MENTAL ABILITY

1. If RESPOND is coded as EMPOTDS and SENSE is coded as FRODT, then CLARIFY will be coded as

(A) EDTOJME (B) ZEJSBMD

(C) ZEJQBKD (D) ZDKSBKD

2. Madhu walks 15 metres towards north, then she turns left at 90° and walk 30 metres, then turns right at 90° and walks 25 metres. How far, she is from the starting point and in which direction ?

(A) 55 m, north-east (B) 50 m, north-east

(C) 60 m, north (D) 50 m, west

3. Five friends A, B, C, D and E are standing in a row facing south but not necessarily in the same order. Only B is between A and E, C is immediate right to E and D is immediate left to A. On the basis of above information, which of the following statements is definitely true ?

(A) B is the left of A (B) B is to the right of E

(C) A is second to the left of C (D) D is third to the left of E

Directions (Q. No. 4 to 8): A, B, C, E, F, G and H are seven employees in an organisation working in the departments of Administration, Accounts and Operations. There are at least two employees in each department. There are three females, one in each department. Each of seven employees earns different amount. The only bearded employee F works in Administration and his only other colleague G earns the maximum. C, the least earner works in Accounts. B and E are brothers and do not work in the same department. A, husband of H, works in Accounts and earns more than each of F, B and E. The wife in the couple earns more than the husband.

4. Which of the following is a group of females?

(A) GCE (B) GEH (C) GCH (D) GHB

5. In which department do three people work ?

(A) Operations (B) Accounts

(C) Operations or Accounts (D) Data inadequate

6. What will be the position of A from the top when they are arranged in descending order of their income ?

(A) Second (B) Third (C) Fourth (D) Fifth

7. In which of the following departments does B work ?

(A) Operations (B) Accounts

(C) Administration (D) Data inadequate

8. Which of the following statements is definitely true ?

(A) B earns less than F and H (B) F earns more than B and E

(C) B earns more than E and C (D) B earns less than A and H

Directions (Q. No. 9 to 11): Given an input, a machine generates pass codes for the six batches each day as follows:

Input: these icons were taken out from the sea.

Pass Codes

Batch I : from sea the out taken were icons these

Batch II : from icons these were taken out the sea

Batch III : from icons out sea the taken were these

Batch IV : from icons out sea these were taken the

9. What will be the pass code for the Batch V on a day, if the input is "four of the following five form a group" ?

(A) a five following form four group the of (B) a five following form group the of four

(C) a five following form four the of group (D) a five following form four group of the

10. If the pass code for the Batch IV on a day was 'back go here people who settle want to', what was the pass code for the Batch V on that day?

(A) back go here people settle who want to

(B) back go here people to want settle who

(C) back go here people settle to want who

(D) cannot be determined

11. The pass code for the Batch I on a day was 'he so used to sell the surplus items'. What was input on that day ?

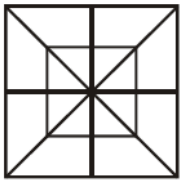
(A) items surplus the sell to used so he (B) he items surplus the sell to used so

(C) so used to sell the surplus items he (D) cannot be determined

12. What is the total number of triangles and total numbers of squares in the given figure ?

(A) 28 triangles, 10 squares (B) 28 triangles, 8 squares

(C) 32 triangles, 10 squares (D) 32 triangles, 8 squares



13. A cube whose two adjacent faces are coloured is cut into 64 identical small cubes. How many of those small cubes are not coloured at all ?

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

14. If 54/32 = 4, 36/42 = 3, 92/22 = 7 then what is 28/33 = ?

(A) 5 (B) 6 (C) 4 (D) 9

15. In a certain code language, 'po ki top ma' means 'Usha is playing cards'; 'kop ja ki ma' means 'Asha is playing tennis'; 'ki top sop ho' means 'they are playing football'; and 'po sur kop' means 'cards and tennis'. Which word in this language means 'Asha' ?

(A) ja (B) ma (C) kop (D) top

16. A ship navigating in the Indian Ocean is hit by a sea storm and drifts as follows:

40 km north

28 km north-west

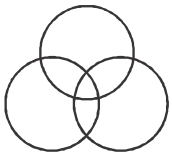
36 km west

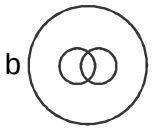
52 km south and 29 km south-east.

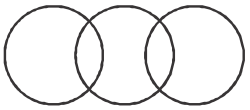
The ship had finally drifted in which direction from its original position ?

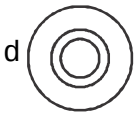
(A) South-west (B) South (C) West (D) South-east

17. Four diagrams marked A, B, C and D are given below. The one that best illustrates the relationship among three given classes:
Women, Teachers, Doctors

a 

b 

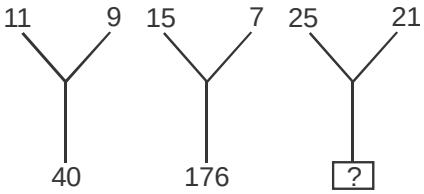
c 

d 

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

18. Identify the missing number in the following sequence
2, 17, 52, _____, 206
(A) 73 (B) 85 (C) 113 (D) 184

19. Select the missing number

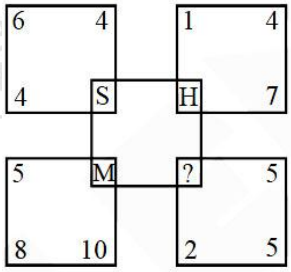


(A) 184
(B) 210
(C) 241
(D) 425

20. Select the missing number in the following sequence
3, 6, 24, 30, 63, 72, ?, ?, 195, 210
(A) 117, 123 (B) 120, 132 (C) 123, 135 (D) 135, 144

21. Find the number that does not belong to the group:
111, 331, 482, 551, 263, 383, 362, 284
(A) 263 (B) 331 (C) 383 (D) 551

22. Which letter replaces the question mark?



(A) L
(B) N
(C) P
(D) R

23. Certain blank spaces are left in the following sequence. Which is the group of letters given below, will complete the sequence ?
c_bba_cab_ac_ab_ac
(A) acbcb (B) bcacb (C) babec (D) abebe

24. A boat starts with the speed of 1 km per hour. After every 1 km, the speed of boat becomes twice. How much will be the average speed of the boat at the end of journey of 2.5 km?
(A) $\frac{2.5}{1.5125}$ (B) $\frac{2.5}{1.75}$ (C) $\frac{2.5}{1.625}$ (D) $\frac{2.5}{1.50}$

25. Using the total number of alphabets in your solution as a parameter, find the number that represents G is

A – 0, B – 0, C – 2, D – 2, E – 1, F – 2, G – ?

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

26. Rs. 1000 is given to A, B and C in some ratio. A is wrongly given double and C is wrongly given half, which is Rs. 500 and Rs. 250 respectively. How much is given to B ?
(A) 500 (B) 250 (C) 750 (D) None of above

27. Given that the total cost of 5 erasers, 7 sharpeners and 9 pencils is Rs. 100 and the total cost of 2 erasers, 6 sharpeners and 10 pencils is Rs. 80. What is the total cost (in Rs.) of one eraser one sharpener and one pencil ?

(A) 10 (B) 15 (C) 20 (D) Data not sufficient

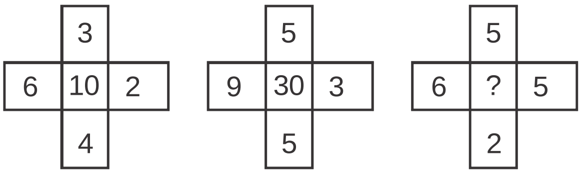
28. Renu went to the market between 7 am and 8 am. The angle between the hour-hand and the minute-hand was 90°. She returned home between 7 am and 8 am. Then also the angle between the minute-hand and hour-hand was 90°. At what time (nearest to second) did Renu leave and return home ?

