

Do not open this booklet until asked to do so



Total Questions : 200 Time : 3 Hr.

ROLL NO :

SIP/Centre:

NAME :

Test ID: 211

# NTSE

(NATIONAL TALENT SEARCH EXAMINATION)

## MOCK TEST - 3

### Guidelines for the Candidate

1. Question paper comprises of Five sections :  
**To be attempted in OMR :**  

Mental Ability	(Q Nos. 1-50)
Language Comprehensive	(Q Nos. 51-100)
Science	(Q Nos. 101-140)
Physics	(Q Nos. 101-114)
Chemistry	(Q Nos. 115-128)
Biology	(Q Nos. 129-140)
Mathematics	(Q Nos. 141-160)
Social Science	(Q Nos. 161-200)
2. All question carry one mark each
3. All questions are compulsory. There is no negative marking. Use of calculator is not permitted.
4. Write your **Name, Roll no.** on the answer sheet and sign the same.
5. There is only **one correct answer**. Choose only one option for an answer.
6. To mark your choice of answer by darkening the circles in the answer sheet, use a **Blue/Black** ball point pen only. If the correct answer is option A, you must darken the circle corresponding to option A in the answer sheet as shown below :  
 A  B  C  D
7. Return the Answer sheet to the invigilator at the end of the Exam.
8. Write your Roll no. on the question paper too and take it home for future reference.

QUESTION PAPER

CLASS

10

LEVEL-1

*Losers quit when they're tired, winners quit when they've won*

# MENTAL ABILITY

**Directions (1-2):** The capital letters in each of the following words are coded and written in small letters, but not in the same order as the letters in the word. Find the codes for letters and answer the questions.

RATE : u l h b

DATE : a h u l

MALE : g p u l

NAME : c g u l

ROAD : b u a f

TABLE : h p l u

1. What will be code in correct order for the word TODA?

(a) b f a l                      (b) g u f b                      (c) h f u a                      (d) h u f l

2. How will NORMAL be coded in correct order?

(a) c f b h u e                      (b) c f b g u p                      (c) c u b g f l                      (d) c l u b p g

**Directions (3-5):** Following questions are based upon the information given below. Study the information carefully and then choose the correct alternative to answer the questions.

Five friends A, B, C, D and E are sitting on a bench.

1. A is sitting next to B.

2. C is sitting next to D.

3. D is not sitting with E.

4. E is on the left end of the bench.

5. C is on second position from the right.

6. A is on the right side of B.

3. Where is A sitting?

(a) Between B and D      (b) Between D and C      (c) Between D and E      (d) Between B and C

4. C is sitting between

(a) B and D                      (b) A and E                      (c) D and E                      (d) A and D

5. What is the position of D?

(a) Extreme left                      (b) Extreme right                      (c) Third from left                      (d) Second from left

**Directions (6-9):** Following questions are based upon the information given below. Study the information carefully and then choose the correct alternative to answer the questions.

In a family there are six members A, B, C, D, E and F. A and B are a married couple, A being the male member. D is the only son of C who is the brother of A. E is the sister of D. B is the daughter in law of F whose husband has died.

6. How is F related to A?

(a) Mother                      (b) Sister-in-law                      (c) Sister                      (d) Mother-in-law

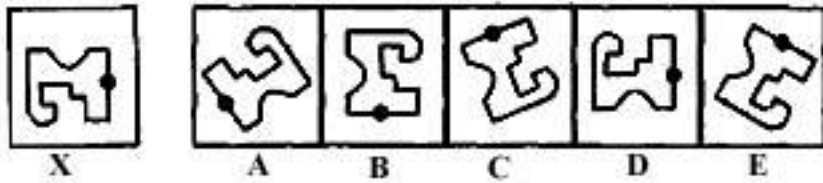
7. How is E related to C?

(a) Sister                      (b) Daughter                      (c) Cousin                      (d) Aunt

8. Who is C to B?

(a) Brother                      (b) Son-in-law                      (c) Nephew                      (d) Brother-in-law

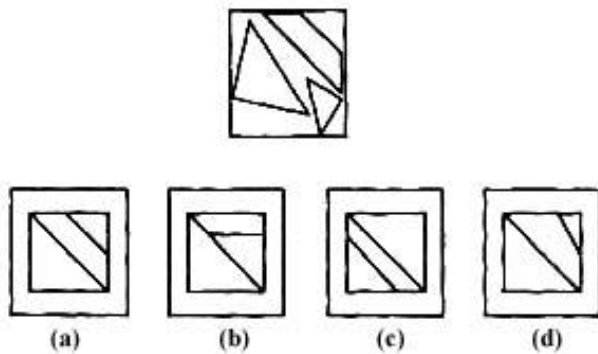
9. How many male members are there in the family?  
 (a) Two (b) Three (c) Four (d) Five
10. Which of the option can be obtained by rotating the figure X?



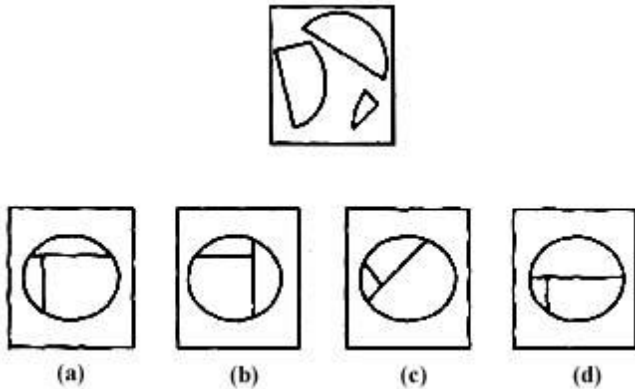
- (a) B, C, E (b) A, C, D (c) B, D, E (d) A, C, E

**Directions (11-12):** In the following questions, the top figure contains the parts of a figure which can be made by joining them together. Select the alternative which shows best how these parts can fit together.

11.

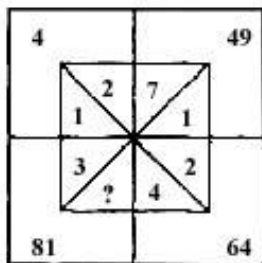


12.



