46 (0.92)
	DSA	en 0	76.69 (0.18)	en 0	76.93 (1.44)	2 0	77.86 (1.33)	4 .	74.16 (1.02)	en (77.91 (1.62)	 	81.65 (0.89)	ლ ი	76.52 (1.26)	2 0	78.08 (0.46)	2 0	77.89 (2.55)	.,	81.85 (0.87)	ς, 	76.84 (1.10)
	LSA	n (59.13 (0.25)	n .	59.45 (1.86)	7 -	65.72 (0.57)	4 .	57.25 (2.40)	n 0	_	2 65.9	65.91 (0.98)	ا ت ر	(4.77)	ກ (60.00 (2.20)	7 (66.01 (0.18)	.7	66.29 (1.32)	٠,	69.44 (0.98)	n .	59.58 (2.26)
CREDIT	NC	m (74.71 (0.25)	- ,	80.01 (2.77)	n 0	75.13 (1.22)	4 (73.03 (0.37)	n (74.94 (0.25)	1 80.2			77.82 (1.29)	m	74.81 (0.58)	n 0	74.78 (0.27)	- ,	80.41 (2.76)	27 0	77.97 (1.09)	m ,	74.84 (0.55)
	NBC	n (14.38 (0.13)	en .	14.65 (1.87)	· .	14.45 (2.02)	7 1	22.50 (1.16)	n 0	14.45 (0.27) 3	3 14.7	_	7 .	18.59 (1.94)		22.44 (1.13)	n 0	14.53 (0.31)	7 (18.88 (2.30)		18.71 (1.64)		21.68 (1.13)
	SNAC	60	20.37 (0.31)	2	22.52 (2.72)	4	18.70 (0.76)	2	22.43 (0.81)		20.13 (0.28)	2 22.7	22.74 (2.45)	1.	18.31 (0.81)		24.09 (0.81)	en	20.48 (0.32)	2	22.52 (2.08)	4	21.32 (0.79)	-	24.61 (0.60)
	DSA	3	71.07 (0.23)	4	69.39 (2.08)	2	75.79 (0.90)	-	81.40 (1.28)	3	71.27 (0.32) 4	4 68.8			75.28 (0.68)	-	81.09 (1.03)	3	71.43 (0.20)	4	68.80 (1.56)	7	75.04 (0.96)	-	81.46 (1.45)
(LSA	m ·	57.87 (0.23)	4	55.45 (2.61)	2	61.00 (0.58)	- ,	63.92 (1.27)	ec 1	57.99 (0.13) 4	4 55.7		7 9	60.89 (0.57)	- ,	64.19 (0.95)	en 1	57.95 (0.24)	4	55.52 (2.26)	2	60.83 (0.60)		63.80 (1.10)
GERMAN	S	4	65.71 (0.19)	2	63.80 (2.82)		69.94 (1.29)	.7	71.90 (1.13)	·n	69.63 (0.17) 4	4 65.4	65.44 (2.35)	9	69.52 (0.91)	71	71.74 (0.90)		69.39 (0.25)	4	65.79 (2.66)	77	71.35 (1.05)	-	74.06 (1.11)
	NBC	4 0	10.45 (0.21)	2 0	15.14 (2.07)	e ,	12.98 (1.26)	2 0	15.55 (1.46)	4 (10.01 (0.22) 2	2 15.2	15.28 (1.49)	3	13.59 (1.47)	 ლ	13.26 (1.32)	en 0	13.13 (0.21)		17.44 (2.28)	en 0	12.92 (1.03)	2 0	17.66 (0.91)
	SNAC	۰ ۰	14.77 (0.21)	7	(26.1) (1.92)	- [·	22.06 (0.54)	n ,	14.90 (1.25)	۰ د	14.61 (0.22)	2.02 2	+		22.31 (0.93)		14.50 (1.17)	7 .	20.61 (0.21)	7 .	(65.2) (20.02)	7	20.43 (1.10)	~ °	14.54 (1.05)
	DSA	n .	75.47 (0.26)	4 -	70.63 (1.76)		78.10 (0.67)	e :	75.93 (1.99)	2 0	77.39 (0.34) 4	70.1	70.14 (2.59)	2 77	77.84 (0.65)		75.59 (1.88)	7 0	77.52 (0.19)	n .	75.52 (1.85)		78.22 (0.63)	e .	75.03 (1.87)
COMBAS	FSA NC	n (74 01 (0.14)	4 -	54.10 (0.97)	٠.	78 07 (1 05)	o «	71 50 (1.14)	7 0	62.00 (0.40) 4	3 71 4			02.48 (0.83)	o	57.42 (1.01)	v c	74 06 (0.16)	n "	57.54 (1.26)	٠.	05.34 (0.79)	o c	57.09 (1.38)
	NRC	1 4	12 16 (0 26)	r or	14.31 (1.73)	٠,	14 11 (1 01)		16 42 (1 48)	1 4	12.03 (0.24)	3 143		, ,	16 53 (0.70)	, -	(5,0) ±5,17	a cr	14 02 (0.33)	n 65	14 39 (2.01)	, ,	16.85(1.04)		18 32 (1.60)
	SNAC	. 4	17.35 (0.26)	. 2	19.61 (1.81)	2	19.79 (0.68)	,	22.48 (2.38)		18.23 (0.33) 2	2 19.6			19.75 (0.31)		22.11 (1.83)	. 01	19.56 (0.40)	, 60	18.30 (2.64)	1 61	19.64 (0.43)	, 2	19.58 (1.90)
	DSA	4	56.88 (0.20)	ı,	54.09 (1.30)	3	61.57 (2.88)	2	(62.79 (1.29)	4	56.32 (0.29) 5	5 54.6		-	61.75 (2.48)		65.44 (0.91)		61.52 (0.41)	4	56.90 (1.36)	2	65.19 (2.77)	-	(69.71 (1.05)
	LSA	4	64.57 (0.26)	2	62.11 (2.52)	3	66.41 (0.78))	2	69.27 (2.05)	4	64.73 (0.20) 5	5 62.5			66.28 (0.94)	2	(1.61)	3	66.03 (0.33)	4	64.50 (2.39)	2	69.15 (0.72)	-	72.65 (1.59)
LAWSCHOOL	NC	3	77.99 (0.29)	4	73.69 (3.35)	3	78.10 (0.49)	2	79.51 (0.83)	3	77.90 (0.18) 4	4 73.1	73.10 (3.80) 2	2 75	79.29 (0.66)	1	82.95 (1.02)	3	78.29 (0.20)	4	73.52 (3.03)	2	79.54 (0.65)	1	82.93 (0.69)
	NBC	3	16.59 (0.25)	-	22.71 (1.66)	2	20.80 (1.15)	3	16.25 (1.13)	3	16.50 (0.20) 3	3 16.2	16.21 (2.23)	1 2.	22.48 (0.89)	2	20.42 (1.15)	3	16.47 (0.24)	3	16.65 (1.94)	7	20.38 (1.12)	2	20.64 (1.08)
	SNAC	4	16.93 (0.37)	3	19.44 (2.56)	3	19.63 (1.01)	1	23.74 (1.51)	4	16.90 (0.26) 3	3 19.5	\dashv	2 22	22.51 (1.33)	1	23.72 (1.38)	3	19.94 (0.37)	3	19.96 (2.95)	2	22.84 (1.25)	2 2	22.43 (1.37)
	DSA	3	68.03 (0.18)	2	61.08 (1.36)	4	56.91 (1.42)	4	57.07 (1.05)	2	69.51 (0.31) 2	2 69.1	69.14 (0.89)	4 5.	57.58 (1.17)	3	(0.1)	2	69.50 (0.17)	-	72.85 (0.93)	4	57.16 (1.45)	3	68.31 (0.73)
	LSA	m (65.96 (0.38)	2 0	69.74 (2.71)	4 .	60.61 (1.00)	4 (60.88 (1.26)	2 0	70.04 (0.26) 2	2 69.5	69.91 (1.94)	4.	60.47 (0.75)	e .	65.32 (1.66)	7	70.20 (0.29)	- ,	73.85 (1.56)	4 .	60.59 (0.89)	e .	65.82 (1.42)
CODENT	NBC	1 4	10.02 (0.20)	v 60	12 18 (1 80)	, -	16 60 (0.95)	, ,	14 69 (0 58)	4 er	70.30 (0.14)	3 11.8	(4.4.4) (7.0)	, -	(16.0) 72.60	, ,	14 68 (0 91)	1 6	14 97 (0.20)	v 60	12.09 (1.77)	, -	16 27 (0.83)	, ,	00.40 (1.03)
	SNAC	' κ	16.85 (0.30)	2	19.41 (2.54)	, 6	17.00 (0.83)	-	20.07 (0.80)		16.93 (0.29) 2	2 19.8	19.86 (2.46)	3 17	17.08 (0.68)	. 2	(6.80) 08.61	ı m	17.16 (0.32)	· 60	17.39 (2.88)	4	15.17 (0.67)		19.21 (1.19)
	DSA	2	71.85 (0.14)	4	65.38 (0.90)	3	68.33 (1.02)	1	73.69 (0.49)	2	72.02 (0.15) 4	4 65.9	(92.0) 86.29	3 68	(0.91)	2 7	72.10 (0.66)	2	72.16 (0.30)	4	65.45 (0.87)	3	68.46 (0.95)	1	73.40 (0.65)
	LSA	2	70.13 (0.32)	4	65.68 (2.44)	3	67.97 (0.46)	-	71.93 (2.43)	2	69.99 (0.32) 4	4 65.1	65.16 (1.51)	3	(8.09 (0.63)	2	70.32 (2.25)	2	70.51 (0.22)	4	65.05 (1.64)	8	68.32 (0.48)	-	71.74 (2.23)
CRIME	NC	e 0	70.43 (0.36)	4	(8.55 (1.59)	Η,	76.07 (1.21)	2 0	72.70 (2.13)	. 3	70.46 (0.23) 4	4 68.4	68.45 (2.33)	1 ,	75.69 (1.95)	2	72.83 (1.56)	2 0	73.02 (0.17)	6 0	70.67 (2.54)	- (75.97 (1.50)	2	72.98 (2.30)
	SNAC	n 4	15.60 (0.30)	4 °C	14.78 (1.93)	1 6	18.24 (0.80)	7 -	16.92 (1.00)	4 K	14.44 (0.20) 3	3 IS.7	15.79(1.07)	2 6	16.75 (0.80)		17.96 (1.05)	n r	19.78 (0.25)	n r	15.68 (1.23)	2 6	16.60 (0.79)		18.10 (1.12)
	DSA	· «	71.94 (0.18)	, 60	71.96 (1.48)	1 4	65.88 (1.26)	-	79.68 (0.65)	, 2	76.00 (0.14) 3	3 72.0	72.08 (1.10)	1 59	(65.32 (1.66)		(19.0) (2.0.0)	, 2	76.54 (0.20)	, ,	72.33 (0.88))	1 4	65.82 (1.42)	, -	79.72 (0.36)
	LSA	33	71.35 (0.25)	3	71.18 (2.54)	4	(69.08 (0.65))	-	77.84 (1.83)	2	72.44 (0.16)	3 71.4	71.42 (2.06)	4 69	(19:0) (6:69)		77.63 (2.19)	2	76.57 (0.28)	33	71.18 (2.01)	4	69.72 (0.36)		77.49 (1.99)
KDD-CENSUS	NC	3	71.48 (0.23)	2	74.21 (2.65)	3	71.35 (2.00)	4	69.35 (0.94)	2	73.97 (0.24) 2	2 74.1	74.14 (1.98)	3 7.	71.74 (2.04)	4	(69.92 (0.93)	2	74.20 (0.17)	1	76.24 (2.61)	2	74.12 (2.45)	8	71.46 (0.84)
	NBC	60 0	15.35 ((0.38)	e -	15.75 (1.99)	2 0	16.76 (0.59)		19.39 (1.27)	en 0	15.72 (0.33) 3	3 15.6	15.69 (1.62)	2 1.	16.43 (0.36)		19.93 (1.21)	2 .	16.63 (0.29)	2 +	16.79 (1.66)	2 0	16.86 (0.52)		19.64 (1.27)
	DSA	0 0	84 03 (0.12)	# v	64.30 (1.99)	y 6°	74 93 (2.43)	1 4	68 67 (0.46)	0 0	83 95 (0.15)	1 683		2 8	(10.0) 70.02	4 6	75.09 (0.63)	۰ -	86.03 (0.25)	# 4	68 28 (1 08)	2 6	83 74 (2 23)	4 6	75 32 (0.48)
	LSA	1 2	74.96 (0.27)	, ro	64.11 (2.34)	. "	71.44 (1.34)	. 4	68.16 (0.74)	1 2	74.52 (0.17) 4	4 68.7			74.37 (1.57)	, 60	71.49 (1.17)	,	78.73 (0.30)	. 4	68.66 (2.51)	1 21	74.37 (1.62)	, ,	71.24 (0.99)
Duтсн	NC	3	71.39 (0.24)	2	64.30 (2.50)	2	72.99 (1.44)	1	75.35 (1.24)	3	71.22 (0.17	4 67.0	67.00 (2.42	2 72	72.88 (1.27	-	75.09 (1.10)	8	71.69 (0.11	4	67.48 (2.19	2	72.92 (1.59	-	75.55 (1.25)