(A) 7 h 18 m 35 s and 7 h 51 m 24 s (B) 7 h 19 m 24 s and 7 h 52 m 14 s
(C) 7 h 20 m 42 s and 7 h 53 m 11 s (D) 7 h 21 m 49 s and 7 h 54 m 33 s

29. Stimulant : Activity : : ?

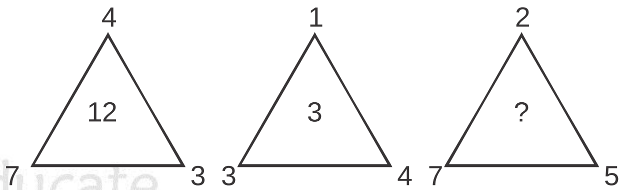
(A) Symptom : Disease (B) Food : Hunger
(C) Fertilizer : Growth (D) Diagnosis : Treatment

30. Choose the missing number from among the four alternatives :



(A) 15 (B) 20
(C) 25 (D) 40

31. From among the four alternatives given below, which number replaces the question mark ?



(A) 9 (B) 10
(C) 18 (D) 23

32. From among the four alternatives given below, which letter replaces the question mark in the given figure?

3	P	8
9	G	11
2	U	4
3	W	1
7	?	18

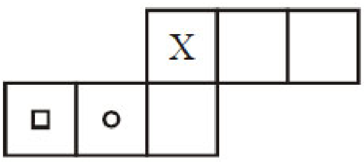
(A) A
(B) B
(C) S
(D) Y

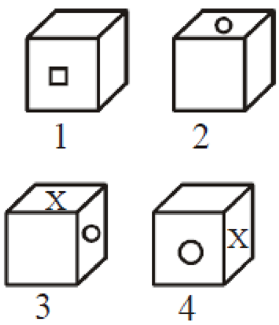
33. Choose the correct mirror-image most closely resembles the word source, from the four given alternatives.

source

(A)  (B)  (C)  (D) ecruos

34. In the problem figure an unfolded cuboid is given. Choose from the four given alternatives the box that will be formed when problem figure is folded.



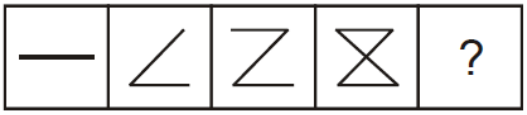


(A) 1 only (B) 1 and 2 only (C) 1, 2 and 3 only (D) 2 and 3 only

35. A work can be completed by 40 workers in 40 days. If 5 workers leave every 10 days, in how many days work will be completed ?

(A) 55.66 (B) 56.44 (C) 56.66 (D) 54.66

36. From among the four alternatives given below, which figure replaces the question mark '?'.



(A)  (B)  (C)  (D) 

37. Six persons A, B, C, D, E and F are sitting in two rows, three persons are sitting in each row.
E is not at end of any row.
D is second to the left of F.
C, the neighbour of E, is sitting diagonally opposite to D.
B is the neighbour of F.
Who are sitting in each column ?

(A) A and D; E and F; and B and C (B) A and F; D and E; and B and C
(C) B and D; A and C; and E and F (D) A and D; B and E; and F and C

38. The sum of the incomes of A and B is more than that of C and D taken together. The sum of incomes of A and C is the same as that of B and D taken together. Moreover, A earns half as much as the sum of the incomes of B and D. Whose income is the highest ?

(A) A (B) B (C) C (D) D

39. A letter number series is given with one or more terms missing as shown below. Choose the alternative next in the sequence.
A4X, D9U, G16R, ...

(A) K25P (B) J25P (C) J25O (D) J25C

40. Study the following information and answer the question given below it:
Rohit, Kunal, Ashish and Ramesh are students of a school. Three of them stay far from the school and one near it. Two studies in class IV, one in class V and one in class VI. They study Hindi, Mathematics, Social Sciences and Science. One is good at all four subjects while another is weak in all of these. Rohit stay far from the school and is good at mathematics only while Kunal is weak in mathematics only and stay close to the school. Neither of these two nor Ashish studies in class VI. One who is good at all the subjects study in class V. Name the boy who is good at all the subjects.

(A) Rohit (B) Ramesh (C) Kunal (D) Ashish

41. Half of the villagers of a certain village have their own houses. One - fifth of the villagers cultivate paddy. One - third of villagers are literate. Four - fifth of the villagers are below twenty five. Then which one of the following is certainly true?

(A) At least 10 percent villagers who have their own houses are literate.
(B) At least 25 percent of the villagers who have their own houses cultivate paddy.
(C) At least 50 percent of the villagers who cultivate paddy are below twenty five.
(D) At least 13.33 percent literate must be below twenty five.

42. A tank is filled by three pipes with each pipe having uniform flow. The first two pipes operating simultaneously fill the tank in the same time during in which the tank is filled by the third pipe alone. The second pipe fills the tank 5 hours faster than the first pipe and 4 hours slower than the third pipe. The time required by the first pipe to fill the tank is

(A) 6 hours (B) 10 hours (C) 15 hours (4) 30 hours

43. If FEED is coded as 47 and TREE is coded as 91, then MEET will be coded as

(A) 110 (B) 114 (C) 118 (D) 122

44. One watch is 1 minute slow at 1 pm on Tuesday and 2 minutes fast at 1 am on Friday. When did it show the correct time ?

(A) 5.00 am on Wednesday (B) 9.00 am on Wednesday

(C) 5.00 pm on Wednesday (D) 9.00 pm on Wednesday

Directions (Q. No. 45 to 47): A coding language is used to write English words in coded form given below.

TENNIS	% # $ @ $ &
TRUE	@ + # *
PRIME	* = ? # %
SPINE	# $ % ? &

The codes do not appear in the same order of the letters in English words. Decode the language and based on these codes identify the code for English word given in each question from the alternatives provided.

Letter	T	E	S	N	I	P	R	U	M
Codi	@	#	&	$	%	?	*	+	=

45. MINT

(A) % = & * (B) = # ? % (C) @ % = $ (D) * @ ? +

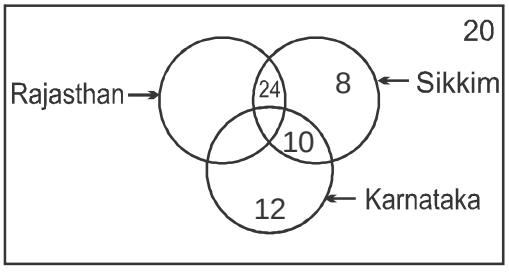
46. RINSE

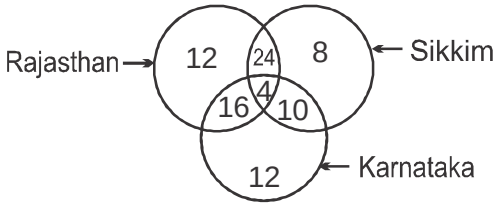
(A) = ? + * @ (B) % * $ # & (C) * $ # @ + (D) $ & # = ?

47. INTEREST

(A) = ? * + % & = * (B) ? # = ? + # * $ (C) + $ @ + $ = * % (D) @ # * # @ $ % &

Directions (Q. No. 48 to 50): There are three circles in the following diagram. A total number of 100 persons were surveryed and the number in the diagram indicates the number of tourists who visited different states. 46 tourists visited Sikkim and 42 tourists visited Karnataka.





48. How many tourists have visited at least two states ?

(A) 46 (B) 50 (C) 54 (D) 58

49. How many tourists have visited only two states?

(A) 46 (B) 50 (C) 54 (D) 96

50. If BREAKTHROUGH is coded as EAOUHRBRGHKT, then DISTRIBUTION will be coded as

(A) STTIBUDIONRI (B) TISTBUONDIRI (C) STTIBUONRIDI (D) RISTTIBUDION

ANSWERS

1.	(C)	2.	(B)	3.	(D)	4.	(C)	5.	(B)
6.	(B)	7.	(D)	8.	(D)	9.	(A)	10.	(C)
11.	(D)	12.	(C)	13.	(C)	14.	(C)	15.	(A)
16.	(A)	17.	(C)	18.	(C)	19.	(A)	20.	(B)
21.	(C)	22.	(B)	23.	(A)	24.	(C)	25.	(D)
26.	(B)	27.	(B)	28.	(D)	29.	(C)	30.	(B)
31.	(B)	32.	(B)	33.	(B)	34.	(B)	35.	(C)
36.	(B)	37.	(D)	38.	(B)	39.	(C)	40.	(D)
41.	(D)	42.	(C)	43.	(C)	44.	(B)	45.	(C)
46.	(B)	47.	(D)	48.	(C)	49.	(B)	50.	(A)

LANGUAGE COMPREHENSIVE (LCT)

Instructions for (Q.1 to Q.5):

Read the following passage and answer the questions given after it. The loudest public food fight right now is about GMOs, or genetically modified organisms. Scientists add genes to corn, soya beans and other plants, usually to protect the crops from insects or herbicides. Those who support this say that the genetic help makes crops casier to grow and cheaper. But many consumers and those who keep an eye on food–safety worry that GMOs pose an unnatural threat to out health and the enviroment. These opponents say the GMOs have been linked to depression, allergies and even cancer. Uniess we have been eating food labelled 100 percent organic – which means that it must be GMO–free–we probably have GMOs in our body system already!

