GOA HEADMASTERS ASSOCIATION, GOA.

202 RAYU CHAMBERS,
PANAJI, GOA 403 001.

प्रज्ञासंवर्धनाय

GOA TALENT SEARCH EXAMINATION - 2019-20

Std. IX

PAPER I - MENTAL ABILITY TEST
Q. NOS. 1 TO 100

PAPER II - SCHOLASTIC APTITUDE TEST
Q. NOS. 101 TOM 200

TIME : 10.00 a.m. to 1.00 p.m.

DATE : 2nd February 2020

THIS PAPER CONTAINS 14 PAGES.

1) A man travels 12 km west, then 3 km towards south and then 8 km towards east. How far is he from the starting point?
(1) 23 km (2) 20 km
(3) 15 km (4) 5 km

2) Lalit walks 8 km east, turns south-west and walks another 8 km. He again takes a turn towards north-west and walks another 8 km. In which direction from his starting point is he standing now?
(1) North-East (2) South-east
(3) South-West (4) East

Directions: (Questions 3 to 6): Each question consists of three different classes. Identify the figure which best represents the relationship between the three classes in each question. Choose the correct alternative and write the answer.

(1) (2) (3) (4)

(3) birds, sparrows, dogs
(4) cereals, wheat, rice
(5) eatables, fruits, grapes
(6) artists, players, college students

Directions: (Questions 7 to 9): Each of the worships Satlaj, Bias, Krishna, Kaveri and Savitri is painted with different colours. The colours used are green, blue, white, black and red. From the information given below answer the following questions:

a) Satlaj is neither green nor blue.
b) Bias is white.
c) Savitri is black or white.
d) Kaveri is neither green nor black.

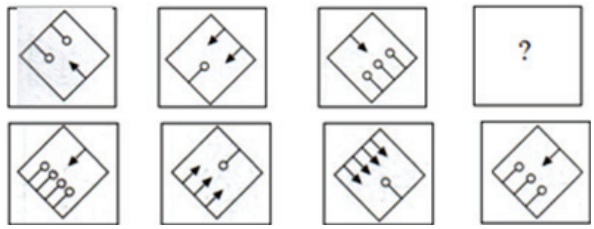
7) What is the colour of Satlaj?
(1) green (2) white
(3) red (4) black

8) What is the colour of Krishna?
(1) green (2) black
(3) red (4) blue

9) What is the colour of Kaveri?
(1) red (2) black
(3) green (4) blue

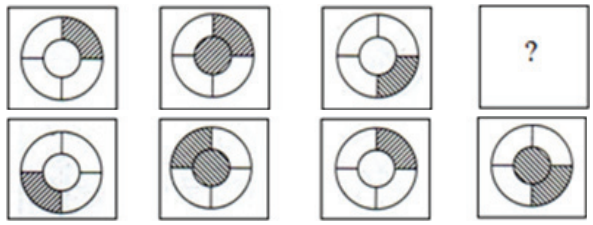
Directions: (Questions 10 and 11): In the question given below, the figures are in a series. Find out one figure from among the alternative figures given below the series, which occupies the blank space for the fourth figure and complete the series. Indicate your answer by the number of the answer figure chosen by you in the box against the number corresponding to the question.

10)



(1) (2) (3) (4)

11)



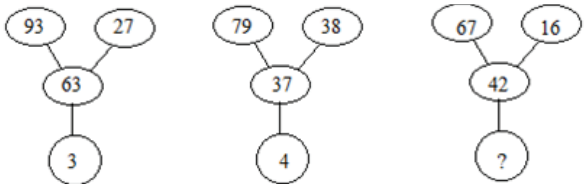
(1) (2) (3) (4)

Directions: (Questions 12 to 18): In each of the following questions, the numbers are filled according to some rules . Identify the rule and choose the missing number and write the answer.

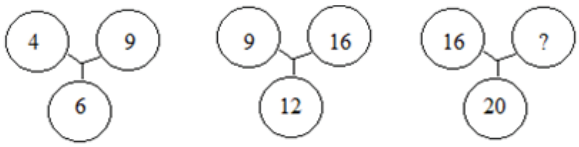
12)

3	5	34
5	4	41
9	3	?

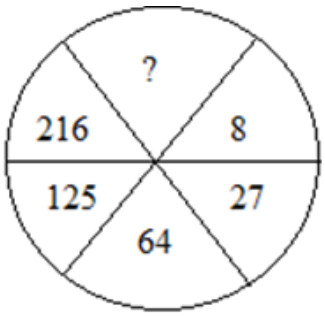
(1) 90
(2) 89
(3) 84
(4) 72

13) 

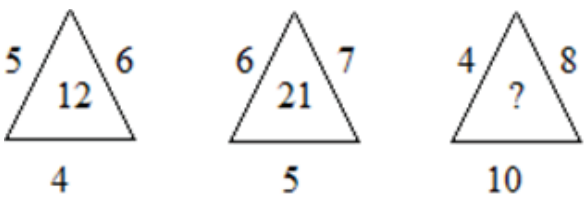
(1) 5 (2) 6
(3) 8 (4) 9

14) 

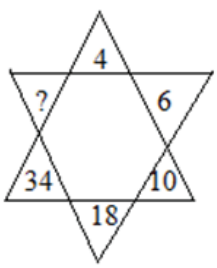
(1) 60 (2) 50
(3) 25 (4) 21

15) 

(1) 4 (2) 343
(3) 305 (4) 729

16) 

(1) 14 (2) 22
(3) 28 (4) 32

17) 

(1) 82 (2) 44
(3) 55 (4) 66

18)

5	6	7
3	4	5
9	10	11
345	460	?

