

# BHS

## PROVISIONAL ANSWER KEY

Name of the post	Assistant Director (Chemistry Group), Class-1, Directorate of Forensic Science, Home Department
Advertisement No.	67/2023-24
Preliminary Test held	30-05-2024
Question No.	001-300
Publish Date	31-05-2024

Last Date to Send Suggestion(s) 05-06-2024

THE LINK FOR ONLINE OBJECTION SYSTEM WILL START FROM 01-06-2024; 04:00 PM ONWARDS

### Instructions / સૂચન

Candidate must ensure compliance to the instructions mentioned below, else objections shall not be considered: -

- (1) All the suggestion should be submitted through **ONLINE OBJECTION SUBMISSION SYSTEM ONLY**. Physical or submission through E- Mail of suggestions will not be considered.
- (2) Question wise suggestion to be submitted in the prescribed format (proforma) published on the website / online objection submission system.
- (3) All suggestions are to be submitted with reference to the Master Question Paper with provisional answer key (Master Question Paper), published herewith on the website / online objection submission system. Objections should be sent referring to the Question, Question No. & options of the Master Question Paper.
- (4) **Suggestions regarding question nos. and options other than provisional answer key (Master Question Paper) shall not be considered.**
- (5) Objections and answers suggested by the candidate should be in compliance with the responses given by him in his answer sheet. Objections shall not be considered, in case, if responses given in the answer sheet / response sheet and submitted suggestions are differed.
- (6) Objection for each question should be made on separate sheet. Objection for more than one question in single sheet shall not be considered.

ઉમેદવારે નીચેની સૂચનાઓનું પાલન કરવાની તકેદારી રાખવી, અન્યથા વાંધા-સૂચન અંગે કરેલ રજૂઆતો ધ્યાને લેવાશે નહીં

- (1) ઉમેદવારે વાંધા-સૂચનો **ફક્ત ઓનલાઇન ઓબ્જેક્શન સબમીશન** સીસ્ટમ દ્વારા જ સબમીટ કરવાના રહેશે. રૂબરૂ અથવા ટપાલ અથવા ઇ-મેઇલ દ્વારા આયોગની કચેરીએ મોકલવા આવેલ વાંધા-સૂચનો ધ્યાને લેવામાં આવશે નહીં જેની ખાસ નોંધ લેવી.
- (2) ઉમેદવારે વાંધા-સૂચનો રજૂ કરવા વેબસાઇટ / ઓનલાઇન ઓબ્જેક્શન સબમીશન સીસ્ટમ પર પ્રસિધ્ધ થયેલ નિયત નમૂનાનો જ ઉપયોગ કરવો.
- (3) ઉમેદવારે પોતાને પરીક્ષામાં મળેલ પ્રશ્નપુસ્તિકામાં છપાયેલ પ્રશ્નક્રમાંક મુજબ વાંધા-સૂચનો રજૂ કરતા તમામ વાંધા-સૂચનો વેબસાઇટ પર પ્રસિધ્ધ થયેલ પ્રોવિઝનલ આન્સર કી (માસ્ટર પ્રશ્નપત્ર)ના પ્રશ્ન ક્રમાંક મુજબ અને તે સંદર્ભમાં રજૂ કરવા.
- (4) **માસ્ટર પ્રશ્નપત્રમાં નિર્દિષ્ટ પ્રશ્ન અને વિકલ્પ સિવાયના વાંધા-સૂચનો ધ્યાને લેવામાં આવશે નહીં.**
- (5) ઉમેદવારે પ્રશ્નના વિકલ્પ પર વાંધો રજૂ કરેલ છે અને વિકલ્પ રૂપે જે જવાબ સૂચવેલ છે એ જવાબ ઉમેદવારે પોતાની ઉત્તરવહીમાં આપેલ હોવો જોઈએ. ઉમેદવારે સૂચવેલ જવાબ અને ઉત્તરવહીનો જવાબ ભિન્ન હશે તો ઉમેદવારે રજૂ કરેલ વાંધા-સૂચનો ધ્યાનમાં લેવાશે નહીં.
- (6) એક પ્રશ્ન માટે એક જ વાંધા-સૂચન પત્રક વાપરવું. એક જ વાંધા-સૂચનો પત્રકમાં એકથી વધારે પ્રશ્નોની રજૂઆત કરેલ હશે તો તે અંગેના વાંધા-સૂચનો ધ્યાને લેવાશે નહીં.

Website link for online objection submission system : <http://gpsc.safevaults.in/login/>

001. આનક, કમલ, શુણ્ણક, ડિંડિમ વગરે કયા સંગીત વાદના પ્રાચીન નામો છે ?  
 (A) જંતર (B) નગારું  
 (C) ઢોલ (D) તબલા
002. 'લેડી ઈન મૂનલાઈટ' અને 'મધર ઈન્ડિયા' કયા ચિત્રકારની પ્રસિદ્ધ કલાકૃતિઓ છે ?  
 (A) રસીકલાલ પરીખ (B) નંદલાલ બોઝ  
 (C) જગન્નાથ અહિવાસી (D) રાજા રવિ વર્મા
003. વિવિધ રાજ્યો અને તેના નાટ્યપ્રકારની જોડી પૈકી કઈ જોડી સાચી નથી ?  
 (A) મહારાષ્ટ્ર - તમાશો (B) ગુજરાત - ભવાઈ  
 (C) પંજાબ હરિયાણા - જાત્રા (D) ઉત્તરપ્રદેશ - નવટંકી
004. 'ભાગવત પુરાણ' કયા નૃત્યનો મુખ્ય આધાર છે ?  
 (A) કુચિપુડિ (B) ભરતનાટ્યમ્  
 (C) કથકલી (D) મોહિની અટ્ટમ્
005. રમણલાલ વસંતલાલ દેસાઈની કઈ નવલકથાએ અનેક ભણેલા ગણેલા યુવાનોને ગ્રામસુધાર ક્ષેત્રે વાળ્યા હતા ?  
 (A) ગ્રામલક્ષ્મી (B) દિવ્યચક્ષુ  
 (C) ગ્રામોદ્ધાર (D) ઝંઝાવાત
006. "ઉરી - ધ સર્જિકલ સ્ટ્રાઈક" ફિલ્મના નિર્માતા ડિરેક્ટર કોણ છે ?  
 (A) સુદિપ્તો સેન (B) વિવેક અગ્નિહોત્રી  
 (C) કેતન મહેતા (D) આદિત્ય ધર
007. ઓડિશાની પરંપરાગત ચિત્રકારીને શું કહેવામા આવે છે ?  
 (A) પટ્ટચિત્ર (B) પટુઆ કલા  
 (C) પૈટકાર ચિત્રકારી (D) કલમકારી ચિત્રકલા
008. મોરબીના પ્રજાપ્રિય રાજવી વાઘજી-બીજાની સ્મૃતિમાં બંધાવેલ બાવલુના શિલાલેખમાં તેમને કયા નામે દર્શાવેલ/વર્ણવેલ છે ?  
 (A) કેસર-એ-હિંદ (B) મહારાજા  
 (C) આધુનિકરણના ઘડવૈયા (D) કાઠીયાવાડી અમેરિકન
009. રાજકોટ રાજ્યની સ્થાપના સને 1920માં કોણે કરી હતી ?  
 (A) લાખાજી રાજ (B) વિભાજી જાડેજા  
 (C) બાવાજી રાજ (D) કુંભાજી જાડેજા
010. ઈ.સ. 1951 માં 'મહાગુજરાત સીમા સમિતિ'ના પ્રમુખ કોણ બન્યા હતા ?  
 (A) કનૈયાલાલ દેસાઈ (B) મોરારજી દેસાઈ  
 (C) સર પુરુષોત્તમદાસ ત્રિકમદાસ (D) ઈંદુલાલ યાજ્ઞિક
011. વડનગરના કોટની પ્રશસ્તિ રચનાર કવિ શ્રીપાલ કોના દરબારી કવિ થઈ ગયા ?  
 (A) કુમારપાળ (B) સિદ્ધરાજ જયસિંહ  
 (C) ભીમદેવ-બીજો (D) કણદેવ-પહેલો
012. પ્રથમ બૌદ્ધ પરિષદ નીચેનામાંથી કયા શહેરમાં યોજાઈ હતી ?  
 (A) વૈશાલી (B) પાટલીપુત્ર  
 (C) રાજગૃહ (D) નાલંદા

001. 'Anak', 'kamal', 'khunnak' and 'Dindim' are the ancient names of Which musical instrument?  
 (A) Jantar (B) Nagaru  
 (C) Drums (dhol) (D) Tabla
002. 'Lady in Moonlight' and 'Mother India' are famous works of which painter ?  
 (A) Rasiklal Parikh (B) Nandlal Bose  
 (C) Jagannath Ahivashi (D) Raja Ravi Varma
003. Which of the pairs of different states and their types of drama is not correct ?  
 (A) Maharashtra - Tamasha (B) Gujarat - Bhavai  
 (C) Punjab , hariyana - Jatra (D) Uttarpradesh - Nautanki
004. 'Bhagavat Puran' is the main basis of which dance ?  
 (A) Kuchipudi (B) Bharat Natyam  
 (C) Kathakali (D) Mohini Attam
005. Which novel of Ramanlal Vasantlal Desai inspired many educated youths to the field of rural development ?  
 (A) Gramlaxmi (B) Divya chaxu  
 (C) Gramoddhar (D) Jhanjhavat
006. who is the producer director of the film "Uri The Surgical Strike" ?  
 (A) Sudipto Sen (B) Vivek Agnihotri  
 (C) Ketan Mehta (D) Aditya Dhar
007. What is called the traditional painting of Odisha ?  
 (A) Pattachitra (B) Patua art  
 (C) Paitakar chitrakari (D) kalamakari Painting art
008. By which name is he described in the Bavalu inscription commemorating WAGHJI-Second, a popular king of Morbi ?  
 (A) Kesar-E-Hind (B) Maharaja  
 (C) Formar of Modernization (D) Kathiavadi American
009. Who founded Rajkot State in 1920 ?  
 (A) Lakhaji Raj (B) Vibhaji Jadeja  
 (C) Bawaji Raj (D) Kumbhaji Jadeja
010. Who became the president of 'Maha Gujarat Seema Samiti' in 1951 ?  
 (A) Kanaiyalal Desai (B) Moraraji Desai  
 (C) Sir Purushottamdas Trikamdass (D) Indulal Yagnik
011. Whose court poet shree Shreepal, who created the praise of kot (surrounding wall) of Vadanagar ?  
 (A) Kumarpal (B) Siddharaj Jaisinh  
 (C) Bhimdev-Second (D) Karnadeva-First
012. The first Buddhist council was held in which of the following cities ?  
 (A) Vaishali (B) Pataliputra  
 (C) Rajgriha (D) Nalanda

013. ગાંધાર કલાશાળા કોના શાસન સાથે સંકળાયેલ છે ?  
 (A) કનિષ્ક (B) હર્ષ  
 (C) ચંદ્રગુપ્ત વિક્રમાદિત્ય (D) અશોક
014. અંગકોરવાટ મંદિર કયા દેશમાં આવેલું છે ?  
 (A) વિયેતનામ (B) તિબેટ  
 (C) ઈન્ડોનેશિયા (D) કંબોડિયા
015. બ્યુફોર્ટ સ્કેલ શું માપવા માટે વપરાય છે ?  
 (A) વાતાવરણીય દબાણ (B) પર્વતોની ઊંચાઈ  
 (C) પવનનો વેગ (D) ધરતી કંપની તીવ્રતા
016. નીચેનામાંથી કયો ગ્રહ તેની ધરી પર એક પરિભ્રમણ પૂર્ણ કરવામાં સૌથી ઓછો સમય લે છે ?  
 (A) બુધ (B) પૃથ્વી  
 (C) ગુરુ (D) નેપ્ચ્યુન
017. ગ્રેટ વિક્ટોરિયન રણ કયા દેશમાં આવેલું છે ?  
 (A) ઓસ્ટ્રેલિયા (B) ભારત  
 (C) ઈજિપ્ત (D) નોર્થ આફ્રિકા
018. નીચેનામાંથી કયું એક અલકનંદા અને ભાગીરથી નદીઓનું સંગમ સ્થળ છે ?  
 (A) વિષ્ણુપ્રયાગ (B) કર્ણપ્રયાગ  
 (C) દેવપ્રયાગ (D) રુદ્રપ્રયાગ
019. સાગનું વૃક્ષ કયા પ્રકારના જંગલોનું અગત્યનું વૃક્ષ છે ?  
 (A) મેનગ્રૂવ જંગલો (Mangrove Froests) (B) સુકાં પાનખર જંગલો  
 (C) ભેજવાળા પાનખર જંગલો (D) સુકાં ઝાંખરાવાળા જંગલો
020. ગુજરાતનું કયું સ્થળ “ફ્લેમિંગો સિટી” તરીકે જાણીતું બન્યું છે ?  
 (A) રામસર, કચ્છ (B) ગોસાબારા , પોરબંદર  
 (C) આંબરડી , અમરેલી (D) અરમબાડા, કચ્છ
021. નર્મદા નદી પર કઈ જગ્યાએ ‘ધુંઆધાર’નો ધોધ આવેલો છે ?  
 (A) અમરકંટક જીલ્લામાં (B) જબલપુર પાસે  
 (C) મહેશ્વર પાસે (D) ખંડવા પાસે
022. ગુજરાત સરકારની SCOPE યોજનાનો હેતુ શું છે ?  
 (A) સરકારી સેવામાં ગુણવત્તા સુધાર  
 (B) પ્રાથમિક કેળવણીમાં ગુણવત્તા સુધાર  
 (C) વિદ્યાર્થીઓના અંગ્રેજી ભાષાની ક્ષમતા વધારવી  
 (D) કોલેજ કેળવણીમાં સુધારો લાવવો
023. નીચેનામાંથી કઈ કમિટીએ તાજેતરમાં ગેસના ભાવો પર અહેવાલ સુપરત કર્યો છે ?  
 (A) બી. કે. ચતુર્વેદી કમિટી (B) સાયર કમિટી  
 (C) કિરીટ પરીખ કમિટી (D) બી. એન. શ્રીકૃષ્ના કમિટી

