

←

**CHT- TGT ARTS 2022**

**E-BOOK-PDF**

**6,000 MCQ**

**EXPLANATION**

**1,500 ଟି ପୂର୍ବ ବର୍ଷର ପ୍ରଶ୍ନ**

**100% ସଫଳତା**



CHT- CONTRACTUAL TEACHER (TGT ARTS) 2022 EXAM !! E-BOOK (PDF) 6,000 BEST MCQ !! CHAPTER WISE QUESTIONS & ANSWER

more

₹199.00 ₹99.00

Validity- 1 Year

English- 1500 (MCQ)...

more

ADD TO CART BUY NOW

[Click Here](#)

←

**CHT- TGT CBZ 2022**


**E-BOOK-PDF**

**6,000 MCQ**

**EXPLANATION**

**750 ଟି ପୂର୍ବ ବର୍ଷର ପ୍ରଶ୍ନ**

**100% ସଫଳତା**



CHT- CONTRACTUAL TEACHER (TGT CBZ SCIENCE) 2022 EXAM !! E-BOOK (PDF) 6,000 BEST MCQ !! CHAPTER WISE QUESTIONS & ANSWER

more

₹199.00 ₹99.00

Validity- 1 Year

Previous Year Question- 750 (2022, 2021 & 2019 Year)...

more

ADD TO CART BUY NOW

[Click Here](#)

←

**CHT- TGT PCM 2022**


**E-BOOK-PDF**

**6,000 MCQ**

**EXPLANATION**

**1,350 ଟି ପୂର୍ବ ବର୍ଷର ପ୍ରଶ୍ନ**

**100% ସଫଳତା**



CHT- CONTRACTUAL TEACHER (TGT PCM SCIENCE) 2022 EXAM !! E-BOOK (PDF) 6,000 BEST MCQ !! CHAPTER WISE QUESTIONS & ANSWER

more

₹199.00 ₹99.00

Validity- 1 Year

Previous Year Question- 1,350 (2022, 2021 & 2019 Year)...

more

ADD TO CART BUY NOW

[Click Here](#)

← Tech of World

HOME VIDEOS PLAYLISTS COMMUNITY

**ଆମ Channel ରେ ଦେଖନ୍ତୁ Video**  
**ASO** ଓଡ଼ିଶା ପୋଷାଳ **CT ଓ B.Ed**  
ଓଡ଼ିଶା ପୋଲିସ **SSC GD Railway**



**Tech of World**

SUBSCRIBE

315K subscribers • 928 videos

Hello ସାଙ୍ଗ ମାନେ !! ଆମେ ଏହି Channel ରେ ପ୍ରଚାରଣ Educational Video  
Free ରେ ଯୋଗାଯୋଗ କରନ୍ତୁ ଯେଉଁଠି ଯେକୌଣସି ଜାଣନ୍ତି ଏହି "Tech Of World" Channel କୁ ...

**+2 କିମ୍ବା +3 ପଢ଼ିବା ପରେ**  
**କେମିତି ଜଣେ ଶିକ୍ଷକ**  
**ହେଇପାରିବେ ?**  
**CT ଓ B.Ed ପରେ କଣ ?**

How To Become A Teacher After +2 Or +3 In Odisha ? How To Get A Teacher Job In Odisha ?

Tech of World · 176K views · 3 years ago

Home Shorts Subscriptions Library

[Click Here](#)

←

**Tech Of World- (Odisha Exam CT)**

Tech Of World

Uninstall Open

Your Review

sujit kumar naik ★★★★★ 6/29/21

Edit your review

Developer contact

About this app

Tech Of World (Odisha Exam) Provides Mock Test & E-Books For Different Exams

Education

3.8 ★ 422 reviews 422 reviews Rated for 3+ 50K+ Downlo.

TECH OF WORLD Mock Test

[Click Here](#)

← Tech Of World 4.1K subscribers

ASO English 2022 By... 8.7 MB PDF

ASO General Knowledge 2022... 4.9 MB PDF

ASO Math 2022 By Techofworld.In.pdf 4.6 MB PDF

ASO Odia Language 2022 By... 2.9 MB PDF

ASO Reasoning 2022 By... 4.6 MB PDF

3 comments

Broadcast

[Click Here](#)

Section 1 - Paper I General Knowledge and Current Affairs

No. of Questions: 15

1) Who among the following are the beneficiaries of the new Balaram Yojana launched by the Government of Odisha in 2022?

- A) People below poverty line
- B) Landless farmers
- C) MNREGA workers
- D) Fishermen

1) ନିମ୍ନଲିଖିତ ମଧ୍ୟରୁ, 2022 ମସିହାରେ ଓଡ଼ିଶା ସରକାରଙ୍କ ଦ୍ୱାରା ଆରମ୍ଭ ହୋଇଥିବା ନୂତନ ବଳରାମ ଯୋଜନାର କେଉଁମାନେ ହିତାଧିକାରୀ ଅଟନ୍ତି?

- A) ଦାରିଦ୍ର ସୀମାରେଖା ତଳେ ଥିବା ଲୋକମାନେ
- B) ଭୂମିହୀନ କୃଷକ
- C) MNREGA କର୍ମୀ
- D) ମତ୍ସ୍ୟଜୀବୀ

2) In August 2021, who among the following wrestlers won a bronze medal for India under freestyle 65kg category at Tokyo Olympics?

- A) Sushil Kumar
- B) Bajrang Punia
- C) Vijendra Singh
- D) Yoheshwar Dutt

2) ଅଗଷ୍ଟ 2021 ରେ, ଟୋକିଓ ଅଲିମ୍ପିକ୍ସରେ ପ୍ରିମ୍‌ସାଇଲ୍ 65 କିଲୋଗ୍ରାମ ବର୍ଗରେ ଭାରତ ପାଇଁ ନିମ୍ନଲିଖିତ କୁସ୍ତିଯୋଦ୍ଧା ମାନଙ୍କ ମଧ୍ୟରୁ କିଏ ବ୍ରୋଞ୍ଜ ପଦକ ଜିତିଥିଲେ?

- A) ସୁଶୀଲ କୁମାର
- B) ବଜରଙ୍ଗ ପୁନିଆ
- C) ବିଜୟସିଂ
- D) ଯୋହେଶ୍ୱର ଦତ୍ତ

3) Which scheme has been launched by the Govt. to protect elderly persons aged 60 years and above against a future fall in their interest income due to uncertain market conditions?

- A) Prime Minister Old Age Income Scheme
- B) Sardar Patel Old Age Pension Scheme
- C) Pradhan Mantri Vaya Vandana Yojana
- D) Shamaprasad Mukerjee Old Age Income Scheme

3) 60 ବର୍ଷ ଏବଂ ତଦୁର୍ଦ୍ଧ୍ୱ ବୟସ୍କ ବୃଦ୍ଧଙ୍କୁ ଅନିଶ୍ଚିତ ବଜାର ଅବସ୍ଥା ହେତୁ ଭବିଷ୍ୟତରେ ସେମାନଙ୍କ ସୁଧ ଆୟର ହ୍ରାସରୁ ରକ୍ଷା କରିବା ପାଇଁ କେଉଁ ଯୋଜନା ସରକାରଙ୍କ ଦ୍ୱାରା ଆରମ୍ଭ କରାଯାଇଛି?

- A) ପ୍ରଧାନମନ୍ତ୍ରୀ ବୃଦ୍ଧାବସ୍ଥା ଆୟ ଯୋଜନା
- B) ସର୍ଦ୍ଦାର ପଟେଲ ବୃଦ୍ଧାବସ୍ଥା ପେନସନ ଯୋଜନା
- C) ପ୍ରଧାନମନ୍ତ୍ରୀ ଭୟ ଭୟନା ଯୋଜନା
- D) ଶ୍ୟାମପ୍ରସାଦ ମୁଖାର୍ଜୀ ବୃଦ୍ଧାବସ୍ଥା ଆୟ ଯୋଜନା

4) Electric potential energy is measured in which of the following units?

- A) Ohm
- B) Volts
- C) Joule
- D) Ampere

4) ନିମ୍ନଲିଖିତ ମଧ୍ୟରୁ କେଉଁ ଯୁନିଟରେ ବୈଦ୍ୟୁତିକ ସ୍ଥିତିଜ ଶକ୍ତିକୁ ମାପ କରାଯାଏ?

- A) ଓମ୍
- B) ଭୋଲ୍ଟ୍
- C) ଜୁଲ୍
- D) ଆମପିୟର୍

5) Which of the following options is the other name of the Northern Kalinga region of ancient India?

- A) Karnata
- B) Pataliputra
- C) Gondwana
- D) Utkala

5) ନିମ୍ନଲିଖିତ ବିକଳଗୁଡ଼ିକ ମଧ୍ୟରୁ କେଉଁଟି ପ୍ରାଚୀନ ଭାରତର ଉତ୍ତର କଳିଙ୍ଗ ଅଞ୍ଚଳର ଅନ୍ୟ ନାମ ଅଟେ?

- A) କର୍ଣ୍ଣାଟ
- B) ପାଟଳିପୁତ୍ର
- C) ଗୋଶ୍ଵାମା
- D) ଉତ୍କଳ

6) Who among the following rulers embraced Buddhism after the famous Kalinga war?

- A) Ashoka
- B) Bindusara
- C) Chandragupta Maurya
- D) Pulakeshin II

6) ପ୍ରସିଦ୍ଧ କଳିଙ୍ଗ ଯୁଦ୍ଧ ପରେ ନିମ୍ନଲିଖିତ ଶାସକମାନଙ୍କ ମଧ୍ୟରୁ କିଏ ବୌଦ୍ଧ ଧର୍ମ ଗ୍ରହଣ କରିଥିଲେ?

- A) ଅଶୋକ
- B) ବିନ୍ଦୁସାର
- C) ଚନ୍ଦ୍ରଗୁପ୍ତ ମୌର୍ଯ୍ୟ
- D) ପୁଲକେଶିନ୍ ଦ୍ଵିତୀୟ

7) Which of the following lake is located in Russia?

- A) Superior
- B) Great Bear
- C) Michigan
- D) Baikal

7) ନିମ୍ନଲିଖିତ ହ୍ରଦ ମଧ୍ୟରୁ କେଉଁଟି ରୁଷରେ ଅବସ୍ଥିତ?

- A) ସୁପିରିୟର୍
- B) ଗ୍ରେଟ୍ ବାଆର୍
- C) ମିଚିଗାନ୍
- D) ବାଇକାଲ୍

8) What type of Justice does the Preamble in the Constitution, promise to the people of India?