(1) 535 (2) 577
(3) 755 (4) 775

19) A man walks 6 km to the East and then turns to the south and walks 5 km. Again he turns to the east and walks 6 km. next he turns northward and walks 5 km. How far is he from the starting point?
(1) 15 km (2) 16 km
(3) 12 km (4) 12 km

20) A man drives 8 km West, then 3 km South, then 4 km East. How far is he from his starting point?
(1) 4 km (2) 6 km
(3) 5 km (4) 7 km

21) If the first half of the alphabet is written in the reverse order which letter will be the 10th from your right?
(1) H (2) J
(3) D (4) E

22) In a code 'LA PIL TA' means "Mango is sweet"; 'NA SA PIL' means "Mango and banana"; BA TA TICK means "Boy is wise". In that code language what does Sweet mean?
(1) LA (2) PIL
(3) Sa (4) Ba

Directions: (Questions 23 and 24): In each of the following questions there is some relationship according to some rule between letters and the numerals given in each row. Find the rule in each case, then write the correct alternative conforming to the rule.

23) J N 28 27 G P
C E 12 45 T U
L R ? ? M S
(1) 34, 36 (2) 35, 35
(3) 30, 32 (4) 30, 41

24) FJ 25 16 NS
LZ 25 196 SX
NQ ? ? WY
(1) 9, 4 (2) 4, 9
(3) 8, 27 (4) 27, 8

Directions: (Questions 25 to 30): In each of the following questions, the numbers are arranged according to some rule. Identify the rule and select the alternative that will complete the series and write :

25) 35, 28, 22, 17, 13, 10, ?
(1) 9, 8 (2) 7, 4
(3) 7, 6 (4) 8, 7

26) 203, 304, 405, 506, ?
(1) 504, 507 (2) 648, 646
(3) 607, 708 (4) 702, 507

27) 6, 7, 5, ?, 4, 9
(1) 3 (2) 7
(3) 8 (4) 9

28) 3, 8, 11, 19, 30, 49, ?
(1) 87 (2) 79
(3) 77 (4) 73

29) 12, 32, 72, 152, ?, 632
(1) 515 (2) 613
(3) 815 (4) 312

30) 10, 34, 74, 142 ?
(1) 290 (2) 280
(3) 242 (4) 10

31) In a certain code language BEAT is written as YHXW; then SOUP will be coded as
(1) SRRS (2) PSSR
(3) PRRS (4) SPRS

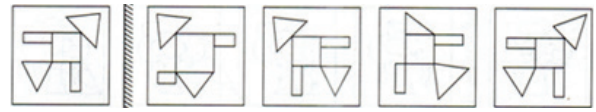
32) In a certain code GOODNESS is written as HNPCODTR. How is TIGER written?
(1) HQFZUODTR (2) HQFZUMFRT
(2) HQFZSMFRT (4) FSDBSQDTR

33) If 'DUST' is 'AIR'; 'AIR' is 'WHITE'; 'WHITE' is 'YELLOW'; 'YELLOW' is 'WATER' and 'WATER' is 'RED'. Where do the birds fly?
(1) Yellow (2) White
(3) Red (4) Air

Directions: (Questions 34 to 36): In each question choose the correct mirror image of Fig.(x)from amongst the four alternatives given along with it :

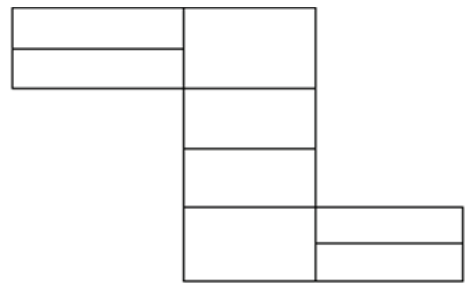
34)

X (1) (2) (3) (4)

35)

X (1) (2) (3) (4)

36)

X (1) (2) (3) (4)

37) How many rectangles are there in the following figure?

(1) 8 (2) 17
(3) 18 (4) 20

38) Which letter in the word APPLES (other than A) occupies the same position as it does in alphabet?
(1) E (2) P
(3) L (4) T

39) In to how many independent words can the word PERPETUAL be divided without changing the order of the letters of the word and using each letter once only?