1. Adding genes to crops will

(A) Help in better crop–research. (B) Make them resistant to insect attacks.

(C) Make the foods 'organic'. (D) Give them a stable price in the markets.

2. The ".....loudest public food fight ....." suggests that

(A) People do not like the Crop Scicentists.

(B) Crop Scientists are almost fighting in the streets.

(C) There is a great competition in growing GMOs.

(D) There are strong protests against GMOs

3. Those who support GMOs say that

(A) Growing the crops poses may challenges now.

(B) They do not protect the fields from insect–attacks.

(C) They bring down the prices of the crops.

(D) They help in carrying out more experiments with better results.

4. Those who are opposed to GMOs say that

(A) The costs of the crops will not change much in the markets.

(B) The pattern of growing and harvesting of crops will change.

(C) Such crop–research has been stopped.

(D) These crops can cause serious harm to our health.

5. 'Organic foods' according to the passage are those are

(A) already there is our bodies as GMOs (B) grown in well-organised farms

(C) grown free from GMOs (D) helpful to our body's various organs

Instructions for (Q.6 to Q.10):

Read the following passage and answer the questions given after it. 'We are living in the golden age of answer'. Of course information is not knowledge or wisdom, and data can mislead. Profusion of online information can be distracting or even useless. Privacy can also be a problem in a digital world where everything you've clicked can be used to sell things to you, evaluate you or embrrass you. Your iphone or computer can provide information to others that you might prefer to keep to yourself. But revolutions always cause some damages. Things do get lost in the ocean of information. We no longer bother to remember stuff we can easily look up. We don't search for addresses as we use the GPS. We spend rnore time connecting with friends on Face book than connecting with real friends. Still, pop-up ads, internet frauds and other inconveniences are a small price to pay for instant access to infinite information. Today we have better tools for searching, analysing or evaluating through data than before. Aand what's most exciting about our age of answers is, its potential to change the quality of our lives.

6. The passage primarily discusses
(A) the advantage of technology (B) criticism of technology
(C) the age of technology (D) the evalution of the pros and cons of technology

7. 'The golden age of answers' implies that there are
(A) diverse technologies available in the present time
(B) opportunities to connet with friends on Facebook
(C) better tools for searching information
(D) pop-up ads to provide information

8. We pay a price for this revolution as we
(A) only receive useless information (B) forget our identities
(C) get agitated (D) surrender our privacy

9. This 'revolution' has brought
(A) radical changes to our lives. (B) success in our lives.
(C) rotation in our lives. (D) merely problems in our lives.

10. The author's attitude to technology according to this passage is
(A) not clear. (B) positive. (C) negative. (D) insignificant.

Instructions for (Q.11 to Q.15):

Read the following passage and answer the questions given after it. For Abid Surti, Sunday is no day of rest. He is busy going to door volunteering with an assistant and a plumber. They are in an apartment building in Mumbai's densely populated suburb filled with high rise buildings. He rings doorbells and asks residents the same question, 'Any leaky taps? We are providing a free service.' Surti is a multifaceted 79 year old man. A national award winning author, he has written some 80 books – novels, plays and collection of short stories and poems. He is also an artist and a cartoonist. In 2007, Surti started Drop Dead Foundation, his own water conservation NGO that caters the buildings in Mira Road, fixing leaky plumbing for free. With water shortages and the prospects of taps running dry in Mumbai, Surti's work is vital. 'Massive' is how he describes water wastage in Mumbai. 'In poor families, they can't afford to pay a plumber but in most middleclass families, the problem is one of sheer indifference. 'Indeed it was the apathy of a friend that first spurred Surti into action. While visiting a friend's house, Surti saw a leaking tap and asked why it wasn't fixed. His friend casually dismissed the query, saying it was hard to get a plumber 'for something so trivial.'

11. Surti's primary mission is to
(A) provide free plumbers. (B) check wastage of water
(C) supply free water. (D) close running taps.

12. People may be more willing to accept Surit's services as he
(A) provides services assisted by a plumber. (B) runs a water conservation NGO.
(C) is a local person from Mumbai. (D) is on a mission.

13. Most middle-class families' attitude to water conservation is due to their
(A) lack of knowledge. (B) lack of money. (C) lack of expertise. (D) lack of concern.

14. The work being done by Surit is significant because he
(A) runs an NGO in Mumbai. (B) has several skills.
(C) is providing plumbing services. (D) is solving social problems.

15. 'spurred into action' means
(A) emboldened to act. (B) volunteered to act.
(C) keen to act. (D) encouraged to act.

Instructions for (Q.16 to Q.17):

The following five sentences come from a paragraph. The first and the last sentences are given. Choose the right order in which the three sentences (PQR) should appear to complete the paragraph.

16. S 1. Normally ladybugs are sophisticated and voracious predators.
S 2. _____
S 3. _____
S 4. _____
S 5. Then it creeps up and strikes, ripping the victim apart with its barbed mandibles.
P – Once it has homed in on these signals, it switches its sensory scan to search for molecules released by the victim.
Q – A single individual may devour several thousands of victims in a lifetime.
R – to find a victim, if first waves its antennae to detect chemicals that plants release when they are under attack by herbivorous insects.
Choose from the options given below :
(A) RPQ (B) PRQ (C) QRP (D) PQR

17. S 1. Years ago, the kids were all keen on 'soda water powder', soft drink mix that made carbonated beverages.
S 2. _____
S 3. _____
S 4. _____
S 5. They began calling them Popsicles instead, and the treat was patented as such.
P – Epperson cleverly sat on his invention, keeping it secret for 18 years, until he was in the position to make something of it.
Q – One night in 1905, Frank Epperson accidentally left his drink out on the porch, and as it froze overnight, it was absolutely delicious by the morning.
R – In 1923, he decided to patent his Epsicles ("Epp's Icicles"), but his children refused to use that name since none of them called their father Epp.
Choose from the options given below :
(A) PRQ (B) RPQ (C) RQP (D) QPR

Instructions for (Q.18 to Q.19): The following questions have the second sentence missing. Choose the appropriate sentence from the given option to complete it.

18. A. I used to think that boiling an egg would be a simple job until I came to live in the Himalayas.
B. _____
C. I don't know if it's the altitude or the density of the water, but it just won't come to a boil in time for break fast.
1.
2.
(A) I found that just getting the water to boil was an achievement.
(B) Boiling an egg in the Himalayas was fascinating.
(C) I could never find good eggs there.
(D) "Were the eggs also too hard?" I wondered.

19. A. Imagine a five-year old composing music and playing on a child-size violin.

B. _____

C. He was a young genius who grew up to be one of t he most creative composers of all time.

(A) This was something Mozart did.

(B) It is strange to find such a phenomenon.

(C) The child must have been some genius.

(D) This is simply impossible for us to think of

Instructions for (Q.20 to Q.29):

Choose the word which best fills the blank from the four options given,

20. The journey in the run down bus over the pot-holed road felt almost like a ..... ride.

(A) train (B) boat (C) roller-coaster (D) bicycle

21. The good old Ambassador cars are now considered .....

(A) obsolete (B) absolute (C) obscure (D) oblivious

22. The report has been prepared well and hopefully it will be ..... at the next board meeting.

(A) shelved (B) chaired (C) tabled (D) grounded

23. The Talent Search Examination is challenging but not frightening. Why don't you take a ..... at it ?

(A) shot (B) trial (C) hit (D) swipe

24. Grandfather has always been a figure of ..... in our large family.

(A) authorised (B) authoritative (C) authoritarian (D) authority

25. She found Rashmi in the kitchen, looking old and .....

(A) healthy (B) weary (C) busy (D) in a hurry

26. Tax offenders were refused ..... to leave the country.

(A) admission (B) submission (C) information (D) permission

27. A good driver will be very careful before carrying out a complex .....

(A) movement (B) manoeuvre (C) motion (D) moment

28. With the new Management taking over, there's now a big ..... hanging over the Company's future.

(A) thought (B) gossip (C) discussion (D) question mark

29. The Coffee Room was ..... into smoking and non-smoking areas.

(A) amalgamated (B) considered (C) segregated (D) shared

Instructions for (Q.30 to Q.35):

Select the meaning of the given phrases/idioms.

