NATIONAL INDOOR RALLY CHAMPIONSHIP MAP 149 JANUARY RALLY.

PART A Gives a rally route which can be marked onto map 149.

Contains navigational questions concerning the route.

PART C Contains questions about timing and service on the rally.

Each question or part question scores I mark for a correct answer. Maximum score = 40 Ties will be decided by the best scores on those questions marked with *

Time allowed = 1 hour 30 mins.

PART A - THE ROUTE

MAP EDITION USED: B (1969)

TC = Time Control. PC = Passage Control. SS = Special Stage. SH = Spot Height.

These I Km. squares are out of bounds: 8123, 8316, 8817, 9719.

RULES a) No part of the route may use a road twice, not even to cross the route.

- b) All roads leading to the edge of the map are treated as dead ends.
- c) Neither the GCR's nor the SSR's of the RAC apply to this event.
- d) All route information is given in the correct order.
- e) Distances given must be assumed to be correct.
- f) Follow the shortest route based on the information given.
- g) Assume all white roads are 'goers', even if your local knowledge tells you otherwise.
- h) The routes within SS are not given and should not be necessary.

TC	SS	ROUTE INFORMATION
TC 1		(Start) Colchester Town Hall (996252).
		Leave Colchester on B 1026. Via 974205 (approach from N), and 985202 (approach from NW)
PART	C - TIMENY	to SS 1.
	SS 1	Start: 982186 (depart to NE) Finish: 964172.
		Via 948175 & 935183. Turn R at next crossroads. Approach Start SS 2 from SE.
	SS 2	Start: 922190. Finish: 912202.
		Pass through Messing. Via 876181 (approach from ENE), 840157, 826160 to SS 3.
	SS 3	Start: 823195. Finish: 828213 (depart to WNW).
		Via 814219 & 801224 to TC 2.
TC 2		796233 (approach from ESE). TC 2 is at PH.
		Via SH 107, 175, 227 and 226 to SS4.
	SS 4	Start: 830256 (approach from SSW) Finish: 852256.
	and the same of the same	B 1024 to Earls Colne. Leave Earls Colne on A 604 and turn L at the first junction after the
	700 000	RAC box on Stonebridge Hill. Via 825282, 800285 and 786283. Via SH 226 to SS 5.
	SS 5	Start: 764299 (approach from S). Finish: 748314.
		Via 733385, via SH 268, 227, 275, to TC 3.
TC 3		724428 (approach from S)
		Cross under a disused railway to SS 6.
The state of	SS 6	Start: 733446. Finish: 749452.
		TR at Finish SS 6, TL at A 1092 and via SH 146, 164, 194 and 226 to SS 7.
	SS 7	Start: 770490 (depart to WSW) Finish: 773516.
-		Via SH 243, pass a church with a tower and a disused windmill. Via 222, 268, 277, 241,
		to start SS 8.
200	SS 8	Start 824547 (depart to S) Finish: 828525.
		TL after SS 8 and TR at next crossroads. B 1066, A 1092, and A 134 to TC 4.
TC 4		(Finish) 868468 (approach from SSW).

c)

DISTANCES & TIM	ES ALLOWED:	
TC 1 to TC 2:	37 miles	- 1 hour 15 mins.
TC 2 to TC 3:	31 miles	- 1 hour 00 mins.
TC 3 to TC 4:	26 miles	- 0 hours 50 mins.

SPECIAL STAGES:		Want Parker I will all to	gi i serios notasuji Irio
	Distance	Surface	Target time
SS 1	6.0 miles	Tarmac	5 m. 00 secs.
SS 2	2.0 miles	Tarmac	2 m. 00 secs.
SS 3	4.0 miles	Dirt	4 m. 00 secs.
SS 4	4.0 miles	Dirt	4 m. 00 secs.
SS 5	3.0 miles	Tarmac	3 m. 00 secs.
SS 6	3.0 miles	Dirt	3 m. 00 secs.
SS 7	3.0 miles	Tarmac	3 m. 00 secs.
SS 8	2.0 miles	Dirt	2 m. 00 secs.