(1) None (2) One
(3) Two (4) Three

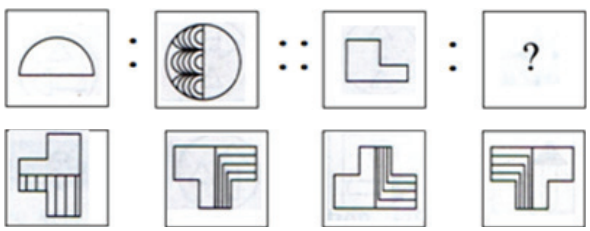
40) What will come serially in place of the question mark?

1, 3, 4, 5, 7, 7, 10, ?, 13, 11

(1) 12 (2) 9
(3) 13 (4) None of these

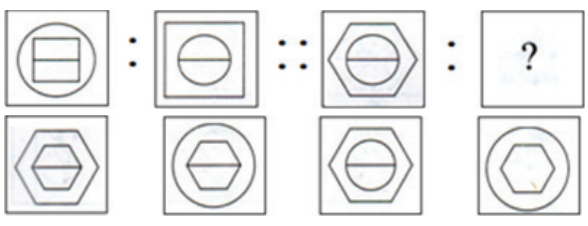
Directions: (Questions 41 to 43): In the question given, There exists a relationship between the first two question figures. Similar relationship should exist between the third and fourth question figures. Select one of the answer figures which replaces the mark of interrogation. Write the number of the answer figure selected by you in the box against the number corresponding to the question.

41)



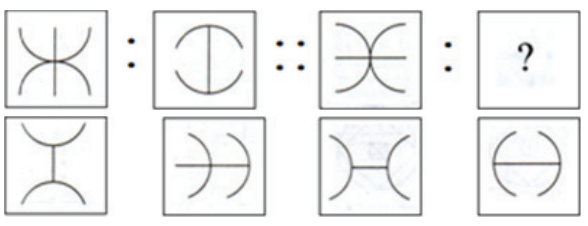
(1) (2) (3) (4)

42)



(1) (2) (3) (4)

43)



(1) (2) (3) (4)

Directions: (Questions 44 to 48): One of the items given in each of the following questions does not belong to the same group. Find the wrong option and write the answer.

44) (1) Feud (2) Fight
(3) Rivalry (4) Quarrel

45) (1) CGNX (2) IMTD
(3) JNUE (4) ORYJ

46) (1) ANCPER (2) IVKXMA
(3) KXMZOB (4) FSHUJW

47) (1) 6 (2) 18
(3) 12 (4) 7

48) (1) 11, 3, 3, 17 (2) 41, 5, 3, 47
(3) 71, 7, 3, 17 (4) 37, 14, 19, 7

49) Pointing to a man in group Reena said "He is the brother of the daughter of the wife of my husband." How is the man in group related to Reena?

(1) Son (2) Husband
(3) Cousin (4) Nephew

Directions: If A + B means A is the son of B; 'A – B' means A is the wife of B; A × B means A is the brother of B; A ÷ B means A is the mother of B and A = B means A is the sister of B:

50) What does P = R + Q mean?

(1) P is the aunt of Q
(2) P is the daughter of Q
(3) P is niece of Q
(4) P is the sister of Q

Directions: The following question is followed by two arguments – one from the positive and the other from the negative side. Mark

(1) If only argument I is strong.
(2) If only argument II is strong.
(3) If both arguments I and II are strong.
(4) If neither argument I nor II is forceful.

51) Should smoking be prohibited at public places in India?

I. Yes, because smoking – passive or active causes cancer.

II. No, because thousands of the workers will be rendered unemployed.

52) Which of the following rules should be applied to get the set of element :

2, 7, 23, 47, 119

Rules:

(1) Multiply prime number by 11 and subtract 3 from it.

(2) Square prime number and double it.

(3) Square prime number and subtract 2 from it.

(4) Multiply prime number by 2 and add half of the number.

53) Find the odd one out in the question.

(1) 1025 (2) 7225 (3) 5625 (4) 11025

54) Find the odd term in the question.

(1) $\frac{A}{Y}$ (2) $\frac{C}{W}$

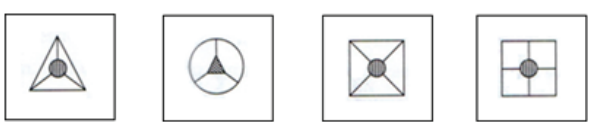
(3) $\frac{F}{V}$ (4) $\frac{I}{Q}$

55) Shabana was standing with her back towards her house. To her right is east. If she turns to her left, then in which direction would her right hand be?

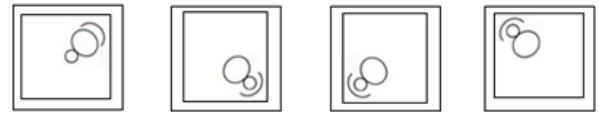
(1) North (2) East

(3) West (4) South

Directions: (Questions 56 and 57): In the question given below, four figures (1), (2), (3) and (4) have been given in each question. Out of these four figures, three figures are similar in some way and all figure is different. Identify the odd figure and write the answer.