013. With whose reign is the Gandhara school of art associated?  
(A) Kanishka (B) Harsha  
(C) Chandragupta Vikramaditya (D) Ashoka
014. In which country is the 'Angkor vat' temple located ?  
(A) Vietnam (B) Tibbet  
(C) Indonesia (D) Cambodia
015. The Beaufort scale is used to measure \_\_\_\_\_.  
(A) Atmospheric pressure (B) Altitudes of mountains  
(C) Wind velocity (D) Intensity of earthquakes
016. Which one of the following planates takes least time to complete one rotation on its axis ?  
(A) Mercury (B) Earth  
(C) Jupiters (D) Neptune
017. In which country is the Great Victorian Desert located ?  
(A) Australia (B) India  
(C) Egypt (D) North Africa
018. Which one among the is place of confluence of the rivers Alakananada and Bhagirathi ?  
(A) Vishnuprayag (B) Karnaprayag  
(C) Devprayag (D) Rudraprayag
019. Teak tree is an important tree of which type of forests ?  
(A) mangrove forest (B) Dry deciduous forest  
(C) Moist deciduous forest (D) Dry scrub forest
020. Which place in Gujarat is known as "Flamingo city" ?  
(A) Ramsar, Kutch (B) Gosabara, Porbandar  
(C) Ambaradi, Amareli (D) Arambada, Kutch
021. At which place on Narmada rivar is "Dhunadhar" waterfall ?  
(A) In Amarkantak District (B) Near Jabalpur  
(C) Near Maheshwar (D) Near Khandava
022. What is the purpose of "SCOPE" scheme of Gujarat Government ?  
(A) Quality improvement in Government service  
(B) Quality improvement in primary education  
(C) Enhancing English language ability of students  
(D) Improving college education
023. Which of the following committees recently submitted a report on gas pricing ?  
(A) B. K. Chaturvedi Committee (B) Sachar Committee  
(C) Kirit Parikh Committee (D) B. N. Sri Krishna Committee

024. સેબી (SEBI) કોના કામકાજનું નિયમન કરે છે ?
1. ઈસ્યુના બેન્કર, પેટા દલાલ
  2. મર્યન્ટ બેન્કર, શેર દલાલ
  3. અંડરરાઈટર, રોકાણ સલાહકારો
  4. વિદેશી સંસ્થાકીય રોકાણકારો
- ઉપરનામાંથી શું સાચું છે ?
- (A) માત્ર 1, 3 અને 4 (B) 1, 2, 3 અને 4  
(C) માત્ર 1 અને 4 (D) માત્ર 1, 2 અને 3
025. ભારતમાં સામાન્ય રીતે જાહેર-ખાનગી ભાગીદારી કયા ક્ષેત્ર માટે અસ્તિત્વમાં આવી છે ?
- (A) અસંગઠિત ક્ષેત્ર (B) ખેતી  
(C) ઉદ્યોગ ક્ષેત્ર (D) માળખાગત સવલતો
026. નાણાંપંચ કોની વચ્ચે કેન્દ્રના કરવેરાની આવકની વહેંચણી કરે છે ?
1. કેન્દ્ર સરકાર અને રાજ્ય સરકારો
  2. રાજ્યો
  3. કેન્દ્ર સરકાર અને પંચાયતો
  4. કેન્દ્ર સરકાર અને પાલિકાઓ
- ઉપરનામાંથી શું સાચું છે ?
- (A) માત્ર 1, 2 અને 3 (B) માત્ર 1, 3 અને 4  
(C) 1, 2, 3 અને 4 (D) માત્ર 1, 2 અને 4
027. અર્થવ્યવસ્થાની તેજ અને મંદીના ચક્રી રચાતી બેરોજગારીને કયા પ્રકારની બેરોજગારી કહેવાય છે ?
- (A) ઘર્ષણજન્ય બેરોજગારી (B) ખુલ્લી બેરોજગારી  
(C) માળખાગત(સંરચનાત્મક) બેરોજગારી (D) ચક્રીય બેરોજગારી
028. ગિલ્ટ-એજ્ડ બજાર (Guilt Edged Market) કોનાથી સંબંધિત છે ?
- (A) સર્રાફા બજાર (Bullion Market) (B) સરકારી જામીનગીરીઓનું બજાર  
(C) બંદૂકોનું બજાર (D) શુદ્ધ ધાતુઓનું બજાર
029. સંવિધાન સભા દ્વારા છેલ્લે રચાયેલા ભારતીય સંવિધાનને કોના દ્વારા સ્થાપિત કરવામાં આવ્યું ?
- (A) ભારત સરકાર અધિનિયમ 1935 દ્વારા (B) રાણી વિક્ટોરિયાની ઘોષણા દ્વારા  
(C) કેબિનેટ મિશન યોજના દ્વારા (D) ઉક્ત પૈકી એક પણ નહીં
030. .... 'ભારત છોડો' આંદોલનનો પ્રારંભ થવાનું નિમિત્ત બન્યો :
- (A) 1935નો ભારત સરકાર અધિનિયમ  
(B) 1833નો ચાર્ટર અધિનિયમ  
(C) કોંગ્રેસ કાર્યકારિણી સભાનો વર્ધા ખાતેનો 1942નો ઠરાવ  
(D) ઉક્ત પૈકી એક પણ નહીં
031. ભારતના બંધારણની જોગવાઈઓ અંતર્ગત નવા રાજ્યની સ્થાપના કોણ કરી શકે ?
- (A) રાષ્ટ્રપતિ (B) મંત્રી પરિષદ  
(C) સંસદ (D) ઉપરોક્ત તમામ

024. Whose business does SEBI Rregulate ?
1. Issuance banker, Sub broker
  2. Merchant banker, Share broker
  3. Underwriters, Investment advisers
  4. Foreign institutional investors
- Which of the above is true ?
- (A) 1, 3 and 4 only                      (B) 1, 2, 3 and 4  
(C) 1 and 4 only                        (D) 1, 2 and 3 only
025. For which sector has public-private partnership generally come into existence in India ?
- (A) Disorganized field                      (B) Agriculture  
(C) Industry sector                        (D) Infrastructure
026. Finance Commission distributes central tax revenue among whom ?
1. Central Government and State Government
  2. States
  3. Central Government and panchayat
  4. Central Government and Municipalities
- Which of the above is true ?
- (A) 1, 2 and 3 only                      (B) 1, 3 and 4 only  
(C) 1, 2, 3 and 4                        (D) 1, 2 and 4 only
027. What type of unemployment is the unemployment created by the cycle of economic boom and recession ?
- (A) Frictional Unemployment                      (B) Open Unemployment  
(C) Structural Unemployment                      (D) Cyclical Unemployment
028. Guilt- edged Market is related to which market?
- (A) Bullion Market                        (B) Government Securities market  
(C) Firearms market                        (D) Market for pure metals
029. The Constituent Assembly that finally framed the Indian Constitution was set up:
- (A) Under Government of India Act 1935                      (B) By Queen's proclamation  
(C) Under Cabinet Mission Plan                      (D) All of Above
030. Quit India movement was started after passing of :
- (A) Act of 1935  
(B) Charter Act of 1833  
(C) Congress Working Committee Resolution at Wardha in 1942  
(D) None of Above
031. Who can establish new states as per the provisons of Constitution of India ?
- (A) President                              (B) Council of Minsiters  
(C) Parliament                              (D) All of above

032. મૂળભૂત અધિકારોના અમલીકરણ માટે રીટ જારી કરવાની સત્તા કોની પાસે છે ?  
 (A) તમામ અદાલતો (B) સંસદ  
 (C) સુપ્રીમકોર્ટ (D) ભારતના રાષ્ટ્રપતિ
033. વ્યક્તિ ભારતીય નાગરિકત્વનો અધિકાર પ્રાપ્ત કરે છે. જો તે -  
 (A) ભારતમાં જન્મ્યો હોય  
 (B) ભારતમાં સ્થાયી વસવાટ કરતો હોય  
 (C) પાકિસ્તાનથી વિસ્થાપિત થઈને ભારત આવેલ શરણાર્થી હોય  
 (D) ઉપરોક્ત તમામ
034. નીચેનામાંથી કયો પ્રદેશ રાજ્ય બનતા પૂર્વે કેન્દ્રશાસિત પ્રદેશ ન હતો ?  
 (A) હિમાચલ પ્રદેશ (B) સિક્કિમ  
 (C) ત્રિપુરા (D) મણિપુર
035. નીચેના પૈકી કયો વિષય સહવર્તી યાદીમાં સમાવિષ્ટ થયેલ નથી ?  
 (A) ખેતીની જમીન સિવાયની મિલકતનું હસ્તાંતરણ  
 (B) વિલ  
 (C) વસ્તી નિયંત્રણ અને કુટુંબ નિયંત્રણ  
 (D) મત્સ્ય ક્ષેત્રો
036. 74મા બંધારણીય સુધારા અનુસાર શાની રચના કરવાનું જણાવવામાં આવ્યું ?  
 (A) ગ્રામસભા (B) વોર્ડ સમિતિ  
 (C) સામાજિક ન્યાય સમિતિ (D) ઉપરોક્ત (A), (B) અને (C) ત્રણેય
037. ભારતના બંધારણમાં 44મો બંધારણીય સુધારો 1978 અંતર્ગત નીચેના પૈકી કયા સુધારા આવરી લેવામાં આવ્યા છે ?  
 (A) અનુચ્છેદ-352માં 'આંતરિક અશાંતિ'ના બદલે 'સશસ્ત્ર બળવો' શબ્દ વાપરવામાં આવ્યો.  
 (B) મિલકતનો મૂળભૂત અધિકાર નાબૂદ કરવામાં આવ્યો.  
 (C) બંધારણમાં મૂળભૂત ફરજો ઉમેરવામાં આવી.  
 (D) ઉપરોક્ત (A) અને (B) બંને.
038. નીચે દર્શાવેલ સંસ્થાઓ પૈકી કઈ સંસ્થા બંધારણીય સંસ્થા નથી ?  
 (A) નાણા પંચ (B) ચૂંટણી પંચ  
 (C) કેન્દ્રિય તકેદારી આયોગ (D) રાષ્ટ્રીય પછાતવર્ગ આયોગ
039. પરમાણુ ઊર્જાના પ્રથમ ભાગના અવશિષ્ટ તરીકે કયું તત્ત્વ મળે છે ?  
 (A) થોરિયમ (B) ઝીકોર્નિયમ  
 (C) સિસિયમ (D) પ્લુટોનિયમ
040. REN 21 શું છે ?  
 (A) પુનઃપ્રાપ્ય ઊર્જા સ્ત્રોતો પરની વૈશ્વિક સ્તરની નીતિ છે  
 (B) સૌર ઊર્જાનું સૌથી વધુ ઉત્પાદન કરનારી કંપની  
 (C) પવન ઊર્જાનું સૌથી વધુ ઉત્પાદન કરનારી કંપની  
 (D) તે પુનઃપ્રાપ્ય ઊર્જા સ્ત્રોતોની માહિતી આપતું સોફ્ટવેર છે