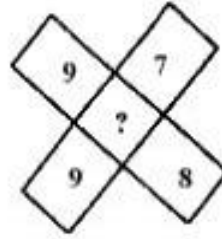
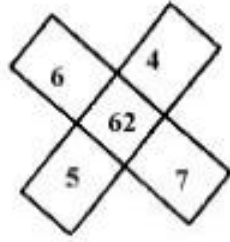
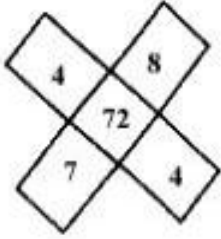
**Directions (13-14):** In the following questions, a set of figures carrying some numbers is given. The numbers in each figure follow some specific principle. Study the figures to find out the principle on the basis of which the missing number can be derived. Then, choose the correct alternative which contains this missing number.

13.



- (a) 5 (b) 4 (c) 3 (d) 2

14.



- (a) 135                      (b) 97                      (c) 95                      (d) -135

15. If the English letters A to Z are written in a reverse order then what is the fourth letter to the right of 12<sup>th</sup> letter from the left?

- (a) K                      (b) J                      (c) R                      (d) L

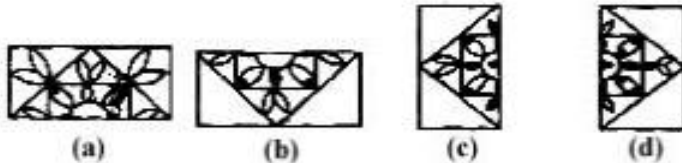
16. If the first and the third letters in the letter group DISTRIBUTION are interchanged and also the second and fourth letters, the fifth and seventh and so on then which of the following would be seventh letter from the left?

- (a) U                      (b) R                      (c) B                      (d) T

17. If the letters of RUTHLESS are arranged alphabetically then which letter would be the last letter?

- (a) T                      (b) E                      (c) H                      (d) U

18. In the given question, find out which of the figures 1, 2, 3 and 4 given in the alternatives is embedded in the figure given on top.

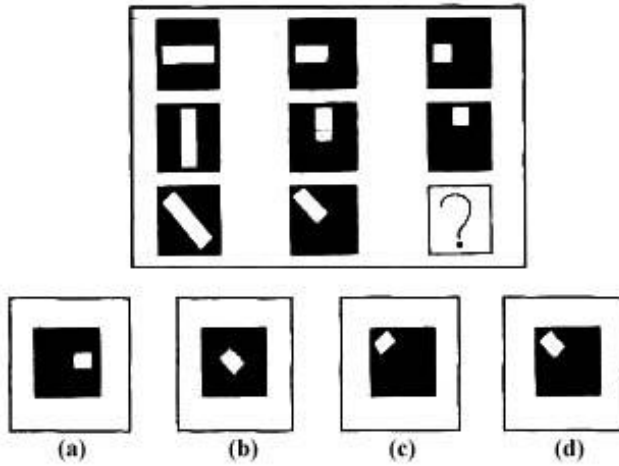


19. In a row of girls, Sita is 9<sup>th</sup> from the left and Veena is 16<sup>th</sup> from the right. If they interchange their positions, Sita becomes 25<sup>th</sup> from the left. How many girls are there in the row?

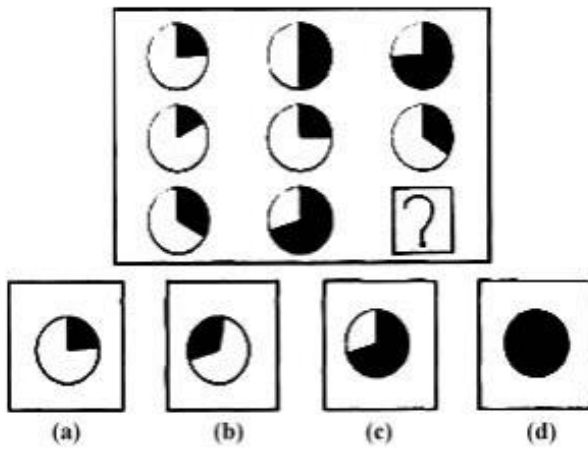
- (a) 34                      (b) 36                      (c) 40                      (d) 41

**Directions (20-22):** In the following questions a set of figures is given. Find out the figure which will complete the blank space from the given alternatives.

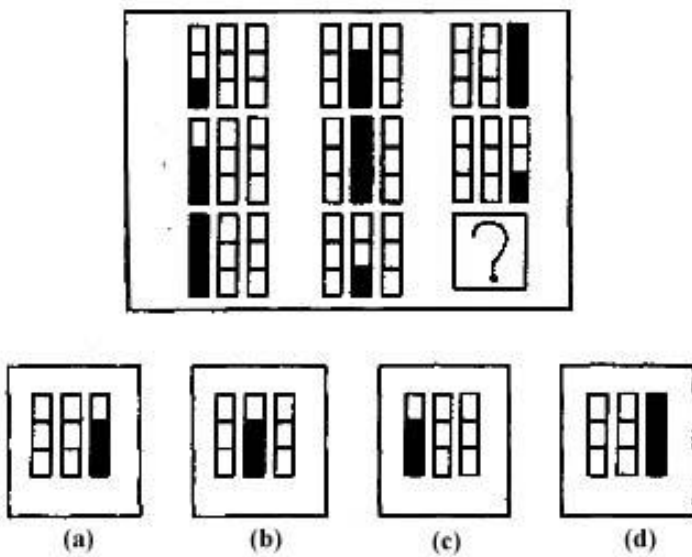
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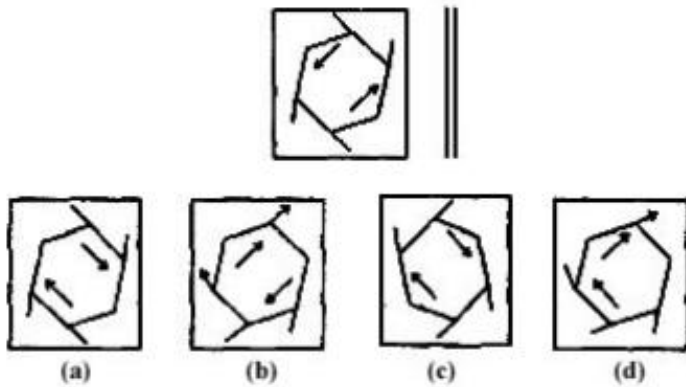


