

BJF (CBRT)

PROVISIONAL ANSWER KEY

Name of the post	Chief Fire Officer, Class-1, Gandhinagar Municipal Corporation
Advertisement No.	10/2024-25
Preliminary Test Held On	12-11-2024
Que. No	001-300
Publish Date	13-11-2024
Last Date to Send Suggestion (s)	18-11-2024
THE LINK FOR ONLINE OBJECTION SYSTEM WILL START FROM 14-11-2024; 04:00 PM ONWARDS	

Instructions / સૂચના

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, ટપાલ અથવા ઈ-મેઇલ દ્વારા આયોગની કચેરીએ મોકલવામાં 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 ન કરતા તમામ વાંધા-સૂચનો વેબસાઇટ પર પ્રસિધ્ધ થયેલ પ્રોવિઝનલ આન્સર કી (માસ્ટર પ્રશ્નપત્ર) ના પ્રશ્નક્રમાંક 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 ધ્યાને 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. યાર્લુંગ ઝાંગબો (Yarlung Zangbo) નદી ભારતમાં તરીકે ઓળખાય છે.
 (A) ગંગા (B) સિંધુ
 (C) બ્રહ્મપુત્રા (D) મહાનદી
002. સલાલ યોજના એ નદી ઉપર છે.
 (A) ચિનાબ (B) જેલમ
 (C) રાવી (D) સતલજ
003. ભારત પૃથ્વીની સપાટીના પ્રતિશત આવરી લે છે.
 (A) 2.4 (B) 3.4
 (C) 4.4 (D) 5.4
004. 15 ઓગષ્ટ, 2024ના રોજ ભારતેમો સ્વતંત્રતા દિવસ ઉજવ્યો.
 (A) 76 (B) 77
 (C) 78 (D) 79
005. 2011ની વસ્તી ગણતરી અનુસાર,
 1. ગુજરાતમાં વસ્તીની ગીચતા 308 પ્રતિ ચોરસ કિલોમીટર છે.
 2. ગુજરાતમાં લિંગ ગુણોત્તર 918 (આશરે) છે.
 3. ગુજરાતમાં સાક્ષરતા દર 87.3 (આશરે) છે.
 ઉપરના પૈકી કયા વિધાનો સત્ય છે ?
 (A) માત્ર 1 અને 2 (B) માત્ર 2 અને 3
 (C) માત્ર 1 અને 3 (D) 1, 2 તથા 3 તમામ સત્ય છે.
006. આપણા રાષ્ટ્ર ધ્વજની પહોળાઈનો તેની લંબાઈ સાથેનો ગુણોત્તર છે.
 (A) 3:5 (B) 2:3
 (C) 2:4 (D) 3:4
007. ભારતના પ્રતીકની તક્તીની નીચે અંકિત કરેલ શબ્દો 'સત્યમેવ જયતે' શેમાંથી લેવામાં આવ્યા છે ?
 (A) ઋગ્વેદ (B) સતપથ બ્રાહ્મણ
 (C) મુંડક ઉપનિષદ (D) રામાયણ
008. નીચેના પૈકી કયું પુસ્તક એ પારસીઓનો પવિત્ર ગ્રંથ છે ?
 (A) ગીતા (Gita) (B) તોરાહ (Torah)
 (C) બાઈબલ (Bible) (D) ઝંદ અવેસ્તા (Zend Avesta)
009. લોક ચિત્રકળાની 'મધુબની' શૈલી ભારતમાં નીચેના પૈકી કયા રાજ્યમાં લોકપ્રિય છે ?
 (A) ઉત્તર પ્રદેશ (B) રાજસ્થાન
 (C) મધ્યપ્રદેશ (D) બિહાર
010. કુસુમ વિલાસ પેલેસ (મહેલ) એ ખાતે સ્થિત છે.
 (A) છોટા ઉદેપુર (B) વડોદરા
 (C) મોરબી (D) વેરાવળ

001. The Yarlung Zangbo river, in India, is known as
(A) Ganga (B) Indus
(C) Brahmaputra (D) Mahanadi
002. The Salal Project is on the river
(A) Chenab (B) Jhelum
(C) Ravi (D) Sutlej
003. The percentage of earth surface covered by India is
(A) 2.4 (B) 3.4
(C) 4.4 (D) 5.4
004. India Celebrated, _____th Independence Day on, 15 August, 2024. Fill in the Gap
(A) 76 (B) 77
(C) 78 (D) 79
005. As per census 2011,
1. Density of population in Gujarat is 308 persons / km²
2. Sex ratio of Gujarat is 918 (App.)
3. Literacy rate of Gujarat is 87.3 (App.)
Which of the above mentioned statements are correct?
(A) only 1 and 2 (B) only 2 and 3
(C) only 1 and 3 (D) 1, 2 and 3 all are correct
006. The ratio of width of our National Hag to its length is
(A) 3:5 (B) 2:3
(C) 2:4 (D) 3:4
007. The words 'Satyameva Jayate' inscribed below the base plate of the emblem of India are taken from
(A) Rigveda (B) Satpath Brahmana
(C) Mundak Upanishad (D) Ramayana
008. Which is Holy book of Parsis?
(A) Gita (B) Torah
(C) Bible (D) Zend Avesta
009. 'Madhubani', a style of folk paintings, is popular in which of the following states in India?
(A) Uttar Pradesh (B) Rajasthan
(C) Madhya Pradesh (D) Bihar
010. Kusum Vilas Palace is located at
(A) Chotta Udepur (B) Vadodara
(C) Morbi (D) Veraval

011. સાહિત્ય અને કળાના મહાન આશ્રયદાતા રાજા ભોજ નીચેના પૈકી કયા રાજવંશના હતા ?
 (A) કારકોટી (Karkota) (B) ઉત્પલ (Utpala)
 (C) પરમાર (Parmara) (D) ગુર્જર પ્રતિહાર (Gurjar Pratihara)
012. બ્રિટીશ સામ્રાજ્યવાદ દરમ્યાન ભારતના આર્થિક ધોવાણ (economic drain of India) નો સિદ્ધાંત દ્વારા પ્રતિપાદિત કરવામાં આવ્યો હતો.
 (A) જવાહરલાલ નહેરૂ (B) દાદાભાઈ નવરોજી
 (C) આર. સી. દત્ત (D) એમ. કે. ગાંધી
013. પ્લાસીનું યુદ્ધમાં લડાયું હતું.
 (A) 1757 (B) 1782
 (C) 1748 (D) 1764
014. મુદ્દી સેવા માટેની સ્પર્ધાત્મક પરીક્ષાની પદ્ધતિનો સૈદ્ધાંતિક સ્વીકાર કયા વર્ષમાં કરવામાં આવ્યો હતો ?
 (A) 1833 (B) 1853
 (C) 1858 (D) 1882
015. વિજયનગરના શાસક કૃષ્ણદેવરાયની કૃતિ 'અમુક્ત માલ્યદા' એ ભાષામાં હતી.
 (A) સંસ્કૃત (B) તમિળ
 (C) કન્નડ (D) તેલુગુ
016. સૈન્યો, કે જે સમ્રાટ દ્વારા રચવામાં આવેલ હતા પરંતુ તેમને રાજ્ય દ્વારા સીધી ચૂકવણી કરવામાં આવતી ન હતી, અને તેમને 'માનસબદારો'ના હવાલે મૂકવામાં આવતા હતા, તે તરીકે ઓળખાતા હતા.
 (A) વાલાશાહી (Walashahi) (B) બારાવાર્ડી (Barawardi)
 (C) જેક્યુમાકી (Jcumaki) (D) દાખિલી (Dakhili)
017. નીચેના પૈકી કયા હવાઈ મથક ને 'જગદગુરૂ સંત તુકારામ મહારાજ હવાઈ મથક' તરીકે નામ બદલવા માટે આયોજન કરેલ છે ?
 (A) નાગપુર હવાઈ મથક (B) પુણે હવાઈ મથક
 (C) મુંબઈ હવાઈ મથક (D) ઓરંગાબાદ હવાઈ મથક
018. જ્યારે દેશ સ્વતંત્ર થયો ત્યારે સૌરાષ્ટ્ર સહિત, ગુજરાતમાં દેશી રજવાડા હતા. ખાલી જગ્યા પૂરો.
 (A) 365 (B) 366
 (C) 367 (D) 368
019. ભારતમાં કેન્દ્રીય બેંકીંગ કામગીરીઓ દ્વારા કરવામાં આવે છે.
 1. સેન્ટ્રલ બેંક ઓફ ઈન્ડિયા
 2. રીઝર્વ બેંક ઓફ ઈન્ડિયા
 3. સ્ટેટ બેંક ઓફ ઈન્ડિયા
 4. પંજાબ નેશનલ બેંક
 (A) 1, 2 (B) 2
 (C) 1 (D) 2, 3

011. To which of the following dynasties did King Bhoja, a great patron of literature and art belong?
 (A) Karkola (B) Utpala
 (C) Paramara (D) Gurjara Pratihara
012. The theory of economic drain of India during British imperialism was propounded by
 (A) Jawaharlal Nehru (B) Dadabhai Naoroji
 (C) R. C. Dutt (D) M. K. Gandhi
013. The Battle of Plassey was fought in
 (A) 1757 (B) 1782
 (C) 1748 (D) 1764
014. The system of competitive examination for civil service was accepted in principle in the year
 (A) 1833 (B) 1853
 (C) 1858 (D) 1882
015. The Vijayanagara ruler, Kirshnadev Raya's work Amukiamalyacla, was in
 (A) Sanskrit (B) Tamil
 (C) Kannada (D) Telugu
016. The troops raised by the emperor but not paid directly by the state and placed under the charge of mansahadars were known as
 (A) Walashahi (B) Barawardi
 (C) JCumaki (D) Dakhili
017. Which airport is set to be renamed "Jagadguru Sant Tukaram Maharaj Airport"?
 (A) Nagpur airport (B) Pune airport
 (C) Mumbai airport (D) Aurangabad airport
018. When the country became independent, there were _____ princely states in Gujarat, including Saurashtra.
 (A) 365 (B) 366
 (C) 367 (D) 368
019. The central banking functions in India are performed by the
 1. Central Bank of India
 2. Reserve Bank of India
 3. State Bank of India
 4. Punjab National Bank
 (A) 1, 2 (B) 2
 (C) 1 (D) 2, 3

020. ગીલ્ટ-એજ્ડ માર્કેટ (Gilt-edged market) નો અર્થ
 (A) બુલીયન માર્કેટ (bullion market)
 (B) સરકારી જામીનગીરીઓનું માર્કેટ (market of government securities)
 (C) ગુન્સ નું માર્કેટ (market of guns)
 (D) શુદ્ધ ધાતુઓનું માર્કેટ (market of pure metals)
021. ભારત માં સિક્કાની દશાંશ પદ્ધતિમાં પરિવર્તિત થઈ ગયું.
 (A) એપ્રિલ 1956 (B) એપ્રિલ 1957
 (C) એપ્રિલ 1958 (D) એપ્રિલ 1959
022. બંધારણ સભામાં ના રોજ બંધારણ સ્વીકારવામાં આવ્યું ઘડવામાં આવ્યું અને આપણને આપવામાં આવ્યું.
 (A) 26મી જાન્યુઆરી, 1949 (B) 26મી માર્ચ, 1949
 (C) 26મી ઓગષ્ટ, 1949 (D) 26મી નવેમ્બર, 1949
023. નીચે વિષયવસ્તુ અને કલમની જોડી આપેલ છે. કઈ જોડી યોગ્ય રીતે જોડાયેલી નથી ?
 (A) 14 - કાયદા સમક્ષ સમાનતા
 (B) 19 - વાણી સ્વાતંત્ર્ય વગેરે સંબંધી અમુક હકોનું રક્ષણ
 (C) 21 - જીવન અને વ્યક્તિગત સ્વતંત્રતાનું રક્ષણ
 (D) 25 - કારખાના વગેરેમાં બાળકોને નોકરીએ રાખવાનો પ્રતિબંધ
024. નીચે આપેલ વિષયવસ્તુ અને કલમોને રાજ્યનીતિના માર્ગદર્શક સિદ્ધાંતોમાં કરેલ ઉલ્લેખના આધારે ચકાસો.
 1. 39 - રાજ્યએ અનુસરવાની નીતિના અમુક સિદ્ધાંતો
 2. 44 - નાગરિકો માટે એક સમાન દીવાની કાયદા
 (A) માત્ર 1 સાચું છે. (B) માત્ર 2 સાચું છે.
 (C) 1 તથા 2 બંને સાચાં છે. (D) 1 તથા 2 બંને સાચા નથી.
025. સંઘની સંસદ એ ની બનેલી હશે.
 (A) રાષ્ટ્રપતિ (B) રાજ્યોની પરિષદ
 (C) લોકસભા (D) (A), (B) તથા (C) તમામ
026. જ્યારે સંસદની બેઠક ચાલુ ન હોય, ત્યારે રાષ્ટ્રપતિને વટહુકમો પ્રસિદ્ધ કરવાની સત્તા કઈ કલમ અંતર્ગત આપવામાં આવી છે ?
 (A) 120 (B) 121
 (C) 123 (D) 124
027. ના રોજ કેબીનેટે ઠરાવ પસાર કરીને આયોજન પંચના સ્થાને નવીન NITI આયોગ (National Institution for Transforming India)ની સ્થાપના કરી.
 (A) 1 જાન્યુઆરી 2015 (B) 1 જાન્યુઆરી 2016
 (C) 1 જાન્યુઆરી 2017 (D) 1 જાન્યુઆરી 2018
028. ન્યાયતંત્રને કારોબારીથી અલગ કરવા બાબતનો ઉલ્લેખ ભારતના બંધારણની કઈ કલમમાં કરવામાં આવેલ છે ?
 (A) 46 (B) 47
 (C) 49 (D) 50