30. For want of

(A) because of lack of (B) giving something wanted by another

(C) desiring something (D) because of fulfilling needs

31. Clown around

(A) make others feel silly and stupid (B) be an object of ridicule

(C) join a Circus company (D) behave in a silly way

32. Talk back

(A) answer rudely (B) talk behind a person's back

(C) talk in a loud voice (D) reply to the questions asked

33. Run into

(A) meet someone by chance (B) start quarrelling

(C) make unexpected purchases (D) run from one place to another

34. blow one's own trumpet

(A) to create music (B) to praise someone

(C) to praise oneself (D) to feel happy

35. To see eye to eye

(A) stare at someone (B) examine someone's eyes

(C) have the same opinion (D) be cross-eyed

Instructions for (Q.36 to Q.43):

In the following passage there are some numbered blanks. Fill in the blanks by selecting the most appropriate word for each blank from the given option.

At Sri Venkateswara Temple in Tirumala, better known as Tirupati, the laddu is next in popularity only to the Lord. The taste and aroma of (36) ..... besan (gram flour) confections – saturated (37) ..... ghee, raisin, nuts, cardamon, and (38) ..... camphor – draws millions of devotees (39) ..... this temple town in Andhra Pradesh, (40) ..... for a bite of this holy (41) ..... . In 2009, it received international (42) ..... when its was given the unique global (43) ..... i.e. legal protection against imitation.

36.	(A) this	(B) these	(C) those	(D) their
37.	(A) from	(B) of	(C) in	(D) with
38.	(A) edible	(B) fine	(C) light	(D) pious
39.	(A) with	(B) to	(C) for	(D) from
40.	(A) seen	(B) look	(C) eager	(D) find
41.	(A) dish	(B) eat	(C) taste	(D) joy
42.	(A) taste	(B) fame	(C) claim	(D) love
43.	(A) index	(B) quality	(C) patent	(D) reward

Instructions for (Q.44 to Q.47):

Select the most appropriate option to fill in the blanks from the given alternatives.

44. Locacted close to Charminar, the kilometer–long stretch of Laad Bazaar is ..... with shops selling bright in every hue and colour.

(A) came (B) discovered (C) covered (D) filled

45. I suggest you should ..... yourself with the rules before you join the meeting.

(A) familiar (B) familiarize (C) familiarly (D) familiarity

46. The child held the bag as tightly as if it were her most ..... possession.

(A) prize (B) prizy (C) prized (D) prizely

47. The weakness in their defense has already cost them ..... this season.

(A) dear (B) dearly (C) deary (D) dearness

Instructions for (Q.48 to Q.50):

Select the word which means the opposite of the given word.

48. Undertake

(A) recognise (B) being (C) refuse (D) rejoice

49. Hefty

(A) half–hearted (B) light (C) heavy (D) halved

50. Miniature

(A) manicure (B) massive (C) missive (D) masculine

ANSWERS

1.	(B)	2.	(D)	3.	(C)	4.	(D)	5.	(C)
6.	(D)	7.	(C)	8.	(D)	9.	(A)	10.	(B)
11.	(B)	12.	(A)	13.	(D)	14.	(D)	15.	(D)
16.	(A)	17.	(D)	18.	(A)	19.	(A)	20.	(C)
21.	(A)	22.	(C)	23.	(A)	24.	(D)	25.	(B)
26.	(D)	27.	(B)	28.	(D)	29.	(C)	30.	(A)
31.	(D)	32.	(A)	33.	(A)	34.	(C)	35.	(C)
36.	(B)	37.	(D)	38.	(A)	39.	(B)	40.	(C)
41.	(A)	42.	(B)	43.	(C)	44.	(D)	45.	(B)
46.	(C)	47.	(B)	48.	(C)	49.	(B)	50.	(B)

SCHOLASTIC APTITUDE TEST (SAT)

1. A segment of DNA contains 1200 nucleotides, of which 200 have adenine base. How many cytosine bases are present in this segment of DNA?
(A) 100 (B) 200 (C) 400 (D) 800

2. You are observing a non-chlorophyllous, eukaryotic organism with chitinous cell wall under a microscope. You shall describe the organism as a
(A) fungus (B) alga (C) protozoas (D) bacterium

3. Match the items given in column A and Column B, and identify the correct alternative listed below.

	Column–A		**Column–B**
(a)	Flying fish	(i)	Draco
(b)	Flying lizard	(ii)	Echidna
(c)	Egg laying mammals	(iii)	Exocoetus
(d)	Flightless bird	(iv)	Struthio

(A) (a)–(i), (b)–(iii), (c)–(ii), (d)–(iv) (B) (a)–(iii), (b)–(i), (c)–(ii), (d)–(iv)
(C) (a)–(iii), (b)–(i), (c)–(iv), (d)–(ii) (D) (a)–(i), (b)–(iii), (c)–(iv), (d)–(ii)

4. Which one of the following statements about cell organelles and their function is correct?
(A) Mitochondria are associated with anaerobic respiration.
(B) Smooth endoplasmic reticulum is involved in protein synthesis.
(C) Lysosomes are important in membrane biogenesis.
(D) Golgi bodies are involved in packaging and dispatching of materials.

5. A leguminous plant grown in an autoclaved, sterilized soil fails to produce root nodules because–
(A) autoclaved soil is not good for root growth.
(B) autoclaved soil is devoid of bacteria.
(C) autoclaving reduces N_2 content of soil.
(D) plants cannot form root hairs in such a soil.

6. The causative agent of the disease 'sleeping sickness' in human beings is an
(A) intracellular parasite found in RBC
(B) extracellular parasite found in blood plasma.
(C) intracellular parasite found in WBC.
(D) extracellular parasite found on the surface of platelets

7. The gene of hemophilia is present on X chromosome. If a hemophilic male marries a normal female, the probability of their son being hemophilic is
(A) nil (B) 25% (C) 50% (D) 100%

8. Abundance of coliform bacteria in a water body is indicative of pollution from
(A) petroleum refinery (B) metal smelter
(C) fertilizer factory (D) domestic sewage

9. Prolonged exposure to the fumes released by incomplete combustion of coal may cause death of a human because of–
(A) inhalation of unburnt carbon particles (B) continuous exposure to high temperature
(C) increased level of carbon monoxide (D) increased level of carbon dioxide

10. The phenomenon of normal breathing in a human being comprises
(A) an active inspiratory and a passive expiratory phase
(B) a passive inspiratory and an active expiratory phase
(C) both active inspiratory and expiratory phases
(D) both passive inspiratory and expiratory phases

11. Which one of the following statements is true with respect to photosynthesis?
(A) Oxygen evolved during photosynthesis comes from CO_2.
(B) Chlorophyll a is the only photosynthetic pigment in plants.
(C) Photosynthesis occurs in stem of some plants.
(D) Photosynthesis does not occur in red light.

