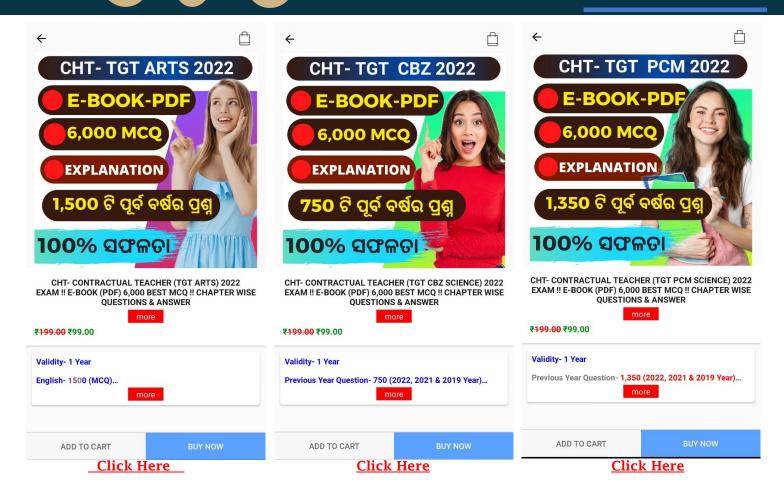
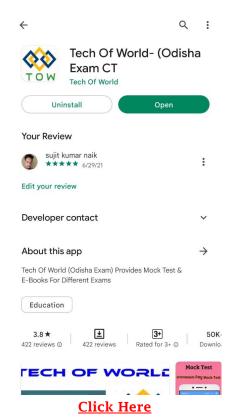
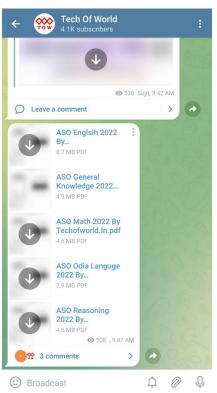
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03 Mar 2022_Batch2_TGT Science CBZ

Section 1 - Paper I General Knowledge and Current Affairs

- 1) Financial assistance of Rs.25,000/- per farm family over five seasons will be provided to small and marginal farmers to purchase inputs like seeds, fertilizers, pesticides and use assistance towards labour and other investments under which of the following schemes currently being implemented by the government of Odisha?
- A) KRUSHI Sanghatan Pariyojna
- B) KALIA Scheme
- C) KRUSHI Mitra Scheme
- D) Krushi Niyojan Yevam Upjivika Yojna
- 1) କ୍ଷୁଦ୍ର ଏବଂ ନାମମାତ୍ର କୃଷକମାନଙ୍କୁ ବିହନ, ସାର, କୀଟନାଶକ ପରି ସରଂଜାମ କିଣିବା ଏବଂ ଶ୍ରମ ଏବଂ ଅନ୍ୟାନ୍ୟ ନି<mark>ବେଶ</mark> ଦିଗରେ ସହାୟତା ବ୍ୟବହାର କରିବା ପାଇଁ ପାଞ୍ଚଟି ଋତୁରେ ପ୍ରତ୍ୟେକ କୃଷି ପରିବାର ପିଛା 25,000 ଟଙ୍କା ଆର୍ଥିକ ସହାୟତା ପ୍ରଦାନ କରାଯିବ । ନିମ୍ନଲିଖିତ ଯୋଜନାଗୁଡ଼ିକ ମଧ୍ୟରୁ କେଉଁ ଯୋଜନା ଅଧୀନରେ ବର୍ତ୍ତମାନ ଓଡ଼ିଶା ସରକାରଙ୍କ ହ୍ୱାରା ଏହା କାର୍ଯ୍ୟକାରୀ କରାଯାଉଛି?
- A) କୃଷି ସଂଗଠନ ପରିଯୋଜନା
- B) କାଳିଆ ଯୋଜନା
- C) କୃଷି ମିତ୍ର ଯୋଜନା
- D) କୃଷି ନିଯୋଜନ ଏବଂ ଉପଜୀବିକା ଯୋଜନା
- 2) On the occasion of 75th Independence Day, Prime Minister Narendra Modi announced which of the following missions with an aim to make India a global hub for the production and export of green energy?
- A) Green Energy Mission
- B) National Hydrogen Mission
- C) Renewable Energy Mission
- D) National Carbon Mission
- 2) 75 ତମ ସ୍ୱାଧୀନତ। ଦିବସ ଅବସରରେ ପ୍ରଧାନମନ୍ତୀ ନରେନ୍ଦ୍ର ମୋଦୀ, ସବୁକ ଶକ୍ତି ଉତ୍ପାଦନ ତଥା ରପ୍ତାନି ପାଇଁ ଭାରତକୁ ବିଶ୍ୱୟରୀୟ ହବ୍ କରିବା ଉଦ୍ଦେଶ୍ୟରେ ନିମ୍ମଲିଖିତ ମିଶନ ମଧ୍ୟରୁ କେଉଁଟିର ଘୋଷଣା କରିଥିଲେ?
- A) ସବୁଜ ଶକ୍ତି ମିଶନ୍
- B) ଜାତୀୟ ହାଇଡ୍ରୋଜେନ୍ ମିଶନ୍
- C) ନବୀକରଣ ଯୋଗ୍ୟ ଶକ୍ତି ମିଶନ
- D) ଜାତୀୟ କାର୍ବନ ମିଶନ









- 3) Which of the following Ministry has introduced a Pre-Matric Scholarship scheme to the SC Students studying in classes IX & X?
- A) Ministry of Rural Development and Sanitation
- B) Ministry of Labour & Employment
- C) Ministry of Social Justice and Empowerment
- D) Ministry of Statistics and Programme Implementation
- 3) ନିମ୍ନଲିଖିତ ମନ୍ତ୍ରଣାଳୟ ଗୁଡିକ ମଧ୍ୟରୁ କେଉଁଟି ନବମ ଏବଂ ଦଶମ ଶ୍ରେଣୀରେ ପଢୁଥିବା ଏସସି ଛାତ୍ରମାନଙ୍କୁ ଏକ ପ୍ରି-ମ୍ୟାଟ୍ରିକ୍ ୟଲାରସିପ୍ ସ୍କିମ୍ବର ପବର୍ତ୍ତନ କରିଛି?
- A) ଗ୍ରାମୀଣ ବିକାଶ ଏବଂ ପରିମଳ ମନ୍ତ୍ରଣାଳୟ
- B) ଶ୍ରମ ଏବଂ ନିଯୁକ୍ତି ମନ୍ତ୍ରଣାଳୟ
- C) ସାମାଜିକ ନ୍ୟାୟ ଏବଂ ସଶକ୍ତିକରଣ ମନ୍ତ୍ରଣାଳୟ
- D) ପରିସଂଖ୍ୟାନ ଏବଂ କାର୍ଯ୍ୟକ୍ମ କାର୍ଯ୍ୟାନ୍ସୟନ ମନ୍ତ୍ରଣାଳୟ
- 4) The energy obtained from food is measured in which of the following units?
- A) Grams
- B) Newton
- C) Calories
- D) Erg
- 4) ଖାଦ୍ୟରୁ ମିଳୁଥିବା ଶକ୍ତିକୁ ନିମ୍ନୋକ୍ତ ମଧ୍ୟରୁ କେଉଁ ୟୁନିଟ୍ ରେ ମାପ କରାଯାଏ?
- A) ଗ୍ରାମ୍
- B) ନ୍ୟୁଟନ୍
- C) କ୍ୟାଲୋରୀ
- D) ଇଆରଜି
- 5) After which of the following Wars/ Battles Shah Alam II gave the Diwani rights to the East India Company which eventually led to conquest of Odisha by British?
- A) Second Anglo-Mysore War
- B) First Anglo-Mysore War
- C) Battle of Buxar
- D) Battle of Porto Novo









- 5) ନିମ୍ନଲିଖିତ ମଧ୍ୟରୁ କେଉଁ ଯୁଦ୍ଧ/ ଲଡ଼ାଇ ପରେ ଶାହା ଆଲାମ ହୃତୀୟ, ଇଷ୍ଟ ଇଣ୍ଡିଆ କମ୍ପାନୀକୁ ଦିୱାନୀ ଅଧିକାର ଦେଇଥିଲେ ଯାହା ଶେଷରେ ବ୍ରିଟିଶମାନଙ୍କ ହାରା ଓଡ଼ିଶା ବିଜୟର କାରଣ ହୋଇଥିଲା?
- A) ଦ୍ୱିତୀୟ ଆଙ୍ଗ୍ଲୋ-ମହୀଶୂର ଯୁଦ୍ଧ
- B) ପ୍ରଥମ ଆଙ୍ଗ୍ଲୋ-ମହୀଶ୍ୱର ଯୁଦ୍ଧ
- C) ବକ୍ସର ଯୁଦ୍ଧ
- D) ପୋର୍ଟୋ ନୋଭୋ ଯୁଦ୍ଧ
- 6) In 1804, the first agitation against the British in Odisha was witnessed in Khurda / Khorda region during the tenure of which of the following rulers?
- A) Kalapahad
- B) Mukunda Harichandana
- C) Raja Ramachandra Deva
- D) Mukunda Deva II
- 6) 1804 ମସିହାରେ ଓଡ଼ିଶାରେ ବ୍ରିଟିଶମାନଙ୍କ ବିରୋଧରେ ପ୍ରଥମ ଉତ୍ତେଜନା ନିମ୍ନଲିଖିତ କେଉଁ ଶାସକଙ୍କ କାର୍ଯ୍ୟକାଳ ମଧ୍ୟରେ ଖୋର୍ଦ୍ଧା ଅଞ୍ଚଳରେ ଦେଖିବାକୁ ମିଳିଥିଲା?
- A) କଳାପାହାଡ
- B) ମୁକୁନ୍ଦ ହରିଚନ୍ଦନ
- C) ରାଜା ରାମଚନ୍ଦ୍ର ଦେବ
- D) ମୁକ୍ରନ୍ଦ ଦେବ ହ୍ବିତୀୟ
- 7) Most of the Indian sub-continental landmass forms a peninsula, what is the meaning of peninsula?
- A) Land of mountains and valleys
- B) Area covered by tropical forest
- C) Surrounded by water on three sides
- D) Landmass formed due to volcanic eruption
- 7) ଅଧିକାଂଶ ଭାରତୀୟ ଉପ-ମହାଦେଶିୟ ଭୂଖଣ ଏକ ଉପଦ୍ୱୀପ ସୂଷ୍ଟି କରେ, ଏହି ଉପଦ୍ୱୀପର ଅର୍ଥ କ'ଣ?
- A) ପର୍ବତ ଏବଂ ଉପତ୍ୟକାର ମାଳଭୂମି
- B) ଗ୍ରୀଷ୍ମ ମଣ୍ଡଳ ଜଙ୍ଗଲ ଦ୍ୱାରା ଆବୃତ ଅଞ୍ଚଳ
- C) ତିନି ପାର୍ଶ୍ୱରେ ପାଣି ଦ୍ୱାରା ଘେରି ରହିଛି
- D) ଆଗ୍ନେୟଗିରି ଉଦ୍ଗୀରଣ ହେତୁ ଭୂଖଣ ସୃଷ୍ଟି ହେଇଛି









- 8) Which of the following options is CORRECT with reference to the type of 'Liberty' declared in the Preamble of Constitution of India?
- A) Social, economic and political liberty
- B) Economic, legal and financial liberty
- C) Liberty of thought, expression, belief, faith and worship
- D) Liberty of religion, caste, reliability, trust and wisdom
- 8) ଭାରତର ସନ୍ଦିଧାନର ପ୍ରୟାବନାରେ ଘୋଷିତ 'ଲିବର୍ଟି'ର ପ୍ରକାର ସନ୍ଦର୍ଭରେ ନିମ୍ନଲିଖିତ ମଧ୍ୟରୁ କେଉଁ ବିକଳ୍ପ ସଠିକ୍ ଅଟେ?
- A) ସାମାଜିକ, ଅର୍ଥନୈତିକ ଏବଂ ରାଜନୈତିକ ସ୍ୱାଧୀନତା
- B) ଅର୍ଥନୈତିକ, ଆଇନଗତ ଏବଂ ଆର୍ଥିକ ସ୍ୱାଧୀନତା
- C) ଚିନ୍ତାଧାରା, ଅଭିବ୍ୟକ୍ତି, ଦୃଢ ଧାରଣା, ବିଶ୍ୱାସ ଏବଂ ପୃଜା କରିବାର ସ୍ୱାଧୀନତା
- D) ଧର୍ମ, ଜାତି, ବିଶ୍ୱସନୀୟତା, ବିଶ୍ୱାସ ଏବଂ ଜ୍ଞାନ ର ସ୍ୱାଧୀନତା
- 9) Under the Directive Principles, the State shall endeavour for early childhood care and education for all children until they complete the age of
- A) 10 years
- B) 8 years
- C) 6 years
- D) 12 years
- 9) ନିର୍ଦ୍ଦେଶନାମା ନୀତି ଅନୁଯାୟୀ, ରାଜ୍ୟ କେତେ ବୟସ ସମାପ୍ତ ନହେବା ପର୍ଯ୍ୟନ୍ତ ସମୟ ପିଲାଙ୍କର ପିଲାଦିନର ଯତ୍କ ଏବଂ ଶିକ୍ଷା ପାଇଁ ପ୍ରୟାସ କରିବ?
- A) 10 ବର୍ଷ
- B) 8 ବର୍ଷ
- C) 6 ବର୍ଷ
- D) 12 ବର୍ଷ
- 10) In Feb 2022, Union Power Minister launched a hackathon named Powerthon-2022 to find tech-driven solutions for quality power supply. Who among the following ministers is being referred to?
- A) R K Singh
- B) Piyush Goyal
- C) Amit Shah
- D) Rajnath Singh









10) ଫେବୃଆରୀ 2022 ରେ କେନ୍ଦ୍ର ଶକ୍ତି ମନ୍ତ୍ରୀ ଗୁଣାତ୍ପକ ବିଦ୍ୟୁତ୍ ଯୋଗାଣ ପାଇଁ ଟେକ୍ନୋଲୋକି ଚାଳିତ ସମାଧାନ ଖୋକିବା ପାଇଁ ପାୱାରଥନ୍ -2022 ନାମକ ଏକ ହ୍ୟାକାଥନ୍ ଆରୟ କରିଥିଲେ। ନିମ୍ମଲିଖିତଙ୍କ ମଧ୍ୟରୁ ସେହି ମନ୍ତ୍ରୀ କିଏ?

- A) ଆର କେ ସିଂ
- B) ପୀୟୃଷ ଗୋୟଲ
- C) ଅମିତ ଶାହା
- D) ରାଜନାଥ ସିଂ
- 11) The FIFA World Cup 2022 is scheduled to be held in which of the following countries?
- A) Russia
- B) Qatar
- C) Brazil
- D) Japan
- 11) ଫିଫା ବିଶ୍ୱକପ୍ 2022 ନିମ୍ନଲିଖିତ ମଧ୍ୟରୁ କେଉଁ ଦେଶରେ ଅନୁଷିତ ହେବାର କାର୍ଯ୍ୟକ୍ରମ ରହିଛି?
- A) ରୁଷ
- B) କାତାର
- C) ବ୍ରାଜିଲ
- D) ଜାପାନ
- 12) What is GPI with respect to education and social development in India?
- A) Gross Primary Index
- B) Gender Parity Index
- C) Geographical Parity Index
- D) Gross Preference Index
- 12) ଭାରତରେ ଶିକ୍ଷା ଏବଂ ସାମାଜିକ ବିକାଶ ସନ୍ଦର୍ଭ ରେ GPI କଣ?
- A) ଗ୍ରସ୍ ପ୍ରାଇମେରୀ ଇନଡେକ୍ସ
- B) ଜେଣର୍ ପ୍ୟାରିଟି ଇନଡେକ୍ସ
- C) ଜୋଗ୍ରାଫିକାଲ୍ ପ୍ୟାରିଟି ଇନଡେକ୍ସ
- D) ଗ୍ରସ୍ ପ୍ରିଫରେନ୍ସ ଇନଡେକ୍ସ









- 13) Which of the following options is the popular application of Polytetrafluoroethylene, commercially known as TEFLON?
- A) Used in making pencils
- B) Used as a dye to colour metal furniture
- C) Used as coating on non-stick cookware
- D) Used as an adhesive in gums
- 13) ନିମ୍ନଲିଖିତ ବିକଳ୍ପଗୁଡ଼ିକ ମଧ୍ୟରୁ କେଉଁଟି ପଲିଟେଟ୍ରାଫ୍ଲୋରୋଏଥିଲିନର ଲୋକପ୍ରିୟ ପ୍ରୟୋଗ,ଯାହାକି ବ୍ୟବସାୟିକ ନା<mark>ମରେ ଟେଫ୍ଲନ୍ ନାମରେ</mark> ଜଣାଶ୍ରଣା?
- A) ପେନ୍ସିଲ ତିଆରିରେ ବ୍ୟବହୃତ ହୁଏ
- B) ଧାତୁ ଆସବାବପତ୍ରକୁ ରଙ୍ଗ ଦେବା ପାଇଁ ରଙ୍ଗ ଭାବରେ ବ୍ୟବହୃତ ହୁଏ
- C) ନନ୍ -ଷ୍ଟିକ୍ ରନ୍ଧା ଉପକରଣର ଆବରଣ ଭାବରେ ବ୍ୟବହୃତ ହୁଏ
- D) ମାଢିରେ ଏକ ଅଠା ଭାବରେ ବ୍ୟବହୃତ ହୁଏ
- 14) Who among the following was the leader of the Revolt of 1857 from Bihar region?
- A) Surendra Sahai
- B) Begum Hazrat Mahal
- C) Nana Sahib
- D) Kunwar Singh
- 14) ବିହାର ଅଞ୍ଚଳରୁ 1857 ର ବିଦ୍ରୋ<mark>ହର ନେତା କିଏ</mark> ଥିଲେ?
- A) ସୁରେନ୍ଦ୍ର ସହାଏ
- B) ବେଗମ୍ ହଜରତ ମହଲ
- C) ନାନା ସାହେବ
- D) କୁନୱର ସିଂ
- 15) Project Tiger was launched in India in 1973 with the help of which of the following organization?
- A) UNESCO
- B) World Wide Fund for Nature
- C) World Bank
- D) World Organization for Animal Health









- 15) ନିମ୍ନଲିଖିତ କେଉଁ ସଂଗଠନର ସାହାଯ୍ୟରେ 1973 ରେ ଭାରତରେ ପ୍ରୋଜେକ୍ଟ ଟାଇଗର ଆରୟ କରାଯାଇଥିଲା?
- A) ୟୁନେସ୍କୋ
- B) ପ୍ରକୃତି ପାଇଁ ୱାର୍ଲ୍ଡ ୱାଇଡ୍ ପାଷି
- C) ବିଶ୍ୱ ବ୍ୟାଙ୍କ
- D) ପଶୁ ସ୍ୱାସ୍ଥ୍ୟ ପାଇଁ ବିଶ୍ୱ ସଂଗଠନ









Section 2 - Paper I Reasoning Ability

No. of Questions: 10

16) The cost price of each fan is ₹ 400. The shopkeeper wants to make a profit of ₹ 140 after giving	g a
discount of 10% on the marked price. What should be the marked price of each fan?	