020. Gilt-edged market means
 (A) bullion market
 (B) market of government securities
 (C) market of guns
 (D) market of pure metals
021. India changed over to the decimal system of coinage in
 (A) April 1956 (B) April 1957
 (C) April 1958 (D) April 1959
022. In the constituent assembly, this constitution was adopted enacted and given to ourselves on
 (A) 26th January, 1949 (B) 26th March, 1949
 (C) 26th August, 1949 (D) 26th November, 1949
023. The pairs showing the contents and the article are mentioned below. Which pair is not correct?
 (A) 14 - Equality before law.
 (B) 19 - Protection of certain rights regarding freedom of speech, etc.
 (C) 21 - Protection of life and personal liberty.
 (D) 25 - Prohibition of employment of children in factories, etc.
024. Evaluate the contents and the Articles mentioned in DIRECTIVE PRINCIPLES OF STATE POLICY.
 1. 39 - Certain principles of policy to be followed by the State.
 2. 44 - Uniform civil code for the citizens.
 (A) only 1 is correct (B) only 2 is correct
 (C) both 1 and 2 are correct (D) both 1 and 2 are not correct
025. A Parliament for the Union, shall consist of
 (A) the President (B) the Council of States
 (C) the House of the People (D) (A), (B) and (C) all
026. Power of President to promulgate Ordinances during recess of Parliament, is mentioned under which article?
 (A) 120 (B) 121
 (C) 123 (D) 124
027. On _____, a Cabinet resolution was passed, to replace the Planning Commission with the newly formed NITI Aayog. (National Institution for Transforming India)
 (A) 1 January 2015 (B) 1 January 2016
 (C) 1 January 2017 (D) 1 January 2018
028. Separation of judiciary from executive is mentioned, under which article of Indian constitution?
 (A) 46 (B) 47
 (C) 49 (D) 50

029. ચૂંટણીઓના દેખરેખ માર્ગદર્શન અને નિયંત્રણ એ ચૂંટણીપંચમાં નિહિત કરવા બાબતનો ઉલ્લેખ ભારતના બંધારણની કઈ કલમમાં કરવામાં આવેલ છે ?
- (A) 322 (B) 323
(C) 324 (D) 325
030. કેન્દ્રીય માહિતી આયોગની રચના ક્યારથી કરવામાં આવી ?
- (A) 12-10-2003 (B) 12-10-2004
(C) 12-10-2005 (D) 12-10-2006
031. હવામાં કયા વાયુની હાજરીને લીધે હવામાં પિત્તળ (Brass) એ રંગહીન થઈ જાય છે.
- (A) ઓક્સીજન (B) હાઈડ્રોજન સલ્ફાઈડ
(C) કાર્બન ડાયોક્સાઈડ (D) નાઈટ્રોજન
032. નીચેના પૈકી કોનું સામાન્ય નામ વોશીંગ સોડા છે ?
- (A) સોડીયમ કાર્બોનેટ (B) કેલ્શીયમ બાયકાર્બોનેટ
(C) સોડીયમ બાયકાર્બોનેટ (D) કેલ્શીયમ કાર્બોનેટ
033. ધ્વનિના કંપવિસ્તારને માપવાનો એકમ કયો છે ?
- (A) કુલંબ (Coulomb) (B) હમ (Hum)
(C) સાયકલ (Cycles) (D) ડેસીબલ (Decibel)
034. યુરેનિયમનો કયો સમસ્થાનિક એ શુંબલા પ્રતિક્રિયાને ટકાવી રાખવાની ક્ષમતા ધરાવે છે ?
- (A) U-235 (B) U-245
(C) U-239 (D) U-238
035. Epoxy રેસીન એ તરીકે ઉપયોગમાં લેવાય છે.
- (A) ડીટરજન્ટ (detergents) (B) જંતુનાશક (insecticides)
(C) એડહેસીવ (adhesives) (D) પતંગીયા દૂર કરનાર (moth repellents)
036. MOV extension એ સામાન્ય રીતે કયા પ્રકારની ફાઈલના સંદર્ભમાં છે ?
- (A) Image ફાઈલ (B) Animation / movie ફાઈલ
(C) Audio ફાઈલ (D) MS ઓફિસ ડોક્યુમેન્ટ
037. VVVF નું પુરૂં નામ શું છે ?
- (A) Variant Voltage Vile Frequency (B) Variable Velocity Variable Fun
(C) Very Very Vicious Frequency (D) Variable Voltage Variable Frequency
038. વાતાવરણનું નીચેના પૈકી કયું સ્તર એ ઓઝોનનું સ્તર ધરાવે છે, કે જે પાર જાંબલી (Ultra violet) (UV) પ્રકાશનું શોષણ કરવા માટે જવાબદાર છે ?
- (A) ક્ષોભ મંડળ (Troposphere) (B) મધ્ય મંડળ (Mesosphere)
(C) સમતાપ મંડળ (Stratosphere) (D) ઉપરના પૈકી એક પણ નહીં
039. ભારત પાસે આદર્શ રીતે જંગલની જમીનની અંદાજિત ટકાવારી કેટલી હોવી જોઈએ ?
- (A) 15% (B) 50%
(C) 44% (D) 33%

029. The provision for Superintendence, direction and control of elections to be vested in an Election Commission, is mentioned which article of Indian Constitution?
(A) 322 (B) 323
(C) 324 (D) 325
030. The Central Information Commission has been constituted with effect from
(A) 12-10-2003 (B) 12-10-2004
(C) 12-10-2005 (D) 12-10-2006
031. Brass gets discoloured in air because of the presence of which of the following gases in air?
(A) Oxygen (B) Hydrogen sulphide
(C) Carbon dioxide (D) Nitrogen
032. Washing soda is the common name for
(A) Sodium carbonate (B) Calcium bicarbonate
(C) Sodium bicarbonate (D) Calcium carbonate
033. What is the unit for measuring the amplitude of a sound?
(A) Coulomb (B) Hum
(C) Cycles (D) Decibel
034. The isotope of uranium capable of sustaining chain reaction is
(A) U-235 (B) U-245
(C) U-239 (D) U-238
035. Epoxy resins are used as
(A) detergents (B) insecticides
(C) adhesives (D) moth repellents
036. MOV extension refers usually to what kind of file?
(A) Image file (B) Animation/movie file
(C) Audio file (D) MS Office document
037. What does VVVF stand for?
(A) Variant Voltage Variable Frequency (B) Variable Velocity Variable Fun
(C) Very Very Vicious Frequency (D) Invariable Voltage Variable Frequency
038. Which of these layers of the atmosphere consists of the ozone layer that is responsible for absorbing the Ultra-Violet (UV) light?
(A) Troposphere (B) Mesosphere
(C) Stratosphere (D) None of these
039. What is the estimated percentage of forest land that India should ideally have?
(A) 15% (B) 50%
(C) 44% (D) 33%

040. ચા અથવા કોફીના છોડ સ્ત્રોત સાથે કયો કેફી પદાર્થ સંકળાયેલો છે ?
 (A) કપૂર (Camphor) (B) કેફીન (Caffeine)
 (C) ધતૂરા (Thorn apple) (D) અફીણ (Opium Poppy)
041. નીચેના પૈકી કઈ ભારતીય ટેનીસ જોડીએ હંગઝાઉ (Hangzhou) ઓપન 2024 પુરૂષનો ડબલ ખિતાબ જીત્યો ?
 (A) જીવન નેહનચેઝિયાન અને વિજય સુંદર પ્રશાંત
 (B) રોહન બોપન્ના અને મહેશ ભૂપતિ
 (C) લીએન્ડર પેસ અને સુમિત નાગલ
 (D) પુરવ રાજા અને દિવિજ શરણ
042. ખેડૂતો અને ઉદ્યોગ સાહસિકોને સહાય અર્થે ભારતના કયા રાજ્યએ 'બના કૈહ' (Bana Kaih) યોજના લાગુ કરી ?
 (A) નાગાલેન્ડ (B) મિઝોરમ
 (C) આસામ (D) મેઘાલય
043. 55મો ઈન્ટરનેશન ફિલ્મ ફેસ્ટિવલ ઓફ ઈન્ડિયા (IFFI) ક્યાં યોજાનાર છે ?
 (A) મુંબઈ (B) નવી દિલ્હી
 (C) ચેન્નાઈ (D) ગોવા
044. કૃષિ રોકાણ પોર્ટલ (Krishi Nivesh Portal) નો પ્રાથમિક હેતુ શું છે ?
 (A) કૃષિ રોકાણ અને ખેડૂત સહાય
 (B) પાક ઉપજમાં વધારો
 (C) ખેડૂતોને આબોહવાની અદ્યતન માહિતી આપવી
 (D) કૃષિ ઉત્પાદનોના આંતરરાષ્ટ્રીય વેપારની સુવિધા
045. કઈ મુખ્ય બેંક પાર્ટનરશીપ ફોર કાર્બન એકાઉન્ટીંગ ફાઈનાન્સીયલ્સ (PCAF)માં જોડાનાર સૌપ્રથમ છે ?
 (A) સ્ટેટ બેંક ઓફ ઈન્ડિયા (B) યુનિયન બેંક ઓફ ઈન્ડિયા
 (C) પંજાબ નેશનલ બેંક (D) ICICI બેંક
046. જલદાપાડા રાષ્ટ્રીય ઉદ્યાન (Jaldapara National Park) કયા રાજ્યમાં સ્થિત છે ?
 (A) આસામ (B) પશ્ચિમ બંગાળ
 (C) મધ્યપ્રદેશ (D) ઓરિસ્સા
047. Nadi ઉત્સવ 2024નું ઉદ્ઘાટન ક્યાં કરવામાં આવ્યું ?
 (A) મુંબઈ (B) નવી દિલ્હી
 (C) કોલકત્તા (D) બેંગાલૂરુ
048. કુસ્તીમાં ઓલિમ્પીક મેડલ જીતનાર પ્રથમ ભારતીય મહિલા કોણ હતી ?
 (A) વિનેશ ફોગટ (B) ગીતા ફોગટ
 (C) સાક્ષી મલિક (D) બબીતા કુમારી
049. એકલવ્ય પુરસ્કાર માટે પસંદગી પામેલ તરવૈયા પ્રાત્યસા રાય એ કયા રાજ્યના છે ?
 (A) મહારાષ્ટ્ર (B) કેરળ
 (C) ઓરિસ્સા (D) પશ્ચિમ બંગાળ
050. રોબોટીક આસીસ્ટેડ સર્જરી પ્રશિક્ષણ કેન્દ્રની સ્થાપના કરવા માટે કઈ સંસ્થાએ Intuitive સાથે ભાગીદારી કરી છે ?
 (A) AIIMS દિલ્હી (B) AIIMS ભોપાલ
 (C) AIIMS નાગપુર (D) AIIMS પટણા

