

121. By selling 12 oranges for ₹ 60, a man loses 25%. The number of oranges he has to sell for ₹ 100, so as to gain 25% is
- (A) 10 (B) 11  
(C) 12 (D) 15
122. The cost price of 400 lemons is equal to the selling price of 320 lemons. Then the profit percent is
- (A) 15% (B) 20%  
(C) 25% (D) 40%
123. A man spends 75% of his income. His income increased by 20% and he increased his expenditure by 15%. His savings will then be increased by
- (A) 33% (B)  $33\frac{1}{3}\%$   
(C) 35% (D) 40%
124. 25 litres of salt solution contains 6% salt. How many litres of water must be added so as to get a resultant solution containing 5% salt?
- (A) 4 litres (B) 5 litres  
(C) 6 litres (D) 8 litres
125. The current of a stream runs at the rate of 4 km an hour. A boat goes 6 km and comes back to the starting point in 2 hours. The speed of the boat in still water is
- (A) 6 km/hour (B) 8 km/hour  
(C) 7.5 km/hour (D) 6.8 km/hour
126. On what sum of money will the difference between the simple interest and the compound interest for 2 years at 8% per annum be equal to ₹ 8?
- (A) ₹ 1200 (B) ₹ 1250  
(C) ₹ 1300 (D) ₹ 1350
127. If  $2x + \frac{1}{3x} = 5$ , find the value of  $\frac{5x}{6x^2 + 20x + 1}$ .
- (A)  $\frac{1}{4}$  (B)  $\frac{1}{6}$   
(C)  $\frac{1}{5}$  (D)  $\frac{1}{7}$
128. If for two real constants  $a$  and  $b$ , the expression  $ax^3 + 3x^2 - 8x + b$  is exactly divisible by  $(x + 2)$  and  $(x - 2)$ , then
- (A)  $a = 2, b = 12$   
(B)  $a = 12, b = 2$   
(C)  $a = 2, b = -12$   
(D)  $a = -2, b = 12$
129. If  $x^2 - 3x + 1 = 0$ , then the value of  $x^3 + \frac{1}{x^3}$  is
- (A) 9 (B) 18  
(C) 27 (D) 1

130. If  $x^2 + y^2 + 2x + 1 = 0$ , then the value of  $x^{31} + y^{35}$  is
- (A) -1                      (B) 0  
(C) 1                        (D) 2
131. If  $p, q, r$  are all real numbers, then  $(p - q)^3 + (q - r)^3 + (r - p)^3$  is equal to
- (A)  $(p - q)(q - r)(r - p)$   
(B)  $3(p - q)(q - r)(r - p)$   
(C) 0  
(D) 1
132. ABCD is a square. M is the mid-point of AB and N is the mid-point of BC. DM and AN are joined and they meet at O. Then which of the following is correct ?
- (A)  $OA : OM = 1 : 2$   
(B)  $AN = MD$   
(C)  $\angle ADM = \angle ANB$   
(D)  $\angle AMD = \angle BAN$
133. AB = 8 cm and CD = 6 cm are two parallel chords on the same side of the centre of a circle. The distance between them is 1 cm. The radius of the circle is
- (A) 5 cm                      (B) 4 cm  
(C) 3 cm                      (D) 2 cm
134. The circumcentre of a triangle ABC is O. If  $\angle BAC = 85^\circ$  and  $\angle BCA = 75^\circ$ , then the value of  $\angle OAC$  is
- (A)  $40^\circ$                       (B)  $60^\circ$   
(C)  $70^\circ$                       (D)  $90^\circ$
135. Two chords AB and CD of a circle whose centre is O, meet at the point P and  $\angle AOC = 50^\circ$ ,  $\angle BOD = 40^\circ$ . Then the value of  $\angle BPD$  is
- (A)  $60^\circ$                       (B)  $40^\circ$   
(C)  $45^\circ$                       (D)  $75^\circ$
136. A straight line parallel to the base BC of the triangle ABC intersects AB and AC at the points D and E respectively. If the area of the  $\Delta ABE$  be 36 sq. cm, then the area of the  $\Delta ACD$  is
- (A) 18 sq. cm  
(B) 36 sq. cm  
(C) 18 cm  
(D) 36 cm
137. If  $\tan \theta = 1$ , then the value of  $\frac{8 \sin \theta + 5 \cos \theta}{\sin^3 \theta - 2 \cos^3 \theta + 7 \cos \theta}$  is
- (A) 2                              (B)  $2\frac{1}{2}$   
(C) 3                              (D)  $\frac{4}{5}$