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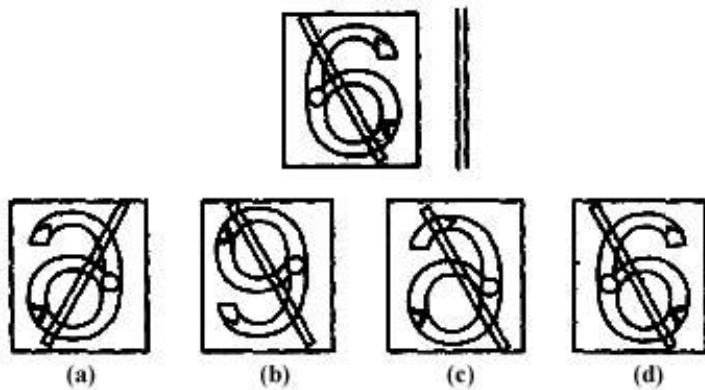


**Directions (23-24):** There is a figure to the left of the vertical parallel lines. Examine the figures given in the alternatives and find the one which is the exact mirror image of the figure given to the left of the vertical lines.

23.



24.



**Directions (25-26):** In each of the following, a question is followed by two statements marked I and II. Decide which of the statements are sufficient to answer the question. Choose your answer from the given alternatives.

25. What is Mohan's age?

**Statements:** I. In 15 years Mohan will be twice as old as Ram would be.  
II. Ram was born 5 years ago.

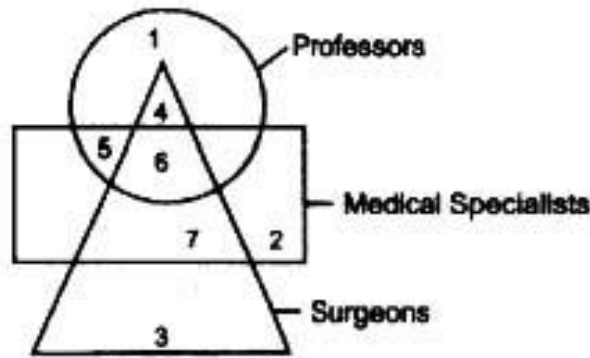
- (a) Only I is sufficient
- (b) Only II is sufficient
- (c) Both I and II are required
- (d) Both I and II are not sufficient

26. Who is a better singer D or F?

**Statements:** I. F sings better than both G and S.  
II. Neither S nor F sings so well as D.

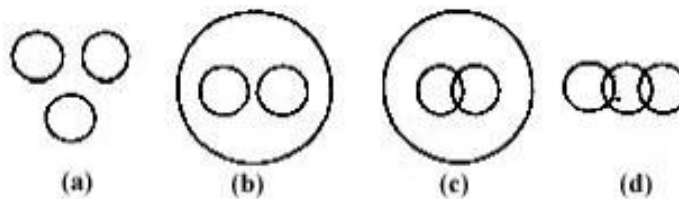
- (a) Only I is sufficient.
- (b) Only II is sufficient
- (c) Both I and II are required
- (d) Both I and II are not sufficient

**Directions (27-28):** Study the following diagram and then answer each question.

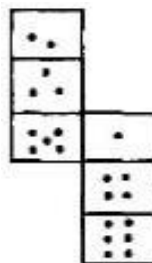


27. Which number indicates professors who are Medical Specialists but not surgeons?  
 (a) 2                      (b) 3                      (c) 4                      (d) 5
28. Which number indicates Surgeons who are Medical Specialists but not Professors?  
 (a) 3                      (b) 5                      (c) 7                      (d) 1

**Directions (29-31):** Each one of the following questions contains three items. Using the relationship between these items match each question with the most suitable diagram given below. Your answer is the alphabet (small letters) which denotes that diagram.

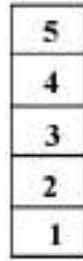


29. Your, mine, their  
 (a) a                      (b) b                      (c) c                      (d) d
30. Flowers, clothes, white  
 (a) a                      (b) b                      (c) c                      (d) d
31. Mountains, Forest, Earth  
 (a) a                      (b) b                      (c) c                      (d) d
32. In the following series how many 8s are there which are followed by 8?  
 8 9 0 8 8 1 3 8 8 8 2 3 2 8 8 1 2 8 5 6 6 9 7 1 8 5 6 7 8 8 1 8 8  
 (a) 3                      (b) 4                      (c) 5                      (d) 6
33. How many dots lie opposite the face having four dots, when the given figure is folded to form a cube?



- (a) 1                      (b) 2                      (c) 3                      (d) 5

34. If the fifth day of a month is 3 days earlier than Tuesday, what day will it be on the 15<sup>th</sup> day of the month?  
 (a) Tuesday (b) Wednesday  
 (c) Thursday (d) Saturday
35. X was born on 3<sup>rd</sup> March, 1980. Y was born 4 days before X. The Republic Day of that year fell on Saturday. Then which day was Y's birthday?  
 (a) Thursday (b) Wednesday  
 (c) Tuesday (d) Saturday
36. Five boxes numbered as 1, 2, 3, 4 and 5 are stacked one on top of the other starting with number 1 at the bottom as shown.



Box 1 is removed and placed on top of the stack. If the procedure is repeated two more times, which box will be in the middle of the stack?

- (a) 2 (b) 3 (c) 4 (d) 1

**Directions (37-39):** In the following questions some numbers are given in a sequence. Find out the number(s) from the alternatives, which will come in place of the question mark to continue the sequence.