12. The girth of stem increases due to the activity of
(A) lateral meristem (B) apical meristem
(C) intercalary meristem (D) apical and intercalary meristem

13. Which one of the following represents the correct sequence of reflex action?
(A) Receptor $\rightarrow$ Sensory nerve $\rightarrow$ motor nerve $\rightarrow$ spinal cord $\rightarrow$ muscle
(B) Receptor $\rightarrow$ motor nerve $\rightarrow$ spinal cord $\rightarrow$ sensory nerve $\rightarrow$ muscle
(C) Receptor $\rightarrow$ sensory nerve $\rightarrow$ spinal cord $\rightarrow$ muscle $\rightarrow$ motor nerve
(D) Receptor $\rightarrow$ sensory nerve $\rightarrow$ spinal cord $\rightarrow$ motor nerve $\rightarrow$ muscle

14. In human female, immature eggs are for the first time seen in ovary
(A) at puberty (B) before birth, at the fetus stage
(C) during the first menstrual cycle (D) after the first year of birth

15. What happens when a fixed amount of oxygen gas is taken in a cylinder and compressed at constant temperature ?
(a) Number of collisions of oxygen molecules at per unit area of the wall of the cylinder increase.
(b) Oxygen (O_2) gets converted into ozone (O_3).
(c) Kinetic energy of the molecules of oxygen gas inceases.
(A) a and c (B) b and c (C) c only (D) a only

16. The solubility of a substance S in water is 28.6% (mass by volume) at 50ºC. When 50 mL of its saturated solution at 50ºC is cooled to 40ºC, 2.4 g of solid S separates out. The solubility of S in water at 40ºC (mass by volume) is:
(A) 2.4% (B) 11.9% (C) 26.2% (D) 23.8%

17. What mass of CO_2 will be formed when 6 g of carbon is burnt in 32 g of oxygen ?
(A) 38 g (B) 12 g (C) 26 g (D) 22 g

18. The law of conservation of mass is valid for which of the following ?
(a) Reactions involving oxidation.
(b) Nuclear reactions.
(c) Endothermic reactions.
(A) a and c (B) a and b (C) b and c (D) b only

19. How many sub–atomic particles are present in an α–particles used in Rutherford's scattering experiment ?

	No. of Protons	No. of Neutrons	No. of Electrons
(A)	4	0	0
(B)	2	0	2
(C)	2	2	0
(D)	2	2	1

20. A certain sample of element Z contains 60% of ^{69}Z and 40% ^{71}Z. What is the relative atomic mass of element Z in this sample ?
(A) 69.2 (B) 69.8 (C) 70.0 (D) 70.2

21. Compound A on strong heating in a boiling tube gives off reddish brown fumes and a yellow residue with a few drops of sodium hydroxide solution, a white precipitate appeared. Identify the cation and anion present in the compound A.
(A) Copper (II) and nitrate (B) Lead (II) and chloride
(C) Zinc and sulphate (D) Lead (II) and nitrate

22. A substance A reacts with another substance B to produce the product C and a gas D. If a mixture of the gas D and ammonia is passed through an aqueous solution of C, baking soda is formed. The substances A and B are

(A) HCl and NaOH (B) HCl and Na_2CO_3 (C) Na and HCl (D) Na_2CO_3 and H_2O

23. A metal occurs in nature as its ore X which on heating in air converts to Y. Y reacts with unreacted X to give the metal. The metal is

(A) Hg (B) Cu (C) Zn (D) Fe

24. Assertion (A) : Nitrate ores are rarely available.

Reason (R) : Bond dissociation energy of nitrogen is very high.

(A) Both A and R are true and R is the correct explanation of A.

(B) Both A and R are correct but R is not the correct explanation of A.

(C) A is correct and R is false.

(D) Both A and R are false.

25. The number of structural isomers of the compound having molecular formula C_4H_9Br is

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

26. The total number of electrons and the number of electrons involved in the formation of various bonds present in one molecule of propanal (C_2H_5CHO) are respectively.

(A) 32 and 20 (B) 24 and 20 (C) 24 and 18 (D) 32 and 18

27. Consider following as a portion of the periodic table from Group No. 13 to 17. Which of the following statement/s is/are true about the elements shown in it ?

(I) V, W, Y and Z are less electropositive than X.

(II) V, W, X and Y are more electronegative than Z.

(III) Atomic size of Y is greater than that of W.

(IV) Atomic size of W is smaller than that of X.

			V	Z
W				Y
X				

(A) I, II and III (B) II and III (C) I and IV (D) III and IV

28. A man running with a uniform speed 'u' on a straight road observes a stationary bus at a distance 'd' ahead of him. At that instant, the bus starts with an acceleration 'a'. The condition that he would be able to catch the bus is :

(A) $d \le \frac{u^2}{a}$ (B) $d \le \frac{u^2}{2a}$ (C) $d \le \frac{u^2}{3a}$ (D) $d \le \frac{u^2}{4a}$

29. A ball is thrown vertically upwards with a given velocity 'v' such that it rises for T seconds (T > 1). What is the distance traversed by the ball during the last one second of ascent (in meters) ? (Acceleration due to gravity is g m/s^2).

(A) $\frac{1}{2}gT^2$ (B) $vT + \frac{1}{2}g[T^2 - (T-1)^2]$

(C) $\frac{g}{2}$ (D) $\frac{1}{2}g[T^2 - (T-1)^2]$

30. The radius of a planet A is twice that of planet B. The average density of the material of planet A is thrice that of planet B. The ratio between the values of acceleration due to gravity on the surface of planet A and that on the surface of planet B is :

(A) $\frac{2}{3}$ (B) $\frac{3}{2}$ (C) $\frac{4}{3}$ (D) 6

31. A small spherical ball of mass 'm' is used as the bob of a pendulum. The work done by the force of tension on its displacement is W_1. The same ball is made to roll on a frictionless table. The work done by the force of normal reaction is W_2. Again the same ball is given a positive charge 'g' and made to travel with a velocity v in a magnetic field B. The work done by the force experienced by the charged ball is W_3. If the displacements in each case are the same, we have

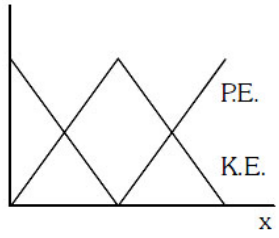
(A) $W_1 < W_2 < W_3$

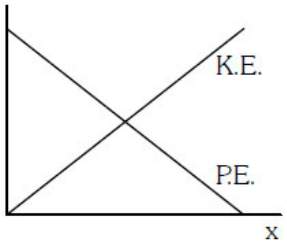
(B) $W_1 > W_2 > W_3$

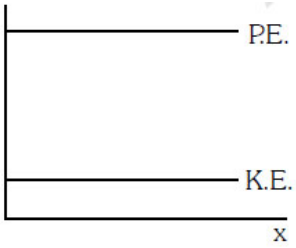
(C) $W_1 = W_2 = W_3$

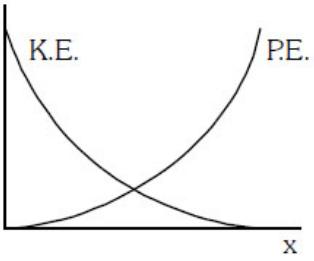
(D) that W_1, W_2, W_3 cannot be related by any equation

32. The variation in the kinetic energy (K.E.) and the potential energy (P.E.) of a particle moving along the x-axis are shown in the graphs below. Which one of the following graphs violates the law of conservation of energy ?

(A) 

(B) 

(C) 

(D) 

33. The disc of a siren containing 60 holes rotates at a constant speed of 360 rotations per minute. The emitted sound is in unison with a tuning fork of frequency :

(A) 270 Hz (B) 360 Hz (C) 480 Hz (D) 540 Hz

34. A tuning fork is excited by striking it with a padded hammer. What would be the nature of the vibrations executed by the prongs as well as the stem of the fork respectively ? (The reference direction is that of the propagation of the sound wave.)

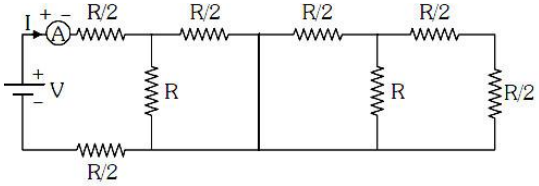
(A) Both vibrate longitudinally

(B) Both vibrate transversely

(C) The prongs vibrate longitudinally whereas the stem vibrates transversely

(D) The prong vibrate transversely whereas the stem vibrates longitudinally

35. Find the reading of the ammeter in the circuit given below:



(A) $\frac{V}{2R}$ (B) $\frac{3V}{4R}$ (C) $\frac{2V}{7R}$ (D) $\frac{11V}{R}$

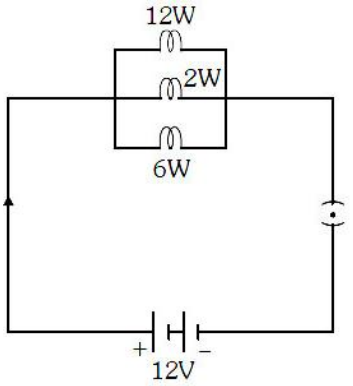
36. From among the four alternatives given below, which number replaces the question mark ?