138. If  $\theta$  be a positive acute angle satisfying  $\cos^2 \theta + \cos^4 \theta = 1$ , then the value of  $\tan^2 \theta + \tan^4 \theta$  is

- (A)  $3/2$  (B) 1  
(C)  $1/2$  (D) 0

139. The value of  $\tan 4^\circ \cdot \tan 43^\circ \cdot \tan 47^\circ \cdot \tan 86^\circ$  is

- (A) 0 (B) 1  
(C)  $\sqrt{3}$  (D)  $\frac{1}{\sqrt{3}}$

140. The distance between two pillars of length 16 metres and 9 metres is  $x$  metres. If two angles of elevation of their respective top from the bottom of the other are complementary to each other, then the value of  $x$  (in meters) is

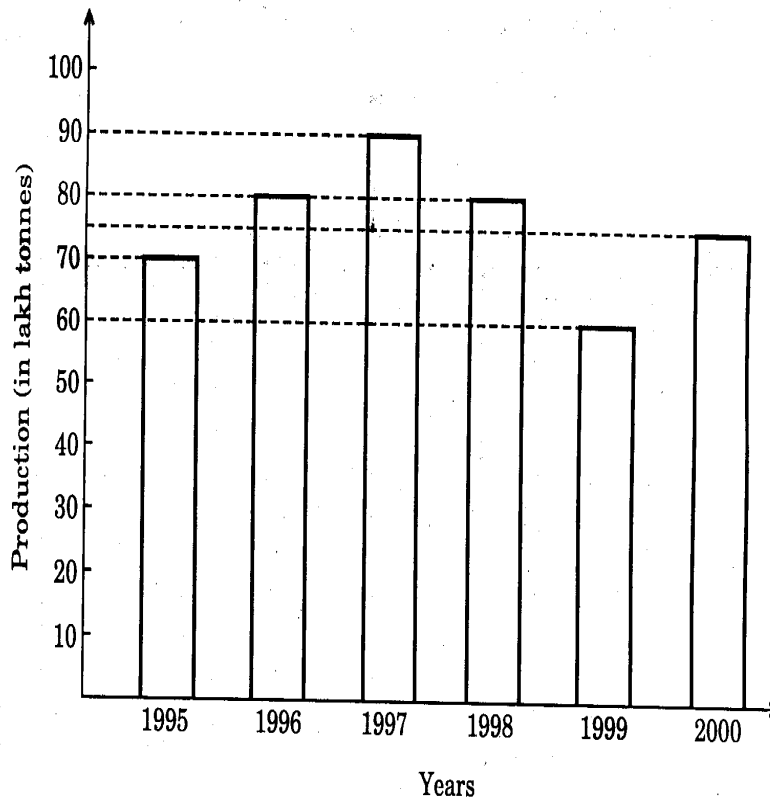
- (A) 15 (B) 16  
(C) 12 (D) 9

141. If  $\tan \theta = \frac{4}{3}$ , then the value of

$$\frac{3 \sin \theta + 2 \cos \theta}{3 \sin \theta - 2 \cos \theta}$$
 is

- (A) 0.5 (B) -0.5  
(C) 3.0 (D) -3.0

**Directions :** (Questions No. 142 to 146). The following bar graph shows the production of fertilizers (in lakh tonnes) by a company, in six consecutive years. Study the graph and answer questions no. 142 to 146.



142. The difference of the average production of fertilizers in the first three years and the average production in the last three years (in lakh tonnes) is

- (A)  $2\frac{1}{3}$                       (B)  $8\frac{1}{3}$   
 (C)  $4\frac{1}{6}$                       (D)  $3\frac{1}{3}$

143. The ratio of the total production of fertilizers in the years 1995, 1997 and 1999 to the total production in the remaining three years is

- (A) 44 : 45                      (B) 48 : 43  
 (C) 44 : 47                      (D) 46 : 45

144. The total production of fertilizers in the years 1998 and 2000 is x% of the total production in the years 1997 and 1999. Then x is equal to

- (A)  $103\frac{1}{3}$                       (B)  $79\frac{7}{17}$   
 (C)  $96\frac{24}{31}$                       (D)  $125\frac{25}{27}$

145. The year in which the production of fertilizers is nearest to the average production of all the six years, is

- (A) 1999                      (B) 1998  
 (C) 1995                      (D) 2000

146. Percentage increase in production of fertilizers for a year with respect to its previous year was maximum in the year

- (A) 1996                      (B) 1997  
 (C) 1999                      (D) 2000

**Directions :** (Questions No. 147 to 150). A survey of movie going habits of city dwellers from 5 cities A, B, C, D, E is given below. The first column gives the percentage of viewers in each city who watch less than two movies a week. The second column gives the total number of viewers who view two or more movies per week. Study the table and answer questions no. 147 to 150.

City	I	II
A	60	2400
B	20	3000
C	85	2400
D	55	2700
E	75	8000

147. How many viewers in city C watch less than two movies a week ?

- (A) 2040                      (B) 13600  
 (C) 16000                      (D) 3600

148. The city with the lowest number of movie watchers is

- (A) City E                      (B) City D  
 (C) City B                      (D) City C

149. The highest number of movie watchers in any given city (in the survey) is

- (A) 36000                      (B) 32000  
 (C) 6000                      (D) 16000

150. Which two cities have the same number of movie watchers ?

- (A) C and E                      (B) C and D  
 (C) A and B                      (D) D and A

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CANDIDATES ONLY**

142. An article is sold at a profit of 16%. Had it been sold for ₹ 20 more, 20% profit would have been gained. Then the cost price of the article is
- (A) ₹ 400                      (B) ₹ 500  
(C) ₹ 600                      (D) ₹ 700
143. Motor-cyclist A started his journey at a speed of 30 km/h. After 30 minutes, motor-cyclist B started from the same place but with a speed of 40 km/h. How much time (in hours) will B take to overtake A ?
- (A)  $3/2$                       (B) 1  
(C) 2                      (D)  $3/8$
144. 20 workers can do a work in 20 days if everybody works for 6 hours daily. Then 25 workers can do the same work in 12 days by working daily for
- (A) 8 hours                      (B) 6 hours  
(C) 4 hours                      (D) 10 hours
145. One factor of  $(x + 1)(x - 2)(x + 3)(x + 4) + 40$  is
- (A)  $x - 2$                       (B)  $x - 3$   
(C)  $x - 5$                       (D)  $x - 1$
146.  $\frac{1}{1+\sqrt{2}} + \frac{1}{\sqrt{2}+\sqrt{3}} + \frac{1}{\sqrt{3}+\sqrt{4}} + \frac{1}{\sqrt{4}+\sqrt{5}} + \frac{1}{\sqrt{5}+\sqrt{6}} + \frac{1}{\sqrt{6}+\sqrt{7}} + \frac{1}{\sqrt{7}+\sqrt{8}} + \frac{1}{\sqrt{8}+\sqrt{9}}$  is equal to
- (A) -2                      (B) 2  
(C)  $\sqrt{2}$                       (D)  $-\sqrt{2}$
147. If  $x^4 = 1296$ ,  $y^3 = -512$ ,  $z^2 = 441$ ,  $w^6 = 64$ , the value of  $\frac{x^2 \times y}{z \times w^2}$  is
- (A)  $\frac{24}{7}$                       (B)  $-\frac{24}{7}$   
(C)  $\frac{36}{7}$                       (D)  $-\frac{36}{7}$
148. At what rate of simple interest per annum will the interest accrued on a principal in 4 years be  $\frac{9}{25}$  the principal ?
- (A) 8%                      (B)  $9\frac{1}{2}\%$   
(C) 9%                      (D)  $6\frac{1}{4}\%$
149. Three partners A, B and C start a business. Thrice A's capital is equal to 4 times B's capital, and twice B's capital is equal to thrice C's capital. Out of a total profit of ₹ 90,000 at the end of the year, C's share is
- (A) ₹ 25,000                      (B) ₹ 30,000  
(C) ₹ 20,000                      (D) ₹ 40,000
150. When the price of rice increases  $12\frac{1}{2}\%$ , a man can get 250 gm less rice for ₹ 54. The present cost of rice per kg is
- (A) ₹ 24                      (B) ₹ 25  
(C) ₹ 26                      (D) ₹ 27

**PART - IV : GENERAL AWARENESS**

151. Elasticity of demand measures the responsiveness of the quantity demanded of a good to a
- (A) change in the price of the good  
 (B) change in the price of substitutes  
 (C) change in the price of the complements  
 (D) change in the price of joint products
152. Consumption function expresses the relationship between consumption and
- (A) savings (B) income  
 (C) investment (D) price
153. 'Mixed economy' refers to
- (A) the co-existence of heavy, small scale and cottage industries  
 (B) the promotion of agriculture as well as cottage industries  
 (C) the co-existence of rich as well as poor  
 (D) the co-existence of public as well as private sector
154. Which of the following is **not** a fixed cost ?
- (A) Salaries of administrative staff  
 (B) Rent of factory building  
 (C) Property taxes  
 (D) Electricity charges
155. Which of the following would **not** constitute an economic activity in Economics ?
- (A) A teacher teaching students in his college  
 (B) A teacher teaching students in a coaching institute  
 (C) A teacher teaching his own daughter at home  
 (D) A teacher teaching students under Sarva Shiksha Abhiyan Scheme
156. Zero hour is at the discretion of
- (A) Prime Minister (B) Speaker  
 (C) Opposition leader (D) President
157. The Judges of High Court are administered oath of office by
- (A) The Chief Justice of High Court  
 (B) The President of India  
 (C) The Chief Justice of India  
 (D) Governor of the State
158. Which slogan was given by the French Revolution to the world ?
- (A) Liberty, Authority, Equality  
 (B) Liberty, Equality, Fraternity  
 (C) Liberty, Law, Fraternity  
 (D) Tradition, Authority, Law
159. The President of India can issue a proclamation of National Emergency only on the written recommendation of
- (A) The Prime Minister  
 (B) The Cabinet consisting of only Cabinet Ministers of the Union  
 (C) The Council of Ministers of the Union  
 (D) Parliament
160. Parliament exercises control over public expenditure through
- (A) Advocate General  
 (B) Comptroller and Auditor General  
 (C) Commerce Minister  
 (D) Finance Minister
161. Who was the court poet of Harsha Vardhana ?
- (A) Bhani (B) Ravi Kirti  
 (C) Bana (D) Vishnu Sharma

162. The 'Poorna Swaraj' resolution was adopted in the annual session of the Indian National Congress held at

- (A) Bombay (B) Lahore  
(C) Calcutta (D) Madras

163. In which of the following countries were Buddha's idols disfigured and removed recently ?

- (A) Pakistan (B) Turkey  
(C) Afghanistan (D) Iran

164. "Go back to Vedas." This call given by

- (A) Ramakrishna Paramahansa  
(B) Vivekananda  
(C) Jyotiba Phule  
(D) Dayanand Saraswati

165. Which of the following pairs is *incorrect* ?

- (A) Babar vs. Sangram Singh  
(B) Sher Shah vs. Humayun  
(C) Chengiz Khan vs. Alauddin Khilji  
(D) Akbar vs. Hemu

166. The natural gaps across the mountains which provide routes are called

- (A) Peaks (B) Dunes  
(C) Plateaus (D) Passes

167. Jhumming is shifting agriculture practised in

- (A) North-eastern India  
(B) South-western India  
(C) South-eastern India  
(D) Northern India

168. Frontal Rain is caused by

- (A) Convection currents  
(B) Winds from sea  
(C) Cyclonic activity  
(D) Condensation of water evaporated from mountains

169. The Palk Strait lies between

- (A) Bay of Bengal and Gulf of Mannar  
(B) Andaman and Nicobar Islands  
(C) Rann of Kutch and Gulf of Khambhat  
(D) Lakshadweep and Maldives

170. Match the following :

<u>Rivers</u>	<u>Towns</u>
a. Gomti	1. Guwahati
b. Brahmaputra	2. Rajahmundry
c. Godavari	3. Tiruchirapalli
d. Kaveri	4. Lucknow

	a	b	c	d
(A)	3	4	2	1
(B)	2	1	3	4
(C)	4	1	2	3
(D)	4	2	1	3

171. The example of hermaphrodite animal in which cross fertilisation occurs is

- (A) Hydra (B) Ascaris  
(C) Earthworm (D) Silkworm

172. Blubber is

- (A) a milky secretion of rubber plant  
(B) a layer of thick fat  
(C) a device to trap insects by some aquatic plants  
(D) fungal infection of rice plants