37. 57, 54, 58, 55, 59, 56, 60, ?  
 (a) 64 (b) 63 (c) 58 (d) 57
38. 27, 31, 40, 56, 81, 117, ?  
 (a) 156 (b) 165 (c) 166 (d) 169
39. 55, 168, 57, 120, 60, 80, 62, 48, 65, 24, ?, ?  
 (a) 69, 11 (b) 67, 8 (c) 8, 71 (d) 6, 72

**Directions (40-43):** In the following questions, there is a relationship between the two numbers/letters/figures on the left of the sign (::). The same relationship exists between the two to the right of the sign (::), of which one is missing. Find the missing one from the alternative.

40. 7 : 42 :: 9 : ?  
 (a) 75 (b) 65 (c) 46 (d) 72
41. 8 : 32 :: 12 : ?  
 (a) 52 (b) 68 (c) 72 (d) 75
42. DGOT : JKUX :: FINP : ?  
 (a) KMTU (b) LNTS (c) LMTT (d) MNTU
43. EIKR : HMPX :: GKMT : ?  
 (a) KORY (b) JORZ (c) JNSZ (d) INQZ



**Directions (44-48):** Some words are given in column I. These words are written in a code language in column II. The code equivalents of the words given in column I and column II are not necessarily in the corresponding order. Choose the correct code for the words from the given alternatives.

	<b>Column - I</b>	<b>Column – II</b>
i.	Kahu chala na	hum kuch ja
ii.	Aj tak na	ek ja kam
iii.	Man tak pana	Saj ek ada
iv.	Hum chala man	kuch not ada
v.	Hum na jai	not kim ja

44. Which word will be code for word Aj?  
 (a) ada (b) hum (c) kuch (d) kam
45. Which word will be code for word Hum?  
 (a) ja (b) not (c) kuch (d) ek
46. Which word will be code for word pana?  
 (a) ada (b) ek (c) saj (d) not
47. Which word will be code for word Kahu?  
 (a) hum (b) ada (c) not (d) ja
48. Which word will be code for word Jai?  
 (a) ek (b) saj (c) kim (d) ja
49. If 20<sup>th</sup> September in a year is Wednesday, the number of Fridays in that month is  
 (a) 6 (b) 5 (c) 4 (d) 3
50. If 14<sup>th</sup> February, 2011 falls on Monday then what will be the day on 14<sup>th</sup> February, 2013?  
 (a) Friday (b) Tuesday (c) Wednesday (d) Thursday

## GENERAL ENGLISH

**Directions (51-55):** In the following questions, out of the four alternatives, choose the one which best expresses the right meaning of the word given in Capital Letters.

51. ENLIVEN  
 (a) dampen (b) cheer (c) depress (d) subdue
52. HAUGHTY  
 (a) humble (b) subservient (c) meek (d) conceited
53. DEMENTED  
 (a) reasonable (b) sensible (c) idiotic (d) lucid
54. ILL-BRED  
 (a) uncouth (b) well-bred (c) courteous (d) mannerly
55. KNACK  
 (a) dexterity (b) awkwardness (c) clumsiness (d) disability

**Directions (56-60):** In each of the following questions, out of four alternatives choose the one which can be substituted for the given words/sentence.

56. A sly look that is lustful  
(a) Leer (b) Lore (c) Lark (d) Littoral
57. A jocular person who is full of amusing anecdotes  
(a) Wile (b) Yokel (c) Wag (d) Aeon
58. Deep in thought  
(a) Meditation (b) Pensive (c) Pesky (d) Purloin
59. Without risk of punishment  
(a) Impudent (b) Impunity (c) Inexorable (d) Imperturbable
60. Excessive preoccupation with one's health  
(a) Hypochondria (b) Malaise (c) Disaffected (d) Malinger

**Directions (61-64):** In the following questions, out of four alternatives, choose the one which best expresses the opposite meaning of the word given in Capital Letters.

61. APPLAUD  
(a) praise (b) loud (c) censure (d) acclaim
62. JADE  
(a) defend (b) grasp (c) cheer (d) harass
63. APPRECIATION  
(a) appraisal (b) antipathy (c) admiration (d) assessment
64. APPARENT  
(a) ambiguous (b) clear (c) visible (d) conspicuous

**Directions (65-68) :** In the following questions, four alternatives are given for the idiom/phrase given in **bold** in the sentence. Choose the alternative which best expresses the meaning of the idiom/ phrase given in **bold**.

65. As the bomb exploded people ran **helter-skelter**.  
(a) in great fear (b) in disorderly haste (c) in haste (d) in great sorrow
66. Our founder had done a **Herculean task** by constructing this great educational institution.  
(a) a work of no worth (b) an effortless job  
(c) a work requiring very great effort (d) a work requiring very great intelligence
67. My close friend **got the sack** from his first job recently.  
(a) resigned (b) got rid-of (c) was demoted (d) was dismissed
68. I can no longer **put up with** her insolence.  
(a) endure (b) evade (c) suppress (d) assume

**Directions (69-73):** Read the following passage carefully and answer the questions that follow.

### PASSAGE - I

I do not suggest that the cultural side of education should be ignored. On the contrary, I think, it is essential to the production of the sort of adult who best fits the modern world but I think that what is important in cultural education should be conveyed, at any rate in the early stages, by methods far more attractive than now used. History and geography should be taught at first by means of the cinema. When taught this way, they will give

pleasure; attention will be spontaneous and therefore the impression will be less temporary. In spite of reforming movements, there is still among educators a feeling that what is enjoyed without effort cannot have much educational value. It would have made children aware of the manners and customs of tribes and nation's parts utterly remote from their own. Education conducted on these lines would do more than many boors to cure provincialism in space and to more children realise that actual human beings with actual feelings can be outwardly very different from the people among whom they, but inwardly composed of the same human material. A Zulu would not appear strange, remote or savage but one like themselves.