- A) Personal
- B) Social
- C) Procedural
- D) Regional

8) ସମ୍ବିଧାନର ପ୍ରସ୍ତାବନା ଭାଗରେ ଜନସାଧାରଣଙ୍କୁ କେଉଁ ପ୍ରକାରର ନ୍ୟାୟର ପ୍ରତିଶ୍ରୁତି ଦିଏ?

- A) ବ୍ୟକ୍ତିଗତ
- B) ସାମାଜିକ
- C) ପ୍ରକ୍ରିୟାଗତ
- D) ଆଞ୍ଚଳିକ

9) Which of the following statements is CORRECT with reference to Directive Principles?

- A) They are enforceable in the courts
- B) They can create any justiciable rights in favour of individuals
- C) They are fundamental to the governance of the country
- D) They can never be implemented by legislation

9) ନିମ୍ନଲିଖିତ ନୀତିଗୁଡ଼ିକ ମଧ୍ୟରୁ କେଉଁଟି ତିରେକ୍ତିକ୍ ପ୍ରକ୍ରିୟା ସମ୍ବନ୍ଧରେ ଠିକ୍ ଅଟେ?

- A) ସେଗୁଡ଼ିକ କୋର୍ଟରେ କାର୍ଯ୍ୟକାରୀ ହେବେ
- B) ସେମାନେ କୌଣସି ବ୍ୟକ୍ତି ସପକ୍ଷରେ ଯେକୌଣସି ଯଥାର୍ଥ ଅଧିକାର ସୃଷ୍ଟି କରିପାରିବେ
- C) ସେମାନେ ଦେଶର ଶାସନ ପାଇଁ ମୌଳିକ ଅଟନ୍ତି
- D) ସେଗୁଡ଼ିକ ଆଇନ ଦ୍ୱାରା କେବେହେଲେ କାର୍ଯ୍ୟକାରୀ ହୋଇପାରିବ ନାହିଁ

10) Which Union Territory has become the first in the country to integrate with National Single-Window System, a digital platform that helps investors get government approvals for projects?

- A) Chandigarh
- B) Andaman and Nicobar
- C) Jammu and Kashmir
- D) Lakshadweep

10) କେଉଁ କେନ୍ଦ୍ର ଶାସିତ ଅଞ୍ଚଳ ଦେଶର ପ୍ରଥମ ଜାତୀୟ ଏକକ-ଓଷ୍ଟ୍ରୋ ସିଷ୍ଟମ ସହିତ ଏକୀକୃତ ହୋଇପାରିଛି ଯାହାକି ଏକ ଡିଜିଟାଲ୍ ପ୍ଲଟଫର୍ମ, ଯେଉଁଠାରେ ନିବେଶକମାନଙ୍କୁ ପ୍ରକଳ୍ପ ପାଇଁ ସରକାରୀ ଅନୁମୋଦନ ପାଇବାରେ ସାହାଯ୍ୟ ମିଳେ?

- A) ଚଣ୍ଡିଗଡ଼
- B) ଆଣ୍ଡାମାନ ଏବଂ ନିକୋବର
- C) ଜାମ୍ମୁ କାଶ୍ମୀର
- D) ଲାକ୍ଷାଦୀପ

11) Good Governance Index 2021 was launched on 25 December 2021 by which of the following Union Ministers of India?

- A) Nitin Gadkari
- B) Amit Shah
- C) Dharmendra Pradhan
- D) Piyush Goyal

11) ଉତ୍ତମ ଶାସନ ପରିଚାଳନା ସୂଚକାଙ୍କ ନିମ୍ନରେ ଦିଆଯାଇଥିବା ଭାରତର କେଉଁ କେନ୍ଦ୍ର ମନ୍ତ୍ରୀଙ୍କ ଦ୍ଵାରା 25 ଡିସେମ୍ବର 2021 ରେ ଆରମ୍ଭ କରାଯାଇଥିଲା?

- A) ନିତିନ ଗଡକରୀ
- B) ଅମିତ ଶାହା
- C) ଧର୍ମେନ୍ଦ୍ର ପ୍ରଧାନ
- D) ପିୟୁଷ ଗୋୟାଲ

12) Which was centrally sponsored scheme launched in 1995 for providing financial assistance to the elderly, widows, and people with disabilities?

- A) Special scheme for women and elderly people
- B) National Social Assistance scheme
- C) Bharat Social Scheme for widow and elderly people
- D) National Widow and Disabled Program

12) ବୃଦ୍ଧ, ବିଧବା ଏବଂ ଭିକ୍ଷମାନଙ୍କୁ ଆର୍ଥିକ ସହାୟତା ଯୋଗାଇବା ପାଇଁ 1995 ମସିହାରେ କେଉଁ କେନ୍ଦ୍ରୀୟ ପ୍ରାୟୋଜିତ ଯୋଜନା ଆରମ୍ଭ କରାଯାଇଥିଲା?

- A) ମହିଳା ଏବଂ ବୃଦ୍ଧମାନଙ୍କ ପାଇଁ ସ୍ୱତନ୍ତ୍ର ଯୋଜନା
- B) ଜାତୀୟ ସାମାଜିକ ସହାୟତା ଯୋଜନା
- C) ବିଧବା ଏବଂ ବୃଦ୍ଧମାନଙ୍କ ପାଇଁ ଭାରତ ସାମାଜିକ ଯୋଜନା
- D) ଜାତୀୟ ବିଧବା ଏବଂ ଅକ୍ଷମ କାର୍ଯ୍ୟକ୍ରମ

13) Identify the INCORRECT statement with reference to the chemical element Mercury.

- A) It is the metal which is found in liquid state at room temperature
- B) It is also known as quick silver
- C) It is used in thermometers
- D) It is a chemical element with symbol Ag

13) ରାସାୟନିକ ଉପାଦାନ ପାରଦ ସନ୍ଦର୍ଭରେ ଭୁଲ ଉକ୍ତିଟିକୁ ଚିହ୍ନଟ କରନ୍ତୁ?

- A) ଏହା ହେଉଛି ଏକ ଧାତୁ ଯାହା କୋଠରୀ ତାପମାତ୍ରାରେ ତରଳ ଅବସ୍ଥାରେ ମିଳିଥାଏ
- B) ଏହା ଦ୍ରୁତ ରୂପା ଭାବରେ ମଧ୍ୟ ଜଣାଶୁଣା
- C) ଏହା ଥର୍ମୋମିଟରରେ ବ୍ୟବହୃତ ହୁଏ
- D) ଏହା ଏକ ରାସାୟନିକ ଉପାଦାନ ଯାହାର ପ୍ରତୀକ Ag

14) Chandihara Yayati II who started the construction of the famous Lingaraja temple in Bhubaneswar, belonged to which of the following dynasties?

- A) Ganga
- B) Somavamsi
- C) Sailodbhava
- D) Gupta

14) ଚଣ୍ଡିହାର ଯଯାତି ଦ୍ୱିତୀୟ, ଯିଏ ଭୁବନେଶ୍ୱରରେ ପ୍ରସିଦ୍ଧ ଲିଙ୍ଗରାଜ ମନ୍ଦିର ନିର୍ମାଣ ଆରମ୍ଭ କରିଥିଲେ, ନିମ୍ନଲିଖିତ କେଉଁ ରାଜବଂଶର ଥିଲେ?

- A) ଗଙ୍ଗ
- B) ସୋମାଭାମସି
- C) ସୈଲୋଭବ
- D) ଗୁପ୍ତ

15) Which of the following statements is/are True?

- A. There are 204 islands in the Bay of Bengal called the Andaman and Nicobar Islands
- B. There are 56 islands in the Arabian Sea called as Lakshadweep islands

- A) Statement A is True, and B is False
- B) Statement A is False, and B is True
- C) Both the statements A and B are False
- D) Both the statements A and B are True

15) ନିମ୍ନଲିଖିତ ଉକ୍ତି ଗୁଡ଼ିକ ମଧ୍ୟରୁ କେଉଁଟି ସତ୍ୟ ଅଟେ?

- A. ବଙ୍ଗୋପସାଗରରେ 204 ଟି ଦ୍ୱୀପ ଅଛି ଯାହାକୁ ଆଣ୍ଡାମାନ ଏବଂ ନିକୋବର ଦ୍ୱୀପପୁଞ୍ଜ କୁହାଯାଏ।
- B. ଆରବ ସାଗରରେ 56 ଟି ଦ୍ୱୀପ ଅଛି ଯାହାକୁ ଲାକ୍ଷାଦ୍ୱୀପ କୁହାଯାଏ।

- A) ଉକ୍ତି A ସତ, ଏବଂ B ମିଥ୍ୟା ଅଟେ।
- B) ଉକ୍ତି A ମିଥ୍ୟା, ଏବଂ B ସତ ଅଟେ।
- C) ଉଭୟ ଉକ୍ତି A ଏବଂ B ମିଥ୍ୟା ଅଟେ।
- D) ଉଭୟ ଉକ୍ତି A ଏବଂ B ସତ୍ୟ ଅଟେ।

Techofworld.in





Section 2 - Paper I Reasoning Ability

No. of Questions: 10

16) If the cost of 17 toys is ₹ 272, then what would be the cost of a dozen of toys?

- A) ₹ 144
- B) ₹ 192
- C) ₹ 204
- D) ₹ 272

16) ଯଦି 17 ଟି ଖେଳନାର ମୂଲ୍ୟ ହେଉଛି ₹ 272, ତେବେ ଏକ ଡଜନ ଖେଳନାର ମୂଲ୍ୟ କେତେ ହେବ?

- A) ₹ 144
- B) ₹ 192
- C) ₹ 204
- D) ₹ 272

17) For an admission to a diploma programme, the following criteria is seen.

1. The candidate must have 60% and above in 10th board exam.
2. The candidate must have 60% and above in each of the subject Maths, Physics and Chemistry.
3. The candidate must have 70% and above in Maths Physics and Chemistry put together.
4. The candidate must have been born between July 1998 - July 2000.

If all conditions are satisfied except 4, the candidate must get age relaxation certificate from the district educational officer.

If all conditions are satisfied but if the grades were awarded then a equivalent conversion certificate must be obtained.

Ram Kumar has cleared his 10th board exam with 82% overall and has 85% and above in all subjects except Mathematics.

What decision can be taken about his candidature?