(A) 8J, 1.33J, 4J

(B) 120J, 20J, 60J

(C) 10J, 0.277J, 2.5J

(D) 12J, 1.66J, 5J



37. Which of the following can produce a magnetic field ?

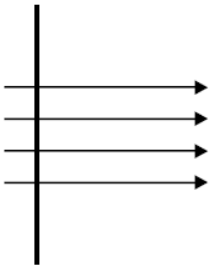
(A) Electric charges at rest (C) Electric charges in motion

(C) Only by permanent magnets (D) Electric charges whether at rest or in motion

38. A wire is lying horizontally in the north-south direction and there is a horizontal magnetic field pointing towards the east. Some positive charges in the wire move north and an equal number of negative charges move south. The direction of force on the wire will be :

(A) east (B) down, into the page

(C) up, out of the page (D) west



39. Match the following :

Phenomenon	Reason
(i) Rainbow	A. Scattering of light
(ii) Twinkling of stars	B. Dispersion of light
(iii) Blue colour of sky	C. Fluctuation of the refraction index in atmosphere layers
(iv) Advancement of sunrise and delay of sunset	D. Refraction of light

(A) (i)-B, (ii)-D, (iii)-A, (iv)-C (B) (i)-B, (ii)-C, (iii)-A, (iv)-D

(C) (i)-B, (ii)-A, (iii)-C, (iv)-D (D) (i)-D, (ii)-B, (iii)-A, (iv)-C

40. A person is suffering from both near sightedness and far sightedness. His spectacles would be made of

(A) two convex lenses with the upper lens having a larger focal length than the lower lens.

(B) two concave lenses with the upper lens having a smaller focal length than the lower lens.

(C) a concave lens as the upper lens and a convex lens as the lower lens

(D) a convex lens as the upper lens and a concave lens as the lower lens

41. LCM of two numbers x and y is 720 and the LCM of numbers 12x and 5y is also 720. The number y is

(A) 180 (B) 144 (C) 120 (D) 90

42. When a natural number x is divided by 5, the remainder is 2. When a natural number y is divided by 5, the remainder is 4. The remainder is z when x + y is divided by 5. The value of $\frac{2z-5}{3}$ is

(A) –1 (B) 1 (C) –2 (D) 2

43. If the zeroes of the polynomial $64x^3 - 144x^2 + 92x - 15$ are in A.P., then the difference between the largest and the smallest zeroes of the polynomial is

(A) 1 (B) $\frac{7}{8}$ (C) $\frac{3}{4}$ (D) $\frac{1}{2}$

44. x and y are two non-negative numbers such that 2x + y = 10. The sum of the maximum and minimum values of (x + y) is

(A) 6 (B) 9 (C) 10 (D) 15

45. The number of integral solutions of the equation $7\left(y+\frac{1}{y}\right)-2\left(y^2+\frac{1}{y^2}\right)=9$ is

(A) 0 (B) 1 (C) 2 (D) 3

46. A circle with area A cm^2 is contained in the interior of a larger circle with area (A + B) cm^2 and the radius of the larger circle is 4 cm. If A, B, A+B are in arithmetic progression, then the diameter (in cm) of the smaller circle is

(A) $\frac{\sqrt{3}}{2}$ (B) $\frac{4\sqrt{3}}{3}$ (C) $\frac{8\sqrt{3}}{3}$ (D) $2\sqrt{3}$

47. Each of the sides of a triangle is 8 cm less than the sum of its other two sides. Area of the triangle (in cm^2) is

(A) 8 (B) $8\sqrt{3}$ (C) 16 (D) $16\sqrt{3}$

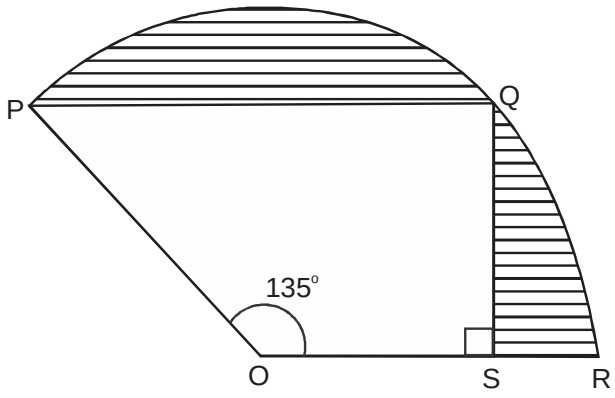
48. If $\operatorname{cosec} x - \cot x = \frac{1}{3}$, where $x \neq 0$, then the value of $\cos^2 x - \sin^2 x$ is

(A) $\frac{16}{25}$ (B) $\frac{9}{25}$ (C) $\frac{8}{25}$ (D) $\frac{7}{25}$

49. A sector with acute central angle θ is cut from a circle of diameter 14 cm. The area (in cm^2) of the circle circumscribing the sector is

(A) $\frac{22}{7}\sec^2\frac{\theta}{2}$ (B) $\frac{77}{2}\sec^2\theta$ (C) $\frac{77}{2}\cos^2\frac{\theta}{2}$ (D) $\frac{77}{2}\sec^2\frac{\theta}{2}$

50. In the figure, PQSO is trapezium in which PQ || OS, $\angle POS = 135^o$ and $\angle OSQ = 90^o$. Points P, Q and R lie on a circle with centre O and radius 12 cm. The area of the shaded part, in cm^2, is



(A) $61\frac{2}{7}$ (B) $61\frac{5}{7}$

(C) $73\frac{5}{7}$ (D) $73\frac{2}{7}$

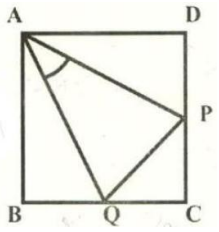
51. A solid sphere is cut into identical pieces by three mutually perpendicular planes passing through its centre. Increase in total surface area of all the pieces with respect to the total surface area of the original sphere is

(A) 250% (B) 175% (C) 150% (D) 125%

52. A right circular cylinder has its height equal to two times its radius. It is inscribed in a right circular cone having its diameter equal to 10 cm and height 12 cm, and the axes of both the cylinder and the cone coincide. Then, the volume (in cm^3) of the cylinder is approximately

(A) 107.5 (B) 118.6 (C) 127.5 (D) 128.7

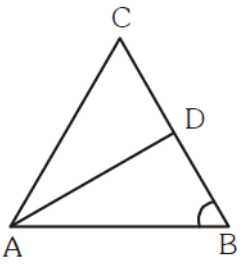
53. In the figure, ABCD is a square of side 1 dm and $\angle PAQ = 45^o$. The perimeter (in dm) of the triangle PQC is



(A) 2 (B) $1+\sqrt{2}$

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

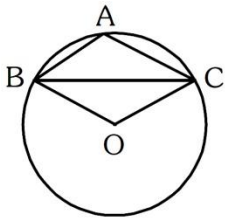
54. In the figure, ABC is a triangle in which AD bisects $\angle A$, $AC = BC$, $\angle B = 72^o$ and CD = 1 cm. Length of BD (in cm) is



(A) 1 (B) $\frac{1}{2}$

(C) $\frac{\sqrt{5}-1}{2}$ (D) $\frac{\sqrt{3}+1}{2}$

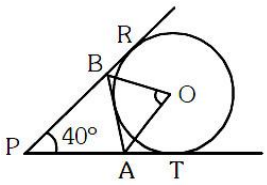
55. In the figure, BC is a chord of the circle with centre O and A is a point on the minor arc BC. Then $\angle BAC - \angle OBC$ is equal to



(A) 30^o (B) 60^o

(C) 80^o (D) 90^o

56. In the figure, ΔAPB is formed by three tangents to the circle with centre O. If $\angle APB = 40^o$, then the measure of $\angle BOA$ is



(A) 50^o (B) 55^o

(C) 60^o (D) 70^o

57. (5, –10), (–15, 15) and (5, 5) are the coordinates of vertices A, B and C respectively of ΔABC and P is a point on median AD such that AP : PD = 2 : 3. Ratio of the areas of the triangles PBC and ABC is

(A) 2 : 3 (B) 3 : 4 (C) 3 : 5 (D) 4 : 5

58. P is point on the graph of y = 5x + 3. The coordinates of a point Q are (3, –2). If M is the mid point of PQ, then M must lie on the line represented by

(A) y = 5x + 1 (B) y = 5x –7 (C) $y = \frac{5}{2}x - \frac{7}{2}$ (D) $y = \frac{5}{2}x + \frac{1}{2}$

59. Three - digit numbers formed by using digits 0, 1, 2 and 5 (without repetition) are written on different slips with distinct number on each slip, and put in a bowl. One slip is drawn at random from the bowl. The probability that the slip bears a number divisible by 5 is

(A) $\frac{5}{9}$ (B) $\frac{4}{9}$ (C) $\frac{2}{3}$ (D) $\frac{1}{3}$

60. The mean of fifteen different natural numbers is 13. The maximum value for the second largest of these numbers is

(A) 46 (B) 51 (C) 52 (D) 53

61. Assertion (A) : During eighteenth century France witnessed the emergence of a middle class.

Reason (R) : The emergence of the middle class happened on account of royal patronage.