69. The writer thinks that the cultural side of education is needed to make man  
 (a) appreciate one's Heritage (b) appreciate other civilisation.  
 (c) suitable for modern civilisation (d) admire his environment
70. The writer criticised traditional educators for not  
 (a) using cinema as a method of teaching  
 (b) making learning an attractive activity  
 (c) imparting information about remote tribes  
 (d) imparting information about various cultures
71. The response of the learners to teaching through cinema is  
 (a) absorbing (b) long-lasting (c) enthusiastic (d) superficial
72. The expression to cure provincialism in space and their means to get rid of  
 (a) regional feelings (b) obscure ideas  
 (c) narrow views (d) selfish opinion
73. One of the goals of education should be to make children realise that  
 (a) human culture is diverse  
 (b) regional cultures should not be ignored  
 (c) they must respect value of alien culture  
 (d) there is a limpid system of human values underneath cultural diversity

**Directions (74-83):** Choose the word which best fills the blanks from the following given options.

74. You must \_\_\_\_\_ your work so that I may assign you another job.  
 (a) accomplish (b) perform (c) finish (d) do
75. Please do not make adverse \_\_\_\_\_ on the handicapped.  
 (a) opinions (b) remarks (c) comments (d) jokes
76. Men work so that they \_\_\_\_\_ earn a living.  
 (a) must (b) can (c) may (d) might
77. I shall avail myself this \_\_\_\_\_ to meet you.  
 (a) chance (b) opportunity (c) occasion (d) time
78. The magistrate \_\_\_\_\_ orders for the arrest of the criminal.  
 (a) released (b) gave (c) issued (d) supplied
79. The house \_\_\_\_\_ a living room, a kitchen and drawing room.  
 (a) consists (b) contains (c) possesses (d) comprises
80. I \_\_\_\_\_ to inform that the goods you have ordered are not in stock now.  
 (a) sorrow (b) regret (c) fear (d) dare
81. Please do not \_\_\_\_\_ the door open when you go out.  
 (a) leave (b) let (c) keep (d) make
82. I am happy to hear that you narrowly \_\_\_\_\_ being run over yesterday.  
 (a) escaped (b) saved (c) rescued (d) skipped

83. The scenery of Himalayas is \_\_\_\_\_ in the world  
(a) beautiful (b) unparalleled (c) unrivalled (d) unmatched

**Directions (84-86):** In these questions, a key word is followed by four choices. Choose the one opposite to it in meaning

84. If you **pamper** the child you will regret.  
(a) scold (b) scorn (c) discourage (d) neglect
85. On the **hillside**, he could see the vague shapes of sheep coming through the mist.  
(a) clear (b) transparent (c) plain (d) apparent
86. Everybody called it a **lavish** party.  
(a) big (b) wasteful (c) frugal (d) expensive

**Directions (87-91):** Read the following passage carefully and answer the questions that follow.

### PASSAGE - II

Just because there is no atmosphere on the Moon, there can be no seas, rivers or water of any kind. We are accustomed to think of water as a liquid which does not boil away until it reaches a temperature of 212° F, but if ever we picnic high up on a mountain, we will find out our mistake and we will soon discover that water boils more easily and at a lower temperature there, than on the plains below. The reason is that there is less weight of Air to keep the molecules of the liquid pressed down and so prevent them from flying off by evaporation. If there were no air pressure at all, the water would evaporate no matter how low its temperature and this is precisely what would happen on the Moon.

87. 'Atmosphere' in this passage stands for  
(a) mental or moral environment  
(b) spheroidal gaseous envelope  
(c) the germinal matter from which all life springs  
(d) the rise and fall in a barometer
88. It is on account of the atmosphere on our Earth that we have  
(a) the cycle of seasons (b) canals, lakes and tanks  
(c) mountains (d) water in all forms
89. Absence of air pressure on the Moon will cause  
(a) exhaustion (b) evaporation of water (c) water to freeze (d) blizzards
90. Water boils at less than 212° F when  
(a) we apply more heat  
(b) there is more evaporation  
(c) there is less weight of air in the atmosphere  
(d) the molecules of the liquid are not pressed down
91. Water will not evaporate if  
(a) it is boiled at a low flame  
(b) the temperature is very low  
(c) the Kitchen is air-conditioned  
(d) there is adequate air pressure

**Directions (92-100):** In the following passage, there are blanks, each of which has been numbered. For each blank four words are suggested, one of which fits the blank. Find the appropriate word in each case.

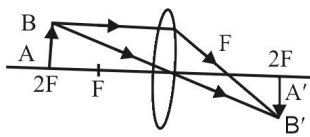
The earth is one of the known planets that circle the Sun. In (92) times, the men who studied the (93) noticed that while certain heavenly (94) seemed fixed in the sky, others seemed to (95) about. The latter they named planets

or wanderers **(96)**, astronomers have discovered that the four planets, Jupiter, Saturn, Uranus and Neptune are surrounded by poisonous gases and are so **(97)** that any living thing attempting to **(98)** on them instantly be frozen to death. Of the five remaining **(99)** Venus most closely resembles the **(100)** in size.

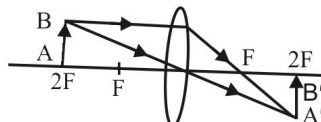
92. (a) modern (b) ancient (c) antique (d) past  
 93. (a) Sun (b) Earth (c) stars (d) light  
 94. (a) entitles (b) things (c) objects (d) bodies  
 95. (a) move (b) run (c) roam (d) jumps  
 96. (a) new (b) modern (c) future (d) upstart  
 97. (a) dull (b) frigid (c) lukewarm (d) cold  
 98. (a) stay (b) set (c) land (d) put  
 99. (a) stars (b) planets (c) meteors (d) constellations  
 100. (a) Jupiter (b) saturn (c) earth (d) pluto

## PHYSICS

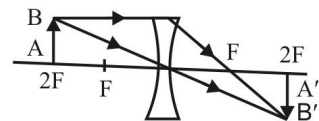
101. Frequency of Ultrasonic waves is \_\_\_\_\_  
 (a) less than 20,000 Hz (b) greater than 20,000 Hz  
 (c) less than 20 Hz (d) 1000 Hz
102. Which of the following group of the ray diagrams are correct?