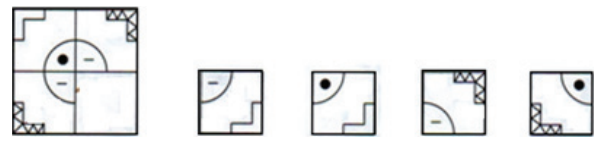
56) 

(1) (2) (3) (4)

57) 

(1) (2) (3) (4)

Directions: (Questions 58 and 59): A part of the figure marked X is missing. The missing part is given among the four alternatives. Select and write the correct answer.

58) 

X (1) (2) (3) (4)

59) 

X (1) (2) (3) (4)

60) Ramesh is 5 years older than his wife who is 5 times as old as her daughter. Three years ago her daughter's age was 4 years. What is the present age of Ramesh?

(1) 22 years (2) 25 years

(3) 42 years (4) 40 years

Directions: (Questions 61 to 68): In the following questions, There is some relationship between the first two terms. The same relation exists between the last two terms. Find out the proper term in place of a question mark from the alternatives given below.

61) Exit : Entrance : : Outlet : ?

(1) Passage (2) Inlet

(3) Courtyard (4) Avenue

62) Player : Team : : Judge : ?

(1) Court (2) Judgement

(3) Law (4) Jury

63) NET : 13227 : : YAM : ?

(1) 25113 (2) 22614

(3) 14520 (4) 25614

64) DULC : EVMD :: ? : GXOF
(1) HNWE (2) HWNE
(3) FUEN (4) FWNE

65) LOGIC : BHFNK :: CLERK : ?
(1) OBKJA (2) LPRTU
(3) XVRPA (4) JQDKB

66) LOSE : MQVI :: GAIN : ?
(1) CCLR (2) HCLR
(3) HCLS (4) HLCR

67) Dog : kennel :: ? : dove coat
(1) eagle (2) pigeon
(3) crow (4) sparrow

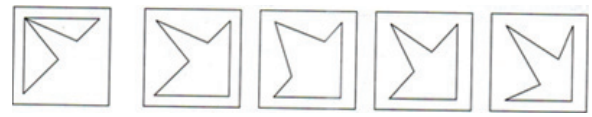
68) Horse : Jockey : : Car : ?
(1) Mechanic (2) Chauffer
(3) Steering (4) Wheels

69) Robert is the only son of my mother's mother, what would be the relation between Robert and my mother?
(1) Aunt – nephew (2) Brother – sister
(3) Uncle – aunt (4) Uncle – nephew

70) Two statements A and B are followed by a conclusion, write the alternative that support the conclusion?
A) Today is 30th of April
B) Two days ago, it was Tuesday.
Conclusion: Today it is Thursday, the 30th April.
(1) Statement A alone supports the conclusion
(2) Statement B alone supports the conclusion
(3) Statement A and B together supports the conclusion.
(4) Neither statement supports the conclusion.

Directions: (Questions 71 and 72): In the questions given below, one part of a geometrical figure (triangle, circle, square) is on the left hand side of question figure and the other one is among the four answer figures (1), (2), (3), (4) on the right hand side. Find the figure on the right hand side that complete the geometrical figure and write the answer.

71)



X (1) (2) (3) (4)

72)

X (1) (2) (3) (4)

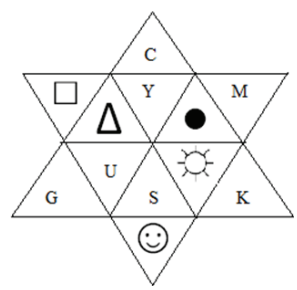
Directions: (Questions 73 to 75): A solid cube (3 × 3 × 3)units is painted red on two adjacent sides, orange on the sides opposite to red surfaces and the blue on the remaining two sides. It is then cut into 27 smaller cubes of equal sizes. With reference to this, answer the following questions.

73) How many smaller cubes will have only three surfaces painted?.
(1) 8 (2) 6
(3) 10 (4) 12

74) How many smaller cubes will have two of their surfaces painted red?
(1) 4 (2) 6
(3) 2 (4) 3

75) How many smaller cubes will have two of their surfaces painted blue?
(1) 0 (2) 1
(3) 2 (4) 4

Directions: (Questions 76 to 79): In the adjoining figure, letters C to Z are arranged according to a certain rule. Identify the rule and answer the following questions.



76) Which letter will come in place of Δ ?
(1) D (2) X
(3) W (4) N

77) Which letter will come in place of ● ?
(1) N (2) O
(3) P (4) Z

78) Which letter will come in place of □ ?
(1) D (2) B
(3) F (4) E

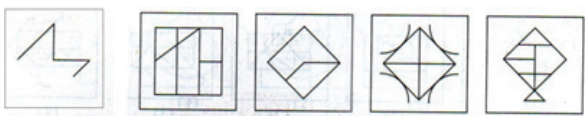
79) Which letter will come in place of ☺ ?
(1) H (2) N
(3) T (4) I

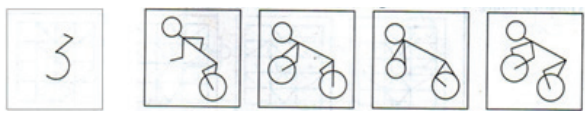
80) Sixteen girls standing in a straight line with a distance of 4 m. between two adjoining girls. What is the distance between the third and the seventh girl?
(1) 20 m (2) 16 m
(3) 12 m (4) 24 m

Directions: (Questions 81 to 83): In the questions given below, a question figure is given on the left hand side and four answer figures marked (1), (2), (3), (4) are given on the right hand side. Select the answer figure in which the problem figure is hidden/embedded and write your answer.

