

Supplementary materials:

The approach for Scripts and responses.

- Prompt for all models, except for Custom GPTs:

“As an emergency physician, you are undergoing a written examination for specialty certification. Please select the most appropriate option from the four given choices according to the scenario.”

- For Custom GPTs

The settings for instructions are as follows:

As an emergency physician, you are undergoing a written examination for specialty certification. Please select the most appropriate option from the four given choices according to the scenario. During the answering process, only prioritize searching and providing answers from your “Knowledge” database, along with the source of the information. If the “Knowledge” database cannot provide an answer, you will search from the training data. The data types below are listed from the highest to lowest evidence level. If there are similar contents, please prioritize providing content with a higher evidence level. The types of data from high to low evidence level are:

1a, Systematic reviews of randomized controlled trials (RCTs)

1b, Individual RCTs with narrow confidence interval

2a, Systematic reviews of cohort studies

2b, Individual cohort studies and low-quality RCTs

3a, Systematic reviews of case-control studies

3b, Case-controlled studies

Case series and poor-quality cohort and case-control studies

Case report

Expert opinion

General websites and online resources

- Input the questions from the 2023 Emergency Medicine Specialist Examination, which took place on May 6, 2023, in Taiwan
- [https://tsem.blob.core.windows.net/pastexamcontainer/112%E5%B9%B4%E5%BA%A6%E7%AD%86%E8%A9%A6%E8%80%83%E9%A1%8C\(%E8%80%83%E5%8F%A4%E9%A1%8C%E5%85%AC%E5%91%8A\).pdf](https://tsem.blob.core.windows.net/pastexamcontainer/112%E5%B9%B4%E5%BA%A6%E7%AD%86%E8%A9%A6%E8%80%83%E9%A1%8C(%E8%80%83%E5%8F%A4%E9%A1%8C%E5%85%AC%E5%91%8A).pdf)

- The results are as follows: the performance of GPT-3.5, GPT-4, custom GPTs, and GPT-4o on the questions from the Taiwan Emergency Medicine Specialist Examination.

Type	No.	Answer	GPT-3.5	GPT-4	Custom GPTs	GPT-4o
I	1	D	B	D	D	D
II	2	C	D	C	C	C
I	3	D	C	C	A	C
II	4	D	A	A	A	D
I	5	C	B	C	C	C
II	6	B	B	B	B	C
II	7	A、C	B	B	B	A
I	8	A	D	D	D	D
II	9	B	B	B	B	B
I	10	D	D	D	D	D
II	11	B	C	A	A	A
II	12	A	D	B	D	B
IV	13	C	C	C	C	C
I	14	C	B	B	B	C
III	15	C	C	C	C	C
I	16	D	C	C	D	C
I	17	A	A	A	A	A
IV	18	A	D	A	A	A
I	19	C	B	C	C	C
II	20	C	A	D	D	D
II	21	D	D	B	C	D
I	22	C	B	C	C	C
I	23	A	A	D	A	A
IV	24	D	D	D	D	D
I	25	C	C	A	A	A
IV	26	B	C	B	B	B
I	27	D	B	D	D	D
II	28	C	B	C	C	C
II	29	C	A	C	C	C
IV	30	C	A	A	A	A
III	31	C	C	C	B	C
I	32	A	A	B	B	B
II	33	C	C	C	C	C

Type	No.	Answer	GPT-3.5	GPT-4	Custom GPTs	GPT-4o
I	34	C	B	B	C	C
I	35	A	B	B	B	B
III	36	D	A	D	B	B
II	37	C	A	C	C	C
II	38	D	D	D	D	D
I	39	B	C	B	B	B
II	40	C	B	B	D	C
II	41	A	A	A	A	A
II	42	A	D	C	B	C
III	43	D	A	D	D	D
II	44	C	A	C	A	C
IV	45	B	D	C	D	C
III	46	A	B	A	A	A
II	47	C	C	C	C	C
II	48	D	D	D	D	D
I	49	B	D	B	A	B
II	50	C	C	C	D	C
II	51	A	C	A	A	A
I	52	B	D	C	C	B
II	53	A	B	D	A	A
I	54	D	A	D	D	D
I	55	C	A	D	C	C
III	56	B	B	C	B	B
II	57	B	B	C	C	B
I	58	D	C	C	C	C
II	59	B	D	D	B	B
I	60	D	D	D	D	D
I	61	B	C	B	B	B
I	62	A	A	A	A	D
I	63	C	C	B	B	C
II	64	C	D	C	C	A
II	65	C	C	C	C	B
II	66	C	C	C	C	C
II	67	C	B	C	C	C
I	68	C	C	D	D	C
I	69	C	D	C	C	C

Type	No.	Answer	GPT-3.5	GPT-4	Custom GPTs	GPT-4o
I	70	D	B	D	B	B
III	71	B	B	D	D	A
I	72	D	A	D	D	A
II	73	A	D	A	A	A
II	74	D	A	A	A	A
I	75	D	D	D	D	D
I	76	A	B	B	B	D
I	77	B	D	B	B	B
I	78	A	D	D	D	D
I	79	B	B	B	B	B
I	80	C	B	B	B	C
I	81	B	B	C	C	B
I	82	A	A	A	A	A
I	83	A	C	B	B	C
I	84	D	D	D	D	D
I	85	A	A	D	C	B
I	86	D	B	B	B	B
IV	87	C	D	D	D	B
I	88	C	A	A	A	A
I	89	A	B	A	D	A
IV	90	D	A	D	D	D
II	91	C	C	C	C	C
II	92	B	B	B	B	B
I	93	C	D	B	C	D
IV	94	A	D	A	A	C
III	95	B	D	A	B	B
I	96	D	C	D	D	D
III	97	A	A	A	A	A
II	98	C	C	C	C	C
II	99	B	B	B	B	B
I	100	D	B	B	D	B
II	101	D	D	C	A	A
III	102	C	D	C	C	C
I	103	C	C	B	B	B
I	104	C	C	C	C	C
I	105	A	C	B	B	A

Type	No.	Answer	GPT-3.5	GPT-4	Custom GPTs	GPT-4o
I	106	B	C	B	B	B
I	107	B	B	B	B	B
I	108	C	C	C	C	C
I	109	D	D	C	A	D
II	110	C	A	C	C	C
I	111	A	C	A	A	A
I	112	D	D	D	D	D
I	113	C	B	B	B	C
I	114	A	B	B	B	A
I	115	B	A	D	D	B
I	116	D	C	D	D	D
I	117	D	B	C	B	B
I	118	B	B	B	B	B
II	119	C	C	C	C	C
II	120	D	B	B	B	C
I	121	D	C	D	D	D
I	122	C	B	C	C	C
III	123	C	C	C	C	C
I	124	C	B	C	C	B
II	125	D	B	A	B	D
II	126	D	B	B	B	B
II	127	D	B	B	B	D
II	128	B	B	D	D	B
II	129	C	A	A	A	B
III	130	D	C	D	D	D
I	131	B	B	B	B	B
II	132	D	B	A	D	D
II	133	B	B	B	B	B
I	134	C	A	A	A	A
II	135	C	B	B	B	C
III	136	C	C	C	C	D
II	137	B	A	A	D	D
I	138	B	B	B	B	B
I	139	D	D	B	B	D
IV	140	C	D	C	C	C
I	141	D	C	C	D	D

Type	No.	Answer	GPT-3.5	GPT-4	Custom GPTs	GPT-4o
I	142	D	C	C	C	A
I	143	D	A	A	A	D
I	144	C	B	C	C	C
I	145	C	D	D	C	A
I	146	D	D	D	D	D
I	147	C	A	B	C	C
II	148	B	D	B	B	B
II	149	C	B	B	C	C
II	150	D	C	D	D	D
I	151	C	B	D	D	B
IV	152	A	B	B	A	A
I	153	C	C	C	C	C
III	154	A	D	D	D	D
III	155	B	B	A	A	A
I	156	C	C	C	C	C
I	157	C	B	B	B	C
II	158	B	A	D	D	B
III	159	C	C	C	C	C
I	160	C	D	C	C	C
II	161	D	C	D	D	D
I	162	A	A	A	A	A
I	163	D	A	D	D	D
I	164	C	B	C	C	C
II	165	A	B	A	A	A
I	166	C	C	C	C	C
II	167	B	B	B	B	B
IV	168	A	C	C	C	C
II	169	A	A	D	A	D
III	170	A	A	A	A	A
III	171	D	D	D	D	D
I	172	B	A	C	C	C
I	173	C	B	A	A	A
I	174	A	A	B	B	A
II	175	A	A	B	A	D
II	176	B	B	A	A	A
II	177	D	B	A	D	D

Type	No.	Answer	GPT-3.5	GPT-4	Custom GPTs	GPT-4o
I	178	B	C	C	C	A
IV	179	B	D	C	C	B
II	180	D	A	A	D	A
I	181	C	A	C	C	C
II	182	B	A	C	C	B
I	183	D	A	D	D	D
I	184	B	B	B	B	B
II	185	C	B	B	B	B
I	186	B	B	B	B	B
I	187	A	D	B	B	A
II	188	C	D	D	D	B
I	189	C	C	C	C	C
I	190	A	A	D	D	C
II	191	A	A	B	D	A
II	192	C	C	C	C	C
II	193	C	A	B	B	C
I	194	D	C	C	D	D
IV	195	B	B	C	C	C
IV	196	D	C	C	D	D
II	197	B	C	B	B	B
I	198	B	A	B	D	D
III	199	C	C	B	B	B
I	200	A	A	A	A	A
Correct Response Numbers			77	105	119	138