040. Which drug is associated with the tea or coffee plant source?
(A) Camphor (B) Caffeine
(C) Thorn Apple (D) Opium Poppy
041. Which Indian tennis duo won the Hangzhou Open 2024 men's doubles title?
(A) Jeevan Nedunchezhiyan and Vijay Sundar Prashanth
(B) Rohan Bopanna and Mahesh Bhupathi
(C) Leander Paes and Sumit Nagal
(D) Purav Raja and Divij Sharan
042. In which Indian state was the 'Bana Kaih' scheme launched to support farmers and entrepreneurs?
(A) Nagaland (B) Mizoram
(C) Assam (D) Meghalaya
043. Where will the 55th International Film Festival of India (IFFI) take place?
(A) Mumbai (B) New Delhi
(C) Chennai (D) Goa
044. What is the primary purpose of the Krishi Nivesh Portal?
(A) Agricultural investments and support farmers
(B) Increasing crop yield
(C) Providing weather updates to farmers
(D) Facilitating international trade of agricultural products
045. Which major bank became the first to join the Partnership for Carbon Accounting Financials (PCAF)?
(A) State Bank of India (B) Union Bank of India
(C) Punjab National Bank (D) ICICI Bank
046. In which state is Jaldapara National Park, located?
(A) Assam (B) West Bengal
(C) Madhya Pradesh (D) Odisha
047. Where was Nadi Utsav 2024 inaugurated?
(A) Mumbai (B) New Delhi
(C) Kolkata (D) Bengaluru
048. Who was the first Indian woman to win an Olympic medal in wrestling?
(A) Vinesh Phogat (B) Geeta Phogat
(C) Sakshi Malik (D) Babita Kumari
049. Which state is swimmer Pratyasa Ray from, who has been selected for the Ekalabya Puraskar?
(A) Maharashtra (B) Kerala
(C) Odisha (D) West Bengal
050. Which institution has partnered with Intuitive to establish a robotic-assisted surgery training centre?
(A) AIIMS Delhi (B) AIIMS Bhopal
(C) AIIMS Nagpur (D) AIIMS Patna

051. પ્રશ્નમાં એક રેખાંકિત શબ્દ છે અને ત્યારબાદ ચાર જવાબોની પસંદગી છે. રેખાંકિત શબ્દનો આવશ્યક ભાગ છે. તે શબ્દ પસંદ કરો.

લણણી

(A) પાનખર

(B) સ્ટોકપાઈલ

(C) ટ્રેક્ટર

(D) પાક

052. આ શ્રેણીમાં 7, 10, 8, 11, 9, 12, ... આગળ કયો નંબર આવવો જોઈએ ?

(A) 7

(B) 10

(C) 12

(D) 13

053. દરેક 3 વર્ષના અંતરાલમાં જન્મેલા 5 બાળકોની ઉંમરનો સરવાળો 50 વર્ષ છે. સૌથી નાના બાળકની ઉંમર કેટલી હશે ?

(A) 4 વર્ષ

(B) 8 વર્ષ

(C) 10 વર્ષ

(D) ઉપરોક્ત પૈકી એક પણ નહીં

054. પિતાની ઉંમર તેમના પુત્ર રોનિત કરતા ત્રણ ગણી વધારે છે. 8 વર્ષ પછી તે રોનિતની ઉંમર કરતાં અઠી ગણો હશે. વધુ 8 વર્ષ પછી તે રોનિતની ઉંમરના કેટલા ગણા હશે ?

(A) 2 ગણા

(B) 2.5 ગણા

(C) 2.75 ગણા

(D) 3 ગણા

055. આજે સોમવાર છે. 61 દિવસ પછી કયો વાર હશે ?

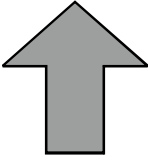
(A) બુધવાર

(B) શનિવાર

(C) મંગળવાર

(D) ગુરુવાર

056. નીચેના આકૃતિ = આકારમાં કેટલા ખૂણા છે ?



(A) 5

(B) 6

(C) 7

(D) 8

057. લંબચોરસની પરિમિત 20 સે.મી. છે જો લંબચોરસની લંબાઈ 6 સે.મી. હોય તો તેની પહોળાઈ કેટલી હશે ?

(A) 4 સે.મી

(B) 6 સે.મી.

(C) 10 સે.મી.

(D) 14 સે.મી.

058. A અને B મળીને રૂ. 1201 ધરાવે છે. જો A ની રકમનો $(4/15)$, B ની રકમના $(2/5)$ બરાબર હોય, તો B પાસે કેટલી રકમ છે ?

(A) રૂ. 460

(B) રૂ. 484

(C) રૂ. 550

(D) રૂ. 664

059. A, B, C નો પગાર 2:3:5 ગુણોત્તરમાં છે. જો તેમના પગારમાં વધારો અનુક્રમે 15%, 10% અને 20% નો વધારો થાય તો તેમના પગારનો નવો ગુણોત્તર શું હશે ?

(A) 3:3:10

(B) 10:11:20

(C) 23:33:60

(D) નિર્ધારિત કરી શકાતું નથી

051. The question has an underlined word followed by four answer choices. You will choose the word that is a necessary part of the underlined word.

harvest

- (A) autumn (B) stockpile
(C) tractor (D) crop

052. Look at this series: 7, 10, 8, 11, 9, 12, ... What number should come next?

- (A) 7 (B) 10
(C) 12 (D) 13

053. The sum of ages of 5 children born at the intervals of 3 years each is 50 years. What is the age of the youngest child?

- (A) 4 years (B) 8 years
(C) 10 years (D) None of these

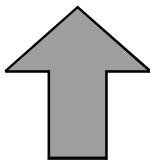
054. Father is aged three times more than his son Ronit. After 8 years, he would be two and a half times of Ronit's age. After further 8 years, how many times would he be of Ronit's age?

- (A) 2 times (B) 2.5 times
(C) 2.75 times (D) 3 times

055. Today is Monday. After 61 days, it will be:

- (A) Wednesday (B) Saturday
(C) Tuesday (D) Thursday

056. How many corners are there in the following shape?



- (A) 5 (B) 6
(C) 7 (D) 8

057. The perimeter of the rectangle is 20 cm. If the length of the rectangle is 6 cm, then its breadth will be:

- (A) 4 cm (B) 6 cm
(C) 10 cm (D) 14 cm

058. A and B together have Rs. 1210. If $(4/15)$ of A's amount is equal to $(2/5)$ of B's amount, how much amount does B have?

- (A) Rs. 460 (B) Rs. 484
(C) Rs. 550 (D) Rs. 664

059. The salaries A, B, C are in the ratio 2:3:5. If the increments of 15%, 10% and 20% are allowed respectively in their Salaries, then what will be new ratio of their salaries?

- (A) 3:3:10 (B) 10:11:20
(C) 23:33:60 (D) Cannot be determined

060. એવી સૌથી મોટી સંખ્યા શોધો જે 43, 91 અને 183 ને વિભાજિત કરશે જેથી દરેક કિસ્સામાં સમાન બાકી રહે ?
 (A) 4 (B) 7
 (C) 9 (D) 13
061. બે વિદ્યાર્થીઓએ પરીક્ષા આપી હતી તેમાંથી એકે બીજા કરતા 9 ગુણ વધુ મેળવ્યા હતા અને તેના ગુણ તેઓના ગુણના સરવાળાના 56% હતા. તેમના દ્વારા મેળવેલ ગુણ આ પ્રમાણે છે.
 (A) 39, 30 (B) 41, 32
 (C) 42, 33 (D) 43, 34
062. નાણાની રકમ સાદા વ્યાજે 3 વર્ષમાં રૂ. 815 અને 4 વર્ષમાં 854 થાય છે. મુદ્દલ રકમ કેટલી હશે ?
 (A) રૂ. 650 (B) રૂ. 690
 (C) રૂ. 698 (D) રૂ. 700
063. A, B અને C અનુક્રમે 20, 30 અને 60 દિવસમાં એક કાર્ય કરી શકે છે. દર ત્રીજા દિવસે B અને C દ્વારા મદદ કરવામાં આવે તો A કેટલા દિવસમાં કામ કરી શકે ?
 (A) 12 દિવસ (B) 15 દિવસ
 (C) 16 દિવસ (D) 18 દિવસ
064. એક વ્યક્તિ 5 મિનિટમાં 600 મીટર લાંબી શેરી પાર કરે છે. પ્રતિ કલાકમાં તેની ઝડપ કેટલી કિ.મી. હશે ?
 (A) 3.6 (B) 7.2
 (C) 8.4 (D) 10
065. 60 કિમી/કલાકની ઝડપે દોડતી ટ્રેન 9 સેકન્ડમાં પોલ પાર કરે છે. ટ્રેનની લંબાઈ કેટલી હશે ?
 (A) 120 મીટર (B) 180 મીટર
 (C) 324 મીટર (D) 150 મીટર
066. એક જમીનમાં 5 સેમી વરસાદ પડે છે. 1.5 હેક્ટર જમીન પર કેટલું પાણી પડેલ હશે ?
 (A) 75 cu. m (B) 750 cu. m
 (C) 7500 cu. m (D) 75000 cu. m
067. રાઈટ એન્ગલ ટ્રાઈએન્ગલ A right-angled triable જેની બાજુઓની લંબાઈ 21 સેમી, 20 સેમી છે, ત્રીજી બાજુની લંબાઈ શોધો.
 (A) 19 (B) 23
 (C) 29 (D) 33
068. મૂલ્યાંકન કરો : $2 + 4 \div (22 + 6) \times 2$.
 (A) 16/7 (B) 21/8
 (C) 19/9 (D) 23/11
069. બિગ ડેટા વિશ્લેષણ, નીચેના સિવાય શું કરે છે ?
 (A) ડેટા એકત્રિત કરે છે. (B) ડેટા ફેલાવે છે.
 (C) ડેટા ગોઠવે છે. (D) ડેટાનું વિશ્લેષણ કરે છે.
070. આ શ્રેણીમાં 3, 4, 7, 8, 11, 12, ... આગળ કયો નંબર આવવો જોઈએ ?
 (A) 7 (B) 10
 (C) 14 (D) 15

060. Find the greatest number that will divide 43, 91 and 183 so as to leave the same remainder in each case.
 (A) 4 (B) 7
 (C) 9 (D) 13
061. Two students appeared at an examination. One of them secured 9 marks more than the other and his marks was 56% of the sum of their marks. The marks obtained by them are:
 (A) 39, 30 (B) 41, 32
 (C) 42, 33 (D) 43, 34
062. A sum of money, at simple interest amounts to Rs. 815 in 3 years and to Rs. 854 in 4 years. The principal amount is:
 (A) Rs. 650 (B) Rs. 690
 (C) Rs. 698 (D) Rs. 700
063. A, B and C can do a piece of work in 20, 30 and 60 days respectively. In how many days can A do the work if he is assisted by B and C on every third day?
 (A) 12 days (B) 15 days
 (C) 16 days (D) 18 days
064. A person crosses a 600 m long street in 5 minutes. What is his speed in km per hour?
 (A) 3.6 (B) 7.2
 (C) 8.4 (D) 10
065. A train running at the speed of 60 km/hr crosses a pole in 9 seconds. What is the length of the train?
 (A) 120 meters (B) 180 meters
 (C) 324 meters (D) 150 meters
066. 5 cm of rain falls in a ground, The volume of water that falls on 1.5 hectares of ground is:
 (A) 75 cu. m (B) 750 cu. m
 (C) 7500 cu. m (D) 75000 cu. m
067. A right-angled triangle whose sides are of length 21 cm, 20 cm, find the length of third side:
 (A) 19 (B) 23
 (C) 29 (D) 33
068. Evaluate: $2 + 4 \div (22 + 6) \times 2$.
 (A) 16/7 (B) 21/8
 (C) 19/9 (D) 23/11
069. Big data analysis does the following, except
 (A) Collects data (B) Spreads data
 (C) Organizes data (D) Analyses data
070. Look at this series: 3, 4, 7, 8, 11, 12, ... What number should come next?
 (A) 7 (B) 10
 (C) 14 (D) 15