173. The coding segment of DNA is called

- (A) Codon (B) Muton  
(C) Intron (D) Exon

174. Fat soluble vitamins are

- (A) Tocopherol, Niacin, Cyanocobalamin  
(B) Calciferol, Carotene, Tocopherol  
(C) Ascorbic acid, Calciferol, Riboflavin  
(D) Thiamine, Carotene, Biotin

175. Silk is produced by

- (A) Egg of a silkworm  
(B) Pupa of silkworm  
(C) Larva of silkworm  
(D) Insect itself

176. Which of the following is an egg laying mammal ?  
(A) Bat (B) Leafy ant-eater  
(C) Whale (D) Spiny ant-eater
177. A transformer works with  
(A) alternating current only  
(B) direct current only  
(C) both AC and DC  
(D) any signal
178. In the Earth, the weight of a body is maximum at the  
(A) North Pole (B) South Pole  
(C) Equator (D) Surface
179. The technique of collecting information about an object from a distance without making physical contact with it is  
(A) Remote sensing  
(B) Remote control  
(C) Remote accessing  
(D) Space shuttle
180. The head mirror used by E.N.T. doctors is  
(A) Concave (B) Convex  
(C) Plane (D) Plano-convex
181. A \_\_\_\_\_ is a high-speed network that connects local networks in a city or town.  
(A) LAN (B) MAN  
(C) WAN (D) TAN
182. PDA stands for  
(A) Personal Digital Assistant  
(B) Personal Development Agency  
(C) Personal Data Authority  
(D) Personal Data Array
183. Which of the following statements are correct about chloroform ?  
1. Liquid fuel  
2. Anaesthetic in nature  
3. Produces phosgene  
4. Fire extinguisher  
(A) 1, 2 (B) 1, 3  
(C) 2, 3 (D) 4, 1
184. Which of the following is *not* a method of preparing oxygen ?  
(A) Electrolysis of water  
(B) Fractional distillation of liquid air  
(C) Decomposition of potassium permanganate  
(D) Decomposition of manganese dioxide
185. Which one of the following is *not* a characteristic feature of alloys ?  
They are  
(A) Compounds  
(B) Mixtures  
(C) Solutions  
(D) Homogeneous systems
186. Permanent hardness of water may be removed by addition of  
(A) Alum  
(B) Sodium carbonate  
(C) Lime  
(D) Potassium Permanganate
187. Global warming is expected to result in  
(A) Increase in level of sea  
(B) Change in crop pattern  
(C) Change in coastline  
(D) Each of the above



188. Man can maintain an ecological balance in the biosphere by
- (A) deforestation  
(B) developing new breeds of cultivated plants and domesticated animals  
(C) using insecticides and pesticides  
(D) understanding the delicate balance in the relative number of organisms
189. Smog is a combination of
- (A) air and water vapour  
(B) water and smoke  
(C) fire and water  
(D) smoke and fog
190. Of the following, which one pollutes the air of a big city ?
- (A) Copper (B) Chromium  
(C) Lead (D) Cadmium
191. Which State is famous for step-wells ?
- (A) Maharashtra (B) Gujarat  
(C) Orissa (D) Manipur
192. First Indian Arctic Expedition was launched in the year
- (A) 2004 (B) 2005  
(C) 2006 (D) 2007
193. The river on which the reservoir for Indira Gandhi Canal has been built is
- (A) Sutlej (B) Ravi  
(C) Luni (D) Jhelum
194. Bihu is a festival that is observed in
- (A) West Bengal (B) Maharashtra  
(C) Assam (D) Tamil Nadu
195. Bharat Ratna is designed like the leaf of
- (A) Banyan tree (B) Peepal tree  
(C) Coconut tree (D) Sandalwood tree
196. In which of the following States, is Child Sex Ratio as per the provisional results of the 2011 Census, the lowest ?
- (A) Haryana (B) Punjab  
(C) Bihar (D) Uttar Pradesh
197. Which team advanced to the Copa America Final 2011 without winning any of its five matches in open play ?
- (A) Brazil (B) Paraguay  
(C) Venezuela (D) Peru
198. Which one of the following is in fact *not* a garden ?
- (A) Hanging Gardens (Mumbai)  
(B) Eden Gardens (Kolkata)  
(C) Vrindavan Gardens (Mysore)  
(D) Khusro Gardens (Lucknow)
199. The book 'The Audacity of Hope' has been written by
- (A) Nayantara Sehgal (B) Aravind Adiga  
(C) Vikram Seth (D) Barack Obama
200. ISRO is the abbreviation for
- (A) Indian Scientific Research Organisation  
(B) Indian Space Research Organisation  
(C) International Space Research Organisation  
(D) International Scientific Research Organisation