(A) A is true, R is false.

(B) A is false, R is true.

(C) Both A and R are true but R is not the correct explanation of A.

(D) Both A and R are true and R is the correct explaination of A.

62. Assertion (A) : The lives of pastoralists in India underwent dramatic changes under colonial rule.

Reason (R) : In most areas the lands regularly used by pastoralists for grazing were taken over by the colonial state and given to select individuals for cultivation.

(A) A is true, R is false

(B) A is false, R is true

(C) Both A and R are true but R is not the correct explanation of A.

(D) Both A and R are true and R is the correction explanation of A.

63. Assertion (A) : By the early twentieth century, America became the biggest supplier of wheat to Europe.

Reason (R) : The expansion of the railways during the period greatly facilitated the transport of grain.

(A) A is true, R is false

(B) A is false, R is true

(C) Both A and R are true but R is not the correct explanation of A.

(D) Both A and R are true and R is the correction explanation of A

64. Match the following table and choose the correct response from the options given thereafter.

	Column-I		**Column-II**
A.	1910	I.	Establishment of Tonkin Free School.
B.	1930	II.	Formation of French Indo-China.
C.	1907	III.	Completion of the trans-indo-China rail network.
D.	1887	IV.	Formation of the vietnamese Comnunist Party.

(A) A-III, B-IV, C-I, D-II (B) A-IV, B-III, C-II, D-I

(C) A-III, B-I, C-IV, D-I (D) A-IV, B-I, C-II, D-III

65. Arrange the following Indian novels in accordance with their year of writing/publication

a. Indulekha

b. Rajasekhara Caritramu

c. Yamuna Paryatan

d. Pariksha-Guru

(A) c, b, d, a (B) a, d, b, c (C) c, d, b, a (D) a, b, d, c

66. The main tentes of April Theses during the Bolshevik Revolution were :

(A) Closing the war, shifting of banks, land polling by government.

(B) Formation of labour government, bank nationalisation and land distribution.

(C) Communists government, land fragmentation and merger of banks.

(D) Ending the war, bank nationalisation and land transfer.

67. Mahatma Gandhdi changed his dressing style from Western to Indian over a period of time. Match those changes as givne Column-I and Column-II and choose the correct response from the option given thereafter

	Column-I		**Column-II**
A	Suit	I.	1915
B	Lungi-Kurta	II.	1890
C	Peasant Dress	III.	1921
D	Short Dhoti	IV.	1913

(A) A-II, B-IV, C-I, D-III (B) A-II, B-I, C-IV, D-III

(C) A-III, B-IV, C-I, D-II (D) A-IV, B-III, C-I, D-II

68. In late 19th and early 20th centuries, nationalism captured the imagination of the Indian people through a variety of cultural processes. Which of the following was not a part of those processes?

(A) Rewriting history to show India's continuous progress from the ancient to the modern times.

(B) Creation of different images of Bharat Mata.

(C) Recording, collection and publication of folk tales and folk songs.

(D) Designing flags as inspiring symbols of nationalism.

69. Choose the correct response from the given options.

Nomadic people move over long distances because

(A) By temperament they do not like to settle down in any one place.

(B) They constantly look for good pastureland for their cattle.

(C) They follow a life style which is very different from the settled communities.

(D) Economically they are too poor to own land.

70. Choose the correct response from the given options.

In 19th century England grain production grew as quickly as the population because

(A) Farmers used simple agricultural technology to greater effect.

(B) Radical innovations were made in agricultural technology.

(C) Larger and larger areas were brought under cultivation.

(D) Increasing number of poor people found work as agricultural labourers.

71. Choose the correct response from the given options.

By the late 19th century Indians began searching for a national dress because they wanted to

(A) Show that in terms of dress they were not inferior to the British.

(B) Get rid of the blame of blindly aping the West.

(C) Define the cultural identity of the nation.

(D) Culturally synthesize the traditions of the East and the West.

72. Choose the correct response from the given options.

The unification of Germany in 1871, for a change, demonstrated.

(A) The triumph of the democractic aspirations of the German middle class.

(B) The fulfilment of the liberal initative to nation–building.

(C) The power of the common people, das volk.

(D) The dominance of the state power and conservatives success in mobilising nationalist sentiments.

73. Choose the correct response from the given options.

The formation of the 'United Kingdom of Great Britain' in 1707 meant, in effect.

(A) Equal representation of all the British Isles in the British Parliament.

(B) Recognition to the ethnic identities of the Welsh, the Scot and the Irish.

(C) The cessation of conflicts between the Catholics and the Protestants.

(D) The dominance of England on Scotland through the English supremacy in Parliament.

74. Choose the correct response from the given option.

Many within the congress wre initially opposed to the idea of non-cooperation because–

(A) They did not think that British rule in Indian would collapse if Indians refused to cooperate.

(B) They were not yet sure of Gandhiji's ability to successfully lead a nationwide movement.

(C) They were reluctant to boycott the council election scheduled for November 1920.

(D) They did not agree with Gandhiji's proposal to carry the movement forward in stages.

75. Choose the correct response from the given options.

The main reason why the society of Revolutionary and Republican Women was set up during the French Revolution was because.

(A) women wanted laws that would help improve their lives.

(B) Women wanted the same political rights as men.

(C) Women wanted their interests to be properly represented in the new government.

(D) Women wanted access to education, training for jobs, and wages on par with men.

76. Assertion (A) : The El Nino, a cold ocean current flows along the coast of Peru during Christmas.

Reason (R) : The presence of the El Nino leads to an increase in sea-surface temperatures and weakening of the trade winds in the region.

(A) Both A and R are true and R explains. A.

(B) Both A and R are true but R does not explain A.

(C) A is true and R is false.

(D) A is false and R is true.

77. Assertion (A) : Air temperature decreases from the equator towards the poles.

Reason (R) : As one move from the sea level to higher altitudes, the atmosphere becomes less dense and temperature decreases.

(A) Both A and R are true and R explains. A.

(B) Both A and R are true but R does not explain A.

(C) A is true and R is false.

(D) A is false and R is true.

78. Match List-I (local name of shifting cultivation) with List-II (States/Region) and select the correct answer using the code given below:

	List-I (Local name of shifting)		**List-II (States/Region)**
A.	Dahiya	I.	Jharkhand
B.	Kumari	II.	Madhya Pradesh
C.	Bringa	III.	Odisha
D.	Kuruwa	IV.	Western Ghats

(A) A-III, B-IV, C-II, D-I

(B) A-II, B-IV, C-III, D-I

(C) A-I, B-III, C-IV, D-II

(D) A-I, B-IV, C-III, D-II

79. Assertion (A): Most nuclear power stations in India have been constructed near sources of water.

Reason (R) : Nuclear power stations require a great quantity of water cooling purposes.

(A) Both A and R are true and R explains A.

(B) Both A and R are true but R does not explain A.

(C) A is true and R is false

(D) A is false and R is true

80. Assertion (A) : Peninsular rocks contain many reserves of coal, metallic minerals, mica and many other nonmetallic minerals.

Reason (R) : Sedimentary rocks on the western and eastern flanks of the peninsula, in Gujarat and Assam have most of the ferrous minerals.

(A) Both A and R are true and R explains A.

(B) Both A and R are true but R does not explain A.