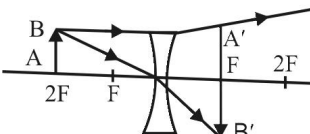
(a)



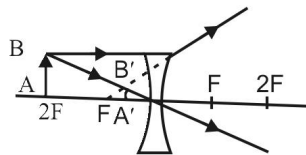
(b)



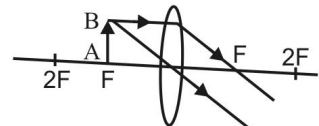
(c)



(d)



(e)



(f)

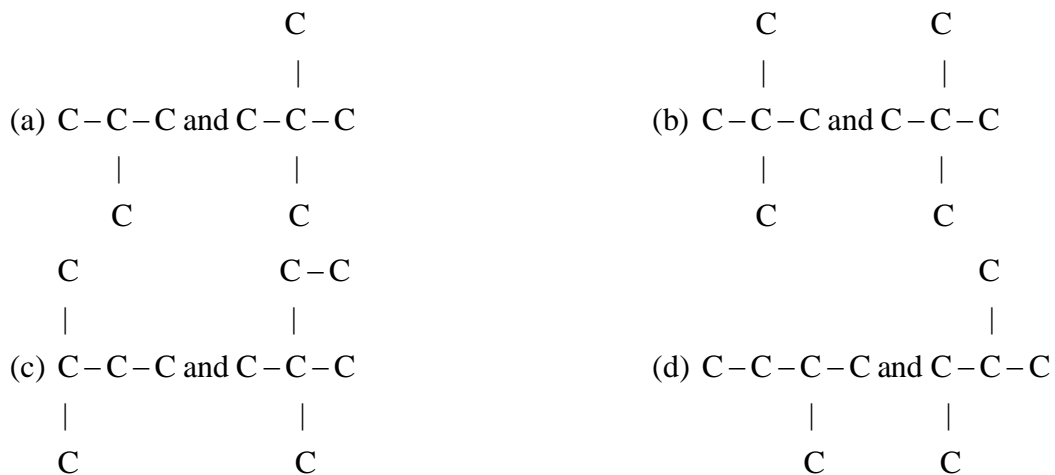
- (a) a, b and c (b) b, c and e (c) d, c and f (d) a, e and f
103. The value of 1 Kilowatt power in terms of horse power will be—  
 (a) 1.34 H.P. (b) 746 H.P. (c) 786 H.P. (d) 4.36 H.P.
104. An electron enters in a magnetic field at right angle to it as shown in figure. The direction of force acting on the electron will be  
 (a) to the left (b) to the right  
 (c) out of the page (d) into the page
- Magnetic field

Electron
105. Three light bulbs of 40W, 60W and 100W are connected in series with 220 volt source. Which of the bulbs will glow brightest?  
 (a) 60W (b) 40W (c) 100W (d) All with same brightness



116. 2N represents two  
 (a) molecules of nitrogen (b) atoms of nitrogen  
 (c) compounds of nitrogen (d) ions of nitrogen
117. CO<sub>2</sub> turns lime water milky, due to the formation of :  
 (a) Ca(HCO<sub>3</sub>)<sub>2</sub> (b) CaCO<sub>3</sub> (c) Ca(OH)<sub>2</sub> (d) CaO
118. The e/m value for cathode rays  
 (a) varies with the nature of the gas (b) does not vary with the nature of gas  
 (c) could not be determined by J.J. Thomson (d) both (b) and (c) are correct
119. When an α-particle is emitted  
 (a) element moves 2 places to the right in the periodic table  
 (b) element moves one place to the left  
 (c) element moves 2 places to the left in the periodic table  
 (d) elements maintains its position
120. The element with lowest IE<sub>1</sub> is:  
 (a) sodium (b) cesium (c) barium (d) magnesium
121. Which of the following indicates that the bonding in hydrogen chloride is covalent?  
 (i) an aqueous solution of hydrogen chloride form hydrogen with metals  
 (ii) hydrogen chloride is a gas  
 (iii) hydrogen chloride is not acidic in the absence of water  
 (iv) dry hydrogen chloride is a non-conductor of electricity  
 (a) (ii), (iii) and (iv) only (b) (i), (ii) and (iii) only  
 (c) (i) and (iv) only (d) (i), (ii), (iii) and (iv)
122. The actual formula of sodium chloride is:  
 (a) NaCl (b) Na<sup>+</sup> Cl<sup>-</sup> (c) (Na<sup>+</sup> Cl<sup>-</sup>)<sub>n</sub> (d) Na<sub>n</sub>Cl<sub>n</sub>
123. Which of following is fast reaction?  
 (a) reaction between H<sub>2</sub> and O<sub>2</sub> to form H<sub>2</sub>O  
 (b) reaction between acid and base to form salt and water  
 (c) hydrolysis of ester  
 (d) hydrolysis of sugar to glucose
124. Methane reacts with chlorine in the presence of sunlight. If this reaction is allowed to continue, the end product formed will be:  
 (a) carbon tetrachloride (b) chloroform  
 (c) ethylene chloride (d) chalcogens
125. The number of isomers of C<sub>6</sub>H<sub>14</sub> is:  
 (a) 4 (b) 5 (c) 6 (d) 17
126. Which one of the following is not the same number as the rest?  
 (a) the number of molecules in 4 moles CO<sub>2</sub>  
 (b) the number of hydrogen atom in 2 moles of H<sub>2</sub>O  
 (c) the number of chloride ions in 4 moles of CaCl<sub>2</sub>  
 (d) the number of hydrogen atoms in  $\frac{1}{2}$  mole of C<sub>3</sub>H<sub>8</sub>

127. Which of the following pairs of carbon skeletons is an example of isomers?



128. The number of isomeric structures possible for a molecule having molecular formula  $\text{C}_5\text{H}_{12}$ :

- (a) 2                                      (b) 3                                      (c) 4                                      (d) 56

## BIOLOGY

129. Plant cells can withstand greater changes in surrounding medium than animal cells because of their

- (a) Cell wall                              (b) Plasma membrane              (c) Chlorophyll                      (d) Root system