071. એક સચોટ ઘડિયાળ સવારના 8 વાગ્યા દર્શાવે છે. જ્યારે ઘડિયાળ બપોરે 2 વાગ્યા દર્શાવશે ત્યારે કલાકનો હાથ (the hour hand) કેટલા અંશ ફરશે ?
 (A) 144° (B) 150°
 (C) 168° (D) 180°
072. જો સંખ્યાના ચોથા ભાગનો એક તૃતીયાંશ 15 હોય તો તે સંખ્યાનો ત્રણ-દસમો ભાગ કેટલો હશે ?
 (A) 35 (B) 36
 (C) 45 (D) 54
073. 60 લિટર મિશ્રણમાં દૂધ અને પાણીનો ગુણોત્તર 2 : 1 છે. જો આ ગુણોત્તર 1 : 2 હોય, તો પાણીનો કેટલો જથ્થો વધુ ઉમેરવાનો છે ?
 (A) 20 લિટર (B) 30 લિટર
 (C) 40 લિટર (D) 60 લિટર
074. એક વ્યક્તિ પાસે એક રૂપિયાની નોટ, પાંચ રૂપિયાની નોટ અને દસ રૂપિયાની નોટોના મૂલ્યમાં રૂ. 480 છે. દરેક પ્રકારની નોટોની સંખ્યા સમાન છે. તેની પાસે કુલ કેટલી નોટ છે ?
 (A) 45 (B) 60
 (C) 75 (D) 90
075. 2, 3, 5, 6, 7 અને 9 અંકોમાંથી કેટલી 3 અંગની સંખ્યાઓ બની શકે છે, જે 5 વડે ભાગી શકાય છે અને કોઈ પણ અંકનું પુનરાવર્તન થતું નથી ?
 (A) 5 (B) 10
 (C) 15 (D) 20
076. નીચેનામાંથી કોના સૌથી વધુ વિભાજકો (divisors) છે ?
 (A) 99 (B) 101
 (C) 176 (D) 182
077. સ્ટેશનના પ્લેટફોર્મ પરથી ટ્રેન 36 સેકન્ડમાં પસાર થાય છે અને પ્લેટફોર્મ પર ઊભેલો માણસ 20 સેકન્ડમાં. જો ટ્રેનની ઝડપ 54 કિમી/કલાક હોય, તો પ્લેટફોર્મની લંબાઈ કેટલી છે ?
 (A) 120 મી (B) 240 મી
 (C) 300 મી (D) 360 મી
078. 66 ઘન સેન્ટીમીટર ચાંદીનો ઉપયોગ 1 મીમી વ્યાસનો વાયર બનાવવા માટે થાય છે. તો મીટરમાં વાયરની લંબાઈ કેટલી હશે ?
 (A) 84 (B) 90
 (C) 168 (D) 336
079. બિગ ડેટાના ચાર V શું છે ?
 (A) વોલ્યુમ (Volume) (B) વેગ (Velocity)
 (C) વિવિધતા (Variety) (D) ઉપરોક્ત તમામ (All the above)
080. મૂલ્યાંકન કરો : $\{15 \times 32 \div 2 \times 5\} \div 75$
 (A) 12 (B) 14
 (C) 15 (D) 16

071. An accurate clock shows 8 o'clock in the morning. Through how many degree will the hour hand rotate when the clock shows 2 o'clock in the afternoon?
- (A) 144° (B) 150°
 (C) 168° (D) 180°
072. If one-third of one-fourth of a number is 15, then three-tenth of that number is:
- (A) 35 (B) 36
 (C) 45 (D) 54
073. In a mixture 60 liters, the ratio of milk and water 2:1, If this ratio is to be 1:2, then the quantity of water to be further added is:
- (A) 20 litres (B) 30 litres
 (C) 40 litres (D) 60 litres
074. A man has Rs. 480 in the denominations of one-rupee notes, five-rupee notes and ten-rupee notes. The number of notes of each denomination is equal. What is the number of notes that he has?
- (A) 45 (B) 60
 (C) 75 (D) 90
075. How many 3-digit numbers can be formed from the digits 2, 3, 5, 6, 7 and 9, which are divisible by 5 and none of the digits is repeated?
- (A) 5 (B) 10
 (C) 15 (D) 20
076. Which of the following has the most number of divisors?
- (A) 99 (B) 101
 (C) 176 (D) 182
077. A train passes a station platform in 36 seconds and a man standing on the platform in 20 seconds. If the speed of the train is 54 km/hr, what is the length of the platform?
- (A) 120 m (B) 240 m
 (C) 300 m (D) 360 m
078. 66 cubic centimetres of silver is drawn into a wire 1 mm in diameter. The length of the wire in metres will be:
- (A) 84 (B) 90
 (C) 168 (D) 336
079. What are the four V's of Big Data?
- (A) Volume (B) Velocity
 (C) Variety (D) All the above
080. Evaluate: $\{15 \times 32 + 2 \times 5\} \div 75$
- (A) 12 (B) 14
 (C) 15 (D) 16

081. બધી જોડણી સાચી હોય તેવો વિકલ્પ પસંદ કરો.

1. શૈથિલ્ય, શિથિલતા, મંદતા, ઢીલાશ
2. સંપ્રતીત, સંપ્રતિ, સંપ્રીતિ, સંપૃક્ત
3. હરીદાર, હરિશ્વર, હરીફ, હરિહર
4. વેચાવ, વૈતાલીક, વૈખાનશ, વૈતાળીય

(A) ફક્ત 1 સાચું છે.

(B) ફક્ત 2 સાચું છે.

(C) ફક્ત 1 અને 2 સાચા છે.

(D) ફક્ત 2 અને 3 સાચા છે.

082. નીચે આપેલાં જૂથ ધ્યાને લઈ સમાનાર્થી શબ્દો વિશે યોગ્ય વિકલ્પ પસંદ કરો.

1. પ્રાવૃષ, ચોમાસું, પ્રાતુસકાળ, વર્ષાઋતુ
2. પ્રાવૃષ, સવાર, પ્રાતુસકાળ, પરોઢ
3. પ્રાઘુણ, પરોણો, મહેમાન, અતિથિ
4. ભૂર, ખૂબ, પુષ્કળ, ફૂરિ

(A) ફક્ત 1 અને 2 યોગ્ય છે.

(B) ફક્ત 3 અને 4 યોગ્ય છે.

(C) ફક્ત 1, 3 અને 4 યોગ્ય છે.

(D) 1, 2, 3 અને 4 યોગ્ય છે.

083. નીચે આપેલાં જૂથ ધ્યાને લઈ વિરુદ્ધાર્થી શબ્દો વિશે યોગ્ય વિકલ્પ પસંદ કરો.

1. નિજાનંદ × પરમાનંદ
2. સંપન્ન × વિપન્ન
3. વિબુદ્ધ × સુષુપ્ત
4. વિભાજક × સંયોજક

(A) ફક્ત 4 યોગ્ય છે.

(B) ફક્ત 1 અને 2 યોગ્ય છે.

(C) 2, 3 અને 4 બધા જ યોગ્ય છે.

(D) ફક્ત 3 અને 4 યોગ્ય છે.

084. નીચે આપેલા રૂઢિપ્રયોગ અને તેના અર્થ માટે યોગ્ય વિકલ્પ પસંદ કરો.

રૂઢિપ્રયોગ

અર્થ

- | | | |
|-----------------------|---|----------------------------|
| 1. પાઘડી નીચી કરવી | — | કાલાવાલા કરવા |
| 2. પાઘડી મૂકીને આવવું | — | છેતરાઈને આવવું |
| 3. અવળી પાઘડી મૂકવી | — | બેશરમ થવું |
| 4. પાઘડીનો ધણી | — | વહેવાર કે વેપારમાં માનવંતો |

(A) ફક્ત 1, 2 અને 4 યોગ્ય છે.

(B) ફક્ત 2 અને 3 યોગ્ય છે.

(C) ફક્ત 2, 3 અને 4 યોગ્ય છે.

(D) 1, 2, 3 અને 4 બધા જ યોગ્ય છે.

085. નીચે આપેલી કહેવતોને ધ્યાને લઈ તેના વિશે યોગ્ય વિકલ્પ પસંદ કરો.

1. વસુ વિના નર પશુ
2. નાણા વિનાનો નાથિયો, નાણે નાથાલાલ
3. જર ગયો ને જૈભ ગયો
4. જર, જમીન અને જોરુ, ત્રણેય કજિયાના છોરું

(A) 3 અને 4 સમાનાર્થી કહેવતો છે, 1 અને 4 વરુદ્ધાર્થી કહેવતો છે.

(B) 1 અને 2 સમાનાર્થી કહેવતો છે, 2 અને 4 વરુદ્ધાર્થી કહેવતો છે.

(C) 1 અને 4 સમાનાર્થી કહેવતો છે, 2 અને 3 વરુદ્ધાર્થી કહેવતો છે.

(D) 1 અને 3 સમાનાર્થી કહેવતો છે, 1 અને 2 વરુદ્ધાર્થી કહેવતો છે.

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

સામાસિક શબ્દ	પ્રકાર
1. વંશવારસ	— તત્પુરુષ સમાસ
2. ગણેશવંદના	— દ્વંદ્વ સમાસ
3. વ્યોમસર	— કર્મધારય સમાસ
4. ઘરભંગ	— ઉપપદ સમાસ

(A) ફક્ત 1 અને 3 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.

087. નીચે આપેલી સંધિ વિશે યોગ્ય વિકલ્પ પસંદ કરો.

1. અનુ + ઉત્તર = અનુતર
2. ભાષ + આંતર = ભાષાંતર
3. પરોપ + કાર = પરોપકાર
4. ચિંતા + તુર = ચિંતાતુર

(A) ફક્ત 1 અને 4 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 છંદના પ્રકારનો યોગ્ય વિકલ્પ પસંદ કરો.

1. 'ભવતુ ! ભવતુ ! દેવી ! વિશ્વ છોને વિસારે,
પણ સુરગણ તારી નિત્ય કીર્તિ ઉચારે.'
2. 'પ્રમુદિત થઈને સુણી રહે એ
અનુભવતો કંઈ એ ભાવ નવીન.'
3. 'ભજો ભવતારણ શ્રી ભગવાન,
તજો નિજ અંતરનું અભિમાન.'
4. 'કૃતાર્થ નેણે નિરખી રહી વદે,
સહીશ શી રીત વિયોગ દેવિ હું.'

- (A) 1. માલિની, 2. પુષ્પિતાગ્રા, 3. મોતીદામ, 4. વંશસ્થ
(B) 1. માલિની, 2. પુષ્પિતાગ્રા, 3. વંશસ્થ, 4. મોતીદામ
(C) 1. માલિની, 2. મોતીદામ, 3. પુષ્પિતાગ્રા, 4. વંશસ્થ
(D) 1. માલિની, 2. વંશસ્થ, 3. મોતીદામ, 4. પુષ્પિતાગ્રા

089. નીચે આપેલી કાવ્ય-પંક્તિને ધ્યાને લઈ એના અલંકારના પ્રકાર માટે યોગ્ય વિકલ્પ પસંદ કરો.

1. એનાં ચકળવકળ થતાં નેણ રખે માછલીઓ હલમલતી.
2. ધૃતિ જે તને જીવાડતી, ધૃતિ તે તને સંહારતી, જે પોષતું તે મારતું એ કમ દીસે છે કુદરતી.
3. માછલીની ઘોડે તે સાગરમાં સેલ્વારા મારે છે.
4. કામિની-કોકિલા કેલી કૂજન કરે.