**Test Form No:- 012NL5****Answer for General Candidates**

1	C
2	D
3	C
4	A
5	A
6	B
7	D
8	D
9	D
10	D
11	C
12	C
13	C
14	A
15	D
16	D
17	D
18	C
19	C
20	D
21	B
22	A
23	C
24	A
25	D
26	B
27	C
28	A
29	D
30	D
31	B
32	B
33	C
34	C
35	D
36	D
37	A

51	B
52	B
53	B
54	C
55	A
56	A
57	A
58	D
59	C
60	A
61	B
62	C
63	A
64	B
65	A
66	A
67	D
68	D
69	B
70	B
71	A
72	B
73	C
74	A
75	C
76	C
77	C
78	B
79	A
80	C
81	C
82	B
83	B
84	B
85	C
86	C
87	D

101	C
102	B
103	D
104	A
105	D
106	C
107	C
108	C
109	A
110	B
111	C
112	D
113	A
114	B
115	C
116	B
117	B
118	A
119	B
120	D
121	C
122	C
123	C
124	B
125	B
126	B
127	D
128	C
129	B
130	A
131	B
132	B
133	A
134	C
135	C
136	B
137	A

151	A
152	B
153	D
154	D
155	C
156	B
157	A
158	B
159	B
160	B
161	C
162	B
163	C
164	D
165	C
166	D
167	A
168	C
169	A
170	C
171	C
172	B
173	D
174	B
175	C
176	D
177	A
178	D
179	A
180	A
181	B
182	A
183	C
184	D
185	A
186	B
187	D

38	C
39	C
40	B
41	C
42	B
43	C
44	C
45	D
46	B
47	A
48	B
49	A
50	A

88	D
89	C
90	B
91	C
92	B
93	A
94	B
95	D
96	B
97	C
98	A
99	A
100	C

138	B
139	B
140	C
141	C
142	B
143	C
144	A
145	D
146	D
147	B
148	C
149	B
150	D

188	D
189	D
190	C
191	B
192	D
193	A
194	C
195	B
196	B
197	B
198	B
199	D
200	B

**Test Form No: - 012NL5**

**Answer for Visually Handicapped Candidates**

1	C
2	D
3	C
4	A
5	A
6	B
7	D
8	D
9	D
10	D
11	C
12	C
13	C
14	A
15	D
16	D
17	D
18	C
19	C
20	D

51	B
52	B
53	B
54	C
55	A
56	A
57	A
58	D
59	C
60	A
61	B
62	C
63	A
64	B
65	A
66	A
67	D
68	D
69	B
70	B

101	C
102	B
103	D
104	A
105	D
106	C
107	C
108	C
109	A
110	B
111	C
112	D
113	A
114	B
115	C
116	B
117	B
118	A
119	B
120	D

151	A
152	B
153	D
154	D
155	C
156	B
157	A
158	B
159	B
160	B
161	C
162	B
163	C
164	D
165	C
166	D
167	A
168	C
169	A
170	C

21	B
22	A
23	C
24	A
25	D
26	B
27	C
28	A
29	D
30	D
31	B
32	B
33	C
34	C
35	D
36	D
37	A
38	C
39	C
40	B
41	C
42	B
43	C
44	C
45	B
46	B
47	C
48	C
49	C
50	D

71	A
72	B
73	C
74	A
75	C
76	C
77	C
78	B
79	A
80	C
81	C
82	B
83	B
84	B
85	C
86	C
87	D
88	D
89	C
90	B
91	C
92	B
93	A
94	B
95	D
96	B
97	C
98	A
99	A
100	C

121	C
122	C
123	C
124	B
125	B
126	B
127	D
128	C
129	B
130	A
131	B
132	B
133	A
134	C
135	C
136	B
137	A
138	B
139	B
140	C
141	C
142	B
143	A
144	A
145	D
146	B
147	B
148	C
149	C
150	D

171	C
172	B
173	D
174	B
175	C
176	D
177	A
178	D
179	A
180	A
181	B
182	A
183	C
184	D
185	A
186	B
187	D
188	D
189	D
190	C
191	B
192	D
193	A
194	C
195	B
196	B
197	B
198	B
199	D
200	B