130. The following eukaryotic cells do not contain nucleus

- (1) Red blood cells                      (2) Slime molds  
 (3) Phloem sieve tube                      (4) White blood cells

- (a) (1) and (2)                              (b) (2) and (3)                              (c) (1) and (3)                              (d) (4) and (1)

131. Study of tissues is

- (a) Cytology                              (b) Pathology                              (c) Tissueology                              (d) Histology

132. The element present in Chlorophyll

- (a) Iron                                      (b) Magnesium                              (c) Manganese                              (d) Copper

133. In animals, the protective tissue inside or outside the body is

- (a) Epithelial tissue                      (b) Nerve tissue                              (c) Muscular tissue                      (d) Connective tissue

134. In paramecium, food enters the body through \_\_\_\_\_

- (a) Mouth                                      (b) Pseudopodia                              (c) Cilia                                      (d) Cytosome

135. The longest part in human alimentary canal is

- (a) Oesophagus                              (b) Small intestine                              (c) Large Intestine                              (d) Stomach

136. In this disease, caused due to protein deficiency face and limbs are swollen

- (a) Kwashiorkor                              (b) Marasmus                              (c) Rickets                                      (d) Pellagra

137. During respiration, gaseous exchange takes place in

- (a) Alveoli                                      (b) Pharynx                                      (c) Trachea                                      (d) Nasal cavity

138. Metanephridia are the excretory organs in \_\_\_\_\_

- (a) Reptilians                              (b) Amphibia                              (c) Annelids                                      (d) Nematoda

139. Scopolamine, a sedative is produced from \_\_\_\_\_

- (a) Neem                                      (b) Rose                                      (c) Datura                                      (d) Tobacco

140. The hormone that affects urination is \_\_\_\_\_

- (a) Adrenalin                              (b) Vasopressin                              (c) Estrogen                                      (d) Thyroxin





149.  $\Delta ABC \sim \Delta PQR$  &  $\frac{\text{area } \Delta ABC}{\text{area } \Delta PQR} = \frac{16}{9}$ . If  $PQ = 18$  cm &  $BC = 12$  cm, then  $AB$  &  $QR$  are respectively:

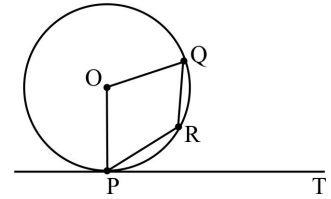
- (a) 9 cm, 24 cm                      (b) 24 cm, 9 cm                      (c) 32 cm, 6.75 cm                      (d) 13.5 cm, 16 cm

150. The number of straight line drawn from one point to any other point is/are:

- (a) Infinite                      (b) 3                      (c) 2                      (d) 1

151. In the figure,  $PQ$  is the chord of a circle with centre  $O$  and  $PT$  is the tangent at  $P$  such that  $\angle QPT = 70^\circ$  then the measure of  $\angle PRQ$  is equal to:

- (a)  $135^\circ$                       (b)  $150^\circ$   
(c)  $120^\circ$                       (d)  $110^\circ$



152. If  $\alpha + \beta = \frac{\pi}{2}$  and  $2(\sin^2 \alpha - \sin^2 \beta) = 1$ , then the measure of  $\alpha$  is  $\left(0 \leq \alpha \leq \frac{\pi}{2}\right)$ :

- (a)  $\frac{\pi}{4}$                       (b)  $\frac{\pi}{6}$                       (c)  $\frac{\pi}{3}$                       (d)  $\frac{\pi}{2}$

153. If  $\frac{\cos \theta - \sin \theta}{\cos \theta + \sin \theta} = \frac{1 - \sqrt{3}}{1 + \sqrt{3}}$ , then  $\theta$  is:

- (a)  $30^\circ$                       (b)  $45^\circ$                       (c)  $60^\circ$                       (d)  $90^\circ$

154. Area of triangle ABC whose sides are 24m, 40m and 32m is:

- (a)  $96 \text{ m}^2$                       (b)  $384 \text{ m}^2$                       (c)  $43 \text{ m}^2$                       (d)  $192 \text{ m}^2$

155. Point P divides the line segment joining the points  $A(2, 1)$  and  $B(5, -8)$  such that  $\frac{AP}{AB} = \frac{1}{3}$ . If P lies on the line  $2x + y + k = 0$ , then the value of k is:

- (a)  $-4$                       (b)  $4$                       (c)  $-3$                       (d)  $3$

156. Which is the greatest number amongst  $2^{1/2}$ ,  $3^{1/3}$ ,  $8^{1/8}$ , and  $9^{1/9}$ ?

- (a)  $9^{1/9}$                       (b)  $8^{1/8}$                       (c)  $3^{1/3}$                       (d)  $2^{1/2}$

157. If the product of two numbers is 21 and their difference is 4, then the ratio of the sum of their cubes to the difference of their cubes is:

- (a)  $185 : 165$                       (b)  $165 : 158$                       (c)  $185 : 158$                       (d)  $158 : 145$

158. In a quadrilateral ABCD, if  $AB \parallel CD$ ,  $\angle D = 2\angle B$ ,  $AD = b$  and  $CD = a$  then the side AB is of length:

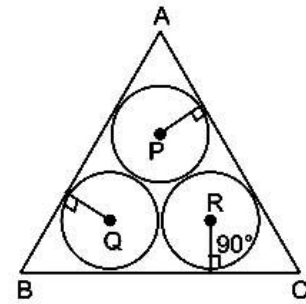
- (a)  $\frac{a}{2} + 2b$                       (b)  $a + 2b$                       (c)  $2a - b$                       (d)  $a + b$

159. A lady reaches her office 20 minutes late by travelling at a speed of 20 km/h and reaches 15 minutes early by travelling at 30 km/h. By how much time will she be early or late if she travels at 25 km/h?