- (A) 1. સજ્જારોપણ, 2. શ્લેષ, 3. સ્વભાવોક્તિ, 4. વર્ણાનુપ્રાસ
(B) 1. ઉત્પ્રેક્ષા, 2. શ્લેષ, 3. દૃષ્ટાંત, 4. રૂપક
(C) 1. સજ્જારોપણ, 2. યમક, 3. ઉપમા, 4. વર્ણાનુપ્રાસ
(D) 1. ઉત્પ્રેક્ષા, 2. અર્થાન્તરન્યાસ, 3. ઉપમા, 4. રૂપક

090. નીચેની વિગતોને ધ્યાને લઈ યોગ્ય વિકલ્પ પસંદ કરો.

1. સુ + ઉક્તિ = સુક્તિ
2. 'સાંભળી શિયાળ બોલ્યુ દાખે દલપતરામ, અન્યનું તો એક વાંકું આપનાં અઢાર છે.' – મનહર
3. વરાળચંત્ર – તત્પુરૂષ સમાસ
4. વડ એવા ટેટા, બાપ એવા બેટા. – દૃષ્ટાંત અલંકાર

- (A) ફક્ત 1 અને 2 સાચા છે. (B) ફક્ત 1, 2 અને 3 સાચા છે.
(C) ફક્ત 2 અને 4 સાચા છે. (D) ફક્ત 4 સાચું છે.

091. The food was distributed _____ ten students.
 (A) Between (B) among
 (C) through (D) within
092. The major along with his soldiers were killed in the field. (Spot the error)
 (A) The major (B) along with
 (C) his soldiers (D) were killed in the field
 (E) No error
093. A book is a book, although there is nothing in it. Which of the following is the 'conjunction' in the above sentence?
 (A) Book (B) is
 (C) although (D) nothing
094. He _____ not take such a step.
 (A) fare (B) dares
 (C) dare (D) eares
095. Rama ordered Arjun to go away. (Turn into direct speech)
 (A) Rama ordered Arjun, go away. (B) Rama said, "Arjun go away."
 (C) Rama said to Arjun, "Go away." (D) Rama ordered to Arjun to go away.
096. _____ horse is a noble animal.
 (A) A (B) An
 (C) The (D) Zero Article
097. Identify the adjective in the following sentence:
 "Calcutta is a large city."
 (A) Calcutta (B) large
 (C) city (D) is
098. _____ when have you been playing?
 (A) For (B) From
 (C) Since (D) Till
099. He took away my books, yet I have been left with _____.
 (A) few (B) little
 (C) a few (D) a little
100. I don't have _____ money left.
 (A) many (B) little
 (C) few (D) any

101. Who is authorized to enter into an agreement with any person for assistance in fire fighting under the Gujarat Fire Prevention and Life Safety Measures Act, 2013, section 16?
- (A) Superintendent of police (B) Chief Fire Officer
(C) Private citizens (D) Director General of Police
102. Who is responsible for appointing a fire safety officer as per Section 12 of the Gujarat Fire Prevention and Life Safety Measures Act, 2013?
- (A) The Regional Fire Officer (B) The Labour Commissioner
(C) The factory owner and occupier (D) The Chief Fire Officer
103. To whom should the compliance report for the appointment of a fire safety officer be sent under Section 12 of the Gujarat Fire Prevention and Life Safety Measures Act, 2013?
- (A) Labour Commissioner
(B) State Government
(C) Regional Fire Officer or Chief Fire Officer
(D) Director of Fire Services
104. The training centres established under Section 17 of the Gujarat Fire Prevention and Life Safety Measures Act, 2013 provide instruction to personnel from which types of services?
- (A) Only Government fire services
(B) Both Fire Services and private services of industries, hotels, and other establishments specified by the State Government
(C) Only private industrial fire services
(D) Only local body fire services
105. Who has the authority to prescribe the fees and procedure for providing fire prevention and extinguishment training as per Section 17 of Gujarat Fire Prevention and Life Safety Measures Act, 2013?
- (A) Municipal Corporation (B) State Government
(C) Local fire services (D) Fire Safety Officer
106. Under which condition can an officer inspect a place without giving prior notice, as per the proviso in Section 24 of Gujarat Fire Prevention and Life Safety Measures Act, 2013?
- (A) If an industry is working or a function is going on
(B) If the building is empty
(C) If the building has been abandoned
(D) Only after obtaining a court order
107. What is the notice period required by the authorities before entering and inspecting a building under normal circumstances, according to Section 24 of Gujarat Fire Prevention and Life Safety Measures Act, 2013?
- (A) 3 hours (B) 6 hours
(C) 24 hours (D) No notice required
108. Who has the authority to grant a license to a Licensed Agency under the Gujarat Fire Prevention and Life Safety Measures Act, 2013?
- (A) Municipal Commissioner (B) Chief Fire Officer
(C) Director (D) Regional Fire Officer

109. For how long is a license granted to a Licensed Agency valid, as per Section 28 of the Gujarat Fire Prevention and Life Safety Measures Act, 2013?
- (A) One year (B) Indefinitely
(C) Five years (D) Two years
110. What is the maximum imprisonment term for knowingly giving a false report of a fire, as per Section 44 of the Act?
- (A) Five years with fine upto Rs. 1000/- or both
(B) Six months with fine upto Rs. 1000/- or both
(C) One year with fine upto Rs. 1000/- or both
(D) Three months with fine upto Rs. 1000/- or both
111. Gujarat Fire Prevention and Life Safety Measures Act, 2013, jurisdiction of the Director in Gujarat Fire Services is restricted to:
- (A) District (B) State
(C) Local Municipal Corporation (D) Fire region
112. Gujarat Fire Prevention and Life Safety Measures Act, 2013, the appointment of the Director in Gujarat Fire Service is done by:
- (A) State Government (B) Central Government
(C) Directorate of Fire Prevention Services (D) Commissioner of Municipal Corporation
113. Which aspect is covered under Section 18 of the Gujarat Fire Prevention and Life Safety Measures Act, 2013 covers:
- (A) Suspension, termination, and punishment
(B) Requirement for fire prevention and life safety measures
(C) Power to arrange the supply of water
(D) Powers, duties, and functions of Fire Officers
114. Which aspect is covered under Chapter IV of the Gujarat Fire Prevention and Life Safety Measures Act, 2013 covers:
- (A) Training to Fire Personnel and Fire Safety Officers
(B) Requisition and Compensation for Fire Equipment
(C) Provisions for Temporary Structures
(D) Offences and Penalties
115. The Gujarat Fire Prevention and Life Safety Measures Act, 2013 empowers _____ to grant permission for the use of temporary structures.
- i. Chief Fire Officer ii. Regional Fire Officer iii. Any Nominated Officer
- Select the correct option using the code below:
- (A) i only (B) i and ii only
(C) i, ii and iii (D) ii and iii only

116. Which aspect is covered under Section 12 of the Gujarat Fire Prevention and Life Safety Measures Act, 2013?
- (A) Appointment of Fire Safety Officer
(B) Appointment of Fire Officer
(C) Constitution of Fire Region
(D) Training for Fire Personnel and Fire Safety Officers
117. The appointment of Divisional Fire Officer and Station Fire Officer is regulated by which section of the Gujarat Fire Prevention and Life Safety Measures Act, 2013?
- (A) Section 9 (B) Section 10
(C) Section 11 (D) Section 13
118. Chapter VII of the Gujarat Fire Prevention and Life Safety Measures Act, 2013 addresses which of the following?
- (A) Requisition and Compensation for Fire Equipment
(B) Provisions for Temporary Structures
(C) Licensed Agency
(D) Offences and Penalties
119. According to Gujarat Fire Prevention and Life Safety Measures Act, 2013, for how many years the fire safety certificate issued to the owner of a residential building is valid?
- (A) 3 years (B) 5 years
(C) 7 years (D) 10 years
120. According to Gujarat Fire Prevention and Life Safety Measures Act, 2013, for how many years the fire safety certificate issued to the owner of a non-residential building is valid?
- (A) 7 years (B) 5 years
(C) 3 years (D) 10 years
121. Which of the following qualifications is NOT eligible for the grant of a license to issue certificates regarding compliance with fire prevention and life safety measures?
- (A) Degree in Fire Engineering from National Fire Service College
(B) Diploma in Fire Engineering from National Fire Service College
(C) Degree or Diploma in Mechanical Engineering
(D) Degree or Diploma in Computer Engineering
122. The license to act as a Licensed Agency in the state of Gujarat is _____.
- i. Non-transferable
ii. Valid for three years from the date of issue
iii. Can be renewed
- Select the correct option using the code below:
- (A) i only (B) ii and iii only
(C) iii only (D) i, ii and iii

123. Which of the following is NOT a duty of the fire safety officer under fire prevention and safety protocols?
- (A) Inspecting fire alarm systems in residential areas every month.
 - (B) Issuing a fire safety certificate renewal upon compliance with all mandatory requirements.
 - (C) Giving a bi-annual declaration that fire prevention, life safety, and fire protection measures are operational and in efficient working condition.
 - (D) Conducting bi-annual emergency mock drills and providing basic fire safety information to occupants and staff.
124. According to Gujarat Fire Prevention and Life Safety Measures Act, 2013, the fire safety certificate is issued to the owner in which form?
- (A) Form B13
 - (B) Form B12
 - (C) Form B15
 - (D) Form B14
125. The badge for an officer holding the rank of Chief Fire Officer consists of _____.
- (A) Ashok emblem + Shoulder titles "GSFS"
 - (B) Ashok emblem with one small impeller (3/4" diameter) + Shoulder titles "GSFS"
 - (C) Ashok emblem with three small impellers (3/4" diameter) + Shoulder titles "GSFS"
 - (D) Crossed swords and baton with one small impeller (3/4" diameter) + Shoulder titles "GSFS"
126. Which of the following types of buildings is NOT assigned to an officer holding the rank of Divisional Officer in Gujarat?
- (A) Hotels with 100 rooms and above
 - (B) Multi-storey non-residential buildings exceeding 50 meters in height
 - (C) Hospitals and nursing homes with more than 500 beds
 - (D) District centres, including the basement, with a built-up area of more than 25,000 square meters
127. According definition given in Gujarat Fire Prevention and Life Safety Measures Regulations, 2023, what is the meaning of "exit" according to the definition provided?
- (A) A channel leading to a street or open space of safety
 - (B) A passage leading to another room
 - (C) A passage within a building to another floor
 - (D) A door between two rooms
128. What is the minimum fire resistance rating required for a boiler room as per Section 15.24.1 of Gujarat Fire Prevention and Life Safety Measures Regulations, 2023?
- (A) 1 hour
 - (B) 2 hours
 - (C) 3 hours
 - (D) 4 hours
129. What is the purpose of the blowers in the lift-well as per Section 15.26.2 of Gujarat Fire Prevention and Life Safety Measures Regulations, 2023?
- (A) To cool the lift
 - (B) To provide ventilation for the lift passengers
 - (C) To increase the speed of the lift
 - (D) To prevent the lift-well from getting smoke logged

130. According to Section 15.28.2 of Gujarat Fire Prevention and Life Safety Measures Regulations, 2023, the staircase of a basement should have a fire resistance of at least:
- (A) 1 hour (B) 3 hours
(C) 2 hours (D) 4 hours
131. What is the primary objective of Part IV of the National Building Code of India 2016?
- (A) To provide guidelines for fire and life safety
(B) To ensure structural stability
(C) To regulate building aesthetics
(D) To specify the types of building materials
132. According to NBC 2016, Part IV, which of the following is considered a critical factor in fire protection for buildings?
- (A) Fire-resistant of construction materials (B) Building height
(C) Building colour (D) Building location
133. What is the required fire resistance rating for the inspection panel and doors of refuse chutes as per NBC 2016, Part IV?
- (A) 30 minutes (B) 60 minutes
(C) 90 minutes (D) 120 minutes
134. How far must refuse chutes be located from exits as specified in NBC 2016, Part IV?
- (A) At least 4 meters (B) At least 3 meters
(C) At least 6 meters (D) At least 5 meters
135. For buildings erected in Fire Zone No. 3, which types of construction are allowed according to NBC 2016, Part-IV, Section 3.2.6?
- (A) Type 1 only (B) Type 1 or 2
(C) Type 2 only (D) Type 3 or 4
136. What is the required fire resistance rating for separating occupancies in a mixed occupancy building as per NBC 2016, Part-IV, Section 3.1.11?
- (A) 120 minutes (B) 240 minutes
(C) 180 minutes (D) 300 minutes
137. What is the maximum length of a dead-end corridor in exit access for educational, institutional, and assembly occupancies according to NBC 2016, Part-IV, Section 4.4.2.2?
- (A) 3 meters (B) 15 meters
(C) 10 meters (D) 6 meters
138. How should exits be arranged in a building according to NBC 2016, Part-IV, Section 4.4.2.2?
- (A) Close to each other for ease of access
(B) In a centralized location for convenience
(C) As remote from each other as possible and arranged to provide direct access in separate directions from any point in the area served
(D) In a manner that minimizes travel distance only
139. According to NBC 2016, Part-IV, what is the maximum allowable slope for a ramp?
- (A) 1 in 10 (10%) (B) 1 in 8 (12.5%)
(C) 1 in 15 (6.7%) (D) 1 in 12 (8%)