- A) Selected
- B) Rejected
- C) Data insufficient
- D) Needs to obtain grade conversion certificate

17) ଡିପ୍ଲୋମା ପାଠ୍ୟକ୍ରମରେ ଦାଖଲ ପାଇଁ ନିମ୍ନରେ ଦିଆଯାଇଥିବା ମାନଦଣ୍ଡଗୁଡ଼ିକ ଦେଖାଯାଇଥାଏ।

1. ପ୍ରାର୍ଥୀ 10ମ ବୋର୍ଡ ପରୀକ୍ଷାରେ 60% ଏବଂ ଅଧିକ ନମ୍ବର ରଖିଥିବା ଆବଶ୍ୟକ।
2. ପ୍ରାର୍ଥୀ ଅଙ୍କ, ପଦାର୍ଥ ବିଜ୍ଞାନ ଏବଂ ରସାୟନ ବିଜ୍ଞାନ ପ୍ରତ୍ୟେକ ବିଷୟରେ 60% ଏବଂ ଅଧିକ ନମ୍ବର ରଖିଥିବା ଆବଶ୍ୟକ।
3. ପ୍ରାର୍ଥୀ ଅଙ୍କ, ପଦାର୍ଥ ବିଜ୍ଞାନ ଏବଂ ରସାୟନ ବିଜ୍ଞାନରେ ମିଳିତ ଭାବରେ 70% ଏବଂ ଅଧିକ ନମ୍ବର ରଖିଥିବା ଆବଶ୍ୟକ।
4. ଏହି ପ୍ରାର୍ଥୀ ଜୁଲାଇ 1998 - ଜୁଲାଇ 2000 ମଧ୍ୟରେ ଜନ୍ମ ହୋଇଥିବା ଆବଶ୍ୟକ।

ଯଦି 4 ବ୍ୟତୀତ ସମସ୍ତ ସର୍ତ୍ତ ପୂରଣ ହେଉଥାଏ, ତେବେ ଏହି ପ୍ରାର୍ଥୀ ଜିଲ୍ଲା ଶିକ୍ଷା ଅଧିକାରୀଙ୍କଠାରୁ ବୟସ କୋହଳ ସାର୍ଟିଫିକେଟ୍ ଆଣିବା ଆବଶ୍ୟକ।  
ଯଦି ସମସ୍ତ ସର୍ତ୍ତ ପୂରଣ ହୋଇଥାଏ ଏବଂ ଗ୍ରେଡୁଏଟ୍ ଦିଆଯାଇଥାଏ ତେବେ ସମତୁଲ୍ୟ ରୂପାନ୍ତରଣ ସାର୍ଟିଫିକେଟ୍ ହାସଲ କରାଯିବା ଆବଶ୍ୟକ।  
ରାମ କୁମାର ସାମଗ୍ରୀକ ଭାବରେ 82% ନମ୍ବର ରଖି ଦଶମ ବୋର୍ଡ ପରୀକ୍ଷା ଉତ୍ତୀର୍ଣ୍ଣ ହୋଇଛନ୍ତି ଏବଂ କେବଳ ଅଙ୍କ ବ୍ୟତୀତ ସବୁ ବିଷୟରେ 85% ଏବଂ ଅଧିକ ନମ୍ବର ରଖିଛନ୍ତି।

ତାଙ୍କର ପ୍ରାର୍ଥୀତ୍ୱ ବିଷୟରେ କ'ଣ ନିଶ୍ଚିତ ନିଆଯାଇପାରିବ?

- A) ଚୟନ କରାଯିବ
- B) ପ୍ରତ୍ୟାଖ୍ୟାନ କରାଯିବ
- C) ତଥ୍ୟ ଯଥେଷ୍ଟ ନୁହେଁ
- D) ଗ୍ରେଡୁ ରୂପାନ୍ତରଣ ସାର୍ଟିଫିକେଟ୍ ହାସଲ କରିବା ଆବଶ୍ୟକ।

18) The next number in this sequence is 4, 10, 18, 28, \_\_\_\_\_

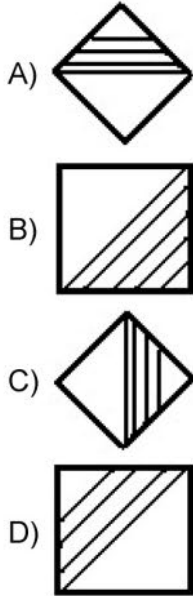
- A) 40
- B) 42
- C) 35
- D) 29

18) ଏହି କ୍ରମର ପରବର୍ତ୍ତୀ ସଂଖ୍ୟାଟି ହେଉଛି -

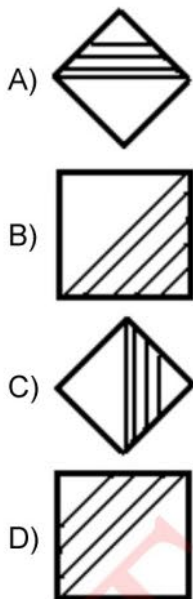
4, 10, 18, 28, \_\_\_\_\_

- A) 40
- B) 42
- C) 35
- D) 29

19) . Which is the odd one out among the four?



19) ଏହି ଚାରୋଟି ମଧ୍ୟରୁ କେଉଁଟି ଭିନ୍ନ ଅଟେ?



20) . Which is the odd one out among the four?

- A) Pistol
- B) Sword
- C) Gun
- D) Rifle

20) ଏହି ଚାରୋଟି ମଧ୍ୟରୁ କେଉଁଟି ଭିନ୍ନ ଅଟେ?

- A) ପିତ୍ତଳ
- B) ଚରବାରୀ
- C) ବସ୍ତୁକ
- D) ରାଜଫଲ୍

21) A is twice as fast as B in doing a job that can be completed in 24 days if A and B work together. How many days will A take to complete the job alone?

- A) 24 days
- B) 36 days
- C) 72 days
- D) 96 days

21) ଗୋଟିଏ କାର୍ଯ୍ୟକୁ B ତୁଳନାରେ A ଦୁଇଗୁଣ ଶୀଘ୍ର କରିଥାନ୍ତି, ଯାହାକି ଯଦି A ଏବଂ B ମିଳିତ ଭାବରେ କାର୍ଯ୍ୟ କରନ୍ତି 24 ଦିନରେ ଶେଷ ହୋଇପାରିବ। ତେବେ ଏକ୍ସଟ୍ରା A କୁ କାର୍ଯ୍ୟ ସମ୍ପୂର୍ଣ୍ଣ କରିବା ପାଇଁ କେତେ ଦିନ ଲାଗିବ?

- A) 24 ଦିନ
- B) 36 ଦିନ
- C) 72 ଦିନ
- D) 96 ଦିନ

22) If 6 men get ₹ 2,100 in 15 days as wages, how much would be given to 12 men for 24 days as wages?

- A) ₹ 4,260
- B) ₹ 5,490
- C) ₹ 6,720
- D) ₹ 7,470

22) ଯଦି 6 ଜଣ ବ୍ୟକ୍ତି ପାରିଶ୍ରମିକ ଭାବରେ 15 ଦିନରେ ₹ 2,100 ପାଆନ୍ତି ତେବେ 24 ଦିନ ପାଇଁ 12 ଜଣ ବ୍ୟକ୍ତିଙ୍କୁ କେତେ ପାରିଶ୍ରମିକ ଦିଆଯିବ?

- A) ₹ 4,260
- B) ₹ 5,490
- C) ₹ 6,720
- D) ₹ 7,470

23) Study the following information carefully and answer the question that follows:

A Research Institute is recruiting a librarian to digitize its information resources, among other duties. Candidates must possess the following criteria. The candidate must

- I) be not less than 35 years and not exceed 40 years as on 01.11.2009.
- II) have Bachelor's Degree in Library and information Science with 65% marks.
- III) have PhD in Library Science.
- IV) have post qualification experience of at least 4 years in a University Library.

However, If the candidate fulfils the above mentioned criteria except

- A) (II), but has a UGC NET certification with all other above criteria fulfilled, he/she may be referred to the Dean.
- B) (IV), but all the eligibility criteria are met and candidate has at least one years experience in a research institute, he/she may be offered contractual appointment for a year.

Based on the above criteria, study carefully whether the following candidates are eligible for the recruitment process and mark your answer as follows. You are not to assume anything other than the information provided in each question. All cases are given to you as on 1/1/2009.

Mark Answer (1) If he/she is to be shortlisted.

Mark Answer (2) If he/she is not to be shortlisted.

Mark Answer (3) If he/she should be referred to the Dean.

Mark Answer (4) If he/she may be offered contractual appointment if required.

Anil Rathi has a doctorate in Library science from Karnataka University in 2003. Born on July 21, 1967, he graduated in Library and Information Science from Karnataka University, where he has been Assistant Librarian for Four years since 2005.

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

23) ନିମ୍ନରେ ଦିଆଯାଇଥିବା ସୂଚନା ଧ୍ୟାନପୂର୍ବକ ଅଧ୍ୟୟନ କରନ୍ତୁ ଏବଂ ତାହା ଡଳେ ଦିଆଯାଇଥିବା ପ୍ରଶ୍ନର ଉତ୍ତର ଦିଅନ୍ତୁ :

ଏକ ଗବେଷଣା ପ୍ରତିଷ୍ଠାନ ଏହାର ସୂଚନା ଉତ୍ପାଦନକୁ ଡିଜିଟାଇଜ୍ କରିବା ସହିତ ଅନ୍ୟାନ୍ୟ କାର୍ଯ୍ୟ ପାଇଁ ଜଣେ ଲାଇବ୍ରେରିଆନ୍ ନିଯୁକ୍ତ କରୁଛନ୍ତି। ପ୍ରାର୍ଥୀମାନେ ନିମ୍ନଲିଖିତ ମାନଦଣ୍ଡ ପୂରଣ କରୁଥିବା ଆବଶ୍ୟକୀ ପ୍ରାର୍ଥୀ ହୋଇଥିବା ଆବଶ୍ୟକ

- I) 01.11.2009 ସୁଦ୍ଧା ବୟସ ଅତିକମରେ 35 ବର୍ଷ ରୁ କମ୍ ହୋଇନଥିବ ଏବଂ 40 ବର୍ଷରୁ ଅଧିକ ହୋଇନଥିବ।
- II) ଲାଇବ୍ରେରୀ ଏବଂ ଇନଫର୍ମେସନ୍ ସାଇନ୍ସରେ 65% ନମ୍ବର ସହିତ ସ୍ନାତକ ଡିଗ୍ରୀ ଥିବ।
- III) ଲାଇବ୍ରେରୀ ସାଇନ୍ସରେ ପିଏଚଡି କରିଥିବେ।
- IV) ଯୋଗ୍ୟତା ହାସଲ ପରେ ଅତିକମରେ ଏକ ବିଶ୍ୱବିଦ୍ୟାଳୟ ଲାଇବ୍ରେରୀରେ 4 ବର୍ଷର ଅଭିଜ୍ଞତା ରହିଥିବ।

ଆବଶ୍ୟକୀ ଯଦି ପ୍ରାର୍ଥୀ ଉପର ବର୍ଣ୍ଣିତ ମାନଦଣ୍ଡଗୁଡ଼ିକ ପୂରଣ କରନ୍ତି,

- A) ଉପରୋକ୍ତ (II) ବ୍ୟତୀତ, କିନ୍ତୁ ତାଙ୍କର ଅନ୍ୟ ସମସ୍ତ ଉପରୋକ୍ତ ମାନଦଣ୍ଡ ପୂରଣ ହେବା ସହିତ ଯୁଜିସି ନେଟ୍ ସାର୍ଟିଫିକେଟ୍ ରହିଛି, ତାଙ୍କୁ ଡିନଙ୍କ ନିକଟକୁ ପଠାଯାଇପାରିବ।
- B) ଉପରୋକ୍ତ (IV) ବ୍ୟତୀତ, କିନ୍ତୁ ସମସ୍ତ ଯୋଗ୍ୟତା ମାନଦଣ୍ଡ ପୂରଣ ହୋଇଛି ଏବଂ ପ୍ରାର୍ଥୀଙ୍କର ଗବେଷଣା ପ୍ରତିଷ୍ଠାନରେ ଅତିକମରେ 1 ବର୍ଷର ଅଭିଜ୍ଞତା

ରହିଛି, ତାକୁ ଏକ ବର୍ଷ ପାଇଁ ଠିକାରେ ନିଯୁକ୍ତି ଦିଆଯାଇପାରେ।

ଉପରୋକ୍ତ ମାନବଶ୍ଚ ଆଧାରରେ, ଯତ୍ନପୂର୍ବକ ବିଚାର କରନ୍ତୁ ଯେ ନିମ୍ନଲିଖିତ ପ୍ରାର୍ଥୀ ନିଯୁକ୍ତି ପ୍ରକ୍ରିୟା ପାଇଁ ଯୋଗ୍ୟ କି ନା ଏବଂ ନିମ୍ନରେ ଦିଆଯାଇଥିବା ଅନୁଯାୟୀ ଆପଣଙ୍କ ଉତ୍ତର ଚିହ୍ନିତ କରନ୍ତୁ। ଆପଣଙ୍କୁ ପ୍ରତିଟି ପ୍ରଶ୍ନରେ ଦିଆଯାଇଥିବା ସୂଚନା ବ୍ୟତୀତ ଅନ୍ୟ କୌଣସି ବିଷୟ ଧରି ନେବାକୁ କିମ୍ବା ଅନୁମାନ ଲଗାଇବାକୁ ହେବ ନାହିଁ ଏ ସମସ୍ତ ଘଟଣା ଆପଣଙ୍କୁ 1/1/2009 ଅନୁଯାୟୀ ଦିଆଯାଇଛି।

ଯଦି ସେ ବଛାବଛି ତାଲିକାଭୁକ୍ତ ହେବେ ତେବେ ଉତ୍ତର (1) ଚିହ୍ନିତ କରନ୍ତୁ।

ଯଦି ସେ ବଛାବଛି ତାଲିକାଭୁକ୍ତ ହେବେ ନାହିଁ ତେବେ ଉତ୍ତର (2) ଚିହ୍ନିତ କରନ୍ତୁ।

ଯଦି ତାକୁ ତିନିଟି ପାଖକୁ ପଠାଯିବା ଉଚିତ୍ ତେବେ ଉତ୍ତର (3) ଚିହ୍ନିତ କରନ୍ତୁ।

ଯଦି ଆବଶ୍ୟକ ହୁଏ ତାକୁ ଠିକାରେ ନିଯୁକ୍ତି ଦିଆଯାଇପାରେ ତେବେ ଉତ୍ତର (4) ଚିହ୍ନିତ କରନ୍ତୁ।

ଅନିଲ୍ ରଥୀ କର୍ମାଚକ ବିଶ୍ୱବିଦ୍ୟାଳୟରୁ 2003 ମସିହାରେ ଲାଇବ୍ରେରୀ ସାଇନ୍ସରେ ଡିଗ୍ରେସନ୍ କରିଛନ୍ତି। ସେ ଜୁଲାଇ 21 ତାରିଖ, 1967ରେ ଜନ୍ମଗ୍ରହଣ କରିଛନ୍ତି, କର୍ମାଚକ ଯୁନିଭର୍ସିଟିରୁ ଲାଇବ୍ରେରୀ ଆଣ୍ଡ ଇନଫର୍ମେସନ୍ ସାଇନ୍ସରେ ସ୍ନାତକ ଲାଭ କରିଛନ୍ତି ଯେତେବେଳେ କି ସେ 2005 ମସିହାରୁ 4 ବର୍ଷ ଧରି ଆସିଷ୍ଟାଣ୍ଟ ଲାଇବ୍ରେରୀଆନ୍ ଭାବରେ କାମ କରୁଛନ୍ତି।

A) 1

B) 2

C) 3

D) 4

24) Complete the series:

13, 16, 38, ?, 504, 2535

A) 120

B) 123

C) 122

D) 121

24) ନିମ୍ନଲିଖିତ ସିରିଜ୍ କୁ ସମ୍ପୂର୍ଣ୍ଣ କରନ୍ତୁ :

13, 16, 38, ?, 504, 2535

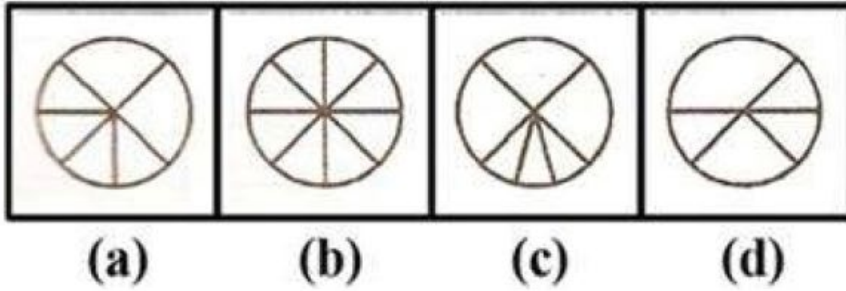
A) 120

B) 123

C) 122

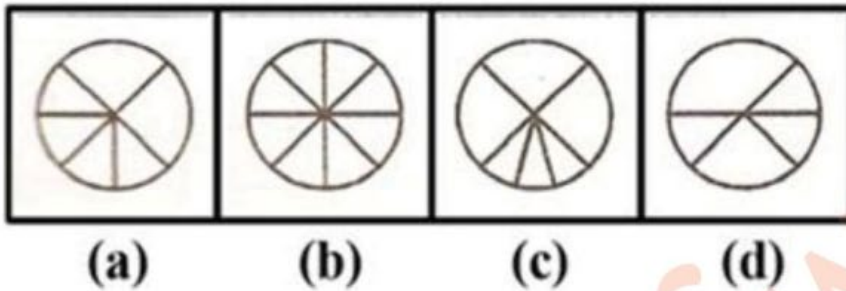
D) 121

25) Which is the odd one out among the four?



- A) a
- B) b
- C) c
- D) d

25) ଏହି ଚାରୋଟି ମଧ୍ୟରୁ କେଉଁଟି ଭିନ୍ନ?



- A) a
- B) b
- C) c
- D) d

Section 3 - Paper I Computer Literacy

No. of Questions: 10

26) Which of the following key should be used to begin a new paragraph in word documents?

- A) Shift
- B) Ctrl+Shift
- C) Shift+Alt
- D) Enter

26) ଷ୍ଟାର୍ଟ ଡକ୍ୟୁମେଣ୍ଟରେ ଏକ ନୂତନ ଅନୁଚ୍ଛେଦ ଆରମ୍ଭ କରିବାକୁ ନିମ୍ନଲିଖିତ ମଧ୍ୟରୁ କେଉଁ KEY ବ୍ୟବହାର କରାଯିବା ଉଚିତ୍?

- A) Shift
- B) Ctrl+Shift
- C) Shift+Alt
- D) Enter

27) Which is not a hardware?

- A) Operating system
- B) CPU
- C) Keyboard
- D) Hard disk

27) କେଉଁଟି ହାର୍ଡୱେୟାର ନୁହେଁ?

- A) ଅପରେଟିଂ ସିଷ୍ଟମ୍
- B) CPU
- C) କୀ ବୋର୍ଡ୍
- D) ହାର୍ଡ ଡିସ୍କ

28) In which of the following areas can computers be used?

I. Business

II. Banking

III. Education

IV. Health Care

- A) I, II and III only





- B) II, III and IV only  
 C) I, III and IV only  
 D) I, II, III and IV

28) ନିମ୍ନଲିଖିତ ମଧ୍ୟରୁ କେଉଁ କ୍ଷେତ୍ରଗୁଡ଼ିକରେ କମ୍ପ୍ୟୁଟର ବ୍ୟବହାର କରାଯାଇପାରିବ?

- I. ବିଜ୍ଞାନ  
 II. ବ୍ୟାଙ୍କିଂ  
 III. ଶିକ୍ଷା  
 IV. ସ୍ୱାସ୍ଥ୍ୟ ସେବା

- A) କେବଳ I, II ଏବଂ III  
 B) କେବଳ II, III ଏବଂ IV  
 C) କେବଳ I, III ଏବଂ IV  
 D) I, II, III ଏବଂ IV

29) It is system software that manages computer hardware and software resources and provides common services for computer programs is known as

- A) Peripheral Device  
 B) HANs  
 C) Operating System  
 D) LANs

29) ଏହା ଏକ ସିଷ୍ଟମ୍ ସଫ୍ଟୱେୟାର୍, ଯାହା କମ୍ପ୍ୟୁଟର ହାର୍ଡୱେୟାର୍ ଏବଂ ସଫ୍ଟୱେୟାର୍ ଗୁଡ଼ିକୁ ପରିଚାଳନା କରେ ଏବଂ କମ୍ପ୍ୟୁଟର ପ୍ରୋଗ୍ରାମ୍ ପାଇଁ ସାଧାରଣ ସେବା ପ୍ରଦାନ କରେ, ତାହା କଣ ଭାବେ ଜଣାଶୁଣା?

- A) ପେରିଫେରାଲ୍ ଡିଭାଇସ୍  
 B) HANs  
 C) ଅପରେଟିଂ ସିଷ୍ଟମ୍  
 D) LANs

30) Which of the following is not a product of Google?

- A) Duo  
 B) Meet  
 C) Hangouts  
 D) Teams

30) ନିମ୍ନଲିଖିତ ମଧ୍ୟରୁ କେଉଁଟି Google ର ଉପାଦାନ ନୁହେଁ?

- A) Duo
- B) Meet
- C) Hangouts
- D) Teams

31) Which of the following is the CORRECT extension for PowerPoint show?

- A) .ppt
- B) .pps
- C) .pot
- D) .png

31) PowerPoint Show ପାଇଁ ନିମ୍ନଲିଖିତ ମଧ୍ୟରୁ କେଉଁଟି ସଠିକ୍ ବିସ୍ତାର(ଏକ୍ସଟେନ୍ସନ୍) ଅଟେ?

- A) .ppt
- B) .pps
- C) .pot
- D) .png

32) Which of the following can't be connected through a USB Port ?

- A) External Hard Disk
- B) Pen Drive
- C) Graphic Card
- D) Gaming Joystick

32) ନିମ୍ନଲିଖିତ ମଧ୍ୟରୁ କେଉଁଟି ଏକ ୟୁଏସବି ପୋର୍ଟ ମାଧ୍ୟମରେ ସଂଯୋଜିତ ହୋଇପାରିବ ନାହିଁ?

- A) ଏକ୍ସ୍ଟର୍ନାଲ୍ ହାର୍ଡ ଡିସ୍କ
- B) ପେନ୍ ଡ୍ରାଇଭ୍
- C) ଗ୍ରାଫିକ୍ କାର୍ଡ
- D) ଗେମିଂ ଜୟଷ୍ଟିକ୍

33) What does "http" stand for?

- A) hypertext twisted pair
- B) hypertext transfer protocol
- C) Hyperlink transfer placard
- D) Hyperlink transfer protocol

33) " http " ର ପୁଲଫର୍ମ କଣ?

- A) hypertext twisted pair
- B) hypertext transfer protocol
- C) Hyperlink transfer placard
- D) Hyperlink transfer protocol

34) Which among the following is an identity platform, that is one of the key pillars of 'Digital India', wherein every resident of the country is provided with a unique number based on their biometric based identity?

- A) UAN
- B) Aadhar
- C) PAN
- D) Passport

34) ନିମ୍ନଲିଖିତ ମଧ୍ୟରୁ କେଉଁଟି ହେଉଛି ଏକ ପରିଚୟ ପ୍ଲାଟଫର୍ମ, ଯାହା ହେଉଛି 'ଡିଜିଟାଲ୍ ଇଣ୍ଡିଆ' ର ଏକ ପ୍ରମୁଖ ସ୍ତମ୍ଭ, ଯେଉଁଥିରେ ଦେଶର ପ୍ରତ୍ୟେକ ବାସିନ୍ଦାଙ୍କୁ ସେମାନଙ୍କର ବାୟୋମେଟ୍ରିକ୍ ଆଧାରିତ ପରିଚୟକୁ ଉପଯୋଗ କରି ଏକ ଅନନ୍ୟ ସଂଖ୍ୟା ପ୍ରଦାନ କରାଯାଏ?

- A) UAN
- B) Aadhar
- C) PAN
- D) Passport

35) What do you call a software application that is used to view Web pages?

- A) Web browser
- B) Search Engine
- C) The Internet
- D) Mail Client

35) ୱେବ୍ ପେଜ୍ ଦେଖିବା ପାଇଁ ବ୍ୟବହୃତ ହେଉଥିବା ସଫ୍ଟୱେୟାର ଆପ୍ଲିକେସନ୍ କୁ କଣ କୁହାଯାଏ?

- A) ୱେବ୍ ବ୍ରାଉଜର୍
- B) ସର୍ଚ୍ଚ ଇଞ୍ଜିନ୍
- C) ଇଣ୍ଟରନେଟ୍
- D) ମେଲ୍ କ୍ଲାଏନ୍ଟ୍



Section 4 - Paper I Pedagogy and Evaluation

No. of Questions: 15

36) Since classroom normally means a group the teacher adopts

- A) learner centered approach
- B) group centered approach
- C) individual centered approach
- D) organization centered approach

36) ଶ୍ରେଣୀଗୃହର ଅର୍ଥ ସାଧାରଣତଃ ଏକ ଗୋଷ୍ଠୀ, ଯେଉଁଥିରେ ଶିକ୍ଷକ ଏହି ଆଭିମୁଖ୍ୟ ଗ୍ରହଣ କରନ୍ତି

- A) ଶିକ୍ଷାର୍ଥୀ କୈନ୍ଦ୍ରିକ ଆଭିମୁଖ୍ୟ
- B) ଗୋଷ୍ଠୀ କୈନ୍ଦ୍ରିକ ଆଭିମୁଖ୍ୟ
- C) ବ୍ୟକ୍ତିଗତ କୈନ୍ଦ୍ରିକ ଆଭିମୁଖ୍ୟ
- D) ସଂଗଠନ କୈନ୍ଦ୍ରିକ ଆଭିମୁଖ୍ୟ

37) Where the size of the classroom is more, the method of teaching is likely to be

- A) Lecture
- B) Discussion
- C) Projects
- D) Seminars

37) ଯେଉଁଠାରେ ଶ୍ରେଣୀଗୃହର ଆକାର ଅଧିକ, ସେଠାରେ ଶିକ୍ଷାଦାନ ପ୍ରଣାଳୀ କିପରି ହେବାର ସମ୍ଭାବନା ଅଛି?

- A) ବକ୍ତୃତା
- B) ଆଲୋଚନା
- C) ପ୍ରକଳ୍ପ
- D) ସେମିନାର

38) Standardized tests are conducted

- A) to compare and rank test takers in relation to one another
- B) to determine local standards
- C) to measure only emotional disabilities
- D) to examine only written ability

38) ମାନକ ପରୀକ୍ଷା କାହିଁକି କରାଯାଏ?

- A) ପରସ୍ପର ମଧ୍ୟରେ ପରୀକ୍ଷାର୍ଥୀମାନଙ୍କୁ ତୁଳନା ଏବଂ ରାଙ୍କ କରିବାକୁ
- B) ସ୍ଥାନୀୟ ମାନ ନିର୍ଣ୍ଣୟ କରିବାକୁ
- C) କେବଳ ସଂବେଗାତ୍ମକ ଅକ୍ଷମତା ମାପିବାକୁ
- D) କେବଳ ଲିଖିତ ଦକ୍ଷତା ପରୀକ୍ଷା କରିବାକୁ

39) AAL stands for

- A) Assessment for learning
- B) Assessment as Learning
- C) Assessment of learners
- D) Assesment of learning

39) AAL ର ବିସ୍ତାର ରୂପ ହେଉଛି -

- A) ଆସେସମେଣ୍ଟ ପର ଲର୍ନିଙ୍ଗ
- B) ଆସେସମେଣ୍ଟ ଆଜ୍ ଲର୍ନିଙ୍ଗ
- C) ଆସେସମେଣ୍ଟ ଅଫ୍ ଲର୍ନର୍ସ
- D) ଆସେସମେଣ୍ଟ ଅଫ୍ ଲର୍ନିଙ୍ଗ

40) Although ICT and multimedia are very good resources of learning but teachers use it in a limited way because it is

- A) a costly affair
- B) less engaging for children
- C) leading to reduction in attendance percentage.
- D) hampering mode of communication

40) ଯଦିଓ ICT ଏବଂ ମଲ୍ଟିମିଡ଼ିଆ ଶିକ୍ଷାର ବହୁତ ଭଲ ଉତ୍ସ କିନ୍ତୁ ଶିକ୍ଷକମାନେ ଏହାକୁ ସୀମିତ ଉପାୟରେ ବ୍ୟବହାର କରନ୍ତି କାରଣ ଏହା ହେଉଛି -

- A) ବ୍ୟୟ ସାପେକ୍ଷ
- B) ପିଲାମାନଙ୍କୁ କମ୍ ବ୍ୟସ୍ତ ରଖେ
- C) ଉପସ୍ଥାନ ଶତକଡ଼ାକୁ ହ୍ରାସ କରିଥାଏ
- D) ଯୋଗାଯୋଗରେ ବାଧା ସୃଷ୍ଟି କରେ

41) Which of the following test is used to identify the learning difficulties of learners?

- A) Portfolio Test
- B) Stressful Test
- C) Diagnostic Test
- D) Probable Test

41) ଶିକ୍ଷାର୍ଥୀମାନଙ୍କର ଶିକ୍ଷଣ ଅସୁବିଧାକୁ ଚିହ୍ନିବା ପାଇଁ ନିମ୍ନଲିଖିତ ପରୀକ୍ଷଣ ମଧ୍ୟରୁ କେଉଁଟି ବ୍ୟବହୃତ ହୁଏ?

- A) ପୋର୍ଟଫୋଲିଓ ପରୀକ୍ଷଣ
- B) ଚାପଗ୍ରସ୍ତ ପରୀକ୍ଷଣ
- C) ନୈଦାନିକ ପରୀକ୍ଷଣ
- D) ସମ୍ଭାବ୍ୟ ପରୀକ୍ଷଣ

42) All of the following increase the effectiveness of teaching EXCEPT:

- A) A teacher's voice
- B) A teacher's gestures
- C) A teacher's anger
- D) A teacher's appealing personality

42) ନିମ୍ନଲିଖିତ ମଧ୍ୟରୁ କେଉଁଟି ବ୍ୟତୀତ ବାକି ସମସ୍ତ ଶିକ୍ଷାଦାନର କାର୍ଯ୍ୟକାରିତାକୁ ବଢ଼ାଇ ଥାଆନ୍ତି?

- A) ଶିକ୍ଷକ ଜଣଙ୍କ ସ୍ଵର
- B) ଶିକ୍ଷକ ଜଣଙ୍କ ଅଙ୍ଗଭଙ୍ଗୀ
- C) ଶିକ୍ଷକ ଜଣଙ୍କ କ୍ରୋଧ
- D) ଶିକ୍ଷକ ଜଣଙ୍କର ଆକର୍ଷଣୀୟ ବ୍ୟକ୍ତିତ୍ଵ

43) In a classroom praise, blames, grades, are reinforcers to

- A) motivate students
- B) annoy students
- C) control students
- D) scare students

43) ଏକ ଶ୍ରେଣୀଗୃହରେ ପ୍ରଶଂସା, ଦୋଷ, ଗ୍ରେଡ୍ ନିମ୍ନଲିଖିତକୁ ଦୃଢ଼ୀକରଣ କରେ

- A) ଛାତ୍ରମାନଙ୍କୁ ଉତ୍ସାହିତ କରିବାରେ
- B) ଛାତ୍ରମାନଙ୍କୁ ବିରକ୍ତ କରିବାରେ
- C) ଛାତ୍ରମାନଙ୍କୁ ନିୟନ୍ତ୍ରଣ କରିବାରେ
- D) ଛାତ୍ରମାନଙ୍କୁ ଭୟଭୀତ କରିବାରେ

44) When two or more than two students join together to achieve some specific objective in a class it involves

- A) individual teaching
- B) parental teaching
- C) biased teaching
- D) team teaching

44) ଯେତେବେଳେ ଦୁଇ କିମ୍ବା ଦୁଇରୁ ଅଧିକ ଛାତ୍ର ଏକ ଶ୍ରେଣୀରେ କିଛି ନିର୍ଦ୍ଦିଷ୍ଟ ଉଦ୍ଦେଶ୍ୟ ହାସଲ କରିବାକୁ ଏକତ୍ର ହୁଅନ୍ତି, ତେବେ ଏଥିରେ କ'ଣ ଅନ୍ତର୍ଭୁକ୍ତ ଅଟେ?

- A) ବ୍ୟକ୍ତିଗତ ଶିକ୍ଷାଦାନ
- B) ପିତାମାତାଙ୍କ ଶିକ୍ଷାଦାନ
- C) ପକ୍ଷପାତୀ ଶିକ୍ଷାଦାନ
- D) ଗୋଷ୍ଠୀଭିତ୍ତିକ ଶିକ୍ଷାଦାନ

45) Who said "A project is a wholehearted purposeful activityproceeding in a social environment"?

- A) W.H. Kilpatrick
- B) John Dewey
- C) Mahathma Gandhi
- D) Swami vivekananda

45) "ପ୍ରକଳ୍ପ ଏକ ହୃଦୟସ୍ପର୍ଶୀ ଉଦ୍ଦେଶ୍ୟମୂଳକ କାର୍ଯ୍ୟକଳାପ, ଯେଉଁଠି ସାମାଜିକ ପରିବେଶରେ ଚାଲେ" କାହା ଦ୍ଵାରା କୁହାଯାଇଥିଲା?

- A) ଡବ୍ଲ୍ୟୁ ଏଚ କିଲପାଟ୍ରିକ୍
- B) ଜନ ଡିୱି
- C) ମହାତ୍ମା ଗାନ୍ଧୀ
- D) ସ୍ଵାମୀ ବିବେକାନନ୍ଦ

46) Which of the following is TRUE according to constructivist perspective?

- A) Learners become passive participants
- B) Learners take care of teaching & learning
- C) Learners become engaged participants
- D) Learners dilute the learning process

46) ରଚନାବାଦୀ ଦୃଷ୍ଟିକୋଣ ଅନୁଯାୟୀ ନିମ୍ନଗୁଡ଼ିକ ମଧ୍ୟରୁ କେଉଁଟି ସଠିକ୍ ଅଟେ?

- A) ଶିକ୍ଷାର୍ଥୀମାନେ ନିଷ୍ପ୍ରୟ ଅଂଶଗ୍ରହଣକାରୀ ହୁଅନ୍ତି।
- B) ଶିକ୍ଷାର୍ଥୀମାନେ ଶିକ୍ଷାଦାନ ଏବଂ ଶିକ୍ଷଣର ଯତ୍ନ ନିଅନ୍ତି।
- C) ଶିକ୍ଷାର୍ଥୀମାନେ ନିୟୋଜିତ ଅଂଶଗ୍ରହଣକାରୀ ହୁଅନ୍ତି।
- D) ଶିକ୍ଷାର୍ଥୀମାନେ ଶିକ୍ଷଣ ପ୍ରକ୍ରିୟାକୁ ହ୍ରାସ କରନ୍ତି।

47) Piaget suggested that there are four main stages in the cognitive development of the children. Out of that the first Stage, i.e. the sensory motor stage is for the age group

- A) 0-2 years
- B) 2-7 years
- C) 7-12 years
- D) 12 years and above

47) ପିଲାମାନଙ୍କର ଜ୍ଞାନଗତ ବିକାଶରେ ଚାରୋଟି ମୁଖ୍ୟ ପର୍ଯ୍ୟାୟ ଅଛି ବୋଲି ପିଆଜେ ପରାମର୍ଶ ଦେଇଛନ୍ତି। ସେଥିମଧ୍ୟରୁ ପ୍ରଥମ ପର୍ଯ୍ୟାୟ, ଯଥା - ସଂବେଦନାତ୍ମକ ଗତି (ସେନସୋରି ମୋଟର) ପର୍ଯ୍ୟାୟ ନିମ୍ନଲିଖିତ ବୟସ ଶ୍ରେଣୀ ପାଇଁ ଉଦ୍ଦିଷ୍ଟ

- A) 0-2 ବର୍ଷ
- B) 2-7 ବର୍ଷ
- C) 7-12 ବର୍ଷ
- D) 12 ବର୍ଷ ଏବଂ ତଦୁର୍ଦ୍ଧ୍ୱ

48) Which of the following is NOT a feature of Bruners theory of instruction?

- A) Structure of knowledge
- B) Predisposition to learn
- C) Effective sequencing
- D) Neglecting the details



48) ନିମ୍ନଲିଖିତ ମଧ୍ୟରୁ କେଉଁଟି ବ୍ରୁନର୍ସ ନିର୍ଦ୍ଦେଶର ଏକ ବୈଶିଷ୍ଟ୍ୟ ନୁହେଁ?

- A) ଜ୍ଞାନର ଗଠନ
- B) ଶିକ୍ଷଣର ପୂର୍ବପ୍ରବଣତା
- C) ପ୍ରଭାବଶାଳୀ କ୍ରମ
- D) ସବିଶେଷ ଅବହେଳା

49) Which of the following statements about assessment is CORRECT?

- A) Assessment is equivalent and limited to evaluation.
- B) Assessment is integral component of learning
- C) Assessment is equivalent and limited to notebook checking.
- D) Assessment is equivalent and limited to daily remarks.

49) ନିର୍ଦ୍ଧାରଣ ବିଷୟରେ ନିମ୍ନଲିଖିତ ଉଚ୍ଚିଗୁଡ଼ିକ ମଧ୍ୟରୁ କେଉଁଟି ସଠିକ୍ ଅଟେ?

- A) ନିର୍ଦ୍ଧାରଣ ମୂଲ୍ୟାୟନ ସହିତ ସମତୁଲ୍ୟ ଏବଂ ସୀମିତ ଅଟେ।
- B) ନିର୍ଦ୍ଧାରଣ ଶିକ୍ଷଣର ଅବିଚ୍ଛେଦ୍ୟ ଉପାଦାନ ଅଟେ।
- C) ନିର୍ଦ୍ଧାରଣ ନୋଟବୁକ୍ ଯାଞ୍ଚର ସମତୁଲ୍ୟ ଏବଂ ସୀମିତ ଅଟେ।
- D) ନିର୍ଦ୍ଧାରଣ ଦୈନିକ ଚିପ୍ପଣୀର ସମତୁଲ୍ୟ ଏବଂ ସୀମିତ ଅଟେ।

50) 'childcentered-education' emphasises on

- 1) reach
- 2) touch
- 3) teach

- A) Only 1
- B) 2 and 3
- C) 1, 2 and 3
- D) Only 3

50) 'ଶିଶୁ-କୈନ୍ଦ୍ରିକ-ଶିକ୍ଷା' ଗୁରୁତ୍ୱ ଦେଇଥାଏ

1) ପଢ଼ାଅଭି୍ୟାସ

2) ସ୍ୱର୍ଣ୍ଣ

3) ଶିକ୍ଷାଦାନ

A) କେବଳ 1

B) 2 ଏବଂ 3

C) 1, 2 ଏବଂ 3

D) କେବଳ 3



Section 5 - Paper II Physics

No. of Questions: 30

---

51) An electric wire of length 'l' and area of cross-section 'a' has a resistance R ohms. Another wire of the same material having same length and area of cross-section '4a' has a resistance of

- A) 4R
- B) R/4
- C) 16R
- D) R/16

---

52) When the length and area of cross-section of a conductor are doubled, then its resistance will

- A) become half
- B) be doubled
- C) remain the same
- D) become four times

---

53) Lenz's law is consequence of the law of conservation of

- A) charge
- B) mass
- C) energy
- D) momentum

---

54) When the distance between two charged particles is halved, the force between them becomes

- A) One-fourth
- B) Half
- C) Double
- D) Four times

---

55) The mass of a satellite is  $7.34 \times 10^{22}$  kg and the radius is  $1.74 \times 10^6$  m. The value of gravitational force will be

- A) 1.75 N/kg
- B) 1.45 N/kg
- C) 1.55 N/kg
- D) 1.62 N/kg

56) The quantity which is a measure of the rotational inertia of the body and has been put to a great practical use in machines is

- A) Moment of Inertia
  - B) Torque
  - C) Acceleration
  - D) Power
- 

57) A friction comes into play when a body just begins to slide over the surface of another body and this maximum value of static friction is known as

- A) Limiting friction
  - B) Angle of repose
  - C) Rolling friction
  - D) Sliding friction
- 

58) The force which resists motion when the surface of an object comes into contact with the surface of another object is known as

- A) Kinetic Energy
  - B) Friction
  - C) Work
  - D) Collision
- 

59) If the angle of incidence of a ray of light in a denser medium is such that the angle of refraction in the rarer medium is  $90^\circ$ , then the corresponding angle of incidence in the denser medium is known as

- A) total internal reflection
  - B) reflection
  - C) critical angle
  - D) refraction
- 

60) Whatever be the position of the object, the lens which produces virtual and erect image is

- A) concave
- B) convex
- C) concavo-convex lens
- D) plano convex lens

61) Astronomical telescope which is used to view distant objects has two convex lens such that the focal length of the objective is

- A) equal to the focal length of the eyepiece
  - B) greater than the focal length of the eyepiece
  - C) shorter than the focal length of the eyepiece
  - D) five times shorter than the focal length of the eyepiece
- 

62) What is the Young's modulus of a perfectly rigid body?