- (a) 1 minute early                      (b) 5 minute early  
(c) 1 minute late                      (d) 5 minute late

160. Three circles each of radius  $r$  units are drawn inside an equilateral triangle of side  $a$  units, such that each circle touches the other two and two sides of the triangle as shown in the figure, (P, Q and R are the centres of the three circles). Then relation between  $r$  and  $a$  is:

- (a)  $a = 2(\sqrt{3} + 1)r$                       (b)  $a = (\sqrt{3} + 1)r$   
 (c)  $a = (\sqrt{3} + 2)r$                       (d)  $a = 2(\sqrt{3} + 2)r$



## SOCIAL SCIENCE

161. Who was the last Mughal Emperor?  
 (a) Alam Shah                                      (b) Muhammed Shah  
 (c) Bahadur Shah Zafar                      (d) Jahandar Shah
162. Britain grew opium in India and exported it to  
 (a) Australia                      (b) China                      (c) Vietnam                      (d) Burma
163. What kind of resource are rocks and metals?  
 (a) Renewable                      (b) Biotic                      (c) Abiotic                      (d) None
164. In India gold is found in  
 (a) Kolar                      (b) Kallar                      (c) Kashmir                      (d) Khandala
165. Which state is not the producer of mica?  
 (a) Bihar                      (b) Jharkhand                      (c) Rajasthan                      (d) Uttar Pradesh
166. What is the guiding philosophy of the Bhartiya Janata party?  
 (a) Dalit welfare                      (b) Revolutionary democracy  
 (c) Integral humanism                      (d) Modernity
167. Which one of the following UN Secretary Generals said that the US war on Iraq was illegal?  
 (a) Kofi Annan                      (b) Boutros Ghali  
 (c) Homerfield                      (d) None of these
168. If a 13-year old child is working in a factory manufacturing carpets, which fundamental right is violated?  
 (a) Right to freedom                      (b) Right to equality  
 (c) Right against exploitation                      (d) Right to constitutional remedies
169. The famous book 'Hind Swaraj' was written By  
 (a) Mahatma Gandhi                      (b) Jawahar Lai Nehru  
 (c) Maulana Abdul Kalam                      (d) None of these
170. The Habsburgs were rulers of  
 (a) Austria-Hungary                      (b) Dutch Republic                      (c) Germany                      (d) Witzerland
171. Name novel which was based on the effect of industrialisation.  
 (a) Hard Times                      (b) Oliver Twist                      (c) Germinal                      (d) Pickwick Papers
172. The two major natural factors responsible for the growth of natural vegetation are  
 (a) Temperature and moisture  
 (b) Rainfall and irrigation  
 (c) Fertilizers and manures  
 (d) Sunshine and technology

173. The full form of UNCED is  
 (a) United Nations Committee on Environment and Development  
 (b) United Nations Conference on Environment and Development  
 (c) United Nations Club on Energy and Development  
 (d) United Nations Committee on Entertainment and Development
174. Which party spearheaded the mass upsurge in Nepal?  
 (a) Seven-Party Alliance (SPA) (b) Nepalese Communist Party (Maoist)  
 (c) Nepalese Communist Party (d) Nepalese Congress Party
175. In the context of democracies, which of the following ideas is correct – democracies have successfully eliminated:  
 (a) conflicts among people  
 (b) economic inequalities among people  
 (c) differences of opinion about how marginalised sections are to be treated  
 (d) the idea of political inequality
176. The word ‘Democracy’ comes from the Greek word–  
 (a) Democracia (b) Demokratia (c) Demos (d) Kratia
177. Panchayati Raj system is a  
 (a) Three-tier system (b) Two-tier system  
 (c) One-tier system (d) None of these
178. Consider the following statements  
 I. Belgium Constitution prescribes the number of Dutch and French speaking ministers shall be equal in the Central Governments.  
 II. The State Governments are not subordinate to the Central Government in Belgium.  
 III. Brussels has a separate government in which Dutch and the French communities have equal representation.  
 IV. Apart from the Central and the State Government, there is a provision for ‘Community Government’.  
 Which of the above statement(s) is/are correct?  
 (a) I, II and III (b) II and III (c) I and III (d) All of these
179. Party system in India can be described as  
 (a) single party (b) bi-party (c) multi-party (d) All of these
180. Right to the enjoyment of pollution free water as interpreted by the Supreme Court in Subhash Kumar Vs. State of Bihar (1991) falls under  
 (a) Right to Equality (b) Right to Liberty  
 (c) Right against Exploitation (d) Right to Life and Personal Liberty
181. When did the great depression begin?  
 (a) In 1929 (b) In 1931 (c) In 1930 (d) In 1932
182. Which of the following Statements regarding the Act of 1858 is incorrect?  
 (a) The English East India Company continued to enjoy trading monopolies in India  
 (a) A Secretary of State for India was appointed with an India Council to advise  
 (c) The British Crown became the direct ruler of India  
 (d) The Governor-General was given the title of the Viceroy

183. Suppose you buy an edible oil. Which logo or mark you will have to look for?  
 (a) Agmark (b) ISI (c) Hallmark (d) None of these
184. Which Five Year Plan gave the maximum thrust on the industrial growth?  
 (a) First Five Year Plan (b) Second Five Year Plan  
 (c) Third Five Year Plan (d) Fourth Five Year Plan
185. Find out the incorrect statement.  
 (a) The European artists brought with them new styles and new conventions of painting  
 (b) The European artists brought with them the idea of realism  
 (c) The European used oil painting which produced images that looked real  
 (d) The European artists learnt the technique of oil painting from the Indian artists
186. The Golden Quadrilateral Super Highway Projects are being Implemented by the  
 (a) SHAI (State Highway, Authority of India) (b) IHAI (Indian Highway Authority of India)  
 (c) Private Sector Companies (d) NHAI (National Highway Authority of India)

187. The following list of towns, where steel plants are located in India

- |             |                |               |                   |
|-------------|----------------|---------------|-------------------|
| I. Bhilai   | II. Jamshedpur | III. Durgapur | IV. Bhadravati    |
| V. Rourkela | VI. Bokaro     | VII. Salem    | VIII. Vijay Nagar |

Which of the following sequence is located within south India?

- (a) III, IV and VI (b) I, IV and VIII (c) IV, VII and VIII (d) V, VII and VIII
188. Which of the following is the official language of Sri Lanka?  
 (a) