Question Booklet Series Code : A   **Question Booklet Serial No :**   004961

Time Allowed : 02.30 hours   **LI-2021**   **Maximum Marks : 130**

ନିର୍ଦ୍ଧାରିତ ସମୟ : **02.30 ଘଣ୍ଟା**   ସର୍ବାଧିକ ମାର୍କ: **130**

Read the following instructions carefully before you begin to answer the questions.

Before answering any question, check the Booklet and ensure that it contains <u>24</u> pages and no page is missing, mutilated or repeated. In case of any such defect, get it replaced immediately. All questions are compulsory. Each question carries one mark.

This Booklet contains **130** objective type questions with multiple choice answers in seven Parts, as given below.

Part–I- Arithmetic- 30	**Part–IV**- General Awareness- 20	**Part–VI**- Chemistry- 15
Part–II- English Language- 10	**Part–V**- Physics- 15	**Part–VII**- Biological Science- 30
Part–III- Odia Language- 10		

Part-I and Part-IV 50 questions are available in both English and Odia version. In the case of discrepancy in meaning, the English version will prevail.

ପ୍ରଶ୍ନଗୁଡିକର ଉତ୍ତର କରିବାପୂର୍ବରୁ ନିମ୍ନ ପ୍ରଦତ୍ତ ନିର୍ଦ୍ଦେଶାବଳୀ ଯତ୍ନସହକାରେ ପଢ଼ନ୍ତୁ ।

କୌଣସି ପ୍ରଶ୍ନର ଉତ୍ତରଦେବା ପୂର୍ବରୁ ପୁସ୍ତିକାଟିକୁ ତନଖି ଦେଖନ୍ତୁ କି ଏଥିରେ <u>24</u> ପୃଷ୍ଠା ଅଛି ଓ କୌଣସି ପୃଷ୍ଠା ନଷ୍ଟ, ପୁନରାବୃତ୍ତି କିମ୍ବା ଛାଡ଼ି ହୋଇନାହିଁ । କୌଣସି ତ୍ରୁଟିଥିଲେ ତାହାକୁ ତୁରନ୍ତ ବଦଳାଇନିଅନ୍ତୁ ।

ସମସ୍ତ ପ୍ରଶ୍ନ ବାଧ୍ୟତାମୂଳକ । ପ୍ରତ୍ୟେକ ପ୍ରଶ୍ନର ସଠିକ ଉତ୍ତର ପାଇଁ ଏକ ମାର୍କ ରହିଛି ।

ଏହି ପୁସ୍ତିକାରେ ନିମ୍ନ ମତେ ସାତ ଗୋଟି ଭାଗରେ 130ଟି ବିବିଧ ଉତ୍ତର ଯୁକ୍ତ ସଂକ୍ଷିପ୍ତ ପ୍ରଶ୍ନ ରହିଛି ।

ପ୍ରଥମ ଭାଗ- ଗଣିତ- 30	ତୃତୀୟ ଭାଗ- ଓଡ଼ିଆ- 10	ପଞ୍ଚମ ଭାଗ- ପଦାର୍ଥ ବିଜ୍ଞାନ- 15	ସପ୍ତମ ଭାଗ- ଜୀବ ବିଜ୍ଞାନ- 30
ଦ୍ୱିତୀୟ ଭାଗ- ଇଂରାଜୀ- 10	ଚତୁର୍ଥ ଭାଗ- ସାଧାରଣ ଜ୍ଞାନ- 20	ଷଷ୍ଠ ଭାଗ- ରସାୟନ ବିଜ୍ଞାନ- 15	

Part-I and Part-IV 50ଟି ପ୍ରଶ୍ନ ଉଭୟ ଇଂରାଜୀ ଏବଂ ଓଡ଼ିଆ ଭାଷାରେ ଉପଲବ୍ଧ । ଅର୍ଥ ବୋଧରେ କିଛି ତାରତମ୍ୟ ଥିଲେ ଇଂରାଜୀ ଭାଷା ବଳବତ୍ତର ରହିବ ।

INSTRUCTIONS FOR CANDIDATES	ପ୍ରାର୍ଥୀମାନଙ୍କ ପାଇଁ ନିର୍ଦ୍ଦେଶାବଳୀ

1. The Invigilator shall supply you the blank Two Part carbonless OMR Answer Sheet separately. Enter your Roll Number, Question Booklet Serial Number and Question Booklet Series Code and darken the corresponding circle/oval provided on the Answer Sheet at the appropriate space carefully by using only black/blue ball point pen. You must write the name, date and centre of examination and put your full signature in the appropriate space provided therein before answering any question.

2. A machine will read the coded information furnished by you in the OMR Answer Sheet. If the information so furnished by you are incomplete or different from what you have given in the application form, you shall be awarded Zero mark.

3. Answer must be given by completely blackening one of the four circles/ovals representing the most appropriate answer given on the Answer Sheet corresponding to the relevant question by using only Black/Blue ball point pen. Answers not shown by properly darkening in black/blue ball point pen, no marks shall be awarded.

4. No Rough work should be done on the OMR Answer Sheet. Space for rough work has been provided in the Question Booklet itself.

5. Correcting fluid, eraser, blade, books, textual material, scripts, notes/loose paper, calculator, docupen, slide rules, log tables, electronic watches, smart watch, cell phone, pager, other electrical/electronic devices etc. are not allowed inside the examination hall. In case the candidate is found to be in possession of any of the above, he/she shall be expelled from the examination without any enquiry as to whether the same was/were used by the candidate or not.

6. These instructions must be complied with fully, failing which your Answer Sheet shall not be evaluated and Zero marks will be awarded.

7. After the examination is over, candidates must ensure to fold the OMR Answer Sheet at the perforation and separate the Original Copy and Candidate's Copy of the Two Part OMR Answer Sheet in the presence of the Invigilator and handover the **Original Copy** to the Invigilator. The **Candidate's Copy** of the OMR Answer sheet may be taken by the candidate. Failure to hand over the original copy of the OMR Answer Sheet to the Invigilator before leaving the examination hall/room shall make the candidate liable for penal action.

8. Failure to comply with any of the above instructions shall be considered as adopting unfair means and action as deemed proper shall be taken.

୧. ନିରୀକ୍ଷକ ଆପଣଙ୍କୁ ପୃଥକଭାବେ ଓଏମ୍ଆର୍ ଉତ୍ତରଫର୍ଦ୍ଦ (Two Part carbonless OMR Answer Sheet) ଦେବେ । ଉତ୍ତରଫର୍ଦ୍ଦରେ ଯଥା ସ୍ଥାନରେ ଆପଣଙ୍କ ରୋଲନମ୍ବର, ପ୍ରଶ୍ନପୁସ୍ତିକା କ୍ରମିକନମ୍ବର ଏବଂ ପ୍ରଶ୍ନପୁସ୍ତିକା ସିରିଜ କୋଡ ଉଲ୍ଲେଖ କରନ୍ତୁ ଏବଂ ତା ପାଇଁ ଉଦ୍ଦିଷ୍ଟ ବୃତ୍ତ / ଅଣ୍ଡାକୃତିକୁ କେବଳ କଳା / ନୀଳ କାଳିର ବଲପଏଣ୍ଟ କଲମ ଦ୍ୱାରା କାଳି କରନ୍ତୁ । ସେଥିରେ ପ୍ରଦତ୍ତ ନିର୍ଦ୍ଦିଷ୍ଟ ସ୍ଥାନରେ ପରୀକ୍ଷାର ନାମ, ତାରିଖ ଓ ପରୀକ୍ଷା କେନ୍ଦ୍ରର ନାମ ନିର୍ଦ୍ଦିଷ୍ଟ ଭାବେ ଲେଖନ୍ତୁ ଏବଂ କୌଣସି ପ୍ରଶ୍ନର ଉତ୍ତରଦେବା ଆଗରୁ ଯଥାସ୍ଥାନରେ ଆପଣଙ୍କ ପୁରା ଦସ୍ତଖତ କରନ୍ତୁ ।

୨. ଓଏମ୍ଆର୍ ଉତ୍ତରଫର୍ଦ୍ଦରେ ଆପଣ ଉଲ୍ଲେଖ କରିଥିବା ସାଙ୍କେତିକ ତଥ୍ୟକୁ ଗୋଟିଏ ଯନ୍ତ୍ର ପଢ଼ିବ । ତେଣୁ ଆପଣଙ୍କର ଏହି ପ୍ରଦତ୍ତ ତଥ୍ୟ ଯଦି ଦରଖାସ୍ତ ଫର୍ମରେ ଦିଆଯାଇଥିବା ତଥ୍ୟଠାରୁ ପୃଥକ କିମ୍ବା ଅସମ୍ପୂର୍ଣ୍ଣ ହୁଏ, ଆପଣଙ୍କୁ ଶୂନ୍ୟ ମାର୍କ ପ୍ରଦାନ କରାଯିବ ।

୩. ଉତ୍ତରଫର୍ଦ୍ଦରେ ଥିବା ସମ୍ପୃକ୍ତ ପ୍ରଶ୍ନର ସଠିକ ଉତ୍ତର ପାଇଁ ଉଦ୍ଦିଷ୍ଟ ବୃତ୍ତ / ଅଣ୍ଡାକୃତିକୁ କେବଳ କଳା / ନୀଳ କାଳିର ବଲପଏଣ୍ଟ କଲମ ଦ୍ୱାରା କାଳିକରି ଉତ୍ତର ଦିଅନ୍ତୁ । କଳା / ନୀଳବଲ ପଏଣ୍ଟ କଲମ ଦ୍ୱାରା ସଠିକ ଭାବେ କାଳି କରାଯାଇନଥିବା ଉତ୍ତର ପାଇଁ କୌଣସି ମାର୍କ ଦିଆଯିବ ନାହିଁ ।

୪. ଓଏମ୍ଆର୍ ଉତ୍ତରଫର୍ଦ୍ଦରେ ରଫ୍ କାମ କରନ୍ତୁ ନାହିଁ । ପ୍ରଶ୍ନପୁସ୍ତିକାରେ ରଫ୍ କାମପାଇଁ ଖାଲିଜାଗା ଦିଆଯାଇଅଛି ।

୫. କୌଣସି ଧଉଳାଇବା ରଙ୍ଗ, ରବର, ବ୍ଲେଡ୍, ବହି, ଛାପା / ହାତଲେଖାକାଗଜ, କାଲ୍କୁଲେଟର, ଡକୁପେନ, ସ୍ଲାଇଡ ରୁଲ, ଲଗ ଟେବୁଲ, ଇଲେକଟ୍ରୋନିକ ଘଣ୍ଟା, ସ୍ମାର୍ଟ ଘଣ୍ଟା, ମୋବାଇଲ ଫୋନ, ପେଜର, ଅନ୍ୟ ବୈଦ୍ୟୁତିକ/ଇଲେକଟ୍ରୋନିକ ଉପକରଣାଦିକୁ ଆପଣ ପରୀକ୍ଷା ହଲ / କୋଠରୀ ଭିତରକୁ ନେଇ ପାରିବେ ନାହିଁ । ଯଦି ଉପରୋକ୍ତ କୌଣସି ଉପକରଣ ଆପଣଙ୍କ ପାଖରୁ ଉଦ୍ଧାର କରାଯାଏ, ବ୍ୟବହାର କରିଥାନ୍ତୁ ବା ନ କରିଥାନ୍ତୁ, ବିନା ତଦନ୍ତରେ ଆପଣଙ୍କୁ ତୁରନ୍ତ ପରୀକ୍ଷାରୁ ବାୟସ କରାଯିବ ।

୬. ଏହି ନିର୍ଦ୍ଦେଶାବଳୀକୁ ସମ୍ପୂର୍ଣ୍ଣଭାବେ ନିଶ୍ଚିତ ପାଳନକରନ୍ତୁ, ଅନ୍ୟଥା ଆପଣଙ୍କ ଉତ୍ତରପତ୍ରର ମୂଲ୍ୟାୟନ କରାଯିବ ନାହିଁ ଏବଂ ଶୂନ୍ୟ ମାର୍କ ପ୍ରଦାନ କରାଯିବ ।

୭. ପରୀକ୍ଷା ସରିବା ପରେ ପରୀକ୍ଷା ହଲ ଛାଡ଼ିବା ପୂର୍ବରୁ ଆପଣଙ୍କ Two Part carbonless OMR Answer Sheet ଉତ୍ତରଫର୍ଦ୍ଦର Original Copy ଓ Candidate's Copy ନିରୀକ୍ଷକଙ୍କ ଉପସ୍ଥିତିରେ ଚିହ୍ନ ଥିବା ସ୍ଥାନରେ ସଠିକ ଭାବେ ଭାଙ୍ଗ କରି ଚିରି ପୃଥକ କରନ୍ତୁ ଓ Original Copyଟିକୁ ନିରୀକ୍ଷକଙ୍କୁ ହସ୍ତାନ୍ତର କରନ୍ତୁ, ଅନ୍ୟଥା ପରୀକ୍ଷାର୍ଥୀ ଆଇନାନୁଯାୟୀ ଦଣ୍ଡନୀୟ ହେବେ । ଓଏମ୍ଆର୍ ଉତ୍ତରଫର୍ଦ୍ଦର ପ୍ରାର୍ଥୀଙ୍କ ପାଇଁ ଉଦ୍ଦିଷ୍ଟଥିବା କପିଟିକୁ (Candidate's Copy) ପରୀକ୍ଷାର୍ଥୀ ନେଇପାରିବେ ।

୮. ଉପରୋକ୍ତ ନିର୍ଦ୍ଦେଶାବଳୀର କୌଣସି ନିର୍ଦ୍ଦେଶର ଅନୁପାଳନରେ ଖିଲାପକଲେ ଏହାକୁ ଅସତ ଉପାୟ ଅବଲମ୍ବନ କରିଛନ୍ତି ବୋଲି ବିବେଚନା କରାଯିବ ଏବଂ ପରୀକ୍ଷାର୍ଥୀଙ୍କ ବିରୁଦ୍ଧରେ ଯଥୋଚିତ କାର୍ଯ୍ୟାନୁଷ୍ଠାନ ଗ୍ରହଣ କରାଯିବ ।

2

PART – I

ARITHMETIC: 30 Marks

Instructions: Each question under this section carries **ONE** mark. Please read each question carefully and answer them by selecting the right one out of the multiple answers given below each as A, B, C & D.

1. The average of six numbers is 9. If the average of first five of these numbers is 8, what is the sixth number?

   ଛଅଟି ସଂଖ୍ୟାର ହାରାହାରି 9 ଅଟେ । ଯଦି ସଂଖ୍ୟାମାନଙ୍କ ମଧ୍ୟରୁ ପ୍ରଥମ ପାଞ୍ଚଟି ସଂଖ୍ୟାର ହାରାହାରି 8 ହୁଏ, ତେବେ ଷଷ୍ଠ ସଂଖ୍ୟାଟି କେତେ ?

   (A) 11   (B) 12   (C) 13   (D) 14

2. An amount of Rs. 1050 is distributed among A, B and C in the ratio of 2 : 5 : 8. What is the difference between the shares of C and B?

   1050 ଟଙ୍କାକୁ A, B ଓ C ମଧ୍ୟରେ 2 : 5 : 8 ଅନୁପାତରେ ବାଣ୍ଟି ଦିଆଯାଏ । C ଓ B ର ଭାଗର ଅନ୍ତର କେତେ ?

   (A) Rs. 70   (B) Rs. 140   (C) Rs. 210   (D) Rs. 280

3. A and B enters into a partnership investing Rs. 15000 and 20000 respectively. If at the end of the year, the amount of profit earned is Rs 14000, what will be the shares of profit of A and B?

   A ଓ B ଦୁଇ ଜଣ ଅଂଶୀଦାର ଭାବରେ ଗୋଟିଏ ବ୍ୟବସାୟରେ ଯଥାକ୍ରମେ 15000 ଟଙ୍କା ଓ 20,000 ଟଙ୍କା ପୁଞ୍ଜି ନିବେଶ କଲେ । ଯଦି ବର୍ଷ ଶେଷରେ 14000 ଟଙ୍କା ଲାଭ ହୁଏ, ତେବେ A ଓ B ର ଲାଭାଂଶ କେତେ ?