140. What method is used to protect exits from the ingress of smoke in high-rise buildings as per NBC 2016, Part-IV?
 (A) Natural ventilation (B) Pressurization of staircases and lobbies
 (C) Smoke detectors (D) Automatic sprinklers
141. In which Fire Zones are temporary buildings or structures permitted according to NBC 2016, Part-IV?
 (A) Fire Zones No. 2 and 3 (B) Fire Zones No. 3 and 4
 (C) Fire Zones No. 1 and 2 (D) Fire Zones No. 2 and 4
142. What is required to be done with temporary buildings or structures after the permit period expires according to NBC 2016, Part-IV?
 (A) They must be completely removed (B) They must be transferred to a new location
 (C) They must be renovated (D) They may remain as long as they are inspected
143. What is the primary focus of codes and standards for passive fire protection systems and materials?
 (A) Enhancing the building's aesthetics
 (B) Ensuring structural integrity and fire resistance
 (C) Reducing construction costs
 (D) Improving energy efficiency
144. According to the Gujarat Comprehensive Development Control Regulations - 2017, how is the height of a building measured?
 (A) From the established ground level to the top of the building
 (B) From the ground floor to the top of the staircase cabin
 (C) From the highest point of the roof to the lowest floor
 (D) From the basement to the top of the lift well
145. According to the Gujarat Comprehensive Development Control Regulations - 2017, what is the maximum allowable height for a basement?
 (A) 3.0 meters (B) 2.8 meters
 (C) 3.8 meters (D) 3.5 meters
146. Which of the following is a permitted use in the basement of a hospital building as per the Gujarat Comprehensive Development Control Regulations - 2017?
 (A) Office space (B) Radiation Therapy Room
 (C) Staff lounge (D) Medicine shop
147. According to the Gujarat Comprehensive Development Control Regulations - 2017 for buildings over 25 meters high, when should emergency escape lighting turn on after a failure of the normal lighting supply?
 (A) Within 1 second (B) Within 30 seconds
 (C) Within 10 seconds (D) Within 5 minutes
148. What is the primary purpose of a Self-Contained Breathing Apparatus (SCBA)?
 (A) To provide fire resistance to clothing
 (B) To enhance vision in smoke-filled areas
 (C) To offer clean air to fire fighters in hazardous environments
 (D) To cool down the fire fighter's body

149. What is the purpose of guardrails on scaffolding?
 (A) To protect workers from falling off the edge
 (B) To prevent materials from falling off the scaffold
 (C) To provide a platform for workers to stand on
 (D) To enhance the aesthetic appearance of the scaffold
150. What is the primary purpose of wearing a fire-resistant suit in fire fighting?
 (A) To improve mobility
 (B) To protect against electrical hazards
 (C) To enhance visibility
 (D) To provide insulation from extreme temperatures
151. What is the concept of “friction loss” in a piping system?
 (A) The loss of pressure due to the resistance of water flowing through pipes and fittings
 (B) The loss of water volume due to evaporation
 (C) The reduction in pressure due to changes in pipe diameter
 (D) The increase in pressure due to the addition of new water sources
152. Which of the following statements is NOT correct regarding friction loss in a fire hose?
 i. Friction loss does not depend on the quality of the hose
 ii. Friction loss varies directly with the length of the hose
 iii. Friction loss varies with the square of the velocity
 Select the correct option using the code below:
 (A) i and ii only (B) i only
 (C) ii and iii only (D) i, ii and iii
153. Water flows through a pipe with a diameter of 14 cm at a velocity of 0.75 m/s. What is the mass flow rate of water in the pipe?
 (A) 696 kg/min (B) 475 kg/min
 (C) 325 kg/min (D) 848 kg/min
154. Which of the following is NOT considered a minor energy loss in a piping system?
 (A) Friction loss (B) Pipe fittings
 (C) Bend in pipe (D) Sudden expansion of pipe diameter
155. The atmospheric pressure is equivalent to a water column height of approximately:
 (A) 7.5 meters (B) 10.3 meters
 (C) 9.8 meters (D) 8.5 meters
156. When pipes are connected in series, the total discharge is:
 (A) Equal to the sum of the discharges in each pipe
 (B) Equal to the reciprocal of the sum of the discharges in each pipe
 (C) Dependent on the diameter of the pipes
 (D) The same as the discharge through each individual pipe

157. The ratio of the actual discharge from an orifice to the theoretical discharge from the orifice is referred to as:
- (A) Discharge capacity (B) Coefficient of discharge
(C) Vena contracta (D) Discharge time
158. Which of the following formula is used to determine the K-Factor of a sprinkler, where Q is the discharge at the node and p is the pressure at the node?
- (A) $K = Q / p^{0.5}$ (B) $K = Q/p$
(C) $K = Q \times p$ (D) $K = Q/p^2$
159. In a Venturimeter, the pressure of the liquid at the throat is:
- (A) Lower than that at the inlet (B) Higher than that at the inlet
(C) The same as that at the inlet (D) Dependent on atmospheric pressure
160. For fully developed flow in a circular pipe with negligible entrance length effects, if the length of the pipe is doubled and the diameter is halved, assuming the mass flow rate, density, and friction factor remain constant, by what factor will the head loss due to friction increase?
- (A) 4 (B) 64
(C) 32 (D) 16
161. As per IS 15105, what is the minimum thermal element Response Time Index (RTI) for standard response sprinklers?
- (A) $80 \text{ (m/s)}^{0.5}$ or more (B) $50 \text{ (m/s)}^{0.5}$ or more
(C) $60 \text{ (m/s)}^{0.5}$ or more (D) Less than $50 \text{ (m/s)}^{0.5}$
162. Which type of sprinkler system has open sprinklers connected to a piping network that is connected to water supply through and this valve operates through a detection system?
- (A) Pre-action system (B) Deluge system
(C) Wet pipe system (D) Life safety system
163. As per IS 15105, which type of sprinkler system is defined as having the highest sprinkler more than 45 meters above the lowest sprinkler or sprinkler pumps?
- (A) Dry pipe system (B) Life safety system
(C) Deluge system (D) High rise system
164. According to the release mechanism, which type of sprinkler operates by melting a component when exposed to heat?
- (A) Glass bulb sprinkler (B) Spray sprinkler
(C) Chemical pellet sprinkler (D) Fusible element sprinkler
165. What is the minimum water discharge density required for light hazard areas as per IS 15105?
- (A) 1.50 lpm/m² (B) 2.25 lpm/m²
(C) 3.00 lpm/m² (D) 5.00 lpm/m²
166. What is one of the key environmental advantages of water mist fire suppression systems compared to halon-based systems?
- (A) Increased oxygen displacement (B) Larger water droplets
(C) Higher system pressure (D) Minimal water usage

167. Water mist systems control fires by:
- (A) Using large volumes of water
 - (B) Displacing oxygen and pre-wetting areas
 - (C) Increasing the temperature of the fire area
 - (D) Creating large droplets to cover more area
168. What is the primary purpose of controlling or containing water discharge from water spray systems where flammable or combustible liquids are present?
- (A) To increase the water flow rate
 - (B) To reduce water usage
 - (C) To prevent the spread of fire
 - (D) To maintain system pressure
169. What is the primary function of portable gas monitors?
- (A) Detect multiple gases in large areas
 - (B) Spot-checking and personal safety for workers
 - (C) Provide continuous monitoring in industrial settings
 - (D) Detect gas leaks in pipelines
170. In which type of setting would you typically find fixed gas monitors?
- (A) Outdoor recreational areas
 - (B) Industrial facilities for monitoring large areas
 - (C) Small office spaces
 - (D) Personal use in homes
171. Which of the following terms refers to the concentration range of a vapor that can ignite in the presence of a source of ignition?
- (A) Flash point
 - (B) Saturated Vapor Pressure
 - (C) Limiting Oxygen Concentration
 - (D) Flammability limits
172. Which of the following describes a pool fire?
- (A) A fire caused by a sudden release of gas
 - (B) A rapid combustion of gas in open air
 - (C) A turbulent diffusion fire above vaporizing hydrocarbons
 - (D) A large ball of fire from an explosion
173. Which of the following are necessary conditions for flash-over to occur?
- i. Sufficient availability of fuel
 - ii. Sufficient availability of oxygen
 - iii. Ability of the compartment to trap hot gases
- Select the correct option using the code below:
- (A) i and ii
 - (B) i, ii and iii
 - (C) ii and iii
 - (D) i and iii
174. During which stage of fire behavior is the t-squared model typically applied?
- (A) Flashover
 - (B) Post-Flashover
 - (C) Pre-Flashover
 - (D) Decay stage

175. What is the main reason for the higher soot production in diffusion flames compared to premixed flames?
- (A) Higher temperatures in diffusion flames lead to more incomplete combustion.
 - (B) In diffusion flames, the fuel is fully oxidized, but the by-products form soot.
 - (C) Fuel and oxidizer mixing occurs in localized regions, resulting in incomplete combustion and soot formation.
 - (D) Premixed flames have less soot due to lower fuel concentrations near the flame front.
176. Which flame is typically found in a candle flame?
- (A) Diffusion flame
 - (B) Premixed flame
 - (C) Fireball
 - (D) Flash fire
177. Boiling primarily involves which type of heat transfer process?
- (A) Convective
 - (B) Conductive
 - (C) Radiative
 - (D) Mechanical
178. When considering the heat transfer in a phase change process, which of the following best describes the concept of latent heat?
- (A) Heat required for the substance to change its phase without a temperature change
 - (B) Heat required to raise the temperature of a substance
 - (C) Heat lost during radiation
 - (D) Heat exchanged during forced convection
179. In a situation involving heat conduction through a composite wall, the overall heat transfer coefficient is determined by which of the following relationships?
- (A) Inverse of the summation of individual thermal conductivities
 - (B) Parallel resistance model
 - (C) Direct summation of individual thermal resistances
 - (D) Series resistance model
180. Which of the following factors does NOT affect the overall heat transfer coefficient for a composite wall?
- (A) Thickness of each layer
 - (B) Thermal conductivity of each layer
 - (C) Arrangement of layers in the wall
 - (D) Temperature difference across the wall
181. In which of the following foam-producing equipment can the material and hose be manually transported?
- (A) Fixed system
 - (B) Portable system
 - (C) Mobile system
 - (D) Semi-fixed system
182. Which of the following is NOT a characteristic of a Wet Riser system?
- (A) It is a vertical rising main
 - (B) It is used for fire fighting within the building
 - (C) It has landing valves on each floor or landing
 - (D) It requires manual operation to charge the system with water
183. What is the process called when a substance reacts with oxygen and produces heat and energy?
- (A) Flammability
 - (B) Ignition
 - (C) Combustion
 - (D) Flame