- A) ₹ 520
- B) ₹ 560
- C) ₹ 600
- D) ₹ 660

16) ପ୍ରତିଟି ଫ୍ୟାନ୍ର କିଣାମୂଲ୍ୟ ହେଉଛି ₹ 400। ଜଣେ ଦୋକାନୀ ଜିନିଷର ଚିହ୍ନିତ ମୂଲ୍ୟ ଉପରେ 10% ରିହ<mark>ାଡି ଦେ</mark>ବା ପ<mark>ରେ</mark> ବିକ୍ରି କରି ₹ 140 ଲାଭ କରିବାକୁ ଚାହାନ୍ତି। ପ୍ରତିଟି ଫ୍ୟାନ୍ ର ଚିହ୍ନିତ ମୂଲ୍ୟ କେତେ ହେବା ଉଚିତ୍?

- A) ₹ 520
- B) ₹ 560
- C) ₹ 600
- D) ₹ 660

17) It takes 48 children to complete three fourths of a painting during the art class. If the painting had to be fully finished during the art class, how many children should have worked on it?

- A) 72
- B) 96
- C) 36
- D) 64

17) ଯଦି 48 ଜଣ ପିଲା ଗୋଟିଏ <mark>ଚିତ୍ରକଳା ଶ୍ରେଣୀରେ ଏକ ପେଷିଙ୍</mark>ଭର ତିନି ଚତୁର୍ଥାଂଶ ଅଂଶ ସମ୍ପର୍ଷ କରନ୍ତି। ତେବେ ଏହି ପେଷିଂକୁ ଚିତ୍ରକଳା ଶ୍ରେଣୀରେ ସମ୍ପର୍ଷ କରିବା ପାଇଁ କେତେ ଜଣ ପିଲା ଏଥିରେ କାମ କରିବା ଉଚିତ୍?

- A) 72
- B) 96
- C) 36
- D) 64









- 18) A four member group consists of A, B, C & D. A's wife is C's sister. B's daughter's father is A. A's daughter is D. How is C related to D?
- A) Aunt or Uncle
- B) Mother
- C) Sister
- D) Father
- 18) ଏକ ଚାରିକଣ ସଦସ୍ୟ ବିଶିଷ୍ଟ ଗୋଷ୍ଠୀ A, B, C ଏବଂ Dଙ୍କୁ ନେଇ ଗଠିତ। A'ଙ୍କର ସ୍ତ୍ରୀ ହେଉଛନ୍ତି Cଙ୍କର ଭଉଣୀ। Bଙ୍କର ଝିଅଙ୍କର ବାପା ହେଉଛନ୍ତି A। Aଙ୍କର ଝିଅ ହେଉଛନ୍ତି D। ତେବେ C କିପରି ଭାବରେ Dଙ୍କ ସହିତ ସମ୍ପର୍କିତ?
- A) ମାଉସୀ ବା ମାମୁଁ
- B) ମାଆ
- C) ଭଉଣୀ
- D) ବାପା
- 19) Select one of the following four options that will make the 2nd pair analogous to the 1st pair given 3:81::5:?
- A) 136
- B) 425
- C) 625
- D) 3125
- 19) ନିମ୍ନଲିଖ୍ଡ ଚାରୋଟି ବିକଳ୍ପ ମଧ୍ୟରୁ ଗୋଟିଏ ଚୟନ କରନ୍ତୁ ଯାହାକି ଦିଆଯାଇଥିବା 1ମ ଯୋଡ଼ା ସଦୃଶ 2ୟ ଯୋଡ଼ା ପ୍ରୟୁତ କରିବ
- 3:81::5:?
- A) 136
- B) 425
- C) 625
- D) 3125









20) Select one of the following four options that will make the 2nd pair analogous to the 1st p

Flower: Flower Pot:: Player:?

- A) Captain
- B) Ground
- C) Coach
- D) Game
- 20) ନିମ୍ନଲିଖ୍ଡ ଚାରୋଟି ବିକଳ୍ପ ମଧ୍ୟରୁ ଗୋଟିଏ ଚୟନ କରକୁ ଯାହାକି ଦିଆଯାଇଥିବା 1ମ ଯୋଡ଼ା ସଦୃଶ 2ୟ ଯୋଡ଼ା ପ୍ରୟୁତ କରିବ

ଫୁଲ : ଫୁଲ କୁଷ :: ଖେଳାଳି : ?

- A) କ୍ୟାପଟେନ୍
- B) ପଡ଼ିଆ
- C) ପ୍ରଶିକ୍ଷକ
- D) ଖେଳ
- 21) A salesman is appointed on a monthly salary of ₹ 5,000 with a commission at 3% on the sales over ₹ 40,000 during a month. If the salesman earns ₹ 5,900 in a month, what is the total sales in that month?
- A) ₹ 30,000
- B) ₹ 70,000
- C) ₹ 75,000
- D) ₹ 80,000
- 21) କଣେ ବିକ୍ରେତା ମାସିକ ବେତନ ₹ 5,000 ସହିତ ଗୋଟିଏ ମାସରେ ₹ 40,000 ରୁ ଅଧିକ ବିକ୍ରି ଉପରେ 3% କମିଶନ୍ ସହିତ ନିଯୁକ୍ତି ପାଇଲେ। ଯଦି ଏହି ସେଲ୍ସମ୍ୟାନ୍ ସେ ଗୋଟିଏ ମାସରେ ₹ 5,900 ଅର୍ଜନ କରନ୍ତି ତେବେ ସେହି ମାସର ମୋଟ ବିକ୍ରୟ କେତେ ରହିଛି?
- A) ₹ 30,000
- B) ₹ 70,000
- C) ₹ 75,000
- D) ₹ 80,000
- 22) What is the single discount which is equivalent to the two successive discounts of 10% and 20%?
- A) 15%
- B) 25%
- C) 28%
- D) 300/









- 22) ଦୁଇଟି କ୍ରମାଗତ ରିହାତି 10% ଏବଂ 20% ସହିତ କେଉଁ ଏକକ ରିହାତି ସମାନ ହୋଇଥାଏ?
- A) 15%
- B) 25%
- C) 28%
- D) 30%
- 23) A treadmill's speed slows down proportionately as the time increases. If, after 18 minutes the speed is 16 km per hour, at what time is the speed 12 km per hour?
- A) 16 minutes
- B) 131/2 minutes
- C) 24 minutes
- D) 22 minutes
- 23) ଏକ ଟ୍ରେଡ ମିଲ୍ର ବେଗ ସମୟ ବୃଦ୍ଧି ପାଇବା ସହ ସମାନୁପାତିକ ଭାବରେ ମଛର ହୋଇଯାଇଥାଏ। ଯଦି, 18 ମିନିଟ୍ ପରେ ବେଗ ଘଣ୍ଟା ପ୍ରତି 16 କିଲୋମିଟର ରହିଛି ତେବେ କେଉଁ ସମୟରେ ବେଗ ଘଣ୍ଟା ପ୍ରତି 12 କିଲୋମିଟର ହେବ?
- A) 16 ମିନିଟ୍
- B) 13½ ମିନିଟ୍
- C) 24 ମିନିଟ୍
- D) 22 ମିନିଟ୍
- 24) P's son is R, R is married to T, T's daughter is U. How is R related to U?
- A) Father
- B) Uncle
- C) Mother
- D) Aunt
- 24) P'ଙ୍କର ପୁଅ ହେଉଛନ୍ତି R, R ବିବାହ କରିଛନ୍ତି Tଙ୍କୁ, Tଙ୍କର ଝିଅ ହେଉଛନ୍ତି U। ତେବେ R କିପରି ଭାବରେ Uଙ୍କ ସହିତ ସମ୍ପର୍କିତ?
- A) ବାପା
- B) କାକା
- C) ମାଆ
- D) ଖଡି









25) Select one of the following four options that will make the 2nd pair analogous to the 1st pair given River: Dam:: Traffic:?

- A) Vehicle
- B) Light Signals
- C) Speed
- D) Path

25) ନିମ୍ନଲିଖିତ ଚାରୋଟି ବିକଳ୍ପ ମଧ୍ୟରୁ ଗୋଟିଏ ଚୟନ କରନ୍ତୁ ଯାହାକି ଦିଆଯାଇଥିବା 1ମ ଯୋଡ଼ା ସଦୃଶ 2ୟ ଯୋଡ଼ା ପ୍ରୟୁତ କରିବ

ନଦୀ : ବନ୍ଧ :: ଟ୍ରାଫିକ୍ : ?