- A) Zero
  - B) Infinity
  - C) One
  - D) Finite
- 

63) A wire stretched between two rigid supports vibrates in its fundamental mode with a frequency of 45 Hz. The mass of the wire is  $3.5 \times 10^{-2}$  kg and its linear mass density is  $4.0 \times 10^{-2} \text{ kgm}^{-1}$ . The tension in the string will be

- A) 230 N
  - B) 248 N
  - C) 224 N
  - D) 221 N
- 

64) Certain waves do not require a material medium for their propagation. Example of such a wave is

- A) radio waves
  - B) sound waves
  - C) water waves
  - D) seismic waves
- 

65) The sound waves whose frequency lies between 20 Hz to 20000 Hz are called

- A) infrasonic waves
- B) audible waves
- C) ultrasonic waves
- D) pressure waves

66) There are  $n$  similar conductors each of resistance  $R$ . The resultant resistance comes out to be ' $x$ ' when connected in parallel. If they are connected in series, the resultant resistance comes out to be

- A)  $x/n^2$
- B)  $n^2x$
- C)  $x/n$
- D)  $nx$

67) When a bar magnet falls through a long hollow metal cylinder fixed with its axis vertical, the final acceleration of the magnet is

- A) equal to zero
- B) less than gravitational acceleration ( $g$ )
- C) equal to gravitational acceleration ( $g$ )
- D) greater than gravitational acceleration ( $g$ )

68) A beam contains  $2 \times 10^8$  doubly charged positive ions per cubic centimeter, all of which are moving with a speed of  $10^5$  m/s. What is the current density?

- A)  $6.4 \text{ A/m}^2$
- B)  $3.2 \text{ A/m}^2$
- C)  $2.6 \text{ A/m}^2$
- D)  $2.0 \text{ A/m}^2$

69) An electron falls through a small distance in a uniform electric field of magnitude  $2 \times 10^4$  N/C. The direction of the field is reversed keeping the magnitude unchanged and a proton falls through the same distance. The time of fall will be

- A) same in both cases
- B) more in the case of electron
- C) more in the case of proton
- D) independent of charge

70) A sphere of radius  $R$  has a uniform distribution of electric charge in its volume. At a distance  $x$  from its centre, for  $x < R$ , the electric field is directly proportional to

- A)  $1/x^3$
- B)  $1/x^2$
- C)  $x^2$
- D)  $x$

71) An object weighs 700 gm-wt on the surface of the earth. How much will it weigh on the surface of a planet whose mass is  $(1/7)^{\text{th}}$  of mass of earth and radius is half of that of the earth?

- A) 200 gm-wt
  - B) 50 gm-wt
  - C) 400 gm-wt
  - D) 300 gm-wt
- 

72) The value of  $g$  on the earth's surface is  $980 \text{ cm/s}^2$ . Its value at a height of 64 km from the earth's surface is

- A)  $960.40 \text{ cm/s}^2$
  - B)  $982.92 \text{ cm/s}^2$
  - C)  $942.44 \text{ cm/s}^2$
  - D)  $987.56 \text{ cm/s}^2$
- 

73) The amplitude of a particle which undergoes simple harmonic motion and performs uniform circular motion of radius 15 cm is

- A) 15 cm
  - B) 7.5 cm
  - C) 30 cm
  - D) 3.75 cm
- 

74) The greatest height 'h' to which a body can rise when projected upwards with a velocity 'u' is

- A)  $u/2g$
  - B)  $u^2/2g$
  - C)  $u^2/g$
  - D)  $2u^2/g$
- 

75) For "total internal reflection" to occur, the incident light must travel

- A) from rarer to denser medium
- B) from denser to rarer medium
- C) within rarer medium only
- D) within denser medium only

76) If 'c' is the velocity of light in vacuum and 'v' is the velocity of light in material, then refractive index ' $\mu$ ' of the material is given by the relation

- A)  $\mu = c/v$
- B)  $\mu = cv$
- C)  $\mu = v/c$
- D)  $\mu = 1/cv$

77) If a liquid enters a section of tube of radius 5 cm with a velocity of 16 m/s, the velocity with which another section of tube of radius 4 cm (assuming the tube horizontal)

- A) 25 m/s
- B) 50 m/s
- C) 12.5 m/s
- D) 100 m/s

78) The speed of sound in sea water is  $1200 \text{ ms}^{-1}$ . A ship sends a high frequency sound wave in sea and receives an echo after 2 seconds. The depth of the sea at that point is

- A) 300 m
- B) 1200 m
- C) 600 m
- D) 2400 m

79) The intensity of sound depends on the amplitude of pressure variations within the sound wave. The threshold of hearing for any human being is

- A)  $10^{-11} \text{ Wm}^{-2}$
- B)  $10^{12} \text{ Wm}^{-2}$
- C)  $10^2 \text{ Wm}^{-2}$
- D)  $10^{-12} \text{ Wm}^{-2}$

80) If a galaxy is receding from the earth, then the light from a galaxy as observed on the earth's surface has

- A) no shift
- B) blue shift
- C) red shift
- D) violet shift



Section 6 - Paper II Chemistry

No. of Questions: 30

---

81) What is the equivalent mass of sulphuric acid, by displacement method?

- A) 31.5
  - B) 63
  - C) 49
  - D) 98
- 

82) Which of the following indicates the reactant which is completely consumed during the reaction?

- A) Limiting reagent
  - B) Excess reagent
  - C) Oxidant
  - D) Reductant
- 

83) What is the conversion factor for 'Debye' to "Coulomb.metre"?

- A) Debye(D) =  $3.3356 \times 10^{-27}$  Cm
  - B) Debye(D) =  $3.3356 \times 10^{-28}$  Cm
  - C) Debye(D) =  $3.3356 \times 10^{-29}$  Cm
  - D) Debye(D) =  $3.3356 \times 10^{-30}$  Cm
- 

84) What is the formula for dipole moment?

- A) Dipole moment = charge x distance of separation
  - B) Dipole moment = charge / distance of separation
  - C) Dipole moment = distance of separation / charge
  - D) Dipole moment =  $1 / (\text{charge} \times \text{distance of separation})$
- 

85) Which of the following is an amphoteric substance?

- A) HCl
- B) H<sub>2</sub>O
- C) CH<sub>3</sub>COOH
- D) NH<sub>4</sub>OH

86) Which of the following is the CORRECT equation?

- A)  $\text{pH} + \text{pOH} = 0$
- B)  $\text{pH} + \text{pOH} = 7$
- C)  $\text{pH} + \text{pOH} = 8$
- D)  $\text{pH} + \text{pOH} = 14$

87) What type of reaction is  $\text{HCl} + \text{NaOH} \rightarrow \text{NaCl} + \text{H}_2\text{O}$ ?

- A) Neutralization reaction
- B) Precipitation reaction
- C) Oxidation reaction
- D) Reduction reaction

88) Which of the following indicates Noble gases?

- A) Elements present in groups 1 and 2 in the modern periodic table
- B) Elements present in groups 3 to 12 in the modern periodic table
- C) Elements present in groups 13 to 17 in the modern periodic table
- D) Elements present in group 18 in the modern periodic table

89) What among the following is called slag?

- A)  $\text{FeO}$
- B)  $\text{Fe}_2\text{O}_3$
- C)  $\text{FeSiO}_3$
- D)  $\text{SiO}_2$

90) In polyethene, monomer is:

- A) ethane
- B) ethene
- C) methane
- D) propene

91) Nitration of nitrobenzene gives:

- A) m-dinitrobenzene
- B) o-dinitrobenzene
- C) p-dinitrobenzene
- D) m- nitroaniline

92) The Heteroatom in the compound Furan is

- A) N
- B) O
- C) S
- D) F

93) Which of the following is excluded from Colligative property?

- A) Elevation of boiling point
- B) Depression of freezing point
- C) Lowering of vapour pressure
- D) Increase in volume

94) What should be the ratio of radii 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

95) The symbol that indicates the magnetic quantum number is:

- A) n
- B) l
- C) m
- D) s

96) How many atoms of calcium are there in 4 g of calcium?

- A)  $6.022 \times 10^{21}$
- B)  $6.022 \times 10^{22}$
- C)  $6.022 \times 10^{23}$
- D)  $6.022 \times 10^{24}$

97) How many lone pairs of electrons and bond pairs of electrons are there in water molecule?

- A) 2 lone pairs and 3 bond pairs
- B) 2 lone pairs and 2 bond pairs
- C) 2 lone pairs and 1 bond pairs
- D) 3 lone pairs and 2 bond pairs

98) Calculate the pKa of formic acid. [Dissociation constant (Ka) of formic acid =  $1.77 \times 10^{-4}$  at 298 K,  $\log 1.77 = 0.2480$ ]

- A) 3.248
- B) 2.248
- C) 3.752
- D) 2.752

99) What is the balanced equation for the reaction,  $\text{Cr}_2\text{O}_7^{2-} + \text{SO}_3^{2-} \rightarrow (\text{Cr}^{3+}) + \text{SO}_4^{2-} + \text{H}_2\text{O}$  (Acid medium)?

- A)  $\text{Cr}_2\text{O}_7^{2-} + 2\text{SO}_3^{2-} \rightarrow 2(\text{Cr}^{3+}) + 3\text{SO}_4^{2-} + \text{H}_2\text{O}$
- B)  $\text{Cr}_2\text{O}_7^{2-} + \text{SO}_3^{2-} + \text{H}^+ \rightarrow (\text{Cr}^{3+}) + \text{SO}_4^{2-} + \text{H}_2\text{O}$
- C)  $\text{Cr}_2\text{O}_7^{2-} + 3\text{SO}_3^{2-} + 8\text{H}^+ \rightarrow 2(\text{Cr}^{3+}) + 3\text{SO}_4^{2-} + 4\text{H}_2\text{O}$
- D)  $\text{Cr}_2\text{O}_7^{2-} + 3\text{SO}_3^{2-} + 8\text{H}^+ \rightarrow 2(\text{Cr}^{3+}) + 4\text{SO}_4^{2-} + \text{H}_2\text{O}$

100) Which of the following is a combination reaction?

- A)  $\text{Ca} + 2\text{H}_2\text{O} \rightarrow \text{Ca}(\text{OH})_2 + \text{H}_2$
- B)  $\text{V}_2\text{O}_5 + 5\text{Ca} \rightarrow 2\text{V} + 5\text{CaO}$
- C)  $2\text{KClO}_3 \rightarrow 2\text{KCl} + 3\text{O}_2$
- D)  $\text{N}_2 + \text{O}_2 \rightarrow 2\text{NO}$

101) Which of the following species among Mg,  $\text{Mg}^{2+}$ , Al and  $\text{Al}^{3+}$  have largest and smallest size?

- A) Mg and  $\text{Mg}^{2+}$
- B) Al and  $\text{Al}^{3+}$
- C) Mg and  $\text{Al}^{3+}$
- D) Al and  $\text{Mg}^{2+}$

102) Which of the following indicates isoelectronic species?