   (A) Rs. 6000, Rs. 8000   (B) Rs. 7000, Rs. 7000
   (C) Rs. 5000, Rs. 9000   (D) Rs. 4000, Rs. 10000

4. If the cost price of 24 eggs is equal to the selling price of 20 eggs, then what would be the percentage of gain or loss in this transaction?

   (A) $16\frac{2}{3}$% gain   (B) 20% gain   (C) $16\frac{2}{3}$% loss   (D) 20% loss

   ଯଦି 24 ଟି ଅଣ୍ଡାର କ୍ରୟମୂଲ୍ୟ 20 ଟି ଅଣ୍ଡାର ବିକ୍ରୟ ମୂଲ୍ୟ ସହ ସମାନ ହୁଏ, ତେବେ ଏହି କିଣାବିକାରେ ଶତକଡ଼ା କେତେ ଲାଭ ବା କ୍ଷତି ହେବ ?

   (A) $16\frac{2}{3}$ % ଲାଭ   (B) 20% ଲାଭ   (C) $16\frac{2}{3}$% କ୍ଷତି   (D) 20% କ୍ଷତି

5. A and B complete the job in 16 days, while A, B and C can complete it in 12 days. In how many days C alone can finish the job?

   A ଓ B ଗୋଟିଏ କାର୍ଯ୍ୟକୁ 16 ଦିନରେ ଶେଷ କରି ପାରନ୍ତି, ଯେତେବେଳେ A, B ଓ C ଏହି କାର୍ଯ୍ୟକୁ 12 ଦିନରେ ଶେଷ କରିପାରନ୍ତି । ତେବେ C ଏକାକୀ କାର୍ଯ୍ୟଟିକୁ କେତେ ଦିନରେ ଶେଷ କରିପାରିବେ ?

   (A) 24   (B) 32   (C) 36   (D) 48

6. Two taps can fill a tank in 10 hours and 15 hours respectively. If both the taps are opened together, how much time will they take to fill the tank?

ଦୁଇଟି ପାଣି ନଳ ଗୋଟିଏ ଟ୍ୟାଙ୍କକୁ ଯଥାକ୍ରମେ 10 ଘଣ୍ଟା ଓ 15 ଘଣ୍ଟାରେ ପୂର୍ଣ୍ଣ କରିପାରନ୍ତି । ଯଦି ଦୁଇଟି ପାଣିନଳକୁ ଏକାଠି ଖୋଲି ଦିଆଯାଏ, ତେବେ ଟ୍ୟାଙ୍କଟି ପୂର୍ଣ୍ଣ ହେବାକୁ କେତେ ସମୟ ଲାଗିବ ?

(A) 8 hours   (B) 7.5 hours   (C) 6 hours   (D) 5 hours

7. A train travels 300 Km in 2.5 hours and 450 Km in 5 hours. Find out the average speed of the train?

ଗୋଟିଏ ଟ୍ରେନ୍ 2.5 ଘଣ୍ଟାରେ 300 କି.ମି. ଓ 5 ଘଣ୍ଟାରେ 450 କି.ମି. ଅତିକ୍ରମ କରେ । ଟ୍ରେନ୍ଟିର ହାରାହାରି ବେଗ କେତେ ?

(A) 10 Km/h   (B) 50 Km/h   (C) 100 Km/h   (D) 125 Km/h

8. A boatman can row 3 Km against the current of the stream in 30 minutes and return in 20 minutes. Find out the speed of the current?

ଜଣେ ନାଉରୀ ଝରଣା ସ୍ରୋତର ପ୍ରତିକୂଳରେ 30 ମିନିଟ୍‌ରେ 3 କି.ମି. ଆହୁଲା ମାରିପାରନ୍ତି ଓ 20 ମିନିଟ୍‌ରେ ଫେରିପାରନ୍ତି । ସ୍ରୋତର ବେଗ କେତେ ?

(A) 7.5 Km/h   (B) 5 Km/h   (C) 2.5 Km/h   (D) 1.5 Km/h

9. The ratio of speed of a car, a truck and a bus is 5 : 2 : 3. The average speed of the car, truck and bus together is 60 Km/h. What is the average speed of the car and truck together?

ଏକ କାର୍, ଏକ ଟ୍ରକ୍ ଓ ଏକ ବସ୍‌ର ବେଗର ଅନୁପାତ 5:2:3 । କାର, ଟ୍ରକ୍ ଓ ବସ୍‌ର ଏକତ୍ର ଭାବରେ ହାରାହାରି ବେଗ ଘଣ୍ଟାକୁ 60 କି.ମି । କାର ଓ ଟ୍ରକ୍‌ର ଏକତ୍ର ଭାବରେ ହାରାହାରି ବେଗ କେତେ ?

(A) 63 Km/h   (B) 72 Km/h

(C) 45 Km/h   (D) can not be determined

10. Zinc and copper are in the ratio of 6 : 5 in 220 gm of an alloy. How much gm of copper can be added so as to make it in the ratio of 5 : 6?

220 ଗ୍ରାମ୍ ମିଶ୍ରଧାତୁରେ ଦସ୍ତା ଏବଂ ତମ୍ବାର ଅନୁପାତ 6:5 ଅଟେ । ସେଥିରେ ଆଉ କେତେ ଗ୍ରାମ୍ ତମ୍ବା ମିଶାଇଲେ , ମିଶ୍ରଧାତୁରେ ଦସ୍ତା ଏବଂ ତମ୍ବାର ଅନୁପାତ 5:6 ହେବ ?

(A) 20   (B) 44   (C) 60   (D) 72

11. Present ages of Arpita and Sonali are in the ratio of 7 : 9. Three years hence the ratio of their ages becomes 4 : 5. What is Sonali's present age in years?

ଅର୍ପିତା ଓ ସୋନାଲିର ବର୍ତ୍ତମାନ ବୟସର ଅନୁପାତ 7:9 ଅଟେ । ତିନିବର୍ଷ ପରେ ସେମାନଙ୍କର ବୟସର ଅନୁପାତ 4:5 ହେବ । ସୋନାଲୀର ବର୍ତ୍ତମାନ ବୟସ କେତେ ବର୍ଷ ?

(A) 9   (B) 18   (C) 27   (D) 36

12. In what time Rs. 1500 will become Rs. 1815 at the rate of simple interest of 7% per annum?

ବାର୍ଷିକ ସରଳସୁଧ ଶତକଡ଼ା 7 ହାରରେ 1500 ଟଙ୍କା କେତେ ସମୟରେ 1815 ଟଙ୍କା ହେବ ?

(A) $1\frac{1}{2}$ years   (B) 2 years   (C) $2\frac{1}{2}$ years   (D) 3 years

13. What will be the difference between compound interest and simple interest on Rs. 1200 for two years at 5% per annum?

বার্ষিক শতকଡ଼ା 5 ହାররে 1200 ଟଙ୍କାর ଦୁଇ ବର୍ଷରେ ଚକ୍ରବୃଦ୍ଧି ସୁଧ ଓ ସରଳସୁଧର ଅନ୍ତର କେତେ ହେବ ?

(A) Rs. 3   (B) Rs. 4   (C) Rs. 6   (D) Rs. 8

14. Which of the following numbers will fill the gap in the series 1, 9, 25, 49, _____, 121?

1, 9, 25, 49, -----, 121 ଅନୁକ୍ରମର ଶୂନ୍ୟସ୍ଥାନରେ କେଉଁ ସଂଖ୍ୟା ରହିବ ?

(A) 64   (B) 81   (C) 100   (D) 144

15. The product of two numbers is 96 and their difference is 10. What is the sum of the two numbers?

ଦୁଇଟି ସଂଖ୍ୟାର ଗୁଣଫଳ 96 ଓ ସେମାନଙ୍କର ଅନ୍ତରଫଳ 10 ଅଟେ । ତେବେ ସଂଖ୍ୟା ଦୁଇଟିର ଯୋଗଫଳ କେତେ ?