- A) ଯାନ
- B) ଲାଇଟ୍ ସିଗନାଲ୍ସ
- C) ବେଗ
- D) ରାସ୍ତା









Section 3 - Paper I Computer Literacy

- 26) What is the shortcut key to close the open active word document?
- A) Shift+F3
- B) Shift+F2
- C) Alt+F4
- D) Alt+F3
- 26) ଏକ ଖୋଲା ସକ୍ରିୟ ୱାର୍ଡ ଡକ୍ୟୁମେଣ୍ଡକୁ ବନ୍ଦ କରିବା ପାଇଁ ସର୍ଟକଟ୍ KEY କଣ?
- A) Shift+F3
- B) Shift+F2
- C) Alt+F4
- D) Alt+F3
- 27) Which of the following is a volatile storage?
- A) RAM
- B) Hard disk
- C) Magnetic Tape
- D) Floppy disk
- 27) ନିମ୍ନଲିଖ୍ଡ ମଧ୍ୟରୁ କେଉଁଟି ଏକ ଭୋଲାଟାଇଲ୍ ଷ୍ଟୋରେଜ୍?
- A) RAM
- B) ହାର୍ଡ ଡିସ୍କ
- C) ମାଗ୍ନେଟିକ୍ ଟେପ୍
- D) ଫୁପି ଡିସ୍କ
- 28) Which of the following is an extremely fast computer which can execute hundreds of millions of instructions per second?
- A) Workstation
- B) Mini Computer
- C) Main Frame
- D) Supercomputer









- 28) ନିମ୍ନଲିଖିତ ମଧ୍ୟରୁ କେଉଁଟି ଏକ ଅତ୍ୟନ୍ତ ଦ୍ରୁତ କମ୍ପ୍ୟୁଟର ଯାହା ପ୍ରତି ସେକେଣ୍ଡରେ ଶହ ଶହ ନିୟୂତ ନିର୍ଦ୍ଦେଶାବଳୀ କାର୍ଯ୍ୟକାରୀ କରିପାରିବ?
- A) ୱାର୍କଷ୍ଟେସନ
- B) ମିନି କମ୍ପ୍ୟୁଟର
- C) ମେନ୍ ଫ୍ରେମ୍
- D) ସୁପର କମ୍ପ୍ୟୁଟର
- 29) Give examples of storage devices.
- A) Floppy disks, hard disks, CD-ROM drives
- B) Floppy disks, keyboards, earphones
- C) Floppy disks, keyboards, CD-ROM drives
- D) Floppy disks, hard disks, keyboard
- 29) ଷ୍ଟୋରେଜ୍ ଡିଭାଇସର ଉଦାହରଣ ଦିଅନ୍ତ
- A) ଫୁପି ଡିସ୍କ, ହାର୍ଡ ଡିସ୍କ, ସିଡି-ରୋମ୍ ଡାଇଭ୍
- B) ଫୁପି ଡିସ୍କ, କୀବୋର୍ଡ, ଇୟରଫୋନ୍
- C) ଫୁପି ଡିସ୍କ, କୀବୋର୍ଡ, ସିଡି-ରୋମ୍ ଡ୍ରାଇଭ୍
- D) ଫୁପି ଡିସ୍କ, ହାର୍ଡ ଡିସ୍କ, କିବୋର୍ଡ
- 30) Which of the following social networking website developed by Google is obsolete now?
- A) Vine
- B) Orkut
- C) Friendster
- D) WeChat
- 30) Google ହ୍ୱାରା ବିକଶିତ ନିମ୍ନଲିଖ୍ତ ମଧ୍ୟରୁ କେଉଁ ସାମାଜିକ ନେଟୱାର୍କିଂ ୱେବସାଇଟ୍ ବର୍ତ୍ତମାନ ଅପ୍ରଚଳିତ?
- A) Vine
- B) Orkut
- C) Friendster
- D) WeChat









- 31) The green wave underline in MS Word document indicates
- A) Spelling Errors
- B) Grammatical Errors
- C) Errors because of extra spaces between words
- D) Formatting Error
- 31) MS-Word ଡକ୍ୟୁମେୟରେ ସବୁଜ ତରଙ୍ଗ ଅଣ୍ଠରଲାଇନ୍ କଣ ସୂଚିତ କରେ?
- A) ବନାନ ତ୍ରଟି
- B) ବ୍ୟାକରଣଗତ ତ୍ରଟି
- C) ଶବ୍ଦ ମଧ୍ୟରେ ଅତିରିକ୍ତ ସ୍ଥାନ ହେତୁ ତ୍ରୁଟି
- D) ଫର୍ମାଟିଂ ତ୍ରୁଟି
- 32) RAM and ROM are which type of Memory?
- A) Primay Memory
- B) Secondary Memory
- C) Permanent Memory
- D) Volatile Memory
- 32) RAM ଏବଂ ROM କେଉଁ ପ୍ରକାରର ମେମୋରି ଅଟନ୍ତି?
- A) ପ୍ରାଇମେରୀ ମେମୋରୀ
- B) ସେକେ ଷେରୀ ମେମୋରୀ
- C) ପର୍ମାନେଷ ମେମୋରୀ
- D) ଭୋଲାଟାଇଲ ମେମୋରୀ
- 33) What is an OS?
- A) Operating system
- B) Opera system
- C) Operation System
- D) Operational system









- 33) ଏକ **OS** କଣ?
- A) Operating system
- B) Opera system
- C) Operation System
- D) Operational system
- 34) Which of the following is the land records web portal of Odisha, where you can check Land details by entering the details like name of District, Tahasil and Village of the land schedule?
- A) Bhulekh
- B) Bhoomi
- C) e-LandRecords
- D) Umang
- 34) ନିମ୍ନଲିଖିତ ମଧ୍ୟରୁ କେଉଁଟି ଓଡ଼ିଶାର ଲ୍ୟାଣ୍ଡ ରେକର୍ଡ ୱେବ୍ ପୋର୍ଟାଲ୍, ଯେଉଁଠାରେ ଆପଣ ଜ<mark>ିଲା</mark>, ତହସିଲ୍ ଏବଂ ଗ୍ରାମ ନାମର ସବିଶେଷ ତଥ୍ୟ ଏଣ୍ଡର କରି ଜମି ବିବରଣୀ ଯାଞ୍ଚ କରିପାରିବେ।
- A) Bhulekh
- B) Bhoomi
- C) e-LandRecords
- D) Umang
- 35) Which of the following is used to send a message via email to a large number of addresses at once?
- A) SPAM mail
- B) Bulk email
- C) Adware
- D) Group email
- 35) ନିମ୍ବଲିଖିଡ ମଧ୍ୟର କେଉଁଟି ଏକାଥରକେ ବହୁ ସଂଖ୍ୟକ ଠିକଣାକୁ ଇମେଲ୍ ମାଧ୍ୟମରେ ଏକ ସନ୍ଦେଶ ପ୍ରେରଣ କରିବାକୁ ବ୍ୟବହୃତ ହୁଏ?
- A) ସ୍ୱାମ୍ ମେଲ୍
- B) ବକ୍କ ଇମେଲ୍
- C) ଆଡୱେୟାର୍
- D) ଗୋଷୀ ଇମେଲ୍









Section 4 - Paper I Pedagogy and Evaluation

- 36) Peer-to-peer learning encourages
- A) individuality
- B) collaboration
- C) competition
- D) jealousy
- 36) ସହପାଠୀ-କୁ-ସହପାଠୀ ଶିକ୍ଷଣ କାହାକୁ ଉତ୍ସାହିତ କରେ?
- A) ବ୍ୟକ୍ତିଗତତା
- B) ସହଯୋଗ
- C) ପ୍ରତିଯୋଗିତା
- D) ଈର୍ଷା
- 37) When learning is concerned with perception, it is known as
- A) verbal learning
- B) sensory learning
- C) concept learning
- D) discrimination learning
- 37) ଯେତେବେଳେ ଶିକ୍ଷଣ ଇନ୍ଦ୍ରିୟାନୁଭୂତ <mark>ଜ୍ଞାନ</mark> ସହିତ <mark>କଡି</mark>ତ, ଏହା ନିମ୍ନଲିଖ୍ତ ଭାବରେ କଣାଶୁଣା
- A) ଶାବ୍ଦିକ ଶିକ୍ଷଣ
- B) ସଂବେଦୀ ଶିକ୍ଷଣ
- C) ପ୍ରତ୍ୟୟ ଶିକ୍ଷଣ
- D) ଭେଦଭାବ ଶିକ୍ଷଣ
- 38) Contsructing a table of topics, level of the question and marks allotted in test construction is
- A) Test conceptualisation
- B) Schematic test
- C) Blue-print
- D) Master Plan









- 38) ପରୀକ୍ଷଣ ରଚନା ପ୍ରଣାଳୀରେ ଆବର୍ଦ୍ଧିତ ବିଷୟଗୁଡ଼ିକର ଏକ ଟେବୁଲ୍, ପ୍ରଶ୍ମର ୟର ଏବଂ ମାର୍କ ନିର୍ମାଣ କରିବା ହେଉଛି
- A) ପରୀକ୍ଷଣ ସଂପ୍ରତ୍ୟାତ୍ମିକିକରଣ
- B) ଯୋଜନାନୁସାରେ ପରୀକ୍ଷଣ
- C) ସବିଶେଷ ନକ୍ସା(ବ୍ଲ-ପ୍ରିଷ୍)
- D) ମୁଖ୍ୟ ଯୋଜନା (ମାଷ୍ଟର ପ୍ଲାନ୍)
- 39) The objective of assessment in schools is
- A) Assessment of learners
- B) Assessment of learning.
- C) Assessment for learning.
- D) Assessment for Scores.
- 39) ବିଦ୍ୟାଳୟଗୁଡ଼ିକରେ ନିର୍ଦ୍ଧାରଣର ଉଦ୍ଦେଶ୍ୟ ହେଉଛି-
- A) ଶିକ୍ଷାର୍ଥୀମାନଙ୍କର ନିର୍ଦ୍ଧାରଣ
- B) ଶିକ୍ଷଣର ନିର୍ଦ୍ଧାରଣ
- C) ଶିକ୍ଷଣ ପାଇଁ ନିର୍ଦ୍ଧାରଣ
- D) ଷ୍କୋର ପାଇଁ ନିର୍ଦ୍ଧାରଣ
- 40) Which of the following is a solution designed to help teachers in meeting with new challenges and developing learners' abilities and performance?
- A) A smart class
- B) A teacher-centred class
- C) A small class
- D) A research class
- 40) ଶିକ୍ଷକମାନଙ୍କୁ ନୂତନ ଆହ୍ୱାନର ମୁକାବିଲା ଏବଂ ଶିକ୍ଷାର୍ଥୀମାନଙ୍କର ଦକ୍ଷତ। ଏବଂ କାର୍ଯ୍ୟଦକ୍ଷତା ବିକାଶରେ ସାହାଯ୍ୟ କରିବାକୁ, ନିମ୍ନଲିଖିତ ମଧ୍ୟରୁ କେଉଁ ସମାଧାନ ପରିକଳ୍ପିତ ହୋଇଛି?
- A) ଏକ ସ୍ମାର୍ଟ କ୍ଲାସ୍
- B) ଏକ ଶିକ୍ଷକ-କୈନ୍ଦିକ ଶେଣୀ
- C) ଏକ ଛୋଟ ଶ୍ରେଣୀ
- D) ଏକ ଅନୁସନ୍ଧାନ ଶ୍ରେଣୀ