032. Authority to issue Writs for the enforcement of Fundamental Rights rests with:
- (A) All courts (B) Parliament  
(C) Supreme Court (D) President of India
033. A person can be entitled to Indian citizenship if he/she is —
- (A) Born in India  
(B) Domiciled in India  
(C) A refugee who has migrated to India from Pakistan  
(D) All of above
034. Which one was not a Union Territory before becoming a state ?
- (A) Himachal Pradesh (B) Sikkim  
(C) Tripura (D) Manipur
035. Which of the following subjects is not included in the concurrent list ?
- (A) Acquisition of property other than agricultural land  
(B) Will  
(C) Population control and family control  
(D) Fisheries
036. What is to be constituted in accordance with the 74 Constitutional Amendment ?
- (A) Gramsabha (B) Ward Committee  
(C) Social Justice Committee (D) All three of the above (A), (B) and (C)
037. Which of the following amendments are covered under the 44<sup>th</sup> Constitutional Amendment ?
- (A) In Article-352 the words 'Armed Rebellion' were substituted for 'Internal Disturbance'.  
(B) Abrogated the fundamental right to property  
(C) Fundamental duties added to the constitution  
(D) Both the said (A) and (B)
038. Which of the following institutions is not a constitutional institution ?
- (A) Central Finance Commissions (B) Election Commission  
(C) Central Vigilance Commission (D) National Commission for Backward Classes
039. Which element is found as a residue of the first part of nuclear energy ?
- (A) Thorium (B) Zirconium  
(C) Cesium (D) Plutonium
040. What is REN 21 ?
- (A) There is a global level policy on renewable energy sources  
(B) The largest producer of solar energy  
(C) The largest producer of wind energy  
(D) It is software providing information on renewable energy sources

041. કઈ કંપનીનું તેલ પરિવહન માટેનું પાઈપલાઈન નેટવર્ક સૌથી વધુ લંબાઈ ધરાવે છે ?  
 (A) ઈન્ડિયન ઓઈલ કોર્પોરેશન લિમિટેડ (IOC)  
 (B) ઓઈલ ઈન્ડિયા લિમિટેડ  
 (C) હિંદુસ્તાન પેટ્રોલિયમ કોર્પોરેશન લિમિટેડ (HPCL)  
 (D) ભારત પેટ્રોલિયમ કોર્પોરેશન લિમિટેડ (BPCL)
042. રાજા રમન્ના સેન્ટર ફોર એડવાન્સ ટેકનોલોજીનું મુખ્યાલય ક્યાં આવેલું છે ?  
 (A) કલ્પકકમ (B) કોલકત્તા  
 (C) ઈન્દોર (D) હૈદરાબાદ
043. નીચે દર્શાવેલ વૈજ્ઞાનિક સાધનો અને તેના ઉપયોગ દર્શાવતા જોડકા પૈકી કઈ જોડી સાચી નથી ?  
 (A) હાઈડ્રોસ્કોપ - સમુદ્રનું તળિયું જોવા માટે વપરાતું સાધન  
 (B) હાઈગ્રોમીટર - હવામાં રહેલ ભેજ માપવાનું સાધન  
 (C) ગાયરોસ્કોપ - દૂરના ગ્રહોનું અવલોકન કરવા માટેનું સાધન  
 (D) બેરોસ્કોપ - હવાના દબાણનો ફેરફાર બતાવતું સાધન
044. વનસ્પતિની વૃદ્ધિને અવરોધતો અંતઃસ્ત્રાવ કયો છે ?  
 (A) ઓકિઝન (B) જીબરેલિન્સ  
 (C) ઓબ્સાસિક એસિડ (D) સાઈટોકાઈનિન્સ
045. તાજેતરમાં કયા દેશે સ્નો લેપર્ડ (હિમ ચિત્તા)ને તેના રાષ્ટ્રીય પ્રતિક તરીકે જાહેર કર્યું ?  
 (A) ઉઝબેકિસ્તાન (B) કિર્ગિસ્તાન  
 (C) શ્રીલંકા (D) અફઘાનિસ્તાન
046. તાજેતરમાં લંડન ખાતે આયોજિત બેસ્ટ ફિફા ફૂટબોલ એવોર્ડ્સ - 2023માં કયા ખેલાડીને શ્રેષ્ઠ ફિફા મેન્સ પ્લેયરનો એવોર્ડ મળ્યો ?  
 (A) કાયલિયન Mbappe (B) ક્રિસ્ટિયાનો રોનાલ્ડો  
 (C) લિયોનેલ મેસ્સી (D) નેમાર
047. સ્વચ્છ સર્વેક્ષણ - 2024ની થીમ શું રાખવામા આવી છે ?  
 (A) Waste to Wealth (B) Reduce, Reuse, Recycle  
 (C) Clean India (D) People First
048. તાજેતરમાં કઈ સ્ટાર્ટઅપ કંપનીને માણસના મગજમાં ચિપ ઇમ્પ્લાન્ટ કરવામાં સફળતા મળી છે ?  
 (A) Kernel (કર્નેલ) (B) Neuralink (ન્યૂરાલિંક)  
 (C) Synchrom (સિંક્રોમ) (D) Paradromics (પેરાડ્રોમિક્સ)
049. તાજેતરમાં ભારતના કયા રાજ્યમાં મલકાનગિરિ એરપોર્ટનું ઉદ્ઘાટન કરવામાં આવ્યું ?  
 (A) ઓડિશા (B) તેલંગાણા  
 (C) કર્ણાટક (D) આંધ્રપ્રદેશ
050. તાજેતરમાં રજૂ થયેલ આર્થિક સમીક્ષા કોના દ્વારા તૈયાર કરવામાં આવ્યું છે ?  
 (A) નિર્મલા સિતારામન (B) અમિતાભ કાન્ત  
 (C) ડૉ. વી. અનંતા નાગેશ્વરન (D) એસ. કૃષ્ણમૂર્તિ
051. એક પ્રાકૃતિક સંખ્યાના વર્ગમાંથી 6 બાદ કરતાં તે સંખ્યા કરતાં પાંચ ગણી સંખ્યા મળે છે. તો તે પ્રાકૃતિક સંખ્યા શોધો.  
 (A) 2 (B) 3  
 (C) 6 (D) 5

041. Which company has the longest pipeline network for oil transportation ?  
 (A) Indian Oil Corporation (IOC)  
 (B) Oil india Limited  
 (C) Hindustan Petroleum Corporation Limited (HPCL)  
 (D) Bharat Petroleum Corporation Limited (BPCL)
042. Where is located the head quarter of 'Raja Ramanna Centre for Advance Technology' ?  
 (A) Kalpakkam (B) Kolkatta  
 (C) Indore (D) Hyderabad
043. Which of the following pairs of words showing scientific instruments and their uses is not correct ?  
 (A) Hydroscope - An instrument used to look at the bottom of the ocean  
 (B) Hygrometer - An instrument for measuring humidity in air  
 (C) Gyroscope - An instrument for observing distant planets  
 (D) Baroscope - An instrument that shows changes in air pressure
044. Which is the endocrine that inhibits plant growth?  
 (A) Occurrence (అంకితం) (B) Gibberellins  
 (C) Obsessic acid (D) Cytocrinins
045. Which country recently declared the snow leopard as its national symbol ?  
 (A) Uzbekistan (B) Kyrgyzstan  
 (C) Sri Lanka (D) Afghanistan
046. Which player won the Best FIFA Men's player award at the Best FIFA Football Awards-2023 recently held in London ?  
 (A) Kylian Mbappe (B) Cristiano Ronado  
 (C) Lionel Messi (D) Neymar
047. What is the theme of Swachchh Survekshana (स्वच्छ सर्वेक्षण)-2024 ?  
 (A) Waste to wealth (B) Reduce, Reuse, Recycle  
 (C) Clean India (D) People first
048. Which startup company recently succeeded in implanting a chip in the human brain?  
 (A) Kernel (B) Neuralink  
 (C) Synchron (D) Paradromics
049. Malkangiri Airport was recently inaugurated in which Indian state ?  
 (A) Odisha (B) Telangana  
 (C) Karnataka (D) Andhra Pradesh
050. The recently released Economic Review has been prepared by whom ?  
 (A) Nirmala Sitharaman (B) Amitabh Kant  
 (C) Dr. V. Anantha Nageswaran (D) S. Krishnamurti
051. Subtracting 6 from the square of a natural number gives five times the same number. find that number.  
 (A) 2 (B) 3  
 (C) 6 (D) 5

052. જો  $46 = 62$ ,  $23 = 52$ , તો  $61 = (?)$   
 (A) 23 (B) 42  
 (C) 24 (D) 38
053. A, B અને C વચ્ચે રૂા. 58 ની રકમ એવી રીતે વહેંચવામાં આવે છે કે જેથી A ને B કરતાં રૂા. 8 વધારે મળે અને B ને C કરતાં રૂા. 10 વધારે મળે. તો A, B અને C વચ્ચેની વહેંચણીનો ગુણોત્તર શોધો.  
 (A) 9:10:10 (B) 8:10:5  
 (C) 18:10:5 (D) 14:10:5
054. જો ચક્રવૃધ્ધિ વ્યાજ  $16\frac{2}{3}\%$  ના વાર્ષિક દરથી 3 વર્ષના અંતે રૂા. 1715 મળે તો મુદ્દલ રકમ શોધો.  
 (A) રૂા. 1080/- (B) રૂા. 1143.33/-  
 (C) રૂા. 2723.35/- (D) ઉપરોક્ત પૈકી એકપણ નહીં
055. 1000 વિદ્યાર્થીઓએ પરીક્ષા આપી. જેમાં 60% છોકરાઓ અને 80% છોકરીઓએ કટ-ઓફ (cut-off) કરતાં વધારે ગુણ મેળવ્યા. જો કુલ 70% વિદ્યાર્થીઓએ કટ-ઓફ ગુણ કરતા વધારે ગુણ મેળવ્યા હોય તો કટ-ઓફ ગુણથી વધારે ગુણ મેળવનાર છોકરાઓની સંખ્યા શોધો.  
 (A) 500 (B) 300  
 (C) 350 (D) 400
056. એક કોલ-સેન્ટર દરરોજ સોમવારથી શુક્રવાર સુધી 24 કલાક કાર્યરત રહે છે, તેમજ શનિવારે 8 કલાક અને રવિવારે 4 કલાક માટે કાર્યરત રહે છે. એક કર્મચારી એક કલાકમાં આશરે 20 ફોન કોલ્સ કરે છે. એક કર્મચારી પાંચ અઠવાડિયામાં કેટલા કોલ્સ કરી શકે ?  
 (A) 12,000 (B) 13,200  
 (C) 13,600 (D) 13,000
057. ચાર વર્ષ પહેલા સુનિલ, અનીલ, વિમલ અને અનમોલની ઉંમરનો સરવાળો 64 વર્ષ હતો. આજથી આઠ વર્ષ બાદ તેઓની ઉંમરનો સરવાળો કેટલો થાય ?  
 (A) 96 વર્ષ (B) 112 વર્ષ  
 (C) 76 વર્ષ (D) અપૂરતી માહિતી
058. એક વિદ્યાય સમારંભ 5 કલાક 55 મિનિટ સુધી ચાલ્યો. જો તે રાતે પોણા અગિયાર વાગ્યે પૂરો થયો હોય તો તેની શરૂઆત ક્યારે થઈ હશે ?  
 (A) 5:20 pm (B) 4:50 pm  
 (C) 5:10 pm (D) 5:30 pm
059. અરવિંદ પાસે 2, 4, 7 અને 9 સંખ્યા લખેલા ટોકન છે. તે ચાર રકમની સંખ્યા બનાવવા માટે બધા ટોકનનો ઉપયોગ કરે છે. સૌથી મોટી બેકી સંખ્યા અને સૌથી નાની એકી સંખ્યાનો તફાવત શોધો.  
 (A) 7623 (B) 7963  
 (C) 7245 (D) 7263
060. 10 કપની કિંમત 4 કપ અને 4 રકાબીની કિંમત જેટલી હોય તો 12 કપની કિંમતમાં કેટલી રકાબી ખરીદી શકાય ?  
 (A) 8 (B) 18  
 (C) 6 (D) 9
061. X, Y, Z અને W ચાર સુટકેસ છે. X નું વજન Y કરતાં 6 kg વધારે છે. Y નું વજન Z કરતાં 3 kg વધારે છે. Z નું વજન W કરતાં 4 kg ઓછું છે. સૌથી વધારે વજન અને સૌથી ઓછું વજન ધરાવતી સુટકેસના વજનનો તફાવત શોધો.  
 (A) 9 kg (B) 5 kg  
 (C) 7 kg (D) શોધી ન શકાય