(A) 16   (B) 22   (C) 32   (D) 36

16. The sum of two numbers is equal to 30 and their difference is 6. What is the ratio of the two numbers?

ଦୁଇଟି ସଂଖ୍ୟାର ଯୋଗଫଳ 30 ଓ ସେମାନଙ୍କର ଅନ୍ତରଫଳ 6 ଅଟେ । ସଂଖ୍ୟା ଦୁଇଟିର ଅନୁପାତ କେତେ ?

(A) 8 : 7   (B) 5 : 1   (C) 3 : 2   (D) 2 : 1

17. What is the sum of $6 + 7 + 8 + \ldots + 16$?

$6 + 7 + 8 + \ldots + 16$ র ଯୋଗଫଳ କେତେ ?

(A) 105   (B) 120   (C) 121   (D) 136

18. If the perimeter of an equilateral triangle is 24m, then find out its area?

ଯଦି ଗୋଟିଏ ସମବାହୁ ତ୍ରିଭୁଜର ପରିସୀମା 24 ମି. ହୁଏ, ତେବେ ଏହାର କ୍ଷେତ୍ରଫଳ କେତେ ?

(A) $8\sqrt{4}m^2$ (B) $9\sqrt{3}m^2$ (C) $12\sqrt{3}m^2$ (D) $16\sqrt{3}m^2$

19. The area of a rectangular field is $18000m^2$. The ratio of its length and breadth is 5 : 4. Find out the length and breadth of the field respectively?

ଗୋଟିଏ ଆୟତାକାର ପଡ଼ିଆର କ୍ଷେତ୍ରଫଳ 18000 ବର୍ଗ.ମି. । ଏହାର ଦୈର୍ଘ୍ୟ ଓ ପ୍ରସ୍ଥର ଅନୁପାତ 5:4 । ପଡ଼ିଆର ଦୈର୍ଘ୍ୟ ଓ ପ୍ରସ୍ଥ ଯଥାକ୍ରମେ କେତେ ?

(A) 200m, 90m   (B) 300m, 60m   (C) 150m, 120m   (D) 180m, 100m

20. How many small cubical blocks of side 6cm can be cut from a cubical block whose each side measures 24cm?

24 ସେ.ମି. ବାହୁବିଶିଷ୍ଟ ଗୋଟିଏ ସମଘନାକାର ପଦାର୍ଥକୁ କେତେ ଗୋଟି 6 ସେ.ମି. ବାହୁବିଶିଷ୍ଟ ଛୋଟ ସମଘନାକାର ପଦାର୍ଥରେ କଟାଯାଇପାରିବ ?

(A) 64   (B) 56   (C) 48   (D) 36

21. If the radius of a sphere is doubled, then its surface area is increased by_____?

ଯଦି ଗୋଟିଏ ଗୋଲକର ବ୍ୟାସାର୍ଦ୍ଧକୁ ଦୁଇଗୁଣ କରାଯାଏ, ତେବେ ଏହାର ପୃଷ୍ଠତଳର କ୍ଷେତ୍ରଫଳ କେତେ ବୃଦ୍ଧି ହେବ ?

   (A) 300%   (B) 200%   (C) 100%   (D) 50%

22. $\sqrt[3]{-729} \times \sqrt{441} = $_____?

   (A) -99   (B) -121   (C) -189   (D) 189

23. What is the smallest number to be added to 1000 to make the sum divisible by both 22 and 6?

1000 ରେ କେଉଁ କ୍ଷୁଦ୍ରତମ ସଂଖ୍ୟା ଯୋଗକଲେ ଯୋଗଫଳ ଉଭୟ 22 ଓ 6 ଦ୍ୱାରା ବିଭାଜ୍ୟ ହେବ ?

   (A) 10   (B) 56   (C) 46   (D) 66

24. The difference of two numbers is 25% of the greater number. If the smaller number is 30. What is the greater number?

ଦୁଇଟି ସଂଖ୍ୟାର ଅନ୍ତରଫଳ, ବଡ ସଂଖ୍ୟାର ଶତକଡା 25 ଅଟେ । ସାନ ସଂଖ୍ୟାଟି 30 ହେଲେ, ବଡ ସଂଖ୍ୟାଟି କେତେ ?

   (A) 35   (B) 40   (C) 50   (D) 60

25. $(0.031)^2 = $_____?

   (A) 0.961   (B) 0.0961   (C) 0.00961   (D) 0.000961

26. The difference between the squares of two consecutive numbers is 25. What are those numbers?

ଦୁଇଟି କ୍ରମାଗତ ସଂଖ୍ୟାର ବର୍ଗର ଅନ୍ତର 25 ଅଟେ । ତେବେ ସଂଖ୍ୟା ଦ୍ୱୟ କେତେ ?

   (A) 11, 12   (B) 12, 13   (C) 13, 14   (D) 14, 15

27. Find out the ratio of the LCM and HCF of 32 and 48.

32 ଓ 48 ର ଲ.ସା.ଗୁ. ଓ ଗ.ସା.ଗୁ. ର ଅନୁପାତ କେତେ ?

   (A) 6 : 1   (B) 4 : 3   (C) 3 : 2   (D) 2 : 1

28. What is the value of $\frac{1}{\sqrt{9}-\sqrt{8}}$?

$\frac{1}{\sqrt{9}-\sqrt{8}}$ ର ମୂଲ୍ୟ କେତେ ?

   (A) $\frac{1}{2}$ (3 - 2$\sqrt{2}$)   (B) $\frac{1}{3+2\sqrt{2}}$ (C) 3 - 2$\sqrt{2}$ (D) 3 + 2$\sqrt{2}$

29. Which of the following numbers is the greatest?

ନିମ୍ନଲିଖିତ ସଂଖ୍ୟାମାନଙ୍କ ମଧ୍ୟରୁ କେଉଁଟି ବୃହତ୍ତମ ?

   (A) $(0.2)^2$ (B) 1 ÷ 0.2   (C) $\frac{1}{4}$ (D) $\sqrt{0.36}$

30. If the given two numbers are respectively 6% and 24% of a third number, then what percentage is the first number of the second number?

ଯଦି ପ୍ରଦତ୍ତ ଦୁଇଟି ସଂଖ୍ୟା, ତୃତୀୟ ସଂଖ୍ୟାର ଯଥାକ୍ରମେ ଶତକଡା 6 ଏବଂ ଶତକଡା 24 ହୁଏ, ତେବେ ପ୍ରଥମ ସଂଖ୍ୟାଟି ଦ୍ୱିତୀୟ ସଂଖ୍ୟାର ଶତକଡା କେତେ ?

   (A) 15%   (B) 20%   (C) 25%   (D) None of these

PART – II

ENGLISH LANGUAGE : 10 Marks

Instructions: Each question under this section carries **ONE** mark. Please read the instructions carefully and answer the questions by selecting the most appropriate answers out of the multiple answers given below each as A, B, C & D.

31. None <u>but</u> the brave deserves the fair.

    (Choose the correct part of speech of the underlined word)

    (A) noun

    (B) pronoun

    (C) preposition

    (D) conjunction

32. Hari deals _____ rice and vegetables in the market.

    (Fill in the blank with appropriate preposition.)

    (A) with   (B) on

    (C) in   (D) about

33. They have <u>postponed</u> the meeting because of bad weather.

    (Choose the correct phrasal verb of the underlined word)

    (A) put up   (B) put on

    (C) put down   (D) put off

34. Which of the following sentences is grammatically correct?

    (A) Ganges is considered holy by the Hindus.

    (B) The Ganges is considered holy by the Hindus.

    (C) The Ganges are considered holy by the Hindus.

    (D) The Ganges is considered holy by Hindus.

35. John Hawkins is _____ European.

    (Fill in the blank with appropriate Article.)

    (A) an

    (B) a

    (C) the

    (D) none of these

36. His writing is <u>such that cannot be read.</u>

(Substitute one word for the underlined words.)

(A) legible

(B) ineligible

(C) illegible

(D) eligible

37. The word 'pessimist' means -

(A) A person who believes in the existence of God

(B) A person who does not believe in the existence of God

(C) A person who looks at the dark side of life or things

(D) A person who looks at the bright side of life or things

38. It rained <u>cats and dogs</u> yesterday.

(Choose the correct meaning of the underlined phrase)

(A) slowly

(B) irregularly

(C) heavily

(D) recently

39. The black cobra is a _____ snake.

(Fill in the blank with correct spelling of the word.)