- 41) An assesment used to exhibit a collection of learner work highlighting their achievement in a specific area is
- A) Performance Assessment
- B) Portfolio Assessment
- C) Informal Assessment
- D) Formal Assessment
- 41) ଏକ ନିର୍ଦ୍ଦିଷ୍ଟ କ୍ଷେତ୍ରରେ ଶିକ୍ଷାର୍ଥୀଙ୍କର ସଫଳତାକୁ ଆଲୋକିତ କରୁଥିବା ସେମାନଙ୍କର କାର୍ଯ୍ୟର ସଂଗ୍ରହକୁ ପ୍ରଦର୍ଶିତ କରିବା ପାଇଁ <mark>ବ୍ୟବ</mark>ହୃତ ଏ<mark>କ ନିର୍ଦ୍ଧା</mark>ରଣ ହେଉଛି-
- A) କାର୍ଯ୍ୟଦକ୍ଷତା ନିର୍ଦ୍ଧାରଣ
- B) ପୋର୍ଟଫୋଲିଓ ନିର୍ଦ୍ଧାରଣ
- C) ଅନୌପଚାରିକ ନିର୍ଦ୍ଧାରଣ
- D) ଔପଚାରିକ ନିର୍ଦ୍ଧାରଣ
- 42) Constructivism is a theory that equates learning with creating meaning from
- A) assumption
- B) experience
- C) instruction
- D) inheritance
- 42) ରଚନାବାଦୀ ସିଦ୍ଧାନ୍ତ କେଉଁଠାରୁ <mark>ଶିକ୍ଷଣକୁ ଅର୍ଥ ସୃଷ୍ଟି କରିବା ସହିତ</mark> ସମାନ କରିଥାଏ?
- A) ପ୍ରାକ୍ ଧାରଣା
- B) ଅଭିଜ୍ଞତା
- C) ନିର୍ଦ୍ଦେଶ
- D) ଉତ୍ତରାଧିକାର
- 43) Which of the following is TRUE about teaching?
- A) All teachers have the same style of teaching
- B) Every teacher has similar ability for teaching
- C) All Teachers think of same examples in the classroom
- D) Every teacher teaches according to her personality









- 43) ନିମୁଲିଖିତ ମଧ୍ୟର କେଉଁଟି ଶିକ୍ଷାଦାନ ବିଷୟରେ ସତ୍ୟ ଅଟେ?
- A) ସମୟ ଶିକ୍ଷକଙ୍କ ଶିକ୍ଷାଦାନର ଶୈଳୀ ସମାନ ଅଟେ
- B) ପ୍ରତ୍ୟେକ ଶିକ୍ଷକଙ୍କର ଶିକ୍ଷାଦାନ ପାଇଁ ସମାନ ଦକ୍ଷତା ଥାଏ
- C) ସମୟ ଶିକ୍ଷକ ଶ୍ରେଣୀଗୃହରେ ସମାନ ଉଦାହରଣ ବିଷୟରେ ଭାବତ୍ତି
- D) ପ୍ରତ୍ୟେକ ଶିକ୍ଷକ ନିଜର ବ୍ୟକ୍ତିତ୍ୱ ଅନୁଯାୟୀ ଶିକ୍ଷାଦାନ କରନ୍ତି
- 44) Which of the following is an advantage with lecture method?
- A) Full control over the transaction of the lesson
- B) It as a one-way communication
- C) Learners are passive listeners
- D) Learners have limited opportunity to offer feedback
- 44) ବଲ୍ଚୃତା ପଦ୍ଧତି ପାଇଁ ନିମ୍ନଲିଖ୍ଡ ମଧ୍ୟରୁ କେଉଁଟି ଲାଭଜନକ ଅଟେ?
- A) ପାଠ୍ୟର କାରବାର ଉପରେ ସମ୍ପର୍ଷ ନିୟନ୍ତଣ
- B) ଏହା ଏକ ତରଫା ଯୋଗାଯୋଗ ଭାବରେ
- C) ଶିକ୍ଷାର୍ଥୀମାନେ ନିଷ୍କିୟ ଶ୍ୱୋତା
- D) ମତାମତ ପ୍ରଦାନ କରିବାକୁ ଶିକ୍ଷାର୍ଥୀମାନଙ୍କର ସୀମିତ ସୁ<mark>ଯ</mark>ୋଗ
- 45) Which of the following statements is TRUE of constructivist approach to assessment?
- A) The process of learning shuts down
- B) Assessment is ongoing process.
- C) Students solve only straight problems
- D) Students stick to the initial information
- 45) ନିମ୍ବଲିଖିତ ଉକ୍ତିଗୁଡ଼ିକ ମଧ୍ୟର କେଉଁଟି ନିର୍ଦ୍ଧାରଣ ପାଇଁ ଗଠନ ମୁଳକ ଉପାଗମ ବିଷୟରେ **ସତ୍ୟ** ଅଟେ?
- A) ଶିଖିବାର ପୁକ<mark>ିୟା ବନ୍ଦ</mark> ହୋଇଯାଏ।
- B) ନିର୍ଦ୍ଧାରଣ ଏକ ପ୍ରଗତିଶୀଳ ପ୍ରକିୟା ଅଟେ।
- C) ଛାତ୍ରମାନେ କେବଳ ସିଧା ସମସ୍ୟାର ସମାଧାନ କରନ୍ତି।
- D) ଛାତ୍ରମାନେ ପ୍ରାରୟିକ ସ୍ୱଚନା ସହିତ କଡ଼ିତ ରହନ୍ତି।









- 46) Which of the following statements is TRUE?
- i) In Assesment as learning the learners have their own Goals
- ii) The learner himself/ herself initiates the assesment process
- A) Only i is true
- B) Only ii is true
- C) Both i & ii are true
- D) Both i & ii are false
- 46) ନିମ୍ନଲିଖିତ ମଧ୍ୟରୁ କେଉଁ ଉକ୍ତିଟି **ସତ୍ୟ**?
- i) ଶିକ୍ଷଣ ଭାବରେ ନିର୍ଦ୍ଧାରଣରେ ଶିକ୍ଷାର୍ଥୀଙ୍କର ନିଜସ୍ୱ ଲକ୍ଷ୍ୟ ଥାଏ।
- ii) ଶିକ୍ଷାର୍ଥୀ ନିଜେ ନିର୍ଦ୍ଧାରଣ ପ୍ରକ୍ରିୟା ଆରୟ କରେ।
- A) କେବଳ i ସତ୍ୟ ଅଟେ
- B) କେବଳ ii ସତ୍ୟ ଅଟେ
- C) ଉଭୟ i ଏବଂ ii ସତ୍ୟ ଅଟେ
- D) ଉଭୟ i ଏବଂ ii ମିଥ୍ୟା ଅଟେ
- 47) The Readiness for a child's learning is determinded by
- A) Motivation
- B) Readiness
- C) Fatigue
- D) Maturation
- 47) ଶିଶୁର ଶ<mark>ିକ୍ଷାଣ ପାଇଁ ପ୍ରସ୍ତୁତତା ନିମ୍ନଲିଖ୍ତ ଦ୍ୱାରା ନିର୍ଶ୍</mark>ୟ କରାଯାଏ
- A) ଅଭିପ୍ରେରଣ
- B) ପ୍ରସ୍ତୁତି
- C) ଥକାପଣ
- D) ପରିପକ୍ୱତା









- 48) Which of the following statements regarding Intrinsic motivation is TRUE?
- A) It does not require any prior learning
- B) Reinforcer drives an individual's behaviour towards a goal
- C) Rewards are used to achieve goals
- D) Its is more important than extrinsic motivation
- 48) ଅତଃ ଅଭିପେରଣ ସମ୍ବନ୍ଧରେ ନିମ୍ନଲିଖିତ ମଧ୍ୟର କେଉଁ ଉକ୍ତିଟି ସତ୍ୟ?
- A) ଏହା କୌଣସି ପୂର୍ବ ଶିକ୍ଷଣ ଆବଶ୍ୟକ କରେ ନାହିଁ
- B) ପୁନର୍ବଳନ ଏକ ବ୍ୟକ୍ତିର ଆଚରଣକୁ ଏକ ଲକ୍ଷ୍ୟ ଆଡକୁ ନେଇଥାଏ
- C) ଲକ୍ଷ୍ୟ ହାସଲ କରିବା ପାଇଁ ପୁରସ୍କାର ବ୍ୟବହୃତ ହୁଏ
- D) ବାହ୍ୟ ଅଭିପ୍ରେରଣ ଅପେକ୍ଷା ଏହା ଅଧିକ ଗୁରୁତ୍ୱପୂର୍ଣ୍ଣ
- 49) An assessment that takes place after the learning has been completed and provides information and feedback that sums up the teaching and learning process is a
- A) Diagnostic assessment
- B) Formative Assessment
- C) Summative assessment
- D) Prognostic assessment
- 49) ଶିକ୍ଷଣ ସମାପ୍ତ ହେବା ପରେ ଘଟୁଥିବା ଏକ ନିର୍ଦ୍ଧାରଣ, <mark>ସୂଚନା ଏବଂ ମତାମତ</mark> ପ୍ରଦାନ କରେ ଯାହା ଶିକ୍ଷାଦାନ ଏବଂ ଶିକ୍ଷଣ ପ୍ରକ୍ରିୟାକୁ ସଂକ୍ଷିପ୍ତ କରେ, ତାହାକୁ କ'ଣ କୁହାଯାଏ?
- A) ନୈଦାନିକ ନିର୍ଦ୍ଧାରଣ
- B) ଗଠନ ମୂଳକ ନିର୍ଦ୍ଧାରଣ
- C) ସମାପ୍ତି ସୂଚକ ନିର୍ଦ୍ଧାରଣ
- D) ପୂର୍ବସୂଚକ ନିର୍ଦ୍ଧାରଣ
- 50) Attention span of which of the following group of students is less?
- A) middle school studnets
- B) pre-school students
- C) secodnary students
- D) higher secondary students









- 50) ନିମ୍ନଲିଖିତ ଛାତ୍ରମାନଙ୍କ ମଧ୍ୟରୁ କାହାର ଧ୍ୟାନର ସମୟ ଅବଧ୍ କମ୍?
- A) ମଧ୍ୟମ ବିଦ୍ୟାଳୟର ଛାତ୍ରମାନଙ୍କର
- B) ପ୍ରାକ୍ ବିଦ୍ୟାଳୟ ଛାତ୍ରମାନଙ୍କର
- C) ମାଧ୍ୟମିକ ଛାତ୍ରମାନଙ୍କର
- D) ଉଚ୍ଚ ମାଧ୍ୟମିକ ଛାତ୍ରମାନଙ୍କର









Section 5 - Paper II Chemistry

- 51) Which of the following terms can be defined as the sum of the atomic masses of all the atoms in a molecule of the substance?
- A) Atomic mass
- B) Gram atomic mass
- C) Molecular mass
- D) Gram molecular mass
- 52) How many atoms are there in one mole of iron?
- A) 6.22 x 10²¹
- B) 6.32 x 10²²
- C) 6.022 x 10²³
- D) 6.202 x 10²⁸
- 53) Which of the following chemical compounds has covalent bond?
- A) NaOH
- B) KCI
- C) H₂
- D) NaBr
- 54) Which of the following statements is CORRECT regarding CO₂?
- A) It has two single bonds
- B) It has two double bonds
- C) It has three double bonds
- D) It has three single bonds
- 55) Which of the following equilibria has constant vapour pressure at a given temperature?
- A) Solid-liquid equilibrium
- B) Solid-solution equilibrium
- C) Liquid-gas equilibrium
- D) Gas-solution equilibrium









- 56) What is the reaction quotient (Qc) for a general reaction, aA + bB ↔ cC + dD?
- A) $Q_c = [B]^b [C]^c / [A]^a [D]^d$
- B) $Q_c = [A]^a [D]^d / [B]^b [C]^c$
- C) $Q_c = [A]^a [B]^b / [C]^c [D]^d$
- D) $Q_c = [C]^c [D]^d / [A]^a [B]^b$
- 57) What is the oxidation number of Mn in KMnO₄?
- A) 2
- B) 4
- C) 6
- D) 7
- 58) Who showed that the chemical and physical properties of elements are determined by the atomic number and not by the atomic mass and paved the way to the modern periodic table?
- A) Dmitri Ivanovich Mendeleev
- B) Henry Moseley
- C) Johann Dobereiner
- D) John Alexander Newlands
- 59) Iron ore is the basic mineral used in modern industries. Which of the following options is the principal ore of iron?
- A) Magnetite
- B) Bauxite
- C) Cuprite
- D) Zincite
- 60) Chloroform is a colourless organic compound which has many industrial uses. The chemical formula of Chloroform is:
- A) CCI₄
- B) CHCl₃
- C) CH₂Cl₂
- D) CH₃CI









- 61) The chemical formula of dry ice is:
- A) CO
- B) O₂C
- C) CO₂
- D) C₂O
- 62) Which of the following options is CORRECT with reference to the shape of p and s atomic orbitals respectively?
- A) spherical, dumbbell
- B) dumbbell, spherical
- C) spherical, spherical
- D) dumbbell, dumbbell
- 63) Which of the following statements is CORRECT with reference to properties of liquids?
- A) They have definite volume and definite shape
- B) They have definite volume and no definite shape
- C) They do not have definite volume and definite shape
- D) They do not have definite volume and have irregular shape
- 64) Which of the following is the name given to a series of spectral emission lines of the hydrogen atom that result from electron transitions from higher levels down to the energy level with principal quantum number 2?
- A) Lyman series
- B) Balmer series
- C) Paschen series
- D) Brackett series
- 65) What should be the ratio of energies of electron in various Bohr orbits of Hydrogen atom?
- A) 1:2:4:8
- B) 1:4:9:16
- C) 1:1/2:1/4:1/8
- D) 1:1/4:1/9:1/16









66) How many moles of methane occupy the volume of 11.2 Litres at Standard Temperature and Pressure?
A) 0.5 moles
B) 1.0 moles
C) 1.5 moles
D) 2.0 moles
67) Identify the type of hybridization seen in a methane molecule.
A) sp
B) sp ²
C) sp ³
D) sp ³ d
68) Calculate the pH of 0.01N HCI.
A) 3
B) 4
C) 2
D) 1
69) Which of the following behaves as both oxidising agent and reducing agent?
os) which of the following behaves as both oxidising agent and reducing agent?
A) H ₂ S
B) NH ₃
C) SO ₂
D) K ₂ Cr ₂ O ₇
70) Which of the following is a reducing agent?
70) Which of the following is a readoing agent:
A) H ₂ S
B) H ₂ O ₂
C) KMnO ₄
D) $K_2Cr_2O_7$
71) The element with atomic number 34 belongs to which of the following blocks of the periodic table?
A) s block
A) a block





B) p block C) d block D) f block





- 72) Which of the following quantum numbers represents the main energy level in which the electron is present?
- A) Principal quantum number
- B) Azimuthal quantum number
- C) Magnetic quantum number
- D) Spin quantum number
- 73) Which of the following reactions represent van Arkel method of refining metals?

A)
$$Cu \rightarrow Cu_2 + + 2e^-$$
; $Cu_2 + 2e^- \rightarrow Cu$

B) C +
$$1/2$$
 O₂ \rightarrow CO; CO + $1/2$ O₂ \rightarrow CO₂

C)
$$Zr + 2I_2 \rightarrow ZrI_4$$
; $ZrI_4 \rightarrow Zr + 2I_2$

D) Ni + 4CO
$$\rightarrow$$
 Ni(CO)₄; Ni(CO)₄ \rightarrow Ni + 4CO

- 74) Which of the following processes is used for refining of Nickel?
- A) Mond process
- B) van Arkel method
- C) Froth floatation process
- D) Hall-Heroult process
- 75) Grignard reagents are commonly used for organic synthesis. Which among the following is a Grignard reagent?
- A) RMgX
- B) RLiX
- C) RZnX
- D) RNaX
- 76) Which among the following metals is used in an organic coupling reaction named Wurtz reaction?
- A) Al
- B) Fe
- C) Na
- D) Zn









77	How many	molecules of	ethyne are	involved in	cyclic pol	vmerisation	reaction to	form benzene?
	, I IOVV IIIGII	, illolocaloc ci	othry no and	III VOIV CO III	Cyclic poi	ymonodion	1 Caction to	TOTTI DOTIE OTTO.

- A) 1
- B) 2
- C) 3
- D) 4

78) To what volume, 8 m³ of ethane gas at 1.2 atmospheric pressure has to be compressed to give required storage pressure of 6 atmospheres at constant temperature?

- A) $0.9 \, \text{m}^3$
- B) 1.6 m³
- C) 1.8 m³
- D) 2.0 m³

79) A gas occupies a volume of 48 cm³ at 15°C. Calculate the volume that the gas would occupy at 33°C at constant pressure.

- A) 42 cm3
- B) 45 cm³
- C) 51 cm³
- D) 54 cm³

80) Which of the following options describe the orbital with quantum number n=3, l=2?

- A) 3s
- B) 3p
- C) 3d
- D) 4f









Section 6 - Paper II Botany

No. of	Questions:	35

- 81) Which growth regulator is responsible for fruit ripening?
- A) IAA
- B) GA
- C) ABA
- D) Ethylene
- 82) Which growth regulators was isolated by F.W. Went from tips of coleoptiles of oat seedlings?
- A) Gibberellin
- B) Cytokinin
- C) Auxin
- D) Ethylene
- 83) In which phenomenon the growing apical bud is partly responsible for inhibiting the growth of axillary buds?
- A) Plasticity
- B) Apical dominance
- C) Parthenocarpy
- D) Phototropism
- 84) Which Plant Growth Regulator is responsible for cell division?
- A) Cytokinins
- B) ABA
- C) Ethylene
- D) GA
- 85) Who among the following independently rediscovered Mendel's work?
- A) Hugo De Vries, Robert Hook and Frederick Griffith
- B) Carl Corrence, Carl Nageli and Francis Crick
- C) Erich von Tschermak, Charles Darwin and James Watson
- D) Hugo DeVries, Carl Correns and Erich von Tschermak









- 86) The observable characteristics or traits of an organism is
- A) phenotype
- B) genotype
- C) test cross
- D) back cross
- 87) Who is the father of genetics?
- A) Robert Hook
- B) Hugo De Vries
- C) Carl Corrence
- D) Gregor Mendel
- 88) Gregor Mendel (1822-1844) perform his breeding experiments on which plant?
- A) Tomato
- B) Potato
- C) Pea
- D) Papaya
- 89) The cross of an organism showing dominant phenotype with the recessive parent to predict the genotype of the test organism is
- A) Back Cross
- B) Test Cross
- C) Monohybrid Cross
- D) Dihybrid Cross
- 90) Kranz anatomy is a special feature in which type of plant species?
- A) C2
- B) C3
- C) C4
- D) CAM









- 91) Which of the following is an example of C3 plants?
- A) Spinach
- B) Maize
- C) Sugarcane
- D) Orchids
- 92) In photosynthesis process light reaction is also known as
- A) Hill's Reaction
- B) Blackman's reaction
- C) Oparin reaction
- D) Emerson effect
- 93) Which cell organelles participates in photorespiration?
- A) Chloroplast, Lysosome and Vacuole
- B) Chloroplast, Ribosome and Golgi apparatus
- C) Chloroplast, Mitochondria and Peroxisome
- D) Peroxisome, Endoplasmic reticulum and Lysosome
- 94) With respect to photosynthesis, what is the full form of acronym CAM?
- A) Crassulacean Acid Metabolism
- B) Carbon Acid Mechanism
- C) Crassulacean Acid Mechanism
- D) Carbon Acid Metabolism
- 95) Reaction of Calvin Cycle occur in which part of chlorplast?
- A) Stroma
- B) Inner membrane
- C) Outer membrane
- D) Cytoplasm
- 96) Which crop was affected during Irish famine?
- A) Potato
- B) Tomato
- C) Citrus
- D) Legume









- 97) Late blight disease of potato is caused by
- A) bacteria
- B) protozoa
- C) fungi
- D) virus
- 98) ICN is the set of rules and recommendations dealing with the formal botanical names and a few other group of organisms. What is the full form of Acronym ICN?
- A) International Class of Nomenclature
- B) International Code of Nomenclature for algae, fungi, and plants
- C) International Category of Biological Nomenclature
- D) International Committee of Nomenclature
- 99) Chipko movement for the protection of local forest was initiated in which state?
- A) Punjab
- B) Haryana
- C) Rajasthan
- D) Uttarakhand
- 100) In which plant group seeds develop inside chambers called ovaries, which originate within flowers and mature into fruits?
- A) Angiosperm
- B) Bryophytes
- C) Pteridophytes
- D) Gymnosperm
- 101) In which plant group have naked seed?
- A) Angiospem
- B) Bryophytes
- C) Pteridophytes
- D) Gymnosperm









102) Which of the following Book record the endangered and rare plant species?

- A) Red Data Book
- B) Green Data Book
- C) Yellow Data Book
- D) Rare Data Book

103) In angiosperm which structure are specialized for sexual reproduction?

- A) Root
- B) Stem
- C) Leaf
- D) Flower

104) Which of the following are reproductive parts of plants?

- A) Flower
- B) Stem
- C) Root
- D) Leaves

105) A small pore at one end of ovule through which the pollen tube enters is

- A) micropyle
- B) integuments
- C) nucellus
- D) embryo sac

106) What is the characteristic feature of Conidia?

- A) Thalloid
- B) Flagellated
- C) Non-motile
- D) Motile

107) What term used for the triploid nucleus, formed as a result of double fertilization or triple fusion?

- A) Embryosac
- B) Endosperm
- C) Ovule
- D) Pollination









108) In Oogamy type of copulation, what is the characteristic feature of female gamete compared with male gamete?

- A) Larger and motile
- B) Smaller and motile
- C) Larger and non-motile
- D) Smaller and non-motile

109) Micropropagation is which type of propagation technology for producing a large number of genetically superior and pathogen free plants in a limited time and space?

- A) Only vegetative
- B) Only sexual
- C) Both vegetative and sexual
- D) Neither vegetative nor sexual

110) A peripheral protective tissue on stem known as Periderm have

- A) Only phellogen
- B) Only phellem
- C) Only secondary cortex
- D) Phellogen, Phellem and Secondary cortex

111) Which of the following theory was proposed by Carl Nageli in 1858?

- A) Apical cell theory
- B) Histogen theory
- C) Tunica corpus theory
- D) Theory of evolution

112) Velamen tissue which is absorbing in nature present in which plant group?

- A) Orchid
- B) Algae
- C) Fungi
- D) Bryophyta









- 113) In a leaf each stomata consist of a pore surrounded by two kidney shaped or dumb bell shaped structure are known as
- A) Guard Cell
- B) Subsidiary Cell
- C) Epidermal Cell
- D) Mesophyll
- 114) According to Histogen theory Dermatogen, Periblem and Plerome are three meristematic zones proposed by which scientist?
- A) Carl Nägeli
- B) Carl Friedrich Schmidt
- C) Gottlieb Haberlandt
- D) Johannes von Hanstein
- 115) The term stele (An axial portion of the plant axis) was coined by which scientist?
- A) Van Tieghem and Douliot
- B) Carl Friedrich Schmidt and Gottlieb Haberlandt
- C) Carl Nageli
- D) Johannes von Hanstein









Section 7 - Paper II Zoology

- 116) Transport of Fe³⁺ in blood stream is carried by which of the following proteins?
- A) Globulins
- B) Fibrinogen
- C) Albumins
- D) Transferrin
- 117) The branch of science concerned with the study of blood and associated disorders called as
- A) Hematology
- B) Nematology
- C) Pulmonology
- D) Gynaecology
- 118) Which of the following connects the brain with the spinal cord?
- A) Brain stem
- B) Cerebrum
- C) Thalamus
- D) Hypothalamus
- 119) Which gland secretes growth hormone?
- A) Pituitary gland
- B) Adrenal gland
- C) Thyroid gland
- D) Hypothalamus
- 120) The cell cycle of eukaryotic cell is divided into four discrete phases. Which of the following represents the CORRECT order of these phases?
- A) G1 S G2 M
- B) G1 M G2 S
- C) G1 S M G2
- D) G1 G2 M S









- 121) Who among the following first explained that cells divided and new cells are formed from pre-existing cells (Omnis cellula-e cellula)?
- A) Matthias Schleiden
- B) Theodore Schwann
- C) Rudolf Virchow
- D) Garth L. Nicolson
- 122) The rate of production of organic matter during photosynthesis of an ecosystem is
- A) Tertiary productivity
- B) Secondary productivity
- C) Net primary productivity
- D) Gross primary productivity
- 123) The formula to calculate Net Primary Productivity (NPP) of an ecosystem is
- A) NPP = GPP R
- B) NPP = GPP + R
- C) NPP = GPP * R
- D) NPP = GPP / R
- 124) Name the book published by Charles Darwin.
- A) Systema Naturae
- B) Species Plantarum
- C) Mendel's Principles of Heredity
- D) On the origin of species
- 125) Urine is formed in a three-step process: which of the following gives the CORRECT order in which these steps take place in the nephron?
- A) Tubular reabsorption, tubular secretion, glomerular filtration
- B) Tubular secretion, tubular reabsorption, glomerular filtration
- C) Glomerular filtration, tubular secretion, tubular reabsorption
- D) Glomerular filtration, tubular reabsorption, tubular secretion









126) A mutation causes the conversion of AG to GA or TC to CT is called

- A) Transition Mutation
- B) Inversion Mutation
- C) Frameshift Mutation
- D) Deletion
- 127) Which is a water soluble vitamin?
- A) Vitamin C
- B) Vitamin D
- C) Vitamin K
- D) Vitamin A
- 128) Fertilization of an egg by a sperm normally occurs in the
- A) Cervix
- B) Labium minus
- C) Fallopian tube
- D) Vagina
- 129) The organelles associated with aerobic respiration is
- A) Nucleus
- B) Mitochondria
- C) Chloroplast
- D) Centriole
- 130) Glycolysis takes place in
- A) cytoplasm
- B) chloroplast
- C) mitochondria
- D) nucleus









- 131) Five kingdom concept of life system has been proposed by
- A) James Watson
- B) Robert. H. Whittaker
- C) Ernst Haeckel
- D) Herbert. F. Copeland
- 132) Which one of the following is higher toxonomic category?
- A) Species
- B) Order
- C) Family
- D) Kingdom
- 133) A thin, muscular wall in heart that separates the right and the left atria is called
- A) inter-atrial septum
- B) inter-ventricular septum
- C) pericardium
- D) pericardial fluid
- 134) In human beings the number of spinal and cranial nerves are
- A) 31, 10 pairs respectively
- B) 30, 10 pairs respectively
- C) 31, 12 pairs respectively
- D) 31, 11 pairs respectively
- 135) Which of the following phase starts with the nuclear division, corresponding to the separation of daughter chromosomes and usually ends with division of cytoplasm?
- A) M phase
- B) G1 phase
- C) S phase
- D) G2 phase









- 136) Spindle fibres attach to kinetochores of chromosomes in which of the following phase of mitosis?
- A) Telophase
- B) Prophase
- C) Metaphase
- D) Anaphase
- 137) An example of Ex-situ conservation is
- A) Seed banks
- B) Sacred grooves
- C) National parks
- D) Natural reserves
- 138) Which of the following is an abiotic component of an ecosystem?
- A) Water
- B) Plants
- C) Animals
- D) Bacteria
- 139) Which of the following is a process where new combinations of alleles are formed?
- A) Genetic recombination
- B) Mutation
- C) Isolation
- D) Natural selection
- 140) What is the duration of Charles Darwin's famous voyage on HMS Beagle?
- A) 1831 1840
- B) 1830 1837
- C) 1831 1836
- D) 1828 1836
- 141) The part of nephron situated in the medullary region of the kidney is
- A) malpighian corpuscle
- B) proximal convoluted tubule
- C) distal convoluted tubule
- D) henle's loop









- 142) Total quantity of filtrate formed in all nephrons of both the kidneys in the given unit of time is called as
- A) Tubular secretion rate
- B) Glomerular filtration rate
- C) Tubular filtration rate
- D) Tubular reabsorption rate
- 143) Crossing over occurs at which stage of prophase I in meiosis?
- A) Zygotene
- B) Diplotene
- C) Pachytene
- D) Leptotene
- 144) karyotype 47,XX,+21 is for which of the following syndrome?
- A) Down syndrome
- B) Turner syndrome
- C) Edwards syndrome
- D) Patau syndrome
- 145) Anaemia due to lack of Haemoglobin is associated with the deficiency of
- A) Zinc
- B) Phosphorous
- C) Iron
- D) Calcium
- 146) The common name of Vitamin B1 is
- A) Niacine
- B) Adenine
- C) Cytosine
- D) Thiamine









- 147) After ovulation the Graafian follicle transforms into the
- A) Corpus luteum
- B) Ampulla
- C) Infundibulum
- D) Oocyte
- 148) End product of Glycolysis during aerobic respiration is
- A) Acetyl-CoA
- B) Triose phosphate
- C) Pyruvate
- D) Malate
- 149) How many molecules of ATP are gained during anaerobic respiration of one molecule of glucose?
- A) 36
- B) 2
- C) 38
- D) 4
- 150) Cyanobacteria belongs to which domain?
- A) Fungi
- B) Bacteria
- C) Plantae
- D) Animalia









Question Paper No: 76230_6 Answer Key

1 B 31 B 61 C 91 A 121 C 2 B 32 A 62 B 92 A 122 D 3 C 33 A 63 B 93 C 123 A 4 C 34 A 64 B 94 A 124 D 5 C 35 B 65 D 95 A 125 D 6 D 36 B 66 A 96 A 126 A 7 C 37 B 67 C 97 C 127 A 8 C 38 C 68 C 98 B 128 C 9 C 39 B 69 C 99 D 129 B 10 A 40 A 70 <td< th=""><th></th><th></th><th></th><th></th><th></th><th></th><th></th><th></th><th></th><th></th></td<>										
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4 C 34 A 64 B 94 A 124 D 5 C 35 B 65 D 95 A 125 D 6 D 36 B 66 A 96 A 126 A 7 C 37 B 67 C 97 C 127 A 8 C 38 C 68 C 98 B 128 C 9 C 39 B 69 C 99 D 129 B 10 A 40 A 70 A 100 A 130 A 11 B 41 B 71 B 101 D 131 B 12 B 42 B 72 A 102 A 132 D 13 C 43 D 73	2	В	32	A	62	В	92	A	122	D
5 C 35 B 65 D 95 A 125 D 6 D 36 B 66 A 96 A 126 A 7 C 37 B 67 C 97 C 127 A 8 C 38 C 68 C 98 B 128 C 9 C 39 B 69 C 99 D 129 B 10 A 40 A 70 A 100 A 130 A 11 B 41 B 71 B 101 D 131 B 12 B 42 B 72 A 102 A 132 D 13 C 43 D 73 C 103 D 133 A 14 D 44 A 74	3	С	33	A	63	В	93	С	123	A
6 D 36 B 66 A 96 A 126 A 7 C 37 B 67 C 97 C 127 A 8 C 38 C 68 C 98 B 128 C 9 C 39 B 69 C 99 D 129 B 10 A 40 A 70 A 100 A 130 A 11 B 41 B 71 B 101 D 131 B 12 B 42 B 72 A 102 A 132 D 13 C 43 D 73 C 103 D 133 A 14 D 44 A 74 A 104 A 134 C 15 B 45 B 75	4	С	34	A	64	В	94	A	124	D
7 C 37 B 67 C 97 C 127 A 8 C 38 C 68 C 98 B 128 C 9 C 39 B 69 C 99 D 129 B 10 A 40 A 70 A 100 A 130 A 11 B 41 B 71 B 101 D 131 B 12 B 42 B 72 A 102 A 132 D 13 C 43 D 73 C 103 D 133 A 14 D 44 A 74 A 104 A 134 C 15 B 45 B 75 A 105 A 135 A 16 C 46 C 76	5	С	35	В	65	D	95	A	125	D
8 C 38 C 68 C 98 B 128 C 9 C 39 B 69 C 99 D 129 B 10 A 40 A 70 A 100 A 130 A 11 B 41 B 71 B 101 D 131 B 12 B 42 B 72 A 102 A 132 D 13 C 43 D 73 C 103 D 133 A 14 D 44 A 74 A 104 A 134 C 15 B 45 B 75 A 105 A 135 A 16 C 46 C 76 C 106 C 136 C 17 D 47 D 77 <td>6</td> <td>D</td> <td>36</td> <td>В</td> <td>66</td> <td>A</td> <td>96</td> <td>A</td> <td>126</td> <td>A</td>	6	D	36	В	66	A	96	A	126	A
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12 B 42 B 72 A 102 A 132 D 13 C 43 D 73 C 103 D 133 A 14 D 44 A 74 A 104 A 134 C 15 B 45 B 75 A 105 A 135 A 16 C 46 C 76 C 106 C 136 C 17 D 47 D 77 C 107 B 137 A 18 A 48 A 78 B 108 C 138 A 19 C 49 C 79 C 109 A 139 A 20 B 50 B 80 C 110 D 140 C 21 B 51 C 81 D 111 A 141 D 22 C 52 C<	10	A	40	A	70	A	100	A	130	A
13 C 43 D 73 C 103 D 133 A 14 D 44 A 74 A 104 A 134 C 15 B 45 B 75 A 105 A 135 A 16 C 46 C 76 C 106 C 136 C 17 D 47 D 77 C 107 B 137 A 18 A 48 A 78 B 108 C 138 A 19 C 49 C 79 C 109 A 139 A 20 B 50 B 80 C 110 D 140 C 21 B 51 C 81 D 111 A 141 D 22 C 52 C 82 C 112 A 142 B 23 C 53 C<	11	В	41	В	71	В	101	D	131	В
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18 A 48 A 78 B 108 C 138 A 19 C 49 C 79 C 109 A 139 A 20 B 50 B 80 C 110 D 140 C 21 B 51 C 81 D 111 A 141 D 22 C 52 C 82 C 112 A 142 B 23 C 53 C 83 B 113 A 143 C 24 A 54 B 84 A 114 D 144 A 25 B 55 C 85 D 115 A 145 C 26 C 56 D 86 A 116 D 146 D 27 A 57 D 87 D 117 A 147 A 28 D 58 B 88 C 118 A 148 C 29 A 59 A 89 B 119 A 149 B	16	С	46	С	76	C	106	С	136	С
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21 B 51 C 81 D 111 A 141 D 22 C 52 C 82 C 112 A 142 B 23 C 53 C 83 B 113 A 143 C 24 A 54 B 84 A 114 D 144 A 25 B 55 C 85 D 115 A 145 C 26 C 56 D 86 A 116 D 146 D 27 A 57 D 87 D 117 A 147 A 28 D 58 B 88 C 118 A 148 C 29 A 59 A 89 B 119 A 149 B	19	C	49	C	79	C	109	A	139	A
22 C 52 C 82 C 112 A 142 B 23 C 53 C 83 B 113 A 143 C 24 A 54 B 84 A 114 D 144 A 25 B 55 C 85 D 115 A 145 C 26 C 56 D 86 A 116 D 146 D 27 A 57 D 87 D 117 A 147 A 28 D 58 B 88 C 118 A 148 C 29 A 59 A 89 B 119 A 149 B	20	В	50	В	80	С	110	D	140	C
23 C 53 C 83 B 113 A 143 C 24 A 54 B 84 A 114 D 144 A 25 B 55 C 85 D 115 A 145 C 26 C 56 D 86 A 116 D 146 D 27 A 57 D 87 D 117 A 147 A 28 D 58 B 88 C 118 A 148 C 29 A 59 A 89 B 119 A 149 B	21	В	51	C	81	D	111	A	141	D
24 A 54 B 84 A 114 D 144 A 25 B 55 C 85 D 115 A 145 C 26 C 56 D 86 A 116 D 146 D 27 A 57 D 87 D 117 A 147 A 28 D 58 B 88 C 118 A 148 C 29 A 59 A 89 B 119 A 149 B	22	С	52	C	82	С	112	A	142	В
25 B 55 C 85 D 115 A 145 C 26 C 56 D 86 A 116 D 146 D 27 A 57 D 87 D 117 A 147 A 28 D 58 B 88 C 118 A 148 C 29 A 59 A 89 B 119 A 149 B	23	C	53	C	83	В	113	A	143	С
26 C 56 D 86 A 116 D 146 D 27 A 57 D 87 D 117 A 147 A 28 D 58 B 88 C 118 A 148 C 29 A 59 A 89 B 119 A 149 B	24	A	54	В	84	A	114	D	144	A
27 A 57 D 87 D 117 A 147 A 28 D 58 B 88 C 118 A 148 C 29 A 59 A 89 B 119 A 149 B	25	В	55	C	85	D	115	A	145	C
28 D 58 B 88 C 118 A 148 C 29 A 59 A 89 B 119 A 149 B	26	C	56	D	86	A	116	D	146	D
29 A 59 A 89 B 119 A 149 B	27	A	57	D	87		117	A	147	
	28	D	58	В	88	С	118	A	148	C
30 B 60 B 90 C 120 A 150 B	29	A	59	A	89	В	119	A	149	В
	30	В	60	В	90	C	120	A	150	В