184. What happens to the formation of carbon monoxide and soot in a hydrocarbon fire as oxygen deficiency increases?
- (A) It decreases
 (B) It remains the same
 (C) It increases
 (D) It decreases with a decrease in oxygen deficiency
185. Which of the following is NOT the criterion to determined fire resistant of an element of building as per National Building Code-2016?
- (A) Stability (B) Integrity
 (C) Insulation (D) Fire Load
186. In reference to National Building Code -2016, occupant load factor (m²/person) for residential building is;
- (A) 4.00 (B) 10.00
 (C) 12.50 (D) 15.00
187. The tendency of coal to react with available oxygen and burn is an example of what type of combustion?
- (A) Rapid combustion (B) Explosion
 (C) Spontaneous combustion (D) Flame
188. What is the lowest concentration of a gas or vapor that will maintain the propagation of a flame away from an ignition source?
- (A) Flashover (B) Lower temperature limit
 (C) Lower flammability limit (D) Fire
189. Which of the following is NOT a basic mode of heat transfer?
- (A) Heat flow (B) Convection
 (C) Radiation (D) Conduction
190. Which of the following units is NOT used to measure heat produced?
- (A) Calorie (B) Joules
 (C) BTU (D) Joules per gram
191. How much energy, in calories, is there in 10 kilocalorie (kCal)?
- (A) 10 cal (B) 100 cal
 (C) 1000 cal (D) 10000 cal
192. Which IS code specifies the functional requirements for a water tender Type 'A' used by the fire brigade?
- (A) IS 6067 (B) IS 950
 (C) IS 948 (D) IS 951
193. According to IS 10993, what is the minimum horizontal throw distance for a monitor installed on a Dry Chemical Powder tender?
- (A) 10 m (B) 40 m
 (C) 30 m (D) 50 m

194. Which IS code outlines the functional requirements for a portable pump used in firefighting?
 (A) IS 947 (B) IS 943
 (C) IS 944 (D) IS 942
195. As per IS 10460, what is the required capacity of the fire pump installed on a small foam tender?
 (A) 1500 lpm (B) 1800 lpm
 (C) 2280 lpm (D) 2850 lpm
196. According to IS standards, what is the water tank capacity of a Type-B water tender?
 (A) 2500 liters (B) 4500 – 7000 liters
 (C) 2700 – 3600 liters (D) 6000 liters
197. Which of the following is NOT a type of smoke detector?
 i. Ionization detector
 ii. Photoelectric detector
 iii. Spot-type detector
 iv. Rate-of-rise detector
 Choose the correct option from the codes below:
 (A) i and ii (B) iii and iv
 (C) i and iii (D) ii and iv
198. As per National Building Code -2016, the horizontal luminance at floor level on the centreline of an escape route shall not be less than _____;
 (A) 3 lumen/m² (B) 7 lumen/m²
 (C) 10 lumen/m² (D) 15 lumen/m²
199. What is the correct term for a substance that causes cancer?
 (A) Asphyxiant (B) Infectious
 (C) Carcinogen (D) Contagious
200. What term is used for long-term exposure by a harmful substance?
 (A) Acute exposure (B) Chronic exposure
 (C) Sub-chronic exposure (D) Super-chronic exposure
201. In the case of a rural or forest fire, how should the firebreak width changes with the wind speed?
 i. Increase
 ii. Decrease
 iii. Remain the same for different wind speeds
 Choose the correct option:
 (A) Only ii (B) Only i
 (C) Only iii (D) ii and iii
202. According to the National Fire Protection Association (NFPA), what is the recommended minimum width for a firebreak in forested areas?
 (A) 10 feet (B) 50 feet
 (C) 30 feet (D) 100 feet

203. The minimum fire resistance of internal staircase should be _____ ;
(A) 30 min (B) 60 min
(C) 90 min (D) 120 min
204. Which of the following is considered a significant factor that influences the spread of rural and forest fires?
(A) Soil type (B) Topography
(C) Wildlife presence (D) Land ownership
205. According to the National Fire Protection Association (NFPA), what is the most effective fire prevention measure for homes located in wild land-urban interface areas?
(A) Defensible space (B) Sprinkler systems
(C) Fire alarms (D) Fire extinguishers
206. What is defined as the time required from the arrival of the first fire-fighting vehicle until the initial intensity of the fire is reduced by 90 percent?
(A) Response time (B) Extinguishment time
(C) Control time (D) Reaction time
207. What does TCA stand for in the context of aircraft fire-fighting calculations?
(A) Total Coverage Area (B) Theoretical Critical Area
(C) Total Critical Area (D) Total Combustible Area
208. As per IS: 8758-2013 what is the minimum requirement of exit for any type of temporary structures/ pandal?
(A) Two exits of not less than 2.5 m width (B) One exits of not less than 3 m width
(C) Two exits of 3 m width (D) One exits of 2.5 m width
209. According to NFPA 418, what is the minimum duration of foam discharge for a fixed discharge outlet system?
(A) 10 minutes (B) 5 minutes
(C) 20 minutes (D) 15 minutes
210. What causes a BLEVE?
(A) A container holding a pressure-liquefied gas fails catastrophically
(B) A container holding a flammable liquid catches fire
(C) A gas pipeline explosion due to pressure build-up
(D) A pressure relief valve fails to operate
211. Which of the following is best defines deflagration?
(A) A rapid combustion process that exceeds the speed of sound
(B) The propagation of a combustion zone at a velocity less than the speed of sound
(C) A slow combustion process with no wave formation
(D) An explosion caused by compressed gases
212. Which of the following is true regarding detonation?
(A) It propagates at a velocity greater than the local speed of sound
(B) It involves a slow combustion process
(C) It propagates at a speed less than the speed of sound
(D) It does not involve combustion

213. Which of the following is an example of an endothermic process?
(A) Combustion of wood (B) Melting of ice
(C) Freezing of water (D) Condensation of steam
214. What does the equivalence ratio represent?
(A) The ratio of fuel to air in any mixture
(B) The ratio of air to fuel in a stoichiometric mixture
(C) The fuel/air ratio divided by the fuel/air ratio for a stoichiometric mixture
(D) The air/fuel ratio multiplied by the stoichiometric fuel/air ratio
215. If the equivalence ratio is less than 1, what does this indicate about the mixture?
(A) The mixture has excess fuel (B) The mixture has excess air
(C) The mixture is perfectly balanced (D) The combustion is incomplete
216. Which of the following is best describes a flashover event?
(A) The rapid ignition of all combustible materials in an enclosed space
(B) A gradual spreading of flames throughout a building
(C) The smouldering of fire without visible flames
(D) The slowing down of a fire due to lack of fuel
217. Flashover is often considered the transition between which two stages of fire development in a compartment?
(A) Ignition and growth (B) Growth and fully developed
(C) Fully developed and decay (D) Smouldering and ignition
218. Why are dust explosions particularly dangerous in industrial settings?
(A) They produce large amounts of toxic fumes
(B) They occur without requiring any ignition source
(C) The rapid combustion of fine particles can create shockwaves and secondary explosions
(D) They happen only in open spaces with low oxygen concentration
219. Which of the following is best describes the flammable range?
(A) The concentration range of gases between the lower and upper flammable limits
(B) The pressure range at which gas combustion is possible
(C) The temperature range burning gases at which fuel burns most efficiently
(D) The speed at which a gas ignites under pressure
220. Which type of discharge is generally poses a greater hazard in dispersion events?
(A) Non-pressurized liquid discharge (B) Pressurized liquid discharge
(C) Solid discharge (D) Gaseous discharge at low pressure
221. What causes a jet fire?
(A) Combustion of solid fuels
(B) Ignition of a flammable fluid releasing from a pipe or orifice
(C) Ignition of flammable liquids only
(D) Spontaneous combustion of gases

222. What is a significant characteristic of fireballs?
- (A) They last for extended periods and are easy to extinguish
 - (B) They produce large amounts of thermal radiation that can transmit heat to surroundings
 - (C) They only occur in laboratory settings
 - (D) They do not produce any significant heat energy
223. The ALARP principle is primarily concerned with:
- (A) Increasing risks to improve efficiency
 - (B) Ignoring risks in favor of production speed
 - (C) Eliminating all risks completely
 - (D) Reducing risks to a level that balances cost, time, and effort
224. Which of the following is NOT a characteristic of an accident?
- (A) It includes the magnitude of the events
 - (B) It refers to the occurrence of events only
 - (C) It produces unintended loss
 - (D) It can involve a sequence of events
225. What does the term “consequence” refer to in risk management?
- (A) The likelihood of an event occurring
 - (B) The costs associated with safety measures
 - (C) The measure of expected effects on the results of an incident
 - (D) The frequency of past accidents
226. Which formula is best describes risk?
- (A) Probability of occurrence \times Severity of consequences
 - (B) Probability of occurrence – Severity of consequences
 - (C) Probability of occurrence + Severity of consequences
 - (D) Severity of consequences / Probability of occurrence
227. In risk analysis, what elements are typically estimated?
- (A) Hazard, their probability of occurrence, and combination of both
 - (B) Only the financial impact of hazards
 - (C) Past accidents and their impact
 - (D) Employee performance metrics
228. How would increasing the burning time, while keeping the amount of fuel constant and assuming its calorific value remains unchanged, affect the average heat release rate?
- (A) It would double the heat release rate
 - (B) It would reduce the heat release rate
 - (C) It would have no effect on the heat release rate
 - (D) It would increase the heat release rate
229. Among the fire growth rates for t-squared fires, which one exhibits the highest fire intensity coefficient?
- (A) Slow
 - (B) Ultrafast
 - (C) Fast
 - (D) Medium

230. Which technique is used to identify hazards through a qualitative review of possible accidents that may occur?
(A) HAZMAT (B) FMEA
(C) HAZOP (D) JSA
231. What is the term for the temperature at which a liquid fuel forms a mixture corresponding to the lean flammability limit due to its vapor mixing with ambient air?
(A) Fire point (B) Auto-ignition temperature
(C) Flash point temperature (D) Boiling point
232. Which phase of fire development does the t-squared fire model specifically focus on?
(A) Pre-flashover (B) Post-flashover
(C) Smoldering phase (D) Extinguishment
233. What does a low-resistance earth connection ensure?
(A) Increased voltage (B) Enhanced insulation
(C) Efficient current flow to ground (D) Reduced power consumption
234. Which of the following is a common method of non-destructive testing?
(A) Fire testing (B) Tensile testing
(C) Chemical analysis (D) X-ray testing
235. Which NDT method uses sound waves to detect internal flaws in materials?
(A) Magnetic Particle Testing (B) Radiographic Testing
(C) Visual Inspection (D) Ultrasonic Testing
236. What is the primary function of cathodic protection?
(A) To enhance electrical conductivity (B) To increase temperature resistance
(C) To prevent corrosion of metal surfaces (D) To improve magnetic properties
237. In cathodic protection systems, what role do sacrificial anodes play?
(A) They enhance electrical insulation
(B) They corrode preferentially, protecting the main structure
(C) They increase the conductivity of the surrounding environment
(D) They strengthen the base material
238. Which of the following systems would benefit from both earthing and cathodic protection?
(A) High-voltage power lines (B) Solar panel installations
(C) Underground pipelines (D) Overhead transmission lines
239. Which document is typically used to perform a 'Material take-off'?
(A) Change Order (B) Project Schedule
(C) Bill of Quantities (D) Safety Plan
240. Which software tools are commonly used for performing material take-offs?
(A) Word processors
(B) Presentation software
(C) Graphic design software
(D) Spreadsheet applications and specialized software

241. What type of lines are typically used to represent the x and y axes in isometric drawings?
(A) Horizontal lines (B) Lines at 30 degrees to the horizontal
(C) Vertical lines (D) Lines at 45 degrees to the vertical
242. Isometric circles in isometric drawing appear as which shape?
(A) Squares (B) Ellipses
(C) Triangles (D) Circles
243. What is the primary purpose of computer simulation in fire protection?
(A) To analyze and predict fire behavior and spread
(B) To create artistic representations of fire
(C) To design buildings without fire safety considerations
(D) To replace fire safety codes
244. What is the significance of validating a fire simulation model?
(A) To ensure the model runs faster
(B) To reduce the amount of data needed
(C) To make the simulation more complex
(D) To confirm that the model accurately represents real-world scenarios
245. Which of the following is an example of removing the 'heat' side of the fire tetrahedron?
(A) Smothering the fire with a blanket
(B) Applying a fire extinguisher that cools the fire
(C) Using foam to isolate the fuel from the oxygen
(D) Allowing the fire to burn out naturally
246. Which of the following is an example of a chemical oxidizer that can release oxygen and sustain combustion?
(A) Methane (CH_4) (B) Ammonium nitrate ($\text{NH}_4 \text{NO}_3$)
(C) Sodium chloride (NaCl) (D) Carbon dioxide (CO_2)
247. At concentrations above 15% methane in air, methane will not burn because:
(A) The mixture is too rich (B) The temperature is too high
(C) The mixture is too lean (D) There is insufficient oxygen
248. According to NFPA 921, what are fire effects?
(A) The process of fire suppression
(B) The chemical reaction between fire and oxygen
(C) Observable or measurable changes in a material due to fire
(D) The process of fire ignition
249. What is the main component of soot produced from the combustion of carbon-based fuels?
(A) Hydrogen (B) Oxygen
(C) Carbon (D) Nitrogen