(C) A is true and R is false

(D) A is false and R is true

81. Which one of the following states has common borders with the least number of countries ?

(A) Uttarakhand (B) West Bengal (C) Arunachal Pradesh (D) Sikkim

82. Match List-I (Rivers) with List-II (National Waterways) and select the correct answer using the code given below:

	List-I (Rivers)		**List-II (National Waterways)**
A.	Ganga	I.	National Waterway No. 4
B.	Brahmaputra	II.	National Waterway No. 1
C.	Godavari and Krishna	III.	National Waterway No. 5
D.	Mahanadi and Brahmani	IV.	National Waterway No. 2

(A) A-I, B-II, C-III, D-IV (B) A-II, B-III, C-IV, D-I

(C) A-IV, B-III, C-II, D-I (D) A-II, B-IV, C-I, D-III

83. Match List-I (Rivers) with List-II (Tributaries) and select the correct answer using the code given below:

	List-I (Rivers)		**List-II (Tributaries)**
A.	Godavari	I.	Lihit
B.	Ganga	II.	Koyana
C.	Krishna	III.	Wainganga
D.	Brahamputra	IV.	Son

(A) A-II, B-III, C-IV, D-I (B) A-II, B-I, C-III, D-IV

(C) A-III, B-IV, C-II, D-I (D) A-I, B-III, C-IV, D-II

84. Arrange these hills/ranges from north to south direction

I. Zaskar Range

II. Shiwalik Range

III. Karakoram Range

IV. Ladakh Range

(A) II, IV, I, II (B) III, I, IV, II (C) I, II, III, IV (D) IV, III, I, II

85. Match List-I (Rivers) with List-II (Origin) and select the correct answer using the codes given below:

List-I (Rivers)	**List-II (origin)**
A. Godavari	I. Cardamom Hills
B. Krishna	II. Amarkantak Hills
C. Narmada	III. Nasik Hills
D. Vaigai	IV. Mahabaleshwar

(A) A-IV, B-III, C-I, D-II (B) A-III, B-IV, C-II, D-I
(C) A-I, B-II, C-IV, D-III (D) A-II, B-I, C-III, D-IV

86. Assertion (A) : In India, most migrations have been from rural to urban areas.
Reason (R) : The urban areas offer greater employment opportunities and better living conditions.
(A) Both A and R are true and R explains A
(B) Both A and R are true but R does not explain A
(C) A is true and R is false
(D) A is true and R is false

87. Arrange these hills from west to east direction

A. Khasi hills B. Garo hills C. Naga hills D. Jaintia Range
(A) C, A, B, D (B) D, B, A, C (C) A, B, C, D (D) B, A, D, C

88. Assertion (A) : The Earth does not receive an equal amount of solar energy at all latitudes.
Reason (R) : As one goes from low altitude to high altitude temperature decreases because atmosphere becomes less dense.
(A) Both A and R are true and R explains A
(B) Both A and R are true but R does not explain A
(C) A is true and R is false
(D) A is false and R is true

89. Match the vegetation zones in Column-I with the associated mean annual average temperature (in degree Celsius) in Column-II.

Column-I	**Column-II**
A. Tropical	I. $17^{o}C$ to $24^{o}C$
B. Sub-tropical	II. Above $24^{o}C$
C. Temperate	III. $7^{o}C$ to $17^{o}C$
D. Alpine	IV. Below $7^{o}C$

(A) A-II, B-I, C-III, D-IV (B) A-II, B-III, C-IV, D-I
(C) A-II, B-IV, C-III, D-I (D) A-IV, B-II, C-III, D-I

90. Match the given crops with their major producing areas shown on the map of India.
A. Wheat
B. Coffee
C. Rice
D. Tea

(A) A-I, B-IV, C-III, D-II (B) A-I, B-II, C-III, D-IV
(C) A-III, B-II, C-I, D-IV (D) A-IV, B-III, C-I, D-II

91. Which of the following statement/s is/are true about federal system ?

a. All federations have a similar scheme of distribution of powers.

b. The origins of different federations are dissimilar.

c. Federalism promotes unity at the cost of diversity.

d. Federalism promotes unity in diversity.

(A) Only b (B) a and c (C) b and d (D) a, b and c

92. I do not contest elections, but I try to influence the political process. I have a specific policy agenda. I have no interest in seeking political power. Who am I ?

(A) Bureaucracy (B) Court (C) Pressure group (D) Media

93. Which of the following statements/s is/are true?

a. India is among the bottom group of nations in the world when it comes to the representation of women in legislatures.

b. Women in the Arab countries are most active in public life.

c. India has lesser representation of women in legislatures as compared to Sub-Saharan Africa.

d. The share of women in legislative assemblies in India is lower than that of their representation in Parliament.

(A) a and b (B) b and c (C) a, b and d (D) a, c and d

94. Which of the following issues has been most successfully addressed by the Indian democracy?

(A) Social inequality (B) Economic inequality

(C) Political inequality (D) Natural inequality

95. Match List I (Leaders) with List II (Political parties) and select the answer using the codes given below.

List I	List II
I. E.M.S. Namboodiripad	a. Bahujan Samaj Party
II. Sheikh Abdullah	b. Telugu Desam
III. N.T. Rama Rao	c. Communist Party of India (Marxist)
IV. Kanshi Ram	d. Jammu & Kashmir National Conference

(A) Ic IId IIIa IVb

(B) Ib IId IIIc IVa

(C) Ib IIc IIIa IVd

(D) Ic IId IIIb IVa

96. Economic growth is growth in

(A) value of total output (B) value of total investment

(C) value of industrial output (D) value added of all sectors

97. Mahatma Gandi National Rural Employment Guarantee Act aims at providing

(A) employment to rural people in government offices.

(B) 200 days of work/year in rural areas

(C) 100 days of wage employment in a year to rural households

(D) 365 days work in rural areas

98. A landless worker in a village takes a king loan of two bags of rice from the village landlord. The condition is that she will repay the loan in two and half bags of rice at the end of one year. The interset paid equals

(A) the difference between the money value of rice between now and at the end of the year.

(B) 31.25 percent of the original amount of loan.

(C) 25 percent of the original amout of loan.

(D) the difference between the rates of interest charged by banks between now and at the end of the year.

99. Non-market activity is

(A) a state of unemployment

(B) producing for self consumption

(C) selling the products nearby temples

(D) selling the products through the Regulated Market

100. A typical farmer's capital includes tractor, turbines, plough, seeds, fertilisers, pesticides and cash in hand. Which of these combinations can be classified as working capital?

(A) Tractor, turbines and plough

(B) Seeds, fertilisers, pesticides and cash in hand

(C) Plough, seeds, fertilisers and pesticides

(D) Plough, seeds, fertilisers, pesticides and cash in hand

ANSWERS

1.	(C)	2.	(A)	3.	(B)	4.	(D)	5.	(B)
6.	(B)	7.	(A)	8.	(D)	9.	(C)	10.	(A)
11.	(C)	12.	(A)	13.	(D)	14.	(B)	15.	(D)
16.	(D)	17.	(D)	18.	(A)	19.	(C)	20.	(B)
21.	(D)	22.	(B)	23.	(B)	24.	(A)	25.	(C)
26.	(A)	27.	(C)	28.	(B)	29.	(C)	30.	(D)
31.	(C)	32.	(D)	33.	(B)	34.	(C)	35.	(B)
36.	(B)	37.	(C)	38.	(B)	39.	(B)	40.	(A)
41.	(B)	42.	(A)	43.	(A)	44.	(D)	45.	(B)
46.	(C)	47.	(D)	48.	(D)	49.	(D)	50.	(B)
51.	(C)	52.	(C)	53.	(A)	54.	(C)	55.	(D)
56.	(D)	57.	(C)	58.	(B)	59.	(A)	60.	(B)
61.	(A)	62.	(D)	63.	(D)	64.	(A)	65.	(A)
66.	(D)	67.	(A)	68.	(A)	69.	(B)	70.	(C)
71.	(C)	72.	(D)	73.	(D)	74.	(C)	75.	(B)
76.	(D)	77.	(B)	78.	(B)	79.	(A)	80.	(C)
81.	(A)	82.	(D)	83.	(C)	84.	(A)	85.	(B)
86.	(A)	87.	(D)	88.	(B)	89.	(A)	90.	(B)
91.	(C)	92.	(C)	93.	(D)	94.	(C)	95.	(D)
96.	(D)	97.	(C)	98.	(C)	99.	(B)	100.	(B)