81)

X (1) (2) (3) (4)

82)

X (1) (2) (3) (4)

83)

X (1) (2) (3) (4)

84) Refer the given sequence of numbers:
5 1 6 5 8 6 7 3 9 9 4 8 7 4 8 5 8 6 9 4
How many adjacent pairs are there in the given sequence of numbers whose sum is 13?
(1) 3 (2) 5
(3) 2 (4) 4

85) In the given series how many times is Z preceeding X but X being followed by Y.
ZXYWWZXYWYXWYWXYWZYZXYWY
(1) 4 times (2) 2 times
(3) 3 times (4) 1 time

86) Which letter has appeared maximum number of times in the following words?
FACE, TAPE, ANT, ART, CART
(1) E (2) T
(3) P (4) A

87) Find out the word from the alternatives that matches with the given set of three words.
Bangles, armlet, earring
(1) gold (2) ornament
(3) jewellery (4) necklace

88) How many pebbles will be required to form a square if we place 11 pebbles equidistant on each side?
(1) 44 (2) 48
(3) 36 (4) 40

Directions: (Questions 89 and 90). Two statements are followed by two conclusions. Mark: 1) if only inference I follows, 2) if only inference II follows, 3) if both of them follows and 4) if neither I nor II follows.

89) Statements: A) some birds are clouds.
B) Horses are birds.
Inferences: I) some clouds are birds.
II) horses are clouds

90) Statements: A) all humans beings are animals.
B) all animals are four - footed.
Inferences: I) all human beings are four - footed.
II) some four – footed are human beings

Directions: (Questions 91 and 92) Two statements are followed by four conclusions. Select and mark the correct answer from the given alternatives.

91) Statements: I) all stars are planets.
II) all planets are trees.
Inferences: a) all planets are stars.
b) all stars are trees.
c) all trees are planets.
d) some trees are stars.
Alternatives:
1) Only a, b and d follows.
2) Only a and c follows
3) Only b and d follows
4) None follows

92) Statements: I) no tan is pan.
II) all cans are tanks.
Inferences: a) no pan is can.
b) all tanks are cans.
c) some tanks are pans.
d) some pans are not tanks.
Alternatives:
(1) Only a follows.
(2) Only c and d follows
(3) Only a and c follows
(4) Only b and d follows

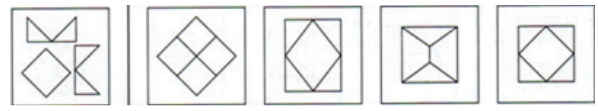
93) A wall clock strikes 6 in 30 seconds. How many seconds will be required to strike 12?
(1) 66 (2) 72
(3) 60 (4) 78

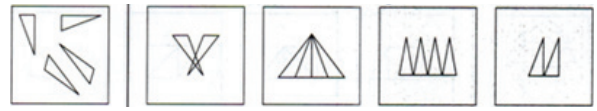
94) How many zeroes will be there in the multiplication problem:
5 ×20×15 ×20×25×4
(1) 5 (2) 6
(3) 4 (4) 3

95) In a certain code language, If Rate is 6, FATE is 18, MATE is 11, then CEAT is
(1) 12 (2) 13
(3) 14 (4) 15

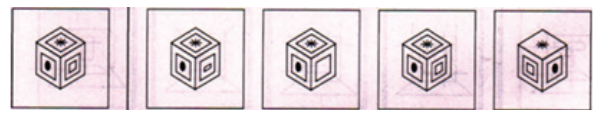
96) It was Wednesday, the 3rd July 2010. What date was it three days after the second Saturday next month?
(1) 13 (2) 14
(3) 15 (4) 12

Directions: (Questions 97 and 98) In the questions given below , select the answer figure which can be formed by the cut pieces given in the figure X and write the answer.

97) 
X (1) (2) (3) (4)

98) 
X (1) (2) (3) (4)

Direction: (Questions 99 and 100)
In the questions given below, a question figure is given on the left hand side marked as X and four answer figures marked (1), (2), (3), (4) are given on the right hand side. Select the answer figure which is exactly the same as the question figure and write your answer.