052. If  $46 = 62$ ,  $23 = 52$ , what is  $61 = ?$   
 (A) 23 (B) 42  
 (C) 24 (D) 38
053. A sum of Rs. 58/- is divided among A, B and C in such a way that, A gets Rs. 8/- more than what B gets and B gets Rs. 10/- more than what C gets. Then, the ratio of the shares of A, B and C is :  
 (A) 9:10:10 (B) 8:10:5  
 (C) 18:10:5 (D) 14:10:5
054. What principal would earn an amount of Rs. 1715/- at the end of 3 years if the interest is compounded annually at the rate of  $16\frac{2}{3}\%$  ?  
 (A) Rs. 1080/- (B) Rs. 1143.33/-  
 (C) Rs. 2723.35/- (D) None of these
055. 1000 students took a test, 60% of the boys and 80% of the girls could clear the cut-off mark. If 70% students in all cleared the cut-off in the test, then in the number of boys who have cleared the cut-off is:  
 (A) 500 (B) 300  
 (C) 350 (D) 400
056. A call center operates everyday for 24 hours from Monday to Friday, for 8 hours on Saturday and 4 hours on Sunday. An average of 20 calls are made in one hour by a single operator. How many calls can an operator makes in a five week time?  
 (A) 12,000 (B) 13,200  
 (C) 13,600 (D) 13,000
057. Four years back, the sum of the ages of Sunil, Anil, Vimal and Anmol was 64 years. What would be the sum of their ages after eight years from now?  
 (A) 96 years (B) 112 years  
 (C) 76 years (D) Insufficient data
058. A farewell party lasted for 5 hours 55 minutes. If it finishes at quarter to 11 in night, what time it would have begun at?  
 (A) 5:20 pm (B) 4:50 pm  
 (C) 5:10 pm (D) 5:30 pm
059. Arvind has four tokens numbered 2, 4, 7 and 9. He uses all the tokens to make different 4-digit numbers. What is the difference between the largest even number and the smallest odd number he can make?  
 (A) 7623 (B) 7963  
 (C) 7245 (D) 7263
060. The cost of ten cups is same as that of four cups and four saucers together. How many saucers can be purchased for the cost of twelve cups?  
 (A) 8 (B) 18  
 (C) 6 (D) 9
061. There are four suitcases X, Y, Z and W. X is 6 kg heavier than Y, Y is 3 kg heavier than Z, Z is 4 Kg lighter than W. What is the difference in weights between the heaviest and the lightest suitcase?  
 (A) 9 kg (B) 5 kg  
 (C) 7 kg (D) Can't be determined

062. બે ટેબલ અને પાંચ ખુરશીની કિંમત રૂ. 7,600/- છે. જેમાં પરિવહન ખર્ચ રૂ. 100/- નો સમાવેશ થાય છે. જ્યારે 3 ટેબલ અને આઠ ખુરશીની કિંમત પરિવહન ખર્ચ સિવાય રૂ. 11,600/- છે. એક ટેબલ અને ત્રણ ખુરશીની કિંમત શોધો.
- (A) રૂ. 4,100/- (B) રૂ. 4000/-  
(C) રૂ. 4,200/- (D) રૂ. 3,900/-
063. સાત સંખ્યાઓનો મધ્યક 43 છે. જો દરેક સંખ્યાને 2 વડે ગુણી અને ચાર ઉમેરતાં જે પરિણામ આવે તેને ત્રણ વડે ભાગતાં નવી સંખ્યા મળે તે સાત નવી સંખ્યાઓનો મધ્યક શું થાય ?
- (A) 43 (B) 90  
(C) 30 (D) 60
064. સારી રીતે ચીપેલા ગંજીના પત્તામાંથી કોઈપણ એક પત્તું લેવામાં આવે તો તે પત્તુ કાળા રંગના અંકવાળું હોવાની સંભાવના કેટલી ?
- (A)  $\frac{5}{26}$  (B)  $\frac{5}{13}$   
(C)  $\frac{9}{52}$  (D)  $\frac{9}{26}$
065.  $p$  ખોખા અને  $q$  કેન્ડી આપેલ છે. જો દરેક ખોખામાં 7 કેન્ડી મૂકવામાં આવે તો 7 કેન્ડી બાકી રહે અને દરેક ખોખામાં 14 કેન્ડી મૂકવામાં આવે તો 2 ખોખા ખાલી રહે છે. તો  $p$  અને  $q$  ની કિંમત શોધો.
- (A)  $p = 5, q = 42$  (B)  $p = 7, q = 42$   
(C)  $p = 7, q = 84$  (D)  $p = 17, q = 126$
066. એક ગુણોત્તર શ્રેણીમાં પહેલું પદ 2187 છે, અને ચોથું પદ 3 છે. ચોથા પદ અને છઠ્ઠા પદનો ગુણાકાર શોધો.
- (A) 1 (B)  $\frac{1}{3}$   
(C)  $\frac{1}{9}$  (D)  $\frac{1}{27}$
067. જો  $a:b = 6:7$  અને  $a:c = 3:4$ . તો  $c:b = (?)$
- (A) 8:7 (B) 7:8  
(C) 7:4 (D) 4:7
068. વરૂણે એક ડઝન બોલપેન રૂ. 180/- માં ખરીદી. અને ત્રણ પેનનું બંડલ રૂ. 60/- માં વેચ્યું. તેનો નફો શોધો.
- (A) 15% (B) 25%  
(C) 30% (D)  $33\frac{1}{3}\%$
069. પહેલી છ પૂર્ણ ધન સંખ્યાઓનો મધ્યસ્થ શોધો.
- (A) 27 (B) 64  
(C) 45.5 (D) 73.5
070. નીચેનામાંથી કઈ ત્રિપુટી અસમરેખિય બિંદુઓનો ગણ દર્શાવે છે ?
- (A) (1, -1), (5, 2), (9, 5) (B) (1, 5), (2, 3), (-2, -11)  
(C) (-1, -1), (0, 1), (2, 5) (D) (-3, -1), (-1, 0), (1, 1)
071. નીચે આપેલા વિકલ્પોમાંથી કયો વિકલ્પ અન્ય ત્રણથી અલગ છે ?
- (A) ક્ષેત્રફળ (B) પરિઘ  
(C) ઘનફળ (D) પરિમિતિ

062. Two tables and five chairs cost Rs. 7,600/- including transportation charges of chairs Rs. 100/- whereas three tables and eight chairs cost Rs. 11,600/- excluding transportation charge. What would be the cost of one table and three chairs?  
 (A) Rs. 4,100/- (B) Rs. 4000/-  
 (C) Rs. 4,200/- (D) Rs. 3,900/-
063. The mean of seven numbers is 43. What would be the mean, if each of the numbers is multiplied by 2, 4 is added to it and the result is divided by 3?  
 (A) 43 (B) 90  
 (C) 30 (D) 60
064. One card is drawn at random from a well- shuffled deck. what is the probability that it is a black number card  
 (A)  $\frac{5}{26}$  (B)  $\frac{5}{13}$   
 (C)  $\frac{9}{52}$  (D)  $\frac{9}{26}$
065. There are  $p$  boxes and  $q$  candies. If we put seven candies in each box, seven candies will be excess and if we put fourteen candies in each box, two boxes will be vacant. find the value of  $p$  and  $q$ .  
 (A)  $p = 5, q = 42$  (B)  $p = 7, q = 42$   
 (C)  $p = 7, q = 84$  (D)  $p = 17, q = 126$
066. In a geometric progression. first term is 2187 and fourth term is 3. The product of fourth and sixth terms is :  
 (A) 1 (B)  $\frac{1}{3}$   
 (C)  $\frac{1}{9}$  (D)  $\frac{1}{27}$
067. If  $a:b = 6:7$  and  $a:c = 3:4$ . then  $c:b$  is  
 (A) 8:7 (B) 7:8  
 (C) 7:4 (D) 4:7
068. Varun purchased one dozen ball pens Rs. 180/- and sold a pack of three at for Rs. 60/- what is his profit?  
 (A) 15% (B) 25%  
 (C) 30% (D)  $33\frac{1}{3}\%$
069. The median of the first six perfect cube numbers is  
 (A) 27 (B) 64  
 (C) 45.5 (D) 73.5
070. Which triplet represents a set of non- collinear points?  
 (A) (1, -1), (5, 2), (9, 5) (B) (1, 5), (2, 3), (-2, -11)  
 (C) (-1, -1), (0, 1), (2, 5) (D) (-3, -1), (-1, 0), (1, 1)
071. Which of the following terms is different from the other three?  
 (A) Area (B) Circumference  
 (C) Voluik (D) Perimeter

072. છ સખીઓ વર્તુળાકારે કેન્દ્ર તરફ મોં રાખીને બેઠી છે. દીના પૂજા અને પદમાની વચ્ચે બેઠી છે, પ્રિયા મિત્તલ અને લીનાની વચ્ચે બેઠેલ છે. પૂજા અને મિત્તલ એકબીજાની સામ-સામે બેઠા છે. પ્રિયાની સામે કોણ બેઠું હશે ?
- (A) દીના (B) પૂજા  
(C) પદમા (D) લીના
073. આપેલ શ્રેણીમાં કયો અંક અયોગ્ય છે ?  
8, 27, 125, 343, 729, 1331
- (A) 343 (B) 729  
(C) 1331 (D) 27
074. આજે રવિવાર છે. 58 દિવસ બાદ કયો વાર હશે ?
- (A) સોમવાર (B) મંગળવાર  
(C) શનિવાર (D) બુધવાર
075. એક ગામમાં એક સર્વે કરવામાં આવ્યો જેમાં 65% લોકોએ ભાગ લીધો. 10% લોકો અંતિમ ચરણ સુધી ન પહોંચી શક્યા. જો 14,300 અંતિમ ચરણ સુધી પહોંચી શક્યા હોય તો ગામની કુલ વસ્તી શોધો.
- (A) 26,000 (B) 22,000  
(C) 20,000 (D) None of these
076. હરીશે અને મનિષે ધંધામાં 3:4 ના ગુણોત્તરમાં રોકાણ કરેલ છે. જો કુલ નફાના 9% દાન પેટે આપવામાં આવે અને હરીશને નફામાં ભાગ રૂપે રૂા. 7,800/- મળે તો કુલ નફો કેટલો હોય ?
- (A) Rs. 14,000/- (B) Rs. 18,203/-  
(C) Rs. 20,000/- (D) Rs. 21,000/-
077. એક પ્રશ્ન ચાર વિદ્યાર્થીઓને ઉકેલવા માટે આપવામાં આવેલ છે. તેનો ઉકેલ મેળવવાની સંભાવના અનુક્રમે  $\frac{1}{3}$ ,  $\frac{1}{4}$ ,  $\frac{1}{5}$  અને  $\frac{1}{6}$  છે. પ્રશ્નનો ઉકેલ મળવાની સંભાવના કેટલી હોય ?
- (A)  $\frac{2}{3}$  (B)  $\frac{1}{3}$   
(C)  $\frac{19}{20}$  (D)  $\frac{1}{20}$
078. નીચે આપેલ શ્રેણીમાં વિસ્તાર અને બહુલક શોધો.  
16, 15, 28, 32, 15, 17, 24, 28, 32, 28
- (A) 17 અને 28 (B) 17 અને 15  
(C) 15 અને 32 (D) 15 અને 28
079. A એ B કરતાં ત્રણ ગણી ઝડપે કાર્ય કરે છે. જો A આપેલ કાર્ય B કરતાં 10 દિવસ ઓછા સમયમાં પૂર્ણ કરી શકે તો બંને સાથે મળીને તે કાર્ય પૂર્ણ કરતાં કેટલા દિવસ લાગે ?
- (A)  $\frac{4}{15}$  (B)  $\frac{15}{4}$   
(C) 5 (D)  $\frac{2}{5}$
080. એક વિદ્યાર્થીએ એક સંખ્યાનો ગુણાકાર  $\frac{5}{4}$  વડે કરવાને બદલે  $\frac{4}{5}$  થી કર્યો. ગણતરીમાં કેટલા ટકાની ત્રુટિ આવી કહેવાય ?
- (A) 36% (B) 56.25%  
(C) 45% (D) 80%



072. Six friends are sitting in a circle and facing the center. Deena is between Pooja and Padma, Priya is between Mittal and Leena, Pooja and Mittal are opposite to each other. Who is sitting opposite to Priya?
- (A) Deena (B) Pooja  
(C) Padma (D) Leena
073. Find the wrong number in the following series:  
8, 27, 125, 343, 729, 1331
- (A) 343 (B) 729  
(C) 1331 (D) 27
074. Today is Sunday. After 58 days it would be:
- (A) Monday (B) Tuesday  
(C) Saturday (D) Wednesday
075. In a survey conducted in a town, 65% people participated, 10% didn't finish till end. If 14,300 people could finish the entire survey. What is the population of the town?
- (A) 26,000 (B) 22,000  
(C) 20,000 (D) None of these
076. Harish and Manish invest in a business in the ratio 3:4. If 9% of the total profit goes to charity and Harish's share is RS. 7,800/-, the total profit is:
- (A) Rs. 14,000/- (B) Rs. 18,203/-  
(C) Rs. 20,000/- (D) Rs. 21,000/-
077. A problem is given to four students and chances of solving it are  $\frac{1}{3}$ ,  $\frac{1}{4}$ ,  $\frac{1}{5}$  and  $\frac{1}{6}$  for each one of them. What is the probability that the problem will be solved?
- (A)  $\frac{2}{3}$  (B)  $\frac{1}{3}$   
(C)  $\frac{19}{20}$  (D)  $\frac{1}{20}$
078. Find the range and mode of the following data  
16, 15, 28, 32, 15, 17, 24, 28, 32, 28
- (A) 17 and 28 (B) 17 and 15  
(C) 15 and 32 (D) 15 and 28
079. A is thrice as fast as B in doing a task. If A can do a task in 10 days less than B, how many days will they take to complete the task together?
- (A)  $\frac{4}{15}$  (B)  $\frac{15}{4}$   
(C) 5 (D)  $\frac{2}{5}$
080. A student multiplied a number by  $\frac{4}{5}$  instead of  $\frac{5}{4}$ . What is the percentage error is in the calculation?
- (A) 36% (B) 56.25%  
(C) 45% (D) 80%

081. બધી જોડણી સાચી હોય તેવો વિકલ્પ પસંદ કરો.
- (A) ટિપણિયો, ટિટીયારો, ટિચકારી, કિલકીલાટ (B) ભુલામણું, શૂરાતન, હુલામણું, સુરાવટ  
(C) યોગીની, પ્રસંગોપાત, વિજીગીષા, નિરૂપાય (D) અનિષ્ટ, પરિશિષ્ટ, વરિષ્ટ, વિશિષ્ટ
082. નીચે આપેલાં જૂથ ધ્યાને લઈ સમાનાર્થી શબ્દો વિશે યોગ્ય વિકલ્પ પસંદ કરો.
1. મિરાત, દ્રવ્ય, ઐશ્વર્ય, અર્થ  
2. આત્મજ, તનય, નંદન, સુત  
3. ખગ, દ્વીપ, વિહંગ, ખેચર  
4. ભદ્ર, મંગલ, ક્ષેમ, શિવ
- (A) ફક્ત 1 અને 2 યોગ્ય છે. (B) ફક્ત 3 અને 4 યોગ્ય છે  
(C) ફક્ત 1, 2 અને 4 યોગ્ય છે. (D) ફક્ત 1 અને 4 યોગ્ય છે.
083. નીચે આપેલાં જૂથ ધ્યાને લઈ વિરુદ્ધાર્થી શબ્દો વિશે યોગ્ય વિકલ્પ પસંદ કરો.
1. વ્યષ્ટિ × સમષ્ટિ  
2. ધનવાન × નિધન  
3. સંદિગ્ધ × વિદગ્ધ  
4. ફળદ્રુપ × ઊખર
- (A) ફક્ત 1 યોગ્ય છે. (B) ફક્ત 2 યોગ્ય છે.  
(C) ફક્ત 2 અને 4 યોગ્ય છે. (D) ફક્ત 1 અને 4 યોગ્ય છે.
084. નીચે આપેલા રૂઢિપ્રયોગ અને તેના અર્થ માટે યોગ્ય વિકલ્પ પસંદ કરો.
- | રૂઢિપ્રયોગ              | અર્થ                     |
|-------------------------|--------------------------|
| 1. હવા કાઠી નાખવી       | - મિજાજ ઓછો કરવો         |
| 2. હવામાં બાયકા ભરવા    | - અશક્ય કામ કરી બતાવવું  |
| 3. હવામાં કિલ્લા બાંધવા | - જાદુ કરી બતાવવો        |
| 4. હવામાં હીંચકા ખાવા   | - કામધંધા વિનાનું રહેવું |
- (A) ફક્ત 1 અને 4 યોગ્ય છે. (B) ફક્ત 2 અને 3 યોગ્ય છે.  
(C) ફક્ત 3 અને 4 યોગ્ય છે. (D) 1, 2, 3 અને 4 બધા જ યોગ્ય છે.
085. નીચે આપેલી કહેવતોને ધ્યાને લઈ તેના વિશે સાચો વિકલ્પ પસંદ કરો.
1. કુમળું ઝાડ વાળીએ તેમ વળે  
2. બહુ ડાહ્યો બહુ ખરડાય  
3. ચેતતો નર સદા સુખી  
4. પાકા ઘડે કાંઠા ન ચડે
- (A) 1 અને 4 વિરુદ્ધાર્થી કહેવતો છે, 2 અને 3 સમાનાર્થી કહેવતો છે.  
(B) 1 અને 2 સમાનાર્થી કહેવતો છે, 2 અને 4 વિરુદ્ધાર્થી કહેવતો છે.  
(C) 1 અને 4 સમાનાર્થી કહેવતો છે, 2 અને 3 વિરુદ્ધાર્થી કહેવતો છે.  
(D) 1 અને 3 સમાનાર્થી કહેવતો છે, 1 અને 2 વિરુદ્ધાર્થી કહેવતો છે.

086. નીચે આપેલા સામાસિક શબ્દ અને તેના પ્રકાર વિશે યોગ્ય વિકલ્પ પસંદ કરો.

સામાસિક શબ્દ - પ્રકાર

1. ઋણમુક્ત - તત્પુરુષ સમાસ
2. ઋણરાહત - મધ્યમપદલોપી સમાસ
3. નવરાત્રી - દ્વિગુ સમાસ
4. નવયુગ - કર્મધારય સમાસ

(A) ફક્ત 1 અને 3 યોગ્ય છે.

(B) ફક્ત 2 અને 3 યોગ્ય છે.

(C) 1, 2, અને 3 યોગ્ય છે,

(D) 1, 2, 3 અને 4 બધા જ યોગ્ય છે.

087. નીચે આપેલી સંધિ વિશે સાચો વિકલ્પ પસંદ કરો.

1. વિશ્વા + ધાર = વિશ્વાધાર
2. કરુણ + નંદ = કરુણાનંદ
3. સુ + ઉક્તિ = સુક્તિ
4. સદ્ + દેવ = સદેવ

(A) ફક્ત 1 અને 2 સાચા છે.

(B) ફક્ત 2 અને 3 સાચા છે.

(C) 1, 2, 3 અને 4 બધા જ સાચા છે.

(D) 1, 2, 3 અને 4 બધા જ ખોટા છે.

088. નીચે આપેલી કાવ્ય-પંક્તિને ધ્યાને લઈ એના અલંકાર અને છંદના પ્રકારનો યોગ્ય વિકલ્પ પસંદ કરો.

‘આછું આછું તિમિર હરતા તારલા યે બિચારા,  
ઠંડી બીકે ગગનપટમાં ક્યાંક ખૂણે લપાયા.’

(A) વ્યતિરેક - મંદાકાંતા

(B) સજ્જવારોપણ - મંદાકાંતા

(C) રૂપક - શિખરિણી

(D) સજ્જવારોપણ - શિખરિણી

089. નીચે આપેલી કાવ્ય-પંક્તિને ધ્યાને લઈ એના અલંકાર અને છંદના પ્રકારનો યોગ્ય વિકલ્પ પસંદ કરો.

‘શાખાઓમાં તરુવર તણી ચકવાકી છૂપાતી,  
શોધી કાઢે દયિત નયનો જોઈને દષ્ટ થાતી.’

(A) સ્વભાવોક્તિ - મંદાકાંતા

(B) અંત્યાનુપ્રાસ - પૃથ્વી

(C) સ્વભાવોક્તિ - પૃથ્વી

(D) વ્યાજસ્તુતિ - મંદાકાંતા

090. નીચેની વિગતોને ધ્યાને લઈ યોગ્ય વિકલ્પ પસંદ કરો.

(A) મધ્યમપદલોપી સમાસ : કાંડાઘડિયાળ

(B) ઈતિ + આદી = ઈત્યાદિ

(C) પૃથ્વી છંદ : હણોના પાપીને દ્વિગુણ બનશે પાપ જગનાં

(D) વ્યાજસ્તુતિ અલંકાર : અળતો ચરણે જ બાપડો, શરમાતો ચરણોની લાલીથી.

091. \_\_\_\_\_ idea of helping \_\_\_\_\_ man was \_\_\_\_\_ unpleasant in itself.  
 (A) An / the / an (B) The / the / No article  
 (C) An / No article / No article (D) The / No article / an
092. I am hopeless \_\_\_\_\_ remembering roads.  
 (A) of (B) with  
 (C) at (D) from
093. I am allowed to take photographs inside the temple, \_\_\_\_\_ (Select the correct question tag)  
 (A) aren't I? (B) am not I?  
 (C) isn't I? (D) am I?
094. The practice of workingwomen \_\_\_\_\_ so widespread that the working mother \_\_\_\_\_ not an unusual factor in the world.  
 (A) has become / is (B) have become / is  
 (C) had become / was (D) became / was
095. I don't remember \_\_\_\_\_ anything about the meeting.  
 (A) been telling (B) having told  
 (C) being told (D) to tell
096. Why are you wasting time? You \_\_\_\_\_ your work already.  
 (A) need to have finished (B) have to finish  
 (C) must be finishing (D) should have finished
097. Eating out is expensive here. There aren't \_\_\_\_\_ cheap restaurants.  
 (A) some (B) plenty  
 (C) any (D) a lot
098. The auditor has examined the files thoroughly. (Change the voice)  
 (A) The files has been thoroughly examined by the auditor.  
 (B) The files had been thoroughly examined by the auditor.  
 (C) The files are being thoroughly examined by the auditor.  
 (D) The files have been thoroughly examined by the auditor.
099. This task is perhaps \_\_\_\_\_ than the previous one.  
 (A) difficult (B) more difficult  
 (C) most difficult (D) difficultier
100. All the efforts of the nurse to find the \_\_\_\_\_ went in \_\_\_\_\_.  
 (A) vain / vein (B) vain / vain  
 (C) vein / vein (D) vein / vain

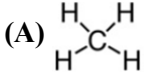
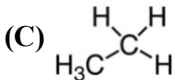
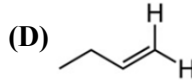
101. The first forensic science laboratory was established in which place of India?  
 (A) Delhi (B) Kolkata  
 (C) Mumbai (D) Hyderabad
102. Bertillon system introduced by French anthropologist Alphonse Bertillon in which year?  
 (A) 1769 (B) 1842  
 (C) 1869 (D) 1879
103. S N Sen replaced whom to become first Indian to hold the position as Government Examiner of Questioned Documents in 1949  
 (A) Mr. R. Stott (B) Mr. F. Brewester  
 (C) Mr. C.R. Hardless (D) Mr. V O J Hodgson
104. Who published a manual named Footprint: As an Aid to the Detection of Crime for the Police and Magistracy in the year 1909  
 (A) Dr. E. H. Hankin (B) G. W. Gayer  
 (C) C. R. Hardless (D) Major C. A. Myspratt Williams
105. How many basic principles are followed in forensic sciences?  
 (A) 9 (B) 8  
 (C) 7 (D) 6
106. The first recorded medicolegal autopsy was performed in India by  
 (A) Dr. Edward Bulkley (B) Dr. Edward Winter  
 (C) Dr. Gifford (D) Dr. Sambrook
107. Henry's System of Fingerprint Classification was developed by following scientist along with Sir Edward Henry:  
 (A) Hem Chandra Bose (B) Bertillon  
 (C) William Herschel (D) S N Sen
108. How many of below points are involved in proper evaluation of a crime scene?  
 I. Protection  
 II. Photography  
 III. Sketching  
 IV. Search  
 V. Handling clues  
 VI. Recording  
 VII. Modern aids.  
 (A) Any two (B) Any four  
 (C) Any five (D) All Seven
109. LathyrusSativus (kesari dal) is:  
 (A) Myotoxic (B) Neurotoxic  
 (C) Cardiotoxic (D) Vasculotoxic

110. How many of the following items should be photographed in a scene of crime?
- I. The main site of the scene of occurrence.
  - II. The route of approach of the victim.
  - III. The point of the entrance and exit.
  - IV. The location of the corpus delicti.
  - V. The position and identity of the corpus delicti.
  - VI. The evidence on the deceased (injuries, weapon, hair and fibres in his hands or on his person).
  - VII. The marks of struggle including bloodstains, disturbed furniture, bedding and the like.
  - VIII. The route of departure.
- (A) Any four (B) Any five  
 (C) Any Six (D) All Seven
111. Which among the following chemicals is used in Photography?
- (A) Sodium Bromide (B) Potassium Chloride  
 (C) Silver Bromide (D) Magnesium Chloride
112. Which of the following secondary explosives is an aromatic compound?
- (A) RDX (B) Tetryl  
 (C) HMX (D) PETN
113. Gelatine, which is a nitrogenous organic protein, is obtained by the hydrolysis of:
- (A) Tannin (B) Collagen  
 (C) Molasses (D) Carbohydrate
114. Which of the following explosive molecule has highest oxygen balance value?
- (A) TNT (B) RDX  
 (C) PETN (D) Nitroglycerine
115. Police dogs should not do
- (A) Should not Guard the sites (B) Track and Identify criminals  
 (C) Detect Explosives (D) Smell Narcotics
116. Among the following, which one is the best test for seminal stains:
- (A) Florence test (B) Alkaline phosphate test  
 (C) Acid phosphate test (D) Precipitin test
117. Regarding Lab Submission Letter Format, how many of below statements are correct?
- I. Proper reference number with date.
  - II. Brief history of the case.
  - III. FIR No. Preferably attach a copy of the FIR.
  - IV. Details of the exhibits (when, where, who, how) in each of the parcel.
  - V. The identification marks put by you on the exhibits.
  - VI. The number of seals used on each parcel.
- (A) 3 (B) 4  
 (C) 5 (D) 6

118. Which of the following hydrocarbon is used as a reference standard for octane rating?  
 (A) 2,2,4-Trimethylpentane                      (B) 2,3,4-Trimethylpentane  
 (C) 2,3,4-Trimethylhexane                      (D) 2,2,4-Trimethylhexane
119. Language consists of how many functions:  
 (A) Phonation                      (B) Articulation  
 (C) Both                      (D) None of the above
120. Section 101 of Indian evidence act deals with  
 (A) First information report                      (B) Re examination  
 (C) Burden of proof                      (D) None of the above
121. Development of fingerprints on dead human skin can be done by which technique:  
 (A) Fuming with cyanoacrylate ester, with or without pretreatment  
 (B) Lead dusting followed by X-ray radiograph  
 (C) Iodine fuming  
 (D) All of the above
122. Strip method is best suited in which type of crime scene?  
 (A) Indoor                       (B) Open Field  
 (C) Both                      (D) None
123. Poroscopy is a method of personal identification through the comparison of the impressions of sweat pores, it was developed by:  
 (A) Francis Galton                       (B) Edmond Locard  
 (C) William Herschel                      (D) Dr Edward Bulkley
124. How many of following you will Choose to cast tool marks:  
I. Plasticine  
II. Dental mass  
III. Adhesive tape  
IV. Latex and plastic solutions  
V. Wood's metal  
VI. Plaster of Paris  
 (A) 6                      (B) 5  
 (C) 4                      (D) 3
125. Density of quartz is  
 (A) 4.65 g/cc                      (B) 3.66 g/cc  
 (C) 2.65 g/cc                      (D) 1.65 g/cc
126. Which of the below compound has most electronegative carbon atom?  
 (A) Methane                      (B) Ethane  
 (C) Acetylene                      (D) Ethylene
127. Some of the modern service and assault rifles of the world have the highest muzzle velocity upto:  
 (A) > 800 m/s                      (B) > 700 m/s  
 (C) > 900 m/s                      (D) > 600 m/s

128. Percent of Lime in composition for portland cement is:  
 (A) 60 - 67 % (B) 50 - 57 %  
 (C) 40 - 47 % (D) 70 - 77 %
129. Which one among below cannot be radiocarbon dated?  
 (A) Wood (B) Animal skeleton  
 (C) Leather (D) Diamond
130. Trichology is the study of what??  
 (A) Hair (B) Skin  
 (C) Lips (D) Footwear
131. Which acid is most commonly used in FAME method for oil analysis?  
 (A)  $\text{HNO}_3$  (B) Acetic Acid  
 (C)  $\text{BF}_3$  (D) Oxalic Acid
132. Wilson's classification is used to classify:  
 (A) Fingerprint (B) Skull  
 (C) Burns (D) Blood group
133. The colour of the subconjunctival haemorrhage changes from red to:  
 (A) Blue (B) Brown  
 (C) Green (D) Yellow
134. Which type of precipitate is observed in silver nitrate test  
 (A) white curdy precipitate (B) blue curdy precipitate  
 (C) grey curdy precipitate (D) brown curdy precipitate
135. Which is not a test for copper?  
 (A) Alizerin blue 4 (B) ammonium hydroxide  
 (C) Flame Test (D) Thymolphthalein test
136. In uranyl zinc acetate test, formation of yellow precipitate or cloudiness indicates positive test for:  
 (A) Sodium (B) Potassium  
 (C) Calcium (D) Magnesium
137. Which colour is observed in furfural test: [5 ml or appropriate amount of sample (as such depending upon the nature of sample and concentration of furfural) in a test tube + about 1 ml aniline and about 0.5 ml hydrochloric acid and keep it for 15 minutes].  
 (A) Red (B) Blue  
 (C) Green (D) Yellow
138. The cause of rigor mortis is:  
 (A) Coagulation of muscle proteins (B) Depletion of ATP in the muscles  
 (C) Solidification of body fats (D) All of the above
139. Coca plant belongs to which genus?  
 (A) Erythroxylon (B) Cannabis somniferum  
 (C) Misticaindica (D) Gingiberecae



140. Vitamin B<sub>12</sub>, the largest of all vitamins and the only vitamin containing a metal ion: which metal is present in Vitamin B<sub>12</sub>?
- (A) Zn (B) Cu  
(C) Fe (D) Co
141. The golden crescent is situated in which continent?
- (A) Europe (B) South America  
(C) North America (D) Asia
142. In which of the below molecule, carbon 'C' atom has highest formal oxidation state?
- (A)  (B)  $\text{H}_3\text{C}-\text{C}\equiv\text{C}-\text{CH}_3$
- (C)  (D) 
143. Which one is not a synthetic narcotic drug?
- (A) LAAM (B) Propoxyphene  
(C) Buprenorphine (D) morphine
144. How many times Carfentanil is more potent than heroin?
- (A) 4000 (B) 6000  
(C) 8000 (D) 10000
145. How many statements are correct for metabolism of barbiturates
- I. Thiobarbiturates lose sulphur.  
II. The alkyl or aryl substituent gets oxidised.  
III. N-alkyl group is dealkylated.  
IV. Fission of ring takes place but only to a small extent.
- (A) Only One (B) Only Two  
(C) Only Three (D) All four
146. While conducting Luminol test, luminol reacts with hydrogen salt and forms?
- (A) Anion (B) Cation  
(C) Di-Anion (D) Di-Cation
147. Melting Point of LSD is
- (A) 80° - 85°C (B) 100° - 110°C  
(C) 50° - 60°C (D) 30° - 40°C
148. The composition of Black powder (potassium nitrate: charcoal:sulphur) in weight percent:
- (A) 75 : 15 : 10 (B) 80 : 15 : 5  
(C) 10 : 15 : 75 (D) 15 : 75 : 10
149. Police inquest is conducted under section:
- (A) 177 CrPC (B) 176 CrPC  
(C) 175 CrPC (D) 174 CrPC
150. Colour spot tests of Tetryl, GRIESS : DIPHENYLAMINE : ALCOHOLIC KOH
- (A) Pink to red : Blue : Red-violet (B) Blue : Pink to red : Red-violet  
(C) Red-violet : Pink to red : Blue (D) Pink to red : Red-violet : Blue

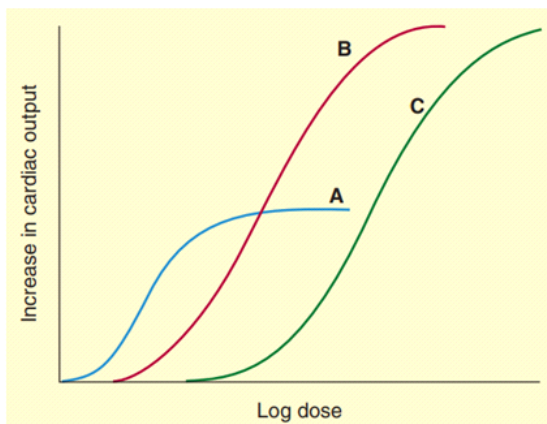
151. In forensic toxicology, the term “postmortem redistribution” refers to:
- (A) The movement of drugs within a deceased body after death
  - (B) The transportation of toxins through the bloodstream during life
  - (C) The distribution of poisons in the environment surrounding a corpse
  - (D) The migration of microorganisms into a deceased body
152. Molecular weight of mercury fulminate is:
- (A) 274.6
  - (B) 264.6
  - (C) 294.6
  - (D) 284.6
153. Characteristics of Lead trinitroresorcinate
- (A) thermally stable, non-corrosive and non-hygroscopic
  - (B) thermally unstable, non-corrosive and non-hygroscopic
  - (C) thermally stable, corrosive and non-hygroscopic
  - (D) thermally stable, non-corrosive and hygroscopic
154. Full form of HMX
- (A) Cyclotrimethylenetetranitramine
  - (B) Cyclotetramethylenetetranitramine
  - (C) Cyclopentamethylenetetranitramine
  - (D) Cyclohexamethylenetetranitramine
155. In Dynamite formulations of type 1, 2, 3, 4 and 5, at what percent by weight wood pulp or nut meal is present:
- (A) 8.0 : 3.4 : 0.5 : 2.0 : 2.4
  - (B) 8.0 : 3.3 : 0.5 : 2.0 : 2.8
  - (C) 8.0 : 3.4 : 0.5 : 2.5 : 2.4
  - (D) 8.0 : 3.6 : 0.5 : 2.5 : 2.8
156. Which is not a characteristics of explosives
- (A) They are predictable
  - (B) Usually gases are released
  - (C) There is release of energy
  - (D) The reaction is self-sustained
157. Composition of PTX-1 explosive
- (A) RDX + TNT + Tetryl
  - (B) RDX + TNT + PETN
  - (C) RDX + TNT + Wax
  - (D) RDX + Plasticiser + picric acid
158. The motor spirit and high speed diesel for prevention of malpractices in supply and distribution act is known by:
- (A) 1992 by Section 3 of Essential Commodities Act (E.C. Act)
  - (B) 1993 by Section 3 of Essential Commodities Act (E.C. Act)
  - (C) 1994 by Section 3 of Essential Commodities Act (E.C. Act)
  - (D) 1995 by Section 3 of Essential Commodities Act (E.C. Act)
159. Indian Standard Specification for Motor Gasoline / Petrol
- (A) IS 2793/2000
  - (B) IS 2794/2000
  - (C) IS 2795/2000
  - (D) IS 2796/2000

160. How many of among the below are not a Petroleum Products?
- I. Motor spirit all grades and naphtha
  - II. Aviation spirit
  - III. Solvents of all types
  - IV. Aviation turbine fuel
  - V. Fuel oil of all grades
  - VI. Lubricating oils and greases including base oil
  - VII. Wax of all grades
  - VIII. Bitumen
- (A) 0 (B) 2  
(C) 3 (D) 4
161. Which of the following is a technique used in forensic anthropology to estimate the height of an individual from skeletal remains?
- (A) Dental analysis (B) Osteometric measurements  
(C) Palynology (D) Cranial suture analysis
162. All Forensic Science Laboratories in Central/States/UTs are authorized under which Schedule
- (A) Schedule I of Clause 8(5) (B) Schedule II of Clause 8(5)  
(C) Schedule III of Clause 8(5) (D) Schedule IV of Clause 8(5)
163. If the Petrol is adulterated with Kerosene and Diesel, it gives
- (A) oily patch on the paper (B) greasy patch on the paper  
(C) water patch on the paper (D) red patch on the paper
164. For petrol the developed TLC / HPTLC plates from the chamber are air dried and sprayed with Rhodamine solution (1% v/v in alcohol) followed by bromination. Then the plates observed under UV (366 nm) shows:
- (A) Pinkish orange fluorescence (B) Bluish violet fluorescence  
(C) Violet fluorescence (D) Green yellow fluorescence
165. Full form of RON is:
- (A) Rate of Octane Number (B) Reserve Octane Number  
(C) Retrieved Octane Number (D) Research Octane Number
166. If higher the smoke point, then
- (A) larger smoke free flame (B) smaller smoke free flame  
(C) moderate smoke free flame (D) No smoke free flame
167. The layers of a human hair are:
- (A) Scales, Cortex and Medulla (B) Scales and cortex  
(C) Scales and Medulla (D) Medulla and Scales
168. Halon extinguishers are filled with
- (A) Kerosene (B) Liquefied petroleum gas  
(C) carbon tetrachloride (D) Oxygen

169. Oxygen Where the death of a woman is caused by burns or bodily injury or occurs otherwise than normal circumstances within seven years of her marriage and it is shown that soon before her death she was subjected to cruelty or harassment by her husband; which of the below law should apply?
- (A) Section 304B IPC (B) Section 306A IPC  
 (C) Section 404B IPC (D) Section 304D IPC
170. Which of the following is NOT a method of forensic document examination?
- (A) Ink analysis (B) Handwriting analysis  
 (C) Typewriting analysis (D) Blood spatter analysis
171. The skin is blackened and the hair are singed, the site is often ulcerated and permanent scars are formed, the statement comes under which degree of burns.
- (A) First Degree Burns (B)  Second Degree Burns  
 (C) Third Degree Burns (D) Fourth Degree Burns
172. What is the most common Smoke colour comes from burning of Cloth?
- (A) Deep Black (B)  Grey to brown  
 (C) White (D) Yellow to red
173. Choose the correct option for the temperature of the fire for Brighter Yellow colour of the flame
- (A) 600 - 800°C (B) 800 - 1000°C  
 (C) 1000 - 1200°C (D) 1200 - 1400°C
174. Which material cause suffocating odour.
- (A) PVC Pastic (B) Oxides of nitrogen  
 (C) Sulphur oxides (D) Peroxides of nitrogen
175. Heat of combustion of Gasoline is:
- (A) 19,550 Btu/lb (B)  19,250 Btu/lb  
 (C) 13,351 Btu/lb (D) 19,650 Btu/gal
176. What is the Ignition temperatures of Petroleum ether?
- (A) 869 °F (B) 495 °F  
 (C) 428 °F (D) 550 °F
177. A rough idea of the relationship between the skid mark lengths and the speed of an ordinary Indian small car
- (A) Skid length (10 meter) and speed (30km/h)  
 (B) Skid length (10 meter) and speed (40km/h)  
 (C) Skid length (10 meter) and speed (50km/h)  
 (D) Skid length (10 meter) and speed (60km/h)
178. What is co-efficient or friction for Stopping distance at 50-kilometre speed of small car for road surface (Dry concrete, dry asphaltic Concrete)
- (A) 0.6 (B) 0.4  
 (C) 0.8 (D) 0.2
179. The Surface Plasmon Resonance (SPR) wavelength for 10 nm size gold nanoparticle is approximately:
- (A) 320 nm (B) 420 nm  
 (C) 520 nm (D) 620 nm

180. The heaviest stable elements will generally have a neutron/proton ratio about equal to  
(A) 0.5 (B) 1  
(C) 1.5 (D) 2
181. Which LASER wavelength among below will results highest intensity Raman signal for a given compound?  
(A) 1064 nm (B) 785 nm  
(C) 650 nm (D) 532 nm
182. First man to suggest for the estimation of alcohol by chemical Analysis is:  
(A) Nicloux (B) Widmark  
(C) Cavett (D) Kozelka and Hine
183. Arrange the following solvents in increasing order of strength for normal phase column chromatography:  
(A) Hexane > Ethyl acetate > Tetrahydrofuran > Toluene > Hexane  
(B) Ethyl acetate > Toluene > Tetrahydrofuran > Ethyl acetate > Acetonitrile  
(C) Hexane > Toluene > Tetrahydrofuran > Toluene > Ethyl acetate  
(D) Acetonitrile > Ethyl acetate > Tetrahydrofuran > Toluene > Hexane
184. Which gas is nearly always the chosen gas for super critical fluid extraction  
(A) Argon (B) Nitrogen  
(C) Carbon dioxide (D) Helium
185. The 'Pascals triangle' is associated with which spectroscopic technique?  
(A) XRD (B) XRF  
(C) XPS (D) NMR
186. In post-mortem findings, leathery stomach is seen in poisoning with:  
(A) HCl (B) H<sub>2</sub>SO<sub>4</sub>  
(C) Carbolic acid (D) Oxalic acid
187. Procedure to test Aniline by Dichromate Test is:  
(A) A portion of ether extract is evaporated to dryness in a porcelain basin. 5 drops of conc. sulphuric acid and 1 drop of potassium dichromate solution are added. In a few minutes, the edge of the mixture begins to show a green colour, which becomes uniformly greenish yellow on adding a few drops of water  
(B) A portion of ether extract is evaporated to dryness in a porcelain basin. 5 drops of conc. sulphuric acid and 1 drop of potassium dichromate solution are added. In a few minutes, the edge of the mixture begins to show a grey colour, which becomes uniformly greyish green on adding a few drops of water  
(C) A portion of ether extract is evaporated to dryness in a porcelain basin. 5 drops of conc. sulphuric acid and 1 drop of potassium dichromate solution are added. In a few minutes, the edge of the mixture begins to show a blue colour, which becomes uniformly blue on adding a few drops of water  
(D) A portion of ether extract is evaporated to dryness in a porcelain basin. 5 drops of conc. sulphuric acid and 1 drop of potassium dichromate solution are added. In a few minutes, the edge of the mixture begins to show a Yellow colour, which becomes uniformly yellowish red on adding a few drops of water

188. 'Forensic' comes from the Latin word 'forensis' meaning
- (A) Chemical  (B) Public  
 (C) Forward (D) Illegal
189. The cytochrome P450-dependent microsomal ethanol oxidizing system (MEOS) pathway of ethanol metabolism is most likely to be maximally activated under the condition of low concentrations of
- (A) Acetaldehyde (B) Ethanol  
 (C) NAD<sup>+</sup> (D) NADPH
190. Mr Jones has zero kidney function and is undergoing hemodialysis while awaiting a kidney transplant. He takes metformin for type 2 diabetes mellitus and was previously stabilized (while his kidney function was adequate) at a dosage of 500 mg twice daily, given orally. The plasma concentration at this dosage with normal kidney function was found to be 1.4 mg/L. He has been on dialysis for 10 days and metformin toxicity is suspected. A blood sample now shows a metformin concentration of 4.2 mg/L. What was Mr. Jones' clearance of metformin while his kidney function was normal?
- (A) 238 L/d  (B) 29.8 L/h  
 (C) 3 L/d (D) 238 L/h
191. Prior to clinical trials in patients with heart failure, an animal study was carried out to compare two new positive inotropic drugs (A and B) to a current standard agent (C). The results of cardiac output measurements are shown in the graph below.



Which of the following statements is correct?

- (A) Drug B is least potent  
 (B) Drug C is most potent  
 (C) Drug B is more potent than drug C and more effective than drug A  
 (D) Drug A is more potent than drug B and more effective than drug C
192. The pharmacokinetic process or property that distinguishes the elimination of ethanol and high doses of phenytoin and aspirin from the elimination of most other drugs is called
- (A) Excretion (B) First-pass effect  
 (C) First-order elimination  (D) Zero-order elimination

193. Botulinum toxin is a large protein molecule. Its action on cholinergic transmission depends on an intracellular action within nerve endings. Which one of the following processes is best suited for permeation of very large protein molecules into cells?  
(A) Aqueous diffusion (B) Endocytosis  
(C) First-pass effect (D) Lipid diffusion
194. Test dose of penicillin is administered by which of the following route-  
(A) Subcutaneous (B) Intradermal  
(C) Intravenous (D) Intramuscular
195. Drugs used to relieve pain are called:  
(A) Antipyretics (B) Antibiotics  
(C) Anti-pruritics (D) Analgesics
196. Drug metabolism in humans usually results in a product that is:  
(A) Less lipid soluble than the original drug  
(B) More likely to distribute intracellularly  
(C) More likely to be reabsorbed by kidney tubules  
(D) More lipid soluble than the original drug
197. Full activation of the parasympathetic nervous system is likely to produce which of the following effects?  
(A) Bronchodilation (B) Decreased intestinal motility  
(C) Increased thermoregulatory sweating (D) Increased pupillary constrictor tone (miosis)
198. Which one of the following is the primary neurotransmitter agent normally released in the sinoatrial node of the heart in response to a blood pressure increase?  
(A) Acetylcholine (B) Dopamine  
(C) Epinephrine (D) Norepinephrine
199. Which statement about inhalants is accurate?  
(A) Euphoria, numbness, and tingling sensations with visual and auditory disturbances occur in most persons who inhale organic nitrites  
(B) Methemoglobinemia is a common toxicologic problem after repetitive inhalation of industrial solvents  
(C) Solvent inhalation is mainly a drug abuse problem in petroleum industry workers  
(D) The inhalation of isobutyl nitrite is likely to cause headache, hypotension, and flushing
200. The poison with fishy or musty odour is:  
(A)  $H_2S$  (B)  $Zn_3P_2$   
(C) CO (D)  $CuSO_4$
201. The first overseas campus of National Forensic Sciences University is situated at:  
(A) Kampala (B) Kigali  
(C) Jinja (D) Addis Ababa
202. Double salts of cyanides (e.g., ferro or ferri cyanides) are  
(A) practically non-toxic (B) deadliest poisons.  
(C) Both (D) None of the Above

203. In reference to 'Madar' how many statements are wrong
- I. Bitter taste
  - II. Burning pain in the throat and stomach
  - III. Salivation, restlessness, breathing problem
  - IV. Detected by Formation of ester
  - V. Dilated pupil
  - VI. Convulsion, collapse and death
- (A) 0 (B) 2  
(C) 4 (D) 6
204. For 'AbrusPrecatorious' how many are incorrect
- I. Seeds are generally of red colour with a black spot at one end.
  - II. Abrin is activated by boiling.
  - III. Gastric juices reduce its poisonous properties.
  - IV. Poisonous if introduced in the blood stream.
  - V. About 0.1 micrograms of Abrin can kill a normal person if injected into the body.
- (A) 0 (B) 2  
(C) 3 (D) 5
205. Scientific name of Kuchila is:
- (A) Strychnosnux vomica (B) Aconitum Chasmanthum  
(C) Mushroom (D) Kuchilaindicea
206. Which one is MithaZahar?
- (A) Dhatura (B) Aconite  
(C) Madar (D) Croton tiglium
207. Test for free mineral acid with Methyl Violet
- (A) A few drops of aqueous solution of methyl violet (0.01%, w/v) is added to 2ml. of the extract. A greenish blue colour is produce
- (B) the red colour changes to deep blue (organic acids produce a violet colour)
- (C) A few drops of barium chloride solution are added to 2ml. of extract. A white precipitate is formed, which is insoluble in HCl or HNO<sub>3</sub>
- (D) None of the above
208. How many of them are used for identification tests for potassium?
- I. Flame Test
  - II. Test with Perchloric Acid
  - III. Test with Platinic Chloride
  - IV. Cobalt Nitrate Test
  - V. Test with Zinc Uranyl Acetate
  - VI. Test with Potassium Pyro – antimonate
  - VII. Test with Lime Water
  - VIII. Test with Calcium Chloride
- (A) 4 (B) 6  
(C) 8 (D) 5



209. Choose the incorrect option for bismuth:  
(A) Poisoning is rare  
(B) Metallic taste, salivation, pain in throat and abdomen  
(C) Antidote: BAL  
(D) In chronic poisoning ulcerated sores and eczematous dermatitis
210. Miraculin is a glycoprotein present in the fruit of  
(A) *Synsepalumdulcificum* (B) *Curculigolatifolia*  
(C) *Stevia rebaudiana* (D) None of the Above
211. Which alcohol is  $C_{16}H_{33}OH$ ?  
(A) Arachidyl alcohol (B) Stearyl alcohol  
(C) Oleyl alcohol (D) Cetyl alcohol
212. Cutin is  
(A) high molecular weight polyester (B) mono and diethers with glycerol  
(C) Both (D) None of the above
213. Which lanthanide element is naturally radioactive?  
(A) Ln (B) Pm  
(C) Tb (D) Eu
214.  $\beta$ -sitosterol is a marker for detection of specific adulterants in which food product?  
(A) Honey (B) Ghee  
(C) Milk (D) Card
215. Which Adulterant is often used to mix with mustard oil?  
(A) Washing Powder (B) Brick Powder  
(C) Argemone seeds (D) Animal fats
216. Food product used for vitamin B<sub>1</sub> fortification of commercial food:  
(A) Cocoa powder and its products, beverages and concentrates  
(B) Baked products, beverages  
(C) Baked and pasta products  
(D) Skim milk powder, breakfast cereals (flakes), beverage concentrates, margarine, baked products
217. Which of the below organic acids does not possess a  $-COOH$  group?  
(A) Ascorbic acid (B) Citric acid  
(C) Acetic acid (D) Malic acid
218. Carmine shows which colour?  
(A) purple blue (B) bright-red  
(C) blue with a greenish tint (D) cherry-red
219. The antimycotic effect shown by:  
(A) Carboxylic acid (B) Sorbic acid  
(C) Both (D) None of the Above
220. To sterilise surgical instruments, which of the following radioisotopes is used?  
(A) Iodine-131 (B) Chromium-51  
(C) Iodine-123 (D) Cobalt-60

221. The cut-off limit of human eye to see an object is \_\_\_\_\_ nm  
 (A) 10 (B) 100  
 (C) 1000 (D) 10000
222. Which one of the following nuclides is most likely to decay by positron( $\beta^+$ ) emission?  
 (A)  $^{68}\text{Cu}$  (B)  $^{63}\text{Cu}$   
 (C)  $^{67}\text{Cu}$  (D)  $^{59}\text{Cu}$
223. Which of the following nuclear reactor components is used to slow down fast-moving neutrons without absorbing them?  
 (A) Control rods (B) Coolant  
 (C) Moderator (D) Fissile materials
224. Emission of which one of the following does not change the atomic number and mass number of the element?  
 (A) An alpha particle (B) Gamma radiation  
 (C) Beta particles (D) Positron
225. Which one of the given radiations is the least penetrating?  
 (A) Alpha rays (B) Beta rays  
 (C) Gamma rays (D) X-rays
226. When  $^{59}\text{Cu}$  undergoes positron emission, what is the immediate nuclear product?  
 (A)  $^{58}\text{Ni}$  (B)  $^{59}\text{Ni}$   
 (C)  $^{58}\text{Cu}$  (D)  $^{59}\text{Zn}$
227. When  $^{235}\text{U}$  is bombarded with one neutron, fission occurs and the products are three neutrons,  $^{94}\text{Kr}$ , and \_\_\_\_\_.  
 (A)  $^{139}\text{Ba}$  (B)  $^{141}\text{Ba}$   
 (C)  $^{139}\text{Ce}$  (D)  $^{139}\text{Xe}$
228. With respect to the occurrence of aroma compounds in Food, they are classified in how many groups?  
 (A) 1 (B) 2  
 (C) 3 (D) 4
229. The size of a quantum dot is approximately \_\_\_\_\_ m.  
 (A) 5 (B)  $5 \times 10^{-9}$   
 (C)  $5 \times 10^{-10}$  (D)  $5 \times 10^{-11}$
230. The process of heat softening, moulding and cooling to rigidity can be repeated for which plastics?  
 (A) thermoplastics (B) thermosetting plastics  
 (C) both (A) and (B) (D) neither (A) nor (B)
231. Which of the following monomers form biodegradable polymers?  
 (A) 3-hydroxybutanoic acid + 3-hydroxypentanoic acid  
 (B) glycine + amino caproic acid  
 (C) ethylene glycol + phthalic acid  
 (D) both (A) and (B)

232. Which of the following statements is not correct?  
 (A) Fibres possess high tensile strength and high modulus  
 (B) Fibres impart crystalline nature  
 (C) Characteristic features of fibres are due to strong intermolecular forces like hydrogen bonding  
 (D) Above all are incorrect
233. Which one is the reference compound for sweet taste?  
 (A) Glucose (B) Sucrose  
 (C) Fructose (D) Maltose
234. Which of the following polysaccharide is used as stationary phase in chromatography?  
 (A) Dextrin (B) Dextran  
 (C) Pectin (D) Sephadex
235. Which of the following is not a semisynthetic polymer?  
 (A) cis-polyisoprene (B) Cellulose nitrate  
 (C) Cellulose acetate (D) Vulcanised rubber
236. Antidote for mineral acid poisoning is:  
 (A)  $\text{MgSO}_4$  (B)  $\text{CuSO}_4$   
 (C)  $\text{NaHCO}_3$  (D)  $\text{MgO}$
237. Light scattering method is used \_\_\_\_\_.  
 (A) to find concentration (B) to find molecular mass of polymer  
 (C) to test elements (D) to find number of molecules
238. What is other name of polyacrylonitrile?  
 (A) Orlon (B) Teflon  
 (C) Nylon (D) Buna-N
239. In how many layers is oil paint applied to a surface?  
 (A) 3 (B) 4  
 (C) 2 (D) 1
240. Which of the following is the most toxic form of lead?  
 (A) Lead acetate (B) Tetraethyl lead  
 (C) Lead oxide (D) Lead sulphide
241. In which of the below, it is not necessary to remove existing paint to apply a new one?  
 (A) Aluminium paints (B) Cement paints  
 (C) Oil paints (D) Enamel paints
242. What is used to make paints odourless to an extent?  
 (A) Flat latex (B) Celluloid sheets  
 (C) Acrylic compound (D) Plioway resins
243. The  $\lambda_{\text{max}}$  values for 4-methylpent 3-ene- 2- one is 230 nm ( $\pi$  to  $\pi^*$ ) and 330 nm (n to  $\pi^*$ ) in ether as solvent. The respective  $\lambda_{\text{max}}$  values in water will be?  
 (A) 200 nm and 300 nm respectively (B) 200 nm and 350 nm respectively  
 (C) 250 nm and 300 nm respectively (D) 250 nm and 350 nm respectively

244. Which of the below adhesive is not attacked by water?  
 (A) Starch glue (B) Albumin glue  
 (C) Vegetable glue (D) Rubber glue
245. Nitrocellulose glue is prepared from:  
 (A) Pyridine (B) Benzene  
 (C) Pyroxylin (D) Resin
246. Which of the following glues is used to join light metals?  
 (A) Metal glue (B) Cycle weld  
 (C) Araldite glue (D) Special glue
247. Cyanide poisoning causes death in seconds because:  
 (A) It denatures enzymes of the heart/ muscle  
 (B) It breaks the electron transport chain  
 (C) It causes Lysis of red blood cells.  
 (D) It forms Cyanide gas
248. For a molecule with ' $\pi$ ' to ' $\pi^*$ ' electronic transition, an increase in solvent polarity will result :  
 (A) Blue shift in its band  
 (B) Red shifts in its band  
 (C) No change  
 (D) Either blue or red shift depending on the molecule
249. Color of urine in phenol poisoning:  
 (A) Red (B) Green  
 (C) Yellow (D) Blue
250. The exhausted cation exchange column is regenerated by passing a solution of  
 (A) Dil. HCl (B) Dil. NaCl  
 (C) Conc. HCl (D) Conc. NaCl
251. Which of the following is the commonly used support material for the packed column in gas chromatography?  
 (A) Glass (B) Metal  
 (C) Diatomaceous earth (D) Stainless steel
252. Which of the following is not an advantage of Syringe type pumps used in High pressure liquid chromatography?  
 (A) Independent of viscosity (B) Pulse-less flow  
 (C) High pressure capability (D) Unlimited solvent capacity
253. Forensic science laboratories in India are accredited by which of the following  
 (A) NAAC (B) NABL  
 (C) CSIR (D) BARC
254. Which of the following is not true about Hydraulic capacitance flow control system used in HPLC?  
 (A) It can be used only for liquids with low viscosity  
 (B) It is irrespective of solvent compressibility  
 (C) It maintains a constant flow  
 (D) It smoothens high pressure pump pulsations

255. Which of the following main component of mass spectroscopy deal with resolving the ions into their characteristics mass components according to their mass-to-charge ratio?  
(A) Ion Source (B) Analyzer  
(C) Detector System (D) Analyzer tube
256. Who discovered the mass spectrometer?  
(A) Francis Aston (B) J. J Thomson  
(C) Ernest O. Lawrence (D) Walter Kaufmann
257. The mass analyzer is similar to which of the following in optical spectrometer?  
(A) Monochromator (B) Detector  
(C) Sample (D) Source
258. What is the factor responsible for the separation of solutes in column chromatography?  
(A) Polarity differences between the solvent  
(B) Polarity differences between the solute  
(C) Polarity indifference between the solvent  
(D) Polarity indifference between the solute
259. Who devised a simple procedure for determining the blood type of a dried blood stain  
(A) Edward Winter (B) Gifford  
(C) Sambrook (D) Leone Lattes
260. Which of the following molecule shows absorption in the infrared region?  
(A) Dinitrogen  $N_2$  (B) Dihydrogen  $H_2$   
(C) Ethane  $CH_3 - CH_3$  (D) Oxygen  $O_2$
261. In UV spectroscopy water show peak on which  $\lambda$  -Max value?  
(A) 191 nm (B) 291 nm  
(C) 391 nm (D) 491 nm
262. Alcoholism causing fatty acid syndrome is called  
(A) Cirrhosis (B) Neuri  
(C) Gastritis (D) Nephritis
263. The possible number of vibrational bands for  $CO_2$  is:  
(A) 2 (B) 3  
(C) 4 (D) 5
264. Who is called the father of Hydrogen Bomb?  
(A) Edward Teller (B) J Robert Oppenheimer  
(C) Leslie Grooves (D) Isidor Isaac Rabi
265. Which of the following region has higher wavelength value?  
(A) UV (B) Visible  
(C) Near IR (D) Far IR
266. The Michelson interferometer is present in which of the following spectrometer?  
(A) Spectrophotometer (B) Spectrofluorometer  
(C) FTIR Spectrometer (D) Mass Spectrometer

267. The distance between the centers of the peaks of doublet is called as?  
(A) Coupling constant (B) Spin constant  
(C) Spin-spin coupling (D) Chemical shift
268. The nuclei that doesn't give NMR signal is  
(A)  $^{15}\text{N}$  (B)  $^{11}\text{B}$   
(C)  $^{19}\text{F}$  (D)  $^{31}\text{P}$
269. In proton NMR spectroscopy, hydrogen bonding results in  
(A) Shielding effect (B) Deshielding effect  
(C) Peak splitting (D) All of the above
270. 'Stimulated emission' is observed in which of the following light source/device?  
(A) LED (B) LCD  
(C) LASER (D) CFL
271. This drug along with alcohol generates marked drowsiness otherwise does not produce sedative effect  
(A) Marijuana (B) Valium  
(C) Antihistamine (D) Barbiturate
272. Which of the bellow compound is a molecular marker for the detection of honey adulterated with rice syrup?  
(A) Sucrose (B) Gluconic Acid  
(C) 2-Deoxy ribose (D) 2-acetylfuran-3-glucopyranoside
273. The most common type of ion detector found in ICP system is which of the following?  
(A) Faraday cup collector (B) Channeltron electron multiplier  
(C) Micro-channel plate (D) Flame ionization detector
274. The isobaric interference is not caused in which of the following elements?  
(A) Argon (B) Oxygen  
(C) Helium (D) Nitrogen
275. In powder X-ray Diffractometry method, the powder sample is contained in which of the following?  
(A) Thin walled glass capillary tubes (B) Thin walled test tube  
(C) Thin walled curvettes (D) Thin walled flask
276. Central drug laboratory is located a  
(A) Mumbai (B) Kolkata  
(C) Lucknow (D) Delhi
277. Prompt emission of X-ray by an atom ionised by a higher energy X-ray is a type of which of the following phenomena?  
(A) Luminescence (B) Fluorescence  
(C) Phosphorescence (D) Spontaneous emission
278. Which among the Gas Chromatography (GC) detectors is most sensitive?  
(A) FID (B) TCD  
(C) ECD (D) RID

279. The melting point of particles in nano form \_\_\_\_\_ from their bulk form:  
(A) Increases (B) Decreases  
(C) Remain same (D) Increase than decreases
280. Essential narcotic drug means a narcotic drug notified by Central Government for  
(A) Medical use (B) Scientific use  
(C) Medical and Scientific use (D) None of the above
281. A material with one dimension in Nano range and the other two dimensions are large is called  
(A) Micro-material (B) Quantum wire  
(C) Quantum well (D) Quantum dot
282. "There is a plenty of room at the bottom." This was stated by:  
(A) Isaac Newton (B) Albert Einstein  
(C) Richard Feynman (D) Eric Drexler
283. Which of the following is an example of bottom-up approach for the preparation of nanomaterials?  
(A) etching (B) dip pen nano-lithography  
(C) lithography (D) erosion
284. Which of the following component of TEM focuses the beam of electrons on the sample?  
(A) ocular lens (B) condenser lens  
(C) stage (D) column
285. Image formation in electron microscope is based on  
(A) column length (B) electron number  
(C) differential scattering (D) specimen size
286. Which mineral produce green colour in fireworks?  
(A) Dolomite (B) Barite  
(C) Halite (D) Celestite
287. Where do we obtain the magnified image of the specimen in SEM?  
(A) cathode ray tube (B) phosphorescent screen  
(C) anode (D) scanning generator
288. The date on which the NDPS Act came into effect  
(A) 16 September 1985 (B) 15 October 1985  
(C) 14 November 1985 (D) 13 December 1985
289. Among the four salts given below, which one is most probable to be white in colour?  
(A)  $\text{CoCl}_2$  (B)  $\text{NiCl}_2$   
(C)  $\text{CuCl}_2$  (D)  $\text{ZnCl}_2$
290. X-rays are generated by  
(A) Geiger tube (B) Goniometer  
(C) Coolidge tube (D) Rotameter
291. Maximum period of imprisonment for an offence under M&TP act is  
(A) six months (B) one year  
(C) two years (D) five years

292. Which statement is true for both the instruments ICP-AES and AAS
- (A) Both can detect multiple elements simultaneously  
(B) Both have the similar level of sensitivity (up to ppt level)  
 (C) Both can have PMT detector  
(D) Both can tolerant complex sample matrices
293. Which of the following represents India in ISO?
- (A) PFRDA (B) FSSAI  
 (C) BIS (D) BCCI
294. The mineral pyrite also called fool's gold has the chemical formula:
- (A) AuS<sub>2</sub> (B) NiS<sub>2</sub>  
(C) CuS<sub>2</sub>  (D) FeS<sub>2</sub>
295. Damages in legal terms means:
- (A) Personal injury (B) Property injury  
 (C) Monetary Compensation (D) All of the above
296. The Berne Convention for protection of I.P refers to
- (A) Literature and Artistic Works (B) Industrial Property  
(C) W.T.O TRIPS Agreement (D) None of the above
297. Consider a set of 18 samples from a standard normal distribution. We square each sample and sum all the squares. The number of degrees of freedom for a Chi Square distribution will be?
- (A) 17  (B) 18  
(C) 19 (D) 20
298. The probability of event equal to zero is called;
- (A) Unsure event (B) Sure Event  
 (C) Impossible event (D) Independent event
299. Which of the following are methods under measures of dispersion?
- (A) Standard deviation (B) Mean deviation  
(C) Range  (D) All of the above
300. The independent variable is used to explain the dependent variable in \_\_\_\_\_.
- (A) Linear regression analysis (B) Multiple regression analysis  
(C) Non-linear regression analysis (D) None of the above