250. Discoloration as a fire effect is caused by:
(A) Increase in temperature and phase change
(B) Physical deformation
(C) Smoke deposition
(D) Soot accumulation
251. Which of the following factors can be determined by the depth of calcination in gypsum board during fire?
(A) The intensity and duration of heat exposure
(B) Time of ignition
(C) Ventilation and humidity levels
(D) The chemical composition of the wall
252. Spalling is mostly observed in which type of fire-affected material?
(A) Insulation material
(B) Concrete and masonry
(C) Plastics and polymers
(D) Electrical wiring
253. Inverted cone patterns are mostly associated with which type of fire behavior?
(A) High HRR fires that reach the ceiling
(B) Rapidly spreading fires with high flame intensity
(C) Low HRR fires that do not reach the ceiling
(D) Explosive fires with high pressure waves
254. In a flash fire, where does the greatest destruction usually occur due to fire?
(A) At the ignition source
(B) Where the flash fire encounters a secondary fuel load
(C) Where the fuel-air mixture is ignited
(D) In the upper areas of the room where heat accumulates
255. Which of the following phases occurs first during a blast pressure front?
(A) Negative pressure phase
(B) Positive pressure phase
(C) Equilibrium phase
(D) Thermal phase
256. Which of the following is NOT happens during the negative pressure phase of an explosion?
(A) Gases and air rush back to the origin of the explosion to equalize pressure
(B) Can cause secondary damage
(C) Has considerably less power than the positive pressure phase
(D) The debris and materials are pushed further away from the point of origin
257. How does carbon monoxide (CO) affect the human body during inhalation?
(A) It burns the lungs, causing thermal injuries.
(B) It neutralizes other toxic substances in the blood.
(C) It accelerates cellular respiration, increasing energy levels.
(D) It binds to hemoglobin, reducing the oxygen-carrying capacity of the blood.
258. What is the primary cause of death in cases of acute hyperthermia?
(A) Rise in blood temperature
(B) Direct burns from heat
(C) Oxygen deprivation
(D) Dehydration

259. What is hypoxia?
- (A) Condition caused by overheating of the body
(B) Condition caused by breathing a reduced oxygen atmosphere
 (C) Condition caused by carbon monoxide poisoning
 (D) Condition caused by exposure to toxic gases
260. Why is it important for a fire investigator to consider the fragility of evidence?
- (A) To determine its weight before packaging
(B) To minimize damage or alteration during collection
 (C) To decide the sequence of collection
 (D) To record the evidence in the report
261. Which of the following is best describes the spread of a wild-land fire?
- (A) Controlled and slow **(B) Unplanned and uncontrolled**
 (C) Unplanned and controlled (D) Planned and uncontrollable
262. Who is the Chairperson of the National Disaster Management Authority (NDMA) as per the DM Act 2005?
- (A) President of India (B) Home Minister of India
 (C) Chief Justice of India **(D) Prime Minister of India**
263. Who nominates the member of the National Disaster Management Authority (NDMA)?
- (A) The Chairperson of NDMA** (B) The Home Minister of India
 (C) The President of India (D) The Vice-Chairperson of NDMA
264. What is the primary responsibility of the National Authority as per the National Disaster Management Act?
- (A) Executing disaster management plans
 (B) Providing immediate relief to disaster victims
(C) Laying down policies, plans and guidelines for disaster management
 (D) Coordinating state-level disaster response teams
265. Who may be included in the advisory committee formed by the National Authority as per DM Act 2005?
- (A) Experts in disaster management with practical experience**
 (B) Government officials only
 (C) Members of the military
 (D) Citizens affected by disasters
266. Who is responsible for preparing the National Plan for disaster management as per DM Act 2005?
- (A) National Executive Committee** (B) National Authority
 (C) Prime Minister's Office (D) State Governments
267. Who approves the National Plan for disaster management as per DM Act 2005?
- (A) The President of India **(B) National Executive Committee**
 (C) National Authority (D) State Authorities

268. Who is the ex-officio Chairperson of the State Disaster Management Authority?
 (A) Chief Secretary of the State (B) State Executive Committee Chairperson
 (C) Chief Minister of the State (D) Governor of the State
269. Who serves as the Chairperson of the State Disaster Management Authority in Union territories without a Legislative Assembly?
 (A) Prime Minister (B) Chief Secretary
 (C) Governor (D) Lieutenant Governor or Administrator
270. Which of the following is NOT a function of the National Institute of Disaster Management?
 (A) Developing training modules for disaster management
 (B) Approving plans prepared by state authorities
 (C) Formulating a human resource development plan for disaster management
 (D) Providing assistance to state governments in policy formulation
271. Who is vested with the command and supervision of the National Disaster Response Force?
 (A) Chief Secretary of the State
 (B) Director General appointed by the Central Government
 (C) Chairperson of the National Disaster Management Authority
 (D) Secretary of the Ministry of Home Affairs
272. What is the punishment for obstructing an officer or employee of the Central or State Government in the discharge of their duties under the Act without reasonable cause?
 (A) Imprisonment for a term up to 1 year or fine, or both
 (B) Fine only
 (C) Imprisonment for a term up to 2 years or fine, or both
 (D) Warning with no penalties
273. Which Indian Standard covers the selection, installation, and maintenance of first-aid fire extinguishers?
 (A) IS 4862 (B) IS 2190
 (C) IS 11833 (D) IS 15683
274. Which Indian Standard specifies the performance and construction requirements for portable fire extinguishers?
 (A) IS 15683 (B) IS 4862
 (C) IS 11833 (D) IS 2190
275. Which Indian Standard specifies the requirements for portable fire extinguishers for aircraft, Halon 1211 Type?
 (A) IS 15683 (B) IS 4862
 (C) IS 11833 (D) IS 2190
276. What is the recommended colour for clean agent fire extinguishers?
 (A) Red (B) Black
 (C) Green (D) Yellow

277. Which of the following actions should be avoided to prevent damage to a hose?
- (A) Storing the hose in a cool, dry, and well-ventilated place
 (B) Exposing rubber-lined hoses to high temperatures to dry
 (C) Ramping hoses that are laid across roads
 (D) Avoiding sharp bends in the hose
278. What is the primary purpose of adaptors in fire fighting equipment?
- (A) To increase the water pressure in the hoses
 (B) To filter out impurities from the water
 (C) To enhance the flexibility of the hoses
 (D) To connect suction hoses and/or delivery hoses, or hose-reels
279. According to IS 2097, which of the following foam-making branches has a flow capacity of 450 liters per minute?
- (A) FB 5X (B) FB 20X
 (C) FB 10X (D) Inline foam inductor
280. As per IS 4571, the total mass of aluminium extension ladder having length 10.5 m used for fire fighting shall not exceed _____.
- (A) 10 kg (B) 48 kg
 (C) 30 kg (D) 20 kg
281. A crosspiece that spans the two beams of a ladder, serving as a step and transferring the user's weight to the beams, is called a _____.
- (A) Tip (B) Rung
 (C) Roof hooks (D) Butt
282. Which of the following care and maintenance activities should be performed for small gear?
- i. Check for rust
 ii. Clean and polish carefully
 iii. Prevent contact with oil or solvent
- Choose the correct option:
- (A) i, ii and iii (B) ii and iii
 (C) i and iii (D) i and ii
283. In which type of breeching, there shall be a female fitting (single) on the outlet side and male fittings on the two inlets?
- (A) Dividing breeching (B) Controlled Dividing breeching
 (C) Collecting breeching (D) None of the above
284. Where a goose neck branch is typically attached in a fire fighting setup?
- (A) Directly to a fire hydrant (B) To a line of hose in place of a branch
 (C) To a fire engine's water tank (D) To a high-pressure water pump

285. What is the difference between soft suction hose and hard suction hose?
- (A) Soft suction hose is for drafting water, while hard suction hose is for pressurized water
 (B) Soft suction hose is for domestic use, while hard suction hose is for industrial use
 (C) Soft suction hose is used for high-pressure water, while hard suction hose is for low-pressure water
 (D) Soft suction hose is used for pressurized water, while hard suction hose is for drafting water
286. Which type of hose would be best suited for forest fire fighting where heat and durability are concerns?
- (A) Booster hose (B) Non-percolating hose
 (C) Suction hose (D) Percolating hose
287. What is the primary function of the jacket in fire hoses?
- (A) To deliver water
 (B) To provide strength to withstand high pressure
 (C) To transport foam
 (D) To prevent water from freezing
288. What is the function of a jockey pump in a fire pump system?
- (A) To provide the main water supply
 (B) To cool down the fire pump
 (C) To maintain system pressure when there is no fire
 (D) To pump foam instead of water
289. What triggers the activation of a fire pump in a fire protection system?
- (A) An increase in ambient temperature (B) A drop in water pressure
 (C) Manual activation by a fire officer (D) A smoke detector signal
290. How is the 'Power Take-off (PTO)' engaged in a fire tender?
- (A) Automatically when the engine is started
 (B) By turning off the vehicle's main engine
 (C) Through the operation of the fire tender's hydraulic system
 (D) Manually using a control switch in the driver's cabin
291. What is the primary function of the 'Power Take-off (PTO)' in a fire tender?
- (A) To transfer engine power to operate the fire pump
 (B) To generate electrical power for the fire tender's equipment
 (C) To supply hydraulic pressure for the water hoses
 (D) To control the lights and sirens on the fire tender
292. According to IS: 15105 (2002), the number of sprinklers in one installation shall not exceed the _____ in high hazard;
- (A) 500 (B) 1000
 (C) 1500 (D) 2000

293. What is a primary advantage of using gas-based fire suppression systems over water-based systems?
- (A) They are better suited for sensitive electronic equipment
- (B) They are more cost-effective
- (C) They are simpler to install
- (D) They have a lower environmental impact
294. According to National Building Code, match the following classification of buildings under fire prevention:
- | List I | List II |
|------------|------------------|
| a. Group E | 1. Institutional |
| b. Group G | 2. Residential |
| c. Group A | 3. Industrial |
| d. Group C | 4. Business |
- (A) a - 2, b - 1, c - 4, d - 3
- (B) a - 4, b - 3, c - 2, d - 1
- (C) a - 1, b - 4, c - 3, d - 2
- (D) a - 3, b - 2, c - 1, d - 4
295. What feature of an amplifier is crucial for ensuring that messages are clearly heard over a loud emergency environment?
- (A) Frequency response
- (B) Power output
- (C) Signal-to-noise ratio
- (D) Signal input
296. Water flows in a 10 cms. diameter pipe at a velocity of 0.75 m/s. The mass flow rate of water in the pipe is;
- (A) 353 kg/min
- (B) 209 kg/min
- (C) 88.4 kg/min
- (D) 44.5 kg/min
297. Which mechanism is typically used in a hydraulic spreader to perform its function?
- (A) Manual force with a lever
- (B) Hydraulic fluid pressure
- (C) Pneumatic pressure
- (D) Electrical motor power
298. Which of the following is a cutting tool designed specifically to cut through heavy timber?
- (A) Circular Saw
- (B) Sledgehammer
- (C) Shovel
- (D) Crowbar
299. Which one is NOT an assumption involved with the Bernoulli equation?
- (A) No elevation changes
- (B) Incompressible flow
- (C) Steady flow
- (D) Irrotational flow
300. What is the flammable range of methane in air?
- (A) 5% to 15%
- (B) 0.5% to 15%
- (C) 10% to 20%
- (D) 1% to 12%