99) 
X (1) (2) (3) (4)

100) 
X (1) (2) (3) (4)

101) In 1774 the throne of France was ascended by ----------.
1) Louis XIII 2) Louis IV
3) Louis XV 4) Louis XVI

102) The Co-operative Community called New Harmony in Indiana was built by ----------.
1) Karl Marx
2) Robert Owen
3) Louis Blanc
4) Friedrich Engels

103) The German parliament is called ----------.
1) Duma 2) Sansad
3) Estate 4) Reichstag

104) An Enabling Act established dictatorship in ----------.
1) Germany 2) France
3) Russia 4) England

105) Who wrote the influential Pamphlet called "What is the third Estate "?
1) Abbe Sieyes 2) Rousseau
3) Mirabeau 4) Montesquieu

106) Hitler was offered Chancellorship on --------.
1) 30th January1923
2) 30th January1933
3) 3rd March 1933
4) 30th March 1933

107) The minimum age to stand for the election of Lok Sabha is ----------.
1) 18 2) 21
3) 25 4) 35

108) Vladimir Lenin belonged to ----------.
1) Congress party 2) Bolshevik party
3) Menshevik party 4) Janta party

109) The 25th state of the Indian union is ---------.
1) Gujarat 2) Goa
3) Telangana 4) Assam

110) In 1906 Imperial Forest Research Institute was set up at ----------.
1) Cochin 2) Dehradun
3) England 4) Faizabad

111) The shifting cultivation in Sri Lanka is called ----------
1) Milpa 2) Chena
3) Tavy 4) Kumri

112) The women in France got the voting rights in the year----------.
1) 1791 2) 1802
3) 1804 4) 1946

113) The secret state police in Germany was called ----------.
1) Cheka 2) Gestapo
3) Gypsy 4) Jungvolk

114) The capital of Madhya Pradesh is ----------.
1) Bhopal 2) Indore
3) Ujjain 4) Imphal

115) The representatives of the Third Estate assembled on 20th June 1789 in the ----------.
1) Bastille prison
2) resplended hall in Versailles
C] St paul church hall
4) indoor tennis court

116) By 1900 the only country where every adult had voting right was ----------.
1) New Zealand 2) Spain
3) South Africa 4) Japan

117) 26th January is celebrated in India as a -------.
1) Independence day
2) Revolutionary day
3) Republic day
4) Statehood day

118) The chairman of the Constituent Assembly of India was ----------.
1) Sarojini Naidu
2) Babasaheb Ambedkar
3) Jaipal singh
4) Rajendra Prasad

119) All international treaties and agreements are made in the name of ----------.
1) President 2) Governor
3) Vice President 4) Prime Minister

120) The leader of ZANU-PF in Zimbabwe was ----------.
1) Robert Mugabe 2) Salvador Allende
3) Robert Fulton 4) John Cabot

121) The only country in the world that has both the tigers and lions is ----------.
1) Africa 2) Bangladesh
3) China 4) India

122) The outermost range of the Himalayas is called the ----------.
1) Himadri 2) Himachal
3) Duns 4) Shiwaliks

123) Mango showers are common towards the close of summer season in ----------.
1) Kerala 2) Ladakh
3) Madhya pradesh 4) Nagaland

124) Royal Bengal Tiger is the famous animal of --.
1) Tropical Deciduous forest
2) The thorn forest
3) Mangrove forest
4) Montane forest

125) Gold is found in the state of ----------.
1) Goa 2) Maharashtra
3) Karnataka 4) Gujrat

126) The cultivation of grapes is called ---------
1) Sericulture 2) Viticulture
3) Pisciculture 4) potculture

127) The newer younger deposits of the flood plains are called ----------.
1) Khadar 2) Kankar
3) Bhangar 4) Bhabar

128) The largest salt water lake in India is ----------.
1) Lonar 2) Nayana
3) Pushkar 4) Chilika

129) The largest Peninsular river is ----------.
1) Ganga 2) Yamuna
3) Saraswati 4) Godavari

130) The major activity in Palampur is ----------.
1) Farming 2) Fishing
3) Trading 4) Mining

131) When a person leaves a country it is called ----------.
1) Migration 2) Immigration
3) Emigration 4) in-migration

132) The National Rural Employment Guarantee Act was passed in the year ----------.
1) 2002 2) 2003
3) 2004 4) 2005

133) A successful Cooperative in milk and milk products in Gujarat is ----------.
1) Nandini 2) Nestle
3) Gokul 4) Amul

134) The most dominant species of Tropical Deciduous forests is ----------.
1) Palm 2) Rubber
3) sundari 4) Teak

135) The bio-reserve that is not included in the World Network of Bio-Reserve is ----------.
1) Panchmari 2) Sunderbans
3) Nilgiris 4) Nanda Devi

136) An example of secondary activity is ---------.
1) Building 2) Forestry
3) Fishing 4) Transport

137) The island country that lies to the south of Lakshadweep Island is ----------.
1) Australia 2) Maldives
3) Sri Lanka 4) Indonesia

138) The highest peak in the Eastern Ghats is ----------.
1) Anai Mudi 2) Doda Betta
3) Mahendragiri 4) Khasi

139) Which of the following has reduced poverty in Punjab?
1) Public distribution system
2) High agricultural growth rate
3) Land reform measures
4) Human resource development

140) Which one of the following is an example of working capital?
1) Building 2) Land
3) Machine 4) Money

141) In velocity time graph the region between the line and the time axis represents _____
1) Acceleration
2) Speed
3) Displacement
4) Average Velocity

142) The roof and the walls of auditorium are generally covered with sound absorbent material to reduce _____
1) reflection 2) refraction
3) reverberation 4) resolution

143) The loudness or softness of a sound is determined basically by its _____
1) Pitch 2) Intensity
3) Amplitude 4) Frequency

144) The numerical ratio of displacement to distance covered by a moving object is ____.
1) always less than 1
2) always equal to 1
3) always more than 1
4) is always equal or less than 1

145) The value of acceleration due to gravity is __.
1) least on equator
2) least on poles
3) same on equator and poles
4) increase from pole to equator

146) When the speed of any object exceeds the speed of sound, it is said to be travelling at _____
1) ultrasonic 2) infrasonic
3) supersonic 4) megasonic

147) The value of G-[Universal constant of gravitation] was found out by_____
1) James Watt 2) Henry Cavendish
3) Issac Newton 4) Archemedes

148) To determine purity of sample of milk_____ are used.
1) hydrometer 2) glucometer
3) lactometer 4) spectrometer

149) According to Newtons Third law of motion, action and reaction always act_____
1) on the same body
2) on different bodies in same direction
3) on different bodies in opposite direction
4) none of the above

150) The unit of measuring pressure is_____
1) pascal 2) dyne
3) wayne 4) pyne

151) Work done on an object by a force would be zero if_____
1) distance is zero
2) acceleration is zero
3) speed is zero
4) displacement is zero

152) A force 10 N displaces a body through 2m in the direction of force therefore the work done by the force is _____
1) 5J 2) 20J
3) 40J 4) 200J

153) To hear an echo the surface reflecting the soundwaves should be at a maximum distance of_____
1) 17.2 m 2) 3.44m
3) 34.4m 4) 344m

154) To describe distance we specify_____.
1) Only magnitude 2) Only direction
3) Both magnitude as well as direction
4) Neither magnitude nor direction.

155) When a body is immersed in a liquid, the magnitude of thrust depends upon_____.
1) density of the body
2) density of the liquid
3) mass of the body
4) mass of the liquid

156) 300K=_____°C
1) 27 2) 72
3) 273 4) 37

157) Which one of the following has maximum number of atoms?
1) 18g of H_2O 2) 18g of O_2
3) 18g of CO_2 4) 18 g of CH_4

158) Dry ice is_____.
1) Solid Carbon dioxide
2) solid Oxygen
3) solid Nitrogen
4) solid Water

159) An example of metalloid is_____.
1) Sodium and Germanium
2) Boron and Germanium
3) Boron and Potassium
4) Sodium and Silicon

160) In ammonia the ratio of Nitrogen and Hydrogen by mass is_____.
1) 1:8 2) 1:16
3) 14:3 4) 3:14

161) The atoms present in a molecule of $Al_2 (SO_4)_3$ are_____.
1) 5 2) 7
3) 9 4) 17

162) Atoms having different atomic number, but having same mass number are called_____.
1) Isomers 2) Isobars
3) Isotopes 4) Ions

163) An Ozone molecule is made up of_____.
1) one atom of Oxygen
2) two atoms of Oxygen
3) three atoms of Oxygen
4) four atoms of Oxygen

164) The chemical formula of aluminum chloride is_____.
1) AlCl 2) $AlCl_2$
3) $AlCl_3$ 4) $AlCl_4$

165) Quick lime is _____.
1) Calcium hydroxide
2) Magnesium oxide
3) Calcium oxide
4) Calcium carbonate

166) Molecular mass of Cl_2 is _____ u.
1) 61 2) 63,
3) 71 4) 72

167) The valency of sodium atom with atomic number 11 is _____.
1) 2 2) 1
3) 6 4) 3

168) The Protium and Deuterium are isotopes of _____.
1) nitrogen 2) beryllium
3) boron 4) hydrogen

169) E. Goldstein in1886 discovered the presence of new radiations in a gas discharge and called them _____rays.
1) β 2) X
3) cathode 4) canal

170) _____ discovered Neutrons.
1) Rutherford 2) Thomsan,
3) Newton 4) Chadwick

171) A plant cell will swell in _____ solution.
1) hypertonic 2) isotonic
3) hypotonic 4) glycemic

172) The cells of sclerenchyma are thick due to _____.
1) cellulose 2) lipoprotein
3) lignin 4) suberin

173) _____ are tabular cells with perforated walls in phloem.
1) phoem fibres 2) sieve tubes
3) phloem parenchyma
4) companion cells

174) Blood is a _____
1) muscular tissue 2) connective tissue
3) epithelial tissue 4)nervous tissue

175) The shrinkage of the contents of a plant cell away from the cell wall is called _____
1) plasmolysis 2) diffusion
3) endocytosis 4) osmosis

176) A visible indication of air pollution is _____
1) rain 2) hail
3) smog 4) snow

177) Smooth endoplasmic reticulum manufacture _____
1) proteins 2) fats
3) glucose 4) glycerol

178) _____ are storage sacs of cell.
1) lysosomes 2) mitochondria
3) vacuoles 4) plastids

179) In Japanese encephalitis, the microbes affect _____
1) the brain 2) the liver
3) the lungs 4) the kidneys

180) Bird flu is caused by _____.
1) fungus 2) worms
3) bacteria 4) virus

181) The Value of (81)0.17 + (81)0.08 is _____.
1) 20.25 2) 3
3) 9 4) 81.25

182) The Square root of 729 divided by cube root of 729 is _____.
1) 3 2) 9
3) $(729)^{\frac{1}{3}}$ 4) 243

183) If x + y = 5 and xy = 6 then $x^3 + y^3$ = _____.
1) 20 2) 30
3) 35 4) 95

184) $x^4 + 64$ can be made a perfect square by adding _____.
1) $8x^2$ 2) $-8x^2$
3) $10x^2$ 4) $16x^2$

185) The value of x for which $(2x + 5)^0$ and $(x + 25)^0$ are supplementary angle is _____.
1) 35° 2) 44°
3) 25° 4) 50°

186) Zeroes of polynomial $x^2 - 3x$ are _____.
1) +3, -3 2) 3, 3
3) 0, 3 4) 0, -3

187) In ΔABC, AB = AC, ∠A=100° then ∠B and ∠C are _____.
1) 50°,50° 2) 40°,40°
3) 45°,45° 4) 40° ,50°

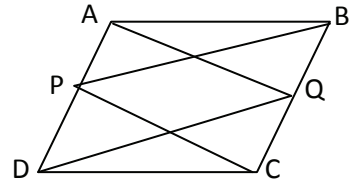
188) Abscissa of all the points on the x – axis is _____.
1) 0 2) 1
3) -1 4) any number

189) The area of an isosceles triangle having base 2 cm and the length of one of the equal sides 4cm, is _____.
1) $\sqrt{15}$ cm2 2) $\sqrt{\frac{15}{2}}$ cm2
3) $2\sqrt{15}$ cm2 4) $4\sqrt{15}$ cm2

190) AB and CD are parallel sides of trapezium ABCD. If E, F are the mid points of non parallel side AD and BC respectively then EF is equal to
1) $\frac{1}{2}$ (AB – CD) 2) $\frac{1}{2}$ (AB + CD)
3) AB + CD 4) None of these.

191) The figure obtained by joining mid points of the adjacent sides of a rhombus of area 54 cm^2 is a _____.
1) Square of area 27 cm^2
2) Rhombus of area 27 cm^2
3) Trapezium of area 27 cm^2
4) Rectangle of area 27 cm^2

192) In the figure ar($||^{gm}$ABCD) = 96 cm^2, then ar(ΔPBC) + ar (ΔQAD) is _____



1) 48 cm^2 2) 192 cm^2
3) 96 cm^2 4) 246 cm^2

193) A shoe seller keeps maximum number of pairs of number 6 for each design. Which measure of central tendency helped him to conclude that number 6 pairs would sell most?
1) Mean. 2) Median.
3) Mode. 4) Histogram.

194) Maximum volume of a cone that can be carved out of a solid hemisphere of radius r is _____.

1) $\frac{1}{8}\pi r^3$ 2) $\frac{1}{3}\pi r^3$

3) $\frac{5}{3}\pi r^3$ 4) $\frac{2}{3}\pi r^3$

195) The ratio of the volumes of 3 solids namely cylinder, cone and hemisphere having equal base area and height is _____.

1) 1 : 3 : 2 2) 3 : 1 : 2

3) 2 : 3 : 1 4) 1 : 2 : 3

196) The surface area of a cube obtained by joining two cubes end to end each of edge 10cm is _____.

1) 2000 cm^2 2) 5000 cm^2

3) 500 cm^2 4) 1000 cm^2

197) If diagonals of a cyclic quadrilateral are the diameters of a circle through the vertices of a quadrilateral then the quadrilateral is a.

1) rectangle. 2) parallelogram.

3) rhombus. 4) trapezium.

198) Which one of the following associated with triangle divides it into two triangles of equal area.

1) Angle bisector. 2) Altitude.

3) Median.

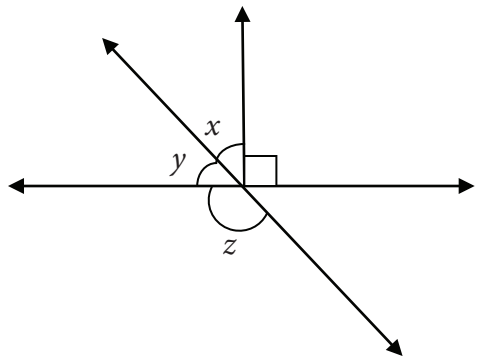
4) Line through mid points of any two sides.

199) The value of k for which (x+k) is a factor of the polynomial $x^4 - kx^2 - 3x - 6k$ is _____.

1) 9 2) 0

3) -6 4) none of these.

200) In the figure if x : y = 2 : 3 then z is _____.



1) 30° 2) 126°

3) 100° 4) 40°