- A) Different ions having same number of protons but differ in their charge on their nuclei
- B) Different ions having same number of electrons but differ in their charge on their nuclei
- C) Different ions having same number of protons but different number of electrons
- D) Different ions having same number of electrons but different number of protons

103) What furnace is used in the extraction of pig iron?

- A) Reverberatory furnace
  - B) Blast furnace
  - C) Puddling furnace
  - D) Bessemer furnace
- 

104) What reaction is involved in Calcination process?

- A)  $2\text{PbS} + 3\text{O}_2 \rightarrow 2\text{PbO} + 2\text{SO}_2$
  - B)  $\text{FeO} + \text{SiO}_2 \rightarrow \text{FeSiO}_3$
  - C) Heating  $\text{ZnCO}_3 \rightarrow \text{ZnO} + \text{CO}_2$
  - D)  $2\text{ZnS} + 3\text{O}_2 \rightarrow 2\text{ZnO} + 2\text{SO}_2$
- 

105) Which of the following compound usually contains garlic odour, when it is prepared from calcium carbide?

- A) ethane
  - B) ethene
  - C) ethyne
  - D) methane
- 

106) Which of the following compounds undergoes partial reduction to produce an alkene?

- A) ethane
  - B) methane
  - C) alkyne
  - D) alkane
- 

107) How many hydrogens are there in the compound one- propene?

- A) 4
  - B) 6
  - C) 8
  - D) 5
- 

108) Calculate the pressure exerted by 10 moles of gas contained in 30 dm<sup>3</sup> flask at 27°C. (R=0.0821 lit atm / mol /K)

- A) 0.821 atm
- B) 8.21 atm
- C) 4.105 atm
- D) 0.4105 atm

109) Calculate the volume occupied by 2 mole of gas at 0.821 atm contained in a flask at 0°C. (R=0.0821 lit atm / mol / K)

- A) 13.65 lit
- B) 27.3 lit
- C) 40.95 lit
- D) 54.6 lit

110) Identify the electronic configuration for  $(O)^{2-}$ .

- A)  $1s^2 2s^2 2p^2$
- B)  $1s^2 2s^2 2p^3$
- C)  $1s^2 2s^2 2p^5$
- D)  $1s^2 2s^2 2p^6$



## Section 7 - Paper II Mathematics

No. of Questions: 40

111) The equation of the line passing through the points A (2,5,8) and B( -1,6,3) is

A)  $\frac{x-2}{3} = \frac{y-5}{-1} = \frac{z-8}{5}$

B)  $\frac{x-1}{2} = \frac{y+1}{-1} = \frac{z-1}{3}$

C)  $\frac{x-1}{1} = \frac{y+1}{1} = \frac{z-1}{1}$

D)  $\frac{x-1}{1} = \frac{y+1}{-2} = \frac{z-2}{2}$

112) Find n if  $\lim_{x \rightarrow 2} \frac{x^n - 2^n}{x - 2} = 80$ ,  $n$  being a positive integer

- A) 2
- B) 3
- C) 4
- D) 5

113) Distance of the point (-6,8) from origin

- A) 6
- B) 8
- C) 10
- D) 2

114) The distance of the point (2,3) from x axis

- A) 2
- B) 3
- C) 1
- D) 5

115) Relation connecting the number of faces (F), edges (E) and vertices (V) of a prism

- A)  $F-E+V=2$
  - B)  $F+E-V=2$
  - C)  $F+E+V=2$
  - D)  $F-E-V=2$
- 

116) What is the ratio of the radii of spheres whose surface areas are in the ratio 4:9?

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

117) What number should be added to 245672 to make it exactly divisible by 11?

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

118) Which of the following is a prime number?

- A) 153
  - B) 161
  - C) 173
  - D) 221
- 

119) If a fair cubic die is rolled, then the probability that a perfect square number comes up is

- A)  $1/2$
  - B)  $1/3$
  - C)  $1/4$
  - D)  $1/5$
- 

120) If two unbiased dice are thrown, then the probability of getting a sum less than 6 is

- A)  $5/18$
- B)  $6/18$
- C)  $7/19$
- D)  $8/20$



121) Which of the following is guaranteed by the 'Fundamental theorem of Algebra' about the number of roots for any polynomial of degree  $n$ ?

- A) At max  $n$  roots
  - B) At least  $n$  roots
  - C) Exactly  $n$  roots
  - D) No real root
- 

122) A quadratic equation for which the product of roots is zero will have

- A) no term with degree 1
  - B) no constant term
  - C) all the terms
  - D) no term with degree 2
- 

123) Equation in which reciprocal of every root is also a root is called \_\_\_\_\_ equation

- A) cubic
  - B) biquadratic
  - C) reciprocal
  - D) standard
- 

124) If  $f: \mathbb{R} \rightarrow \mathbb{R}$  is defined by  $f(x) = x/(x^2+1)$  then  $f(2) =$

- A)  $3/5$
  - B)  $1/5$
  - C)  $2/5$
  - D)  $1/3$
- 

125) Which term of the series 24, 21, 18,.... is zero?

- A) 9<sup>th</sup>
  - B) 10<sup>th</sup>
  - C) 11<sup>th</sup>
  - D) 12<sup>th</sup>
- 

126) Which term will be the first negative term of the A.P. 24, 21, 18,...?

- A) 9<sup>th</sup>
- B) 10<sup>th</sup>
- C) 11<sup>th</sup>
- D) 12<sup>th</sup>

127) If the number of elements in Set A is 'n', then the number of elements in P(A) is

- A)  $n^2$
  - B)  $2^n$
  - C) n
  - D)  $3^n$
- 

128) Frequency polygon can be constructed after drawing

- A) Ogive
  - B) Bar chart
  - C) Histogram
  - D) Pie chart
- 

$$\sin^{-1}x + \sin^{-1}y = \pi \quad \cos^{-1}x + \cos^{-1}y$$

129) If find

- A)  $\pi$
  - B)  $\frac{\pi}{2}$
  - C) 0
  - D) 1
- 

130) Period of  $\tan x$  is

- A)  $\pi/2$
  - B)  $\pi$
  - C)  $4\pi$
  - D)  $2\pi$
- 

131) The equation of the sphere whose centre is (3, -1,4) and which passes through the point (-1,2,0) is

- A)  $(x+3)^2+(y-1)^2+(z+4)^2=21$
- B)  $(x-3)^2+(y+1)^2+(z-4)^2=41$
- C)  $(x-3)^2+(y+1)^2+(z-4)^2=42$
- D)  $(x+3)^2+(y-1)^2+(z+4)^2=21$

$$132) \lim_{x \rightarrow \frac{\pi}{2}} \frac{1 - \sin x}{\cos x} =$$

- A) 0
- B) 1
- C) -1
- D) 2

$$133) \lim_{x \rightarrow 0} \frac{(8+x)^{1/3} - 2}{x} =$$

- A) 1/7
- B) 1/8
- C) 1/10
- D) 1/12

134) Length of the latus rectum of ellipse  $3x^2 + y^2 = 12$

- A) 4
- B) 8
- C) 12
- D) 16

135) Value of k for which  $(k+1, 2k)$ ,  $(3k, 2k+3)$ ,  $(5k-1, 5k)$  are collinear

- A) 1
- B) 2
- C) 0
- D) -1

136) Area (in terms of  $\pi$ ) of a circle which can be inscribed in a square of side  $2a$

- A)  $4a^2$
- B)  $2a^2$
- C)  $3a^2$
- D)  $a^2$

137) If the sum of the circumference of two circles with radius a and b is equal to the circumference of a circle with radius R, then

- A)  $R = a+b$
- B)  $R = a-b$
- C)  $R = ab$
- D)  $R = a/b$

138) What is the last digit in the expansion of  $3^{4798}$ ?

- A) 2
- B) 3
- C) 7
- D) 9

139) What is the total number of three-digit numbers with unit digit 7 and divisible by 11?

- A) 6
- B) 7
- C) 8
- D) 9

140) If  $P(A)=0.7$ ,  $P(B)=0.4$   $P(A \cap B)=0.3$  then  $P(A \cap B')$  is

- A) 0.1
- B) 0.2
- C) 0.3
- D) 0.4

141) Three dice are thrown together. The probability of getting a total of at-least 6 is

- A)  $103/108$
- B)  $104/107$
- C)  $102/108$
- D)  $101/107$

142) The roots of the equation  $x^2 - px + q = 0$  are reciprocal of each other if

- A)  $p = -1$
- B)  $q = 1$
- C)  $p = q$
- D)  $p + q = 0$

143) The Geometric mean of the roots of the quadratic equation  $x^2 + b x + c = 0$  is

- A)  $\sqrt{b}$
  - B)  $\sqrt{c}$
  - C)  $\sqrt{(b + c)}$
  - D)  $\sqrt{(b \times c)}$
- 

144) Which of the following is one to one function?

- A)  $f(x) = x^2$
  - B)  $f(x) = 3x^2$
  - C)  $f(x) = 3x^2+3$
  - D)  $f(x) = 3x$
- 

145) Sum of the infinite series  $1 + 1/2 + 1/4 + \dots$  is

- A) 1
  - B) 2
  - C) 1.5
  - D) 1.75
- 

146) The series  $\frac{1}{1^p} - \frac{1}{2^p} + \frac{1}{3^p} - \frac{1}{4^p} + \dots$

- A) diverges for  $p > 0$
  - B) converges for  $p > 0$
  - C) diverges for  $p < 0$
  - D) converges for  $p < 0$
- 

147) If  $A = \{3, 7, 5, 8\}$  and  $B = \{2, 6, 9\}$  then how many elements are there in  $P(A \times B)$

- A)  $2^8$
- B)  $2^9$
- C)  $2^{10}$
- D)  $2^{12}$

148) 12 is the mean of a set of 6 observations and 7 is the mean of a set of other 4 observations. The mean of the combined set is

- A) 6
- B) 8
- C) 9
- D) 10

149) From a point on the ground, the angles (in degrees) of elevation of the bottom and top of a transmission tower fixed at the top of a 20 m high building are 45 and 60 respectively. What is the height of the tower?

- A) 20
- B)  $20\sqrt{3}$
- C)  $20(\sqrt{3}-1)$
- D)  $20(\sqrt{3}+1)$

150) Two angles of a triangle are  $\tan^{-1}2$  and  $\tan^{-1}3$ . What is the measure of the third angle (in degrees) of the triangle?

- A) 90
- B) 45
- C) 60
- D) 135



Question Paper No:

76325\_5

Answer Key

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