PART B - NAVIGATION

	Questions	Allswers
1.	PC 1 is at the first point after SS 1 where an electricity transmission line crosses the route. What is the reference of PC 1?	建基本工程
2.	PC 2 is at the highest SH on the route between SS 2 and SS 3. What is its reference?	
3.	PC 3 is 3.6 miles from Braintree Town Hall and 5.2 miles from Kelvedon Station.	That is the
	It is between SS 3 and SS 4. What is the reference of PC 3?	
4.	PC 4 is between SS 4 and SS 5. Draw a line from the island in Gosfield Lake to the	
	most southerly public house in Sq. 9023. This line will cross the route in several	
	places and PC 4 is at the crossing nearest to a milestone. Counting from W to E,	100
_	at which crossing will PC 4 be located?	
5.	PC 5 is 2.3 miles grid W of the intersection of latitude 52° N and longitude 0° 35' E. What is the reference of PC 5?	1.8
6.	Using the base of the map symbol in each case, draw lines from the windpump in Sq.	
	7648 to the windpumps in Sqs. 7846 and 7643. Draw a third line from the 7846 windpump	
	to the disused windmill in 7547. PC 6 is on the route within the triangle which these three	
	lines form and is at an altitude of exactly 200 ft. What is the reference of PC 6?	1 3 28
7.	PC 7 (between SS 7 and SS 8) is 1.7 Kms. due N of Somerton church. How far is it	
	in a straight line from Stansfield church? (measure in miles for the answer and measure	19.65
0	from the base of the symbol in each case).	
8.	PC 8 is at the most westerly point on the route between the end of SS 8 and the finish. Is this point lower or higher than the finish of SS 8?	88
9.	* SS 4 is cancelled. From TC 2 go via 798254 (approach from S) Turn L at the next	
	junction, R at the following junction and so on, turning alternately L and R at	121
	successive junctions but ignoring dead ends. Where the choice is between a turn and	
	a SO take the road which is most to the L or most to the R as the case may be. Counting	
	the L at the first junction, what is the total number of L and R turns you will make to	
	reach the start of SS 5?	a)
	If PC 4 is to be in the same 1 Km. Sq. as it was on the original route and is to be at	
	a junction, what will its reference now be?	b)

What is the reference of the most westerly point you will reach before the start of SS 5?

10.	A freak snowstorm effects that part of the route to the N of the Northing 48.	el fest succión de
	All points over 250 ft. are impassable. Which stage starts and finishes would	
	still be usable?	sd W .maini)
11.	TC 4 has to be relocated at 850389, (approach from N). Draw a line from the	
	finish of SS 8 to the new TC 4 and put a route to follow this line as closely as	
	possible. At what reference will the route cross a County Boundary?	a)
	How many SH's would the route pass through after SS 8?	b)
12.	Because of staff shortages, British Rail can no longer open any level crossing	
	on the Chelmsford to Colchester line to road traffic. You must make a diversion	
	between SS 2 and SS 3 but still use as much as possible of the original route. At	
*	what reference will you rejoin the original route?	
13.	How many times does the route cross the R. Blackwater?	
14.	The bridge over Bourne Brook in Sq. 8127 is closed for repair. Divert round it	
	to use as much of the original route as possible. How many SH's do you pass	
	through on the diversion?	adi enomal. 25
15.	Objections from local residents prevent the rally from passing through 749450 and	
	754470. How many churches must you now pass to get from the finish of SS 6 to the	
	start of SS 7? (Take the shortest route).	is tool arrows
16. *	The electricity transmission line at PC 1 is broken and the road is closed at that point.	
	From SS 1 go via SH 82 to rejoin the original route at 939181. PC 1 is relocated 1.1 m.	
	due N of the western extremity of Abberton Reservoir. From what direction is PC 1	
	now approached?	a)
	How many times do you now pass under an electricity transmission line between the	
	finish of SS I and PC 1?	b)

PART C - TIMING & SERVICE

Notes:	a)	First car	leaves	the start at	t 19. 00 hrs.	b) (Cars start a	one min.	intervals.	c) A	All road	sections	are	tarmac.
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d)	Penalties .	

- (i) per minute over the time allowed from TC to TC = 60 penalties.
- (ii) per minute less than the time allowed from TC to TC = 120 penalties.
- (iii) per second over the target time for an SS = 1 penalty (no penalty for beating target time)

at TC 2?