(A) venomus

(B) venomous

(C) vanomous

(D) vanomus

40. The poultry _____ not been fed.

(Fill in the blank with correct form of verb.)

(A) has

(B) is

(C) are

(D) have

PART -III

ODIA LANGUAGE : 10 Marks

ନିର୍ଦ୍ଦେଶାବଳୀ : ଏହି ଭାଗର ପ୍ରତ୍ୟେକ ପ୍ରଶ୍ନର ସଠିକ୍ ଉତ୍ତର ପାଇଁ ଏକ ମାର୍କ ରହିଛି । ନିମ୍ନଲିଖିତ ପ୍ରଶ୍ନଗୁଡ଼ିକୁ ଯତ୍ନ ସହକାରେ ପଢ଼ନ୍ତୁ ଏବଂ ତା ତଳେ ଦିଆଯାଇଥିବା ଉତ୍ତର ମାନଙ୍କ ମଧ୍ୟରୁ ସଠିକ୍ ଉତ୍ତର ନିର୍ଣ୍ଣୟ କରନ୍ତୁ ।

41. "ଅଲଣା କଥା " ରୁଢ଼ିର ଅର୍ଥ କଣ ?

(A) ବହୁ ଅବାନ୍ତର କଥା କହିବା

(B) ବୃଥା ଧମକ

(C) ଛୋଟ କଥାକୁ ବଡ କରିବା

(D) ମୂଲ୍ୟହୀନ କଥା

42. ଠିକ୍ ଶବ୍ଦଟି ବାଛି ନିମ୍ନଲିଖିତ ବାକ୍ୟର ଶୂନ୍ୟ ସ୍ଥାନ ପୂରଣ କର ।

" ପିଲାଟାର ମିଛ କଥା ଜଣା ପଡ଼ିଯିବାରୁ ବାପାଙ୍କ ଆଗରେ ସେ ------ ପତ୍ର ପରି ଥରୁଛି ।"

(A) କଦଳୀ

(B) ବେଲ

(C) ବିଛୁଆତି

(D) ବରଡ଼ା

43. "ହଳିଲା ପାଣିରେ ଗୋଡ ନ ଦେବା" ଲୋକବାଣୀର ଅର୍ଥ କଣ ?

(A) ସାବଧାନ ହୋଇ କାମ କରିବା

(B) ଖୁବ୍ ସତର୍କତା ସହ କାମ କରିବା

(C) ଗଣ୍ଡଗୋଳରେ ନ ପଶିବା

(D) ଧୀର ସ୍ଥିର ଭାବେ କାର୍ଯ୍ୟ କରିବା

44. ଶୁଦ୍ଧ ବନାନ ଥିବା ଶବ୍ଦଟି ବାଛ ।

(A) ଅନୁସନ୍ଧାନ୍

(B) ଅନୁସଧାନ

(C) ଅନୁସନ୍ଧାନ

(D) ଅନୁସଂଧାନ

45. "ତୁହି ମା' ଜନମ ଭୂମି ପବିତ୍ର ଭାରତ ଭୂମି

ତୋହର ସନ୍ତାନ ଆମେ ଅଟୁଁ ସରବେ,"

ଉପରୋକ୍ତ କବିତାଂଶଟି "ଜନ୍ମଭୂମି" କବିତାର ଏକ ଅଂଶ ଅଟେ । ଏହି କବିତା କିଏ ଲେଖିଥିଲେ ?

(A) ମଧୁସୂଦନ ରାଓ

(B) ମଧୁସୂଦନ ଦାସ

(C) ରାଧାନାଥ ରାୟ

(D) ଜଗନ୍ନାଥ ଦାସ

46. "Cigarette smoking is injurious to heath" ଓହାର ସଠିକ୍ ଓଡ଼ିଆ ଅନୁବାଦ କ'ଣ ?

(A) ଧୂମ୍ରପାନ ଶରୀରପକ୍ଷେ କ୍ଷତିକାରକ ଅଟେ ।

(B) ବିଡ଼ି ଓ ପାନ ଶରୀରପକ୍ଷେ କ୍ଷତିକାରକ ଅଟନ୍ତି ।

(C) ଧୂମପାନ ଶରୀରପକ୍ଷେ କ୍ଷତିକାରକ ଅଟେ ।

(D) ଉପରୋକ୍ତ ସମସ୍ତ ଉତ୍ତର ଠିକ୍ ଅଟେ ।

47. ସଡ଼କ ଦୁର୍ଘଟଣା ରୋକିବା ପାଇଁ କେଉଁ ସ୍ଲୋଗାନ୍ (slogan) ବ୍ୟବହାର କରାଯାଏ ?

(A) Better late than never

(B) Speed thrills but kills

(C) both A and B

(D) None of these

48. ନିମ୍ନଲିଖିତ କେଉଁ ବାକ୍ୟଟି ବିବୃତିସୂଚକ ବାକ୍ୟ ଅଟେ ?

(A) ବିଜୁବାବୁଙ୍କୁ ଓଡ଼ିଶାରେ ସମସ୍ତେ ଜାଣନ୍ତି ।

(B) ବିଜୁବାବୁଙ୍କୁ ଓଡ଼ିଶାରେ କିଏ ନ ଜାଣେ ?

(C) ବିଜୁବାବୁ ଓଡ଼ିଶାରେ କାହାକୁ ଅଜଣା ନୁହନ୍ତି ।

(D) ବିଜୁବାବୁ ପୁଣି ଓଡ଼ିଶାରେ କାହାର ଅଜଣା !

49. "ସୀତାଙ୍କୁ ରାବଣ ଚୋରାଇ ନେବା ପରେ ରାମଚନ୍ଦ୍ର ବିସନ୍ନ ହୋଇ ଇତସ୍ତତଃ ଅନ୍ଵେଷଣ କଲେ ।"
(ଉପରୋକ୍ତ ବାକ୍ୟରେ ଥିବା ଭୁଲ୍ ଶବ୍ଦକୁ ବାଛ)

(A) ରାମଚନ୍ଦ୍ର

(B) ବିସନ୍ନ

(C) ଇତସ୍ତତଃ

(D) ଅନ୍ଵେଷଣ

50. ନିମ୍ନଲିଖିତ ବାକ୍ୟଗୁଡ଼ିକ ମଧ୍ୟରୁ ଶୁଦ୍ଧ ବାକ୍ୟଟି ବାଛ ।

(A) ସମ୍ବଲପୁରର ଶୀତଳଷଷ୍ଠୀ ଯାତ୍ରା ଦେଖିବାକୁ ବହୁତ ଲୋକମାନେ ଆସିଥିଲେ ।

(B) ମନ୍ତ୍ରୀଙ୍କ ସଭାରେ ଆବାଳବୃଦ୍ଧ ବନିତାଗଣ ଯୋଗ ଦେଇଥିଲେ ।

(C) ସବୁ କବି ପ୍ରାକୃତିକ ବର୍ଣ୍ଣନାରେ ସିଦ୍ଧହସ୍ତ ।

(D) ଶିକ୍ଷୟତ୍ରୀ ପ୍ରତ୍ୟେକ ଛାତ୍ରମାନଙ୍କୁ ପ୍ରଶ୍ନ ପଚାରିଲେ ।

PART – IV
GENERAL AWARENESS : 20 Marks.

Instructions : Each question under this section carries **ONE** mark. Please read the instructions carefully and answer the questions by selecting the most appropriate answers out of the multiple answers given below each as A, B, C & D.

51. Which one of the following is the largest district of Odisha in terms of area?

(A) Nayagarh   (B) Mayurbhanj   (C) Malkangiri   (D) Cuttack

ନିମ୍ନଲିଖିତ ମଧ୍ୟରୁ ଓଡ଼ିଶାର କେଉଁ ଜିଲ୍ଲା କ୍ଷେତ୍ରଫଳ ଅନୁସାରେ ସବୁଠାରୁ ବଡ଼ ?

(A) ନୟାଗଡ଼   (B) ମୟୂରଭଞ୍ଜ   (C) ମାଲକାନ୍‌ଗିରି   (D) କଟକ

52. Who was the founder of Satyabadi Bana Vidyalaya in Odisha?

(A) Madhusudan Das   (B) Madhusudan Rao

(C) Subhash Chandra Bose   (D) Gopabandhu Dash

ଓଡ଼ିଶାର ସତ୍ୟବାଦୀ ବନ ବିଦ୍ୟାଳୟର ପ୍ରତିଷ୍ଠାତା କିଏ ?

(A) ମଧୁସୂଦନ ଦାସ   (B) ମଧୁସୂଦନ ରାଓ

(C) ସୁଭାଷ ଚନ୍ଦ୍ର ବୋଷ   (D) ଗୋପବନ୍ଧୁ ଦାଶ

53. 'National Voter's Day' is celebrated on which date?

(A) 15th January   (B) 25th January

(C) 15th February   (D) 25th February

"ରାଷ୍ଟ୍ରୀୟ ଭୋଟଦାତା ଦିବସ" କେଉଁ ତାରିଖରେ ପାଳନ କରାଯାଏ ?

(A) ୧୫ ଜାନୁଆରୀ   (B) ୨୫ ଜାନୁଆରୀ

(C) ୧୫ ଫେବୃଆରୀ   (D) ୨୫ ଫେବୃଆରୀ

54. Which Indian Olympian's autobiography is 'unbreakable'?

(A) P. V. Sindhu   (B) Sania Mirza

(C) Mary Kom   (D) Rani Rampal

"ଅନ୍‌ବ୍ରେକେବଲ୍" କେଉଁ ଭାରତୀୟ ଅଲିମ୍ପିକ୍ ପ୍ରତିଯୋଗୀଙ୍କ ଆତ୍ମଚରିତ ?

(A) ପି.ଭି. ସିନ୍ଧୁ   (B) ସାନିଆ ମିର୍ଜା

(C) ମେରୀ କୋମ୍   (D) ରାନୀ ରାମପାଲ୍

55. How many emergency provisions are contained in Indian Constitution?

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

ଭାରତୀୟ ସମ୍ବିଧାନରେ ଜରୁରୀକାଳୀନ ପରିସ୍ଥିତି ସଂକ୍ରାନ୍ତରେ କେତୋଟି ବ୍ୟବସ୍ଥା ରହିଛି ?

(A) ୧   (B) ୨   (C) ୩   (D) ୪

56. Which city of Gujarat has recently found place in World Heritage list of UNESCO as an ancient city of Harappan civilization?

(A) Patan   (B) Dholavira   (C) Champaner   (D) Ahmedabad

ନିକଟରେ ଗୁଜୁରାଟର କେଉଁ ସହର ହରପ୍ପା ସଭ୍ୟତାର ପ୍ରାଚୀନ ସହର ଭାବେ UNESCO ର ବିଶ୍ୱ ଐତିହ୍ୟ ତାଲିକାରେ ସ୍ଥାନ ପାଇଅଛି ?

(A) ପଟାନ୍   (B) ଢୋଲ୍ଭିରା   (C) ଚମ୍ପାନର୍   (D) ଅହମଦାବାଦ

57. The landmass which is surrounded by water from three sides is called -

(A) Isthmus   (B) Atoll   (C) Peninsula   (D) Barrier reef

ଯେଉଁ ଭୂମିଖଣ୍ଡର ତିନିପାଖ ଜଳଦ୍ୱାରା ପରିବେଷ୍ଟିତ ହୋଇଥାଏ, ତାକୁ କ'ଣ କୁହାଯାଏ ?

(A) ଇଷ୍ଥମସ୍   (B) ଏଟୋଲ୍   (C) ପେନିନ୍ସୁଲା   (D) ବାରିଅର୍ ରିଫ୍

58. Who is the composer of National Anthem of India?

(A) Bankimchandra Chatterjee   (B) Aurobindo Ghosh

(C) Rabindranath Tagore   (D) Mohd. Iqbal

ଭାରତର ରାଷ୍ଟ୍ରୀୟ ସଂଗୀତର ରଚୟିତା କିଏ ?

(A) ବଙ୍କିମଚନ୍ଦ୍ର ଚାଟାର୍ଜି   (B) ଅରବିନ୍ଦ ଘୋଷ

(C) ରବିନ୍ଦ୍ରନାଥ ଟାଗୋର୍   (D) ମହମ୍ମଦ ଇକ୍ବାଲ୍

59. Who among the following can remove the Governor of a state from office?

(A) Legislative Assembly   (B) Parliament

(C) President   (D) Supreme Court

ନିମ୍ନଲିଖିତ ମଧ୍ୟରୁ କିଏ ରାଜ୍ୟପାଳଙ୍କୁ ତାଙ୍କ ପଦବୀରୁ ବହିଷ୍କାର କରିପାରିବ ?

(A) ବିଧାନସଭା   (B) ସଂସଦ

(C) ରାଷ୍ଟ୍ରପତି   (D) ଉଚ୍ଚତମ ନ୍ୟାୟାଳୟ

60. Who are the two Silver Medal winners from India in Tokyo Olympics – 2020?

(A) Mirabai Chanu and Bajrang Punia

(B) Mirabai Chanu and Ravi Kumar Dahiya

(C) Mirabai Chanu and Lovlina Borgohain

(D) Mirabai Chanu and P. V. Sindhu

କେଉଁ ଦୁଇଜଣ ଭାରତୀୟ ଟୋକିଓ ଅଲିମ୍ପିକ୍‌-୨୦୨୦ ରେ ରୌପ୍ୟ ପଦକ ବିଜେତା ଥିଲେ ?

(A) ମିରାବାଇ ଚାନୁ ଏବଂ ବଜରଙ୍ଗ ପୁନିଆ

(B) ମିରାବାଇ ଚାନୁ ଏବଂ ରବି କୁମାର ଦହିୟ୍ୟା

(C) ମିରାବାଇ ଚାନୁ ଏବଂ ଲଭ୍‌ଲିନା ବୋର୍‌ଗୋହେଁ

(D) ମିରାବାଇ ଚାନୁ ଏବଂ ପି. ଭି. ସିନ୍ଧୁ

61. What type of missile is New Generation Akash Missile (Akash – NG)?

(A) Surface to air missile

(B) Air to air missile

(C) Surface to surface missile

(D) Intercontinental Ballistic missile

ନିୟୁ ଜେନେରେସନ୍ ଆକାଶ କ୍ଷେପଣାସ୍ତ୍ର (ଆକାଶ-ଏନ୍.ଜି) କେଉଁ ପ୍ରକାରର କ୍ଷେପଣାସ୍ତ୍ର ?

(A) ଭୂମିରୁ ଆକାଶ କ୍ଷେପଣାସ୍ତ୍ର

(B) ଆକାଶରୁ ଆକାଶ କ୍ଷେପଣାସ୍ତ୍ର

(C) ଭୂମିରୁ ଭୂମି କ୍ଷେପଣାସ୍ତ୍ର

(D) ମହାଦେଶ ରୁ ମହାଦେଶକୁ ପ୍ରକ୍ଷେପକ କ୍ଷେପଣାସ୍ତ୍ର

62. Which virus causes 'Bird Flu'?

(A) H1N1   (B) H2N3

(C) H3N2   (D) H5N1

କେଉଁ ଭୂତାଣୁ 'Bird Flu " ର କାରଣ ଅଟେ ?

(A) ଏଚ୍‍୧ଏନ୍‍୧   (B) ଏଚ୍‍୨ଏନ୍‍୩

(C) ଏଚ୍‍୩ଏନ୍‍୨   (D) ଏଚ୍‍୫ଏନ୍‍୧

63. Who is known as the father of White Revolution in India?

(A) M. S. Swaminathan

(B) Dr. Hiralal Chaudhury

(C) Dr. Verghese Kurien

(D) Dr. Arun Krishnan

କିଏ ଭାରତର ଶ୍ୱେତ ବିପ୍ଳବର ଜନକ ଭାବେ ପରିଚିତ ?

(A) ଏମ୍. ଏସ୍ ସ୍ୱାମୀନାଥନ୍

(B) ଡଃ ହୀରାଲାଲ୍ ଚୌଧୁରୀ

(C) ଡଃ ଭରଗୀଜ୍ କୁରିଏନ୍

(D) ଡଃ ଅରୁଣ କ୍ରିଷ୍ନନ୍

64. M. S. P. relating to procurement of food grains is an abbreviation for which of the following?

(A) Minimum Standard Price   (B) Maximum Standard Price

(C) Minimum Support Price   (D) Maximum Support Price

ଖାଦ୍ୟଶସ୍ୟ ସଂଗ୍ରହ ସମ୍ପର୍କିତ ଏମ୍.ଏସ୍.ପି ନିମ୍ନଲିଖିତ ମଧ୍ୟରୁ କାହାର ସଂକ୍ଷେପଣ ?

(A) ସର୍ବନିମ୍ନ ମାନକ ମୂଲ୍ୟ   (B) ସର୍ବୋଉତ୍ତମ ମାନକ ମୂଲ୍ୟ

(C) ସର୍ବନିମ୍ନ ସହାୟକ ମୂଲ୍ୟ   (D) ସର୍ବୋଉତ୍ତମ ସହାୟକ ମୂଲ୍ୟ

65. 'D.P.T.' vaccine stands for which of the following?

(A) Diarrhoea – Pertussis - Typhoid   (B) Diptheria – Pertussis - Tetanus

(C) Diptheria – Pneumonia - Typhoid   (D) Diarrhoea – Pneumonia - Tetanus

ନିମ୍ନଲିଖିତ ମଧ୍ୟରୁ "D.P.T." ଟିକା କାହା ପାଇଁ ଉଦ୍ଦିଷ୍ଟ ?

(A) ଡାଇରିଆ-ପର୍ଟୁସିସ୍-ଟାଇଫଏଡ୍   (B) ଡିପ୍‌ଥେରିଆ-ପର୍ଟୁସିସ୍-ଟିଟାନସ୍

(C) ଡିପ୍‌ଥେରିଆ-ନିମୋନିଆ-ଟାଇଫଏଡ୍   (D) ଡାଇରିଆ-ନିମୋନିଆ-ଟିଟାନସ୍

66. Who among the following was the first Odia writer to receive Jnanapitha Award?

(A) Sitakanta Mohapatra   (B) Sachidananda Routray

(C) Gopinath Mohanty   (D) Prativa Ray

ନିମ୍ନଲିଖିତ ମଧ୍ୟରୁ କେଉଁ ପ୍ରଥମ ଓଡ଼ିଆ ଲେଖକ ଜ୍ଞାନପୀଠ ପୁରସ୍କାର ପାଇଥିଲେ ?

(A) ସୀତାକାନ୍ତ ମହାପାତ୍ର   (B) ସଚିଦାନନ୍ଦ ରାଉତ୍ରାୟ

(C) ଗୋପୀନାଥ ମହାନ୍ତି   (D) ପ୍ରତିଭା ରାୟ

67. Which is the highest mountain peak of Odisha?

(A) Gandhamardan   (B) Mahendragiri   (C) Deomali   (D) Gorumahisani

କେଉଁଟି ଓଡ଼ିଶାର ଉଚ୍ଚତମ ଗିରିଶୃଙ୍ଗ ଅଟେ ?

(A) ଗନ୍ଧମାର୍ଦ୍ଦନ   (B) ମହେନ୍ଦ୍ରଗିରି   (C) ଦେଓମାଲି   (D) ଗୋରୁମହିଶାଣୀ

68. Barehipani waterfall comes under which National Park/Wildlife Sanctuary?

(A) Similipal National Park   (B) Sunabeda Wildlife Sanctuary

(C) Bhitarkanika National Park   (D) Tikarpada Wildlife Sanctuary

ବରେହିପାଣି ଜଳପ୍ରପାତ କେଉଁ ରାଷ୍ଟ୍ରୀୟ ଉଦ୍ୟାନ/ବନ୍ୟପ୍ରାଣୀ ଅଭୟାରଣ୍ୟ ଅନ୍ତର୍ଭୁକ୍ତ ?

(A) ଶିମିଳିପାଳ ରାଷ୍ଟ୍ରୀୟ ଉଦ୍ୟାନ   (B) ସୁନାବେଡା ବନ୍ୟପ୍ରାଣୀ ଅଭୟାରଣ୍ୟ

(C) ଭିତରକନିକା ରାଷ୍ଟ୍ରୀୟ ଉଦ୍ୟାନ   (D) ଟିକରପଡା ବନ୍ୟପ୍ରାଣୀ ଅଭୟାରଣ୍ୟ

69. Tsunami is caused by which of the following?

(A) Hurricane   (B) Earthquake   (C) Tornado   (D) Thunderstorm

ନିମ୍ନଲିଖିତ ମଧ୍ୟରୁ କେଉଁଟି ସୁନାମିର କାରଣ ଅଟେ ?

(A) ତୋଫାନ   (B) ଭୂମିକମ୍ପ   (C) ଘୂର୍ଣ୍ଣିବାତ୍ୟା   (D) ଝଡ଼

70. Which district of Odisha is the largest producer of rice?

(A) Koraput   (B) Bolangir   (C) Bargarh   (D) Cuttack

ଓଡ଼ିଶାର କେଉଁ ଜିଲ୍ଲାରେ ସର୍ବାଧିକ ଧାନ ଉତ୍ପାଦନ ହୁଏ ?

(A) କୋରାପୁଟ   (B) ବଲାଙ୍ଗୀର   (C) ବରଗଡ଼   (D) କଟକ

PART – V

PHYSICS: 15 Marks

Instructions: Each question under this section carries **ONE** mark. Please read the instructions carefully and answer the questions by selecting the most appropriate answers out of the multiple answers given below each as A, B, C & D.

71. The presence of a magnetic field at a point can be detected by

    (A) a strong magnet   (B) a solenoid

    (C) a compass needle   (D) a current carrying wire

72. Which of the following is not an example of a bio-mass energy source?

    (A) Wood   (B) Gobar-gas

    (C) Nuclear energy   (D) Agricultural wastes

73. A train starting from rest attains a velocity of 72 Km/h in 5 minutes. Assuming that the acceleration is uniform, find out the distance travelled by the train for attaining this velocity.

    (A) 1.5 Km   (B) 3 Km

    (C) 4.5 Km   (D) 6 Km

74. An object of mass 100 Kg is accelerated uniformly from a velocity 4 ms^{-1} to 8 ms^{-1} in 8s. Find out the magnitude of the force exerted on the object.

    (A) 5N   (B) 15N

    (C) 50N   (D) 150N

75. A batsman hits a cricket ball which then rolls on a level ground. After covering a short distance, the ball comes to rest. The ball slows to stop because

    (A) the batsman did not hit the ball hard enough.

    (B) velocity is proportional to the force exerted on the ball.

    (C) there is a force on the ball opposing the motion.

    (D) there is no unbalanced force on the ball, so the ball would want to come to rest.

76. Mass of an object is 30 Kg. What is its weight on the surface of the moon?

    (A) 98N   (B) 9.8N   (C) 4.9N   (D) 49N

77. Find out the energy in kWh consumed in 10 hours by four devices of power 500W each.

    (A) 20   (B) 10   (C) 5   (D) 2

78. A ball of mass 0.5Kg slows down from a speed of $5ms^{-1}$ to $3ms^{-1}$. Find out the change in kinetic energy of the ball.

(A) -1J

(B) -2J

(C) -4J

(D) 4J

79. The frequency of a source of sound is 100Hz. How many times does it vibrate in a minute?

(A) 3000

(B) 6000

(C) 600

(D) 100

80. Which of the following quantity determines the loudness of a sound wave?

(A) Wavelength

(B) Frequency

(C) Amplitude

(D) None of these

81. Find out the focal length of a lens of power – 2.5 D.

(A) -0.5m

(B) -0.4m

(C) 0.5m

(D) 0.4m

82. An electric bulb is rated 220V and 200W. When it is operated on 110V, the power consumed will be

(A) 25W

(B) 50W

(C) 100W

(D) 200W

83. The splitting of white light into its component colours is called

(A) dispersion

(B) reflection

(C) refraction

(D) None of these

84. Which is known as near- sightedness?

(A) Presbyopia

(B) Myopia

(C) Hyper metropia

(D) None of these

85. The device used for producing electric current is called a

(A) generator

(B) galvanometer

(C) ammeter

(D) motor

PART – VI

CHEMISTRY: 15 Marks

Instructions: Each question under this section carries **ONE** mark. Please read the instructions carefully and answer the questions by selecting the most appropriate answers out of the multiple answers given below each as A, B, C & D.

86. Which one of the following is a correct electronic configuration of chlorine?

(A) 8,7,1

(B) 2,8,1

(C) 2,7,8

(D) 2,8,7

87. What happens when dilute hydrochloric acid is added to iron fillings?

(A) Hydrogen gas and iron chloride are produced.

(B) Chlorine gas and iron hydroxide are produced.

(C) No reaction takes place.

(D) Iron salt and water are produced.

88. What is the pH of an acidic solution?

(A) 7

(B) >7

(C) <7

(D) None of these

89. Propane with the molecular formula C_3H_8 has

(A) 7 covalent bonds

(B) 8 covalent bonds

(C) 9 covalent bonds

(D) 10 covalent bonds

90. Which of the following elements has a single electron in its outermost shell?

(A) Magnesium (Mg)

(B) Sodium (Na)

(C) Neon (Ne)

(D) Calcium (Ca)

91. The only products of neutralization reaction are

(A) Salt and oxygen

(B) Salt and hydrogen

(C) hydrogen and oxygen

(D) Salt and Water

92. On adding water to sodium the solution formed is

(A) neutral

(B) alkaline

(C) acidic

(D) amphoteric

93. Which is not a greenhouse gas?

    (A) CO_2

    (B) CO

    (C) CH_4

    (D) N_2O

94. What is the mass of 2 moles of water molecules?

    (A) 32gm

    (B) 34gm

    (C) 36gm

    (D) 38gm

95. What is the change of gaseous state directly to solid state without going through the liquid state and vice versa?

    (A) Melting

    (B) Freezing

    (C) Evaporation

    (D) Sublimation

96. The force of attraction between same molecules is called as

    (A) cohesive force

    (B) adhesive force

    (C) electrostatic force

    (D) None of these

97. Metal which exists in liquid state at room temperature is

    (A) Sodium

    (B) Potassium

    (C) Calcium

    (D) Mercury

98. Which of the following materials falls into the category of a "pure substance"?

    (A) Milk

    (B) Brick

    (C) Iron

    (D) Air

99. The formula of ferric sulphate is

    (A) $Fe_3(SO_4)_3$

    (B) $Fe_3(SO_4)_2$

    (C) $Fe_2(SO_4)_3$

    (D) Fe_3SO_4

100. Isotopes of an element have

    (A) the same physical properties.

    (B) different chemical properties.

    (C) different number of neutrons.

    (D) different atomic numbers.

PART – VII

BIOLOGICAL SCIENCE: 30 Marks

Instructions: Each question under this section carries ONE mark. Please read the instructions carefully and answer the questions by selecting the most appropriate answers out of the multiple answers given below each as A, B, C & D.

101. Total amount of ATP produce in aerobic respiration is

    (A) 2 ATP
    (B) 12 ATP
    (C) 36 ATP
    (D) 38 ATP

102. Depletion of Ozone molecules in the stratosphere is due to

    (A) Halozen compound
    (B) Fluorine compound
    (C) Chlorine compound
    (D) None of these

103. Nitrogen, phosphorus and potassium are what kind of plant nutrients?

    (A) Micro-nutrients
    (B) Macro-nutrients
    (C) Non-essential nutrients
    (D) None of these

104. Deficiency of ADH (Antidiuretic Hormone) causes which of the following disease?

    (A) Diabetes mellitus
    (B) Diabetes insipidus
    (C) Grave's disease
    (D) Cretinism

105. Electrical impulse travels in a neuron from

    (A) Dendrite – axon – axonal end – cell body
    (B) Cell body – dendrite – axon – axonal end
    (C) Dendrite – cell body – axon – axonal end
    (D) Axonal end – axon – cell body – dendrite

106. Involuntary action in body are controlled by

(A) Medulla in forebrain

(B) Medulla in mid brain

(C) Medulla in hind brain

(D) Medulla in spinal cord

107. In photosynthesis process, atmospheric carbon dioxide is _____ to carbohydrates.

(A) Oxidised

(B) Reduced

(C) Neutralised

(D) Burnt

108. Human beings nutrition can be categorized as

(A) Saprophytic

(B) Parasitic

(C) Symbiotic

(D) Holozoic

109. The enzyme pepsin is inactive in stomach without the presence of which of the following acid?

(A) Nitric acid

(B) Acetic acid

(C) Hydrochloric acid

(D) Butyric acid

110. Right part of human heart contains

(A) Oxygenated blood

(B) Deoxygenated blood

(C) Mixed blood

(D) None of these

111. Haemoglobin shows maximum affinity with which of the following?

(A) CO

(B) CO_2

(C) O_2

(D) NH_3

112. The number of autosomes in a human body cell is

(A) 44

(B) 46

(C) 42

(D) 40

113. Filtration unit of nephron is

(A) Kidney

(B) Bowman's capsule

(C) Glomerulus

(D) Tubular region

114. Which of the following blood cells plays a role in defence mechanism?

(A) W.B.Cs

(B) Platelets

(C) R.B.Cs

(D) None of these

115. Bone matrix is rich in which of the following?

(A) Fluoride and Calcium

(B) Calcium and Phosphorus

(C) Calcium and Pottassium

(D) Phosphorous and Pottassium

116. Nervous tissue is not found in which of the following?

(A) Brain

(B) Spinal cord

(C) Tendons

(D) Nerves

117. Fats are stored in human body as

(A) Cuboidal epithellium

(B) Adipose tissue

(C) Bones

(D) Cartilage

118. Flexibility in plants occurs due to which of the following?

(A) Collenchyma

(B) Sclerenchyma

(C) Parenchyma

(D) Chlorenchyma

119. The living cells present in a compact bone are called

(A) Chondroblasts

(B) Adipocytes

(C) Osteoblasts

(D) Scleroids

120. Chromosomes are made up of

(A) DNA

(B) RNA

(C) Protein

(D) Protein & DNA

121. Which of the following are present in plant cells and not in animal cells?

(A) Mitochondria and Plastids

(B) Mitochondria and Cell Wall

(C) Cell Wall and Lysosomes

(D) Cell Wall and Plastids

122. Lipid molecules in the cell are synthesized by

(A) Smooth endoplasmic reticulum

(B) Golgi apparatus

(C) Rough endoplasmic reticulum

(D) Plastids

123. If ribosomes of the cell are destroyed, then

(A) respiration will stop.

(B) fats will not be stored.

(C) carbon assimilation will stop.

(D) proteins will not be formed.

124. Which of the following is also termed as somatic cell division?

(A) Mitosis   (B) Meiosis

(C) Both A & B   (D) None of these

125. What is the phylum of Octopus?

(A) Arthropoda   (B) Ctenophora

(C) Mollusca   (D) Annelida

126. A fertilized ovule develops into a _____ in an angiospermic plant.

(A) Seed   (B) Fruit

(C) Flower   (D) Cotyledon

127. Vegetative propagation refers to formation of new plants from

(A) Stem, roots and flowers

(B) Stem, roots and leaves

(C) Stem, flowers and fruits

(D) Stem, leaves and flowers

128. Out of the following which is a growth inhibitor hormone in plants?

(A) Auxin   (B) Cytokinin

(C) Abscisic Acid   (D) Gibberellic Acid

129. The upward and downward movement of the shoots and roots respectively under the influence of gravity is called

(A) Hydrotropism   (B) Geotropism

(C) Phototropism   (D) Nastic movement

130. In a food chain, the third trophic level is always occupied by

(A) Carnivores   (B) Herbivores

(C) Decomposers   (D) Producers

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