	NBC	3	11.59 (0.18)	3	11.33 (0.73)	3	11.66 (0.68)	2	14.21 (0.63)	3	11.85 (0.34)	1 15.5	15.52 (1.96)	2 14	14.10 (0.85)	2 1	14.13 (0.58)	3	11.30 (0.26)	1	15.18 (2.22)	1	15.54 (0.64)	2	13.97 (0.43)
	SNAC	3	17.52 (0.14)	4	15.55 (2.40)	1	22.40 (0.88)	2	19.71 (1.66)	3	17.57 (0.17) 4	4 15.6	15.68 (2.75)	1 2.	22.12 (0.66)	2	19.23 (1.54)	3	17.61 (0.22)	3	17.37 (2.58)	2	19.73 (1.02)	2	19.27 (1.67)
	DSA	en -	68.44 (0.13)	4	66.82 (1.12)	-	77.84 (1.83)	2	71.07 (2.88)	3	68.96 (0.31) 4	4 66.3	66.35 (1.29)	1 7.	77.63 (2.19)		70.75 (2.48)	2	70.98 (0.21)	4	66.50 (1.43)	-	77.49 (1.99)		71.19 (2.77)
Diabetes	LSA	n e	63.48 (0.22)	4 -	58.76 (3.22)	٠,	67.99 (0.86)	2 6	65.43 (0.94)	n .	63.96 (0.23) 4	7.38.7	58.92 (3.94)	0 1	67.79 (1.02)	2 6	65.15 (0.75)	72 6	65.56 (0.31)	4 -	59.29 (2.94)		68.29 (0.88)	2 6	65.36 (0.84)
	NBC	n 67	14 43 (0 30)	۲ ٦	12 55 (1 46)	a e	14 44 (0.61)	a 67	14 67 (0 66)	. 4	6 (0.23) (2.27)	7 167	73 (1 98)	, , ,	14.26 (0.67)		14 56 (0.80)	. 4	12.27 (0.27)		18 23 (1 18)	,	16 30 (0.67)	a er	14 45 (0.87)
	SNAC	· "	17.90 (0.23)	5	19.25 (2.16)		17.80 (0.55)		23.33 (0.92)		17.94 (0.44) 2	2 19.0	19.03 (2.39)	. 4	15.35 (0.92)		23.19 (0.53)	· 60	17.56 (0.24)	5	19.66 (2.37)	1 4	15.16 (0.79)		23.82 (0.79)
	DSA	4	75.45 (0.18)	2	72.16 (0.51)	3	79.35 (1.17)	2	81.88 (1.26)	3	79.04 (0.20) 4	4 75.2		2 82	82.33 (0.95)	-	86.32 (1.66)	2	81.99 (0.16)	4	75.69 (0.60)	2	82.49 (1.28)	-	86.82 (1.42)
	LSA	4	69.85 (0.23)	2	67.07 (3.05)	3	71.41 (0.68)	2	73.59 (1.11)	3	71.08 (0.20) 4	4 69.5	69.55 (3.94) 2	2 7.	73.70 (0.83)	1	75.15 (1.35)	2	73.75 (0.23)	4	69.61 (3.36)	2	73.83 (0.72)	1	75.43 (1.39)
OULAD	NC	3	74.90 (0.14)	4	72.41 (2.27)	3	74.91 (1.61)	2	78.82 (1.36)	3	74.99 (0.16) 4	4 72.5	72.96 (2.70)	2 7.	78.81 (1.45)		78.76 (1.71)	3	74.56 (0.19)	4	72.63 (2.51)	7	78.32 (1.32)	-	81.27 (1.23)
	NBC	4	12.52 (0.28)	4	12.04 (1.45)	2	15.86 (0.64)	3	14.68 (1.04)	3	14.52 (0.25) 3	3 14.4	14.45 (1.74)	2 1:	15.68 (0.61)	2	15.78 (0.99)	7	15.80 (0.18)	3	14.30 (1.84)	-	17.99 (0.68)	2	15.96 (1.08)
	SNAC	4	19.94 (0.38)	n_	21.73 (2.19)	.7	(25.99 (0.52)	-	26.91 (1.28)	20	21.44 (0.20) 3	3 21.4	21.41(2.12) 2	.7	(55.17 (0.55)	-	26.86 (0.79)	.7	22.04 (0.24)	n	21.59 (2.01)	7	22.12 (0.47)	. 7	22.62 (1.53)