- (iv) missing any TC, PC or SS = exclusion.
- 17. If car No. 21 left the road on SS 3 and was 13 mins. late at the next TC, at what time would it reach the finish if no other road penalties were incurred?
- 18.* Your car is 5 secs. / mile quicker on racing tyres than on M&S on tarmac. On dirt it is 4 secs. / mile quicker on M&S than on racing. If you could use only one set of tyres for the rally, which would you choose for best stage times?
 If you could change tyres at TC 2 only, which tyres would you fit; at the start?

19. Your car does 10 mpg on SS and 15 mpg on the road sections. You must start with enough fuel for the complete rally plus 2 gallons for emergencies. To save weight you want to fit the smallest possible tank. Your garage has 8 and 10 gallon tanks in stock. Which would you choose?

- 20. If you cleaned all the tarmac SS but lost time on the dirt SS at the rate of 1.5 secs for every minute of target time, what would your total stage penalties be? (Timing on SS is to the last completed second).
- 21. Competitor No. 7 records the following times at TC's; TC 1 = 19.06, TC 2 = 20.19, TC 3 = 21.21, TC 4 = 22.14. What are his total penalties? (Ignore SS).
- 22.* As you leave TC 2, second and third speeds in your car's gearbox stop working. Because of this you will be 30 secs/mile slower on SS than if the gearbox were working normally. Your recce has shown that it is possible to drive TC 2 to TC 3 in 53 mins. and TC 3 to TC 4 in 46 mins. Fortunately you have a service crew with a spare box immediately after TC 2. They could change the box in 16 mins. Is it worth changing?

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	a)		
	a) b)	Ref. las	
T	c)		

			our. You cannot refuel before the	All policies	
	finish What is the least			A STATE OF THE PARTY OF THE PAR	
	IMILDIN. What ID the leads	penalty you can inc	ur and still finish the rally with the	geo ad tures	
	car under its own power?	(For this calculat	ion ignore the fuel the engine will use	mead P OT	
	and assume it will run unt	il the tank leaks dr	y). A section of whom a ten time a fact wented of a	Be to datable	
4.	Your SS times are:	SS 1	5 m. 26 secs.	- aldresog	
		SS 2	2 m. 37 secs.	How many	
		SS 3	5 m. 16 secs.	Decimbe of	
		SS 4	3 m. 39 secs.	on the Chin	
		SS 5	3 m. 29 secs.	de mandad	
		SS 6	3 m. 08 secs.	oley today	
		SS 7	4 m. 10 secs.	Mew many	
		SS 8	2 m. 02 secs.	oghers off .	
	What are your total stage	penalties?		a seems of	
5.	Ignore the information in	question 18 and ass	ume that racing tyres are quicker than	se Have hit	
	M&S on tarmac by exactly	the same amount	that M&S are quicker than racing on dirt.	anndo-jao	
	You have sufficient servi	ce crews and tyres	to have either type of tyre for any SS. Your	H MARKE	
	recce has shown that TCl	to TC 2 is possible	e in 1 hour 10 mins., TC 2 to TC 3 in 55 mins.	of the reality	
			nge takes 2 mins 30 secs. Timing at TC's	tracte off F	
			ot intend to lose road time, but still wish to	Tel move	
	have the best possible SS	times, what tyres	would you use on the stages?	to It est	
			a) SS 1	-	
			b) SS 2	TELLY WILL	
			c) SS 3	id to visited)	
			d) SS 4		
			e) SS 5		
			f) SS 6	ARY C-TRIB	q
			g) SS 7		1a
			h) SS 8	LANGE PLAN	
26.	If a racing tyre punctures	on a stage you wil	l lose time at the rate of 45 secs/mile for the		
	rest of the stage. For an	M&S tyre the rate	e is 35 secs/mile. To change a wheel on a stage	-	
	takes 2 mins. 30 secs. V	Vould you change a	wheel: if you had a puncture in a racing	NE TOTAL	
			tyre after 2.0 miles of SS 1?	<u>a)</u>	
			If you punctured an M&S after	Service of the servic	
			1. 0 miles of SS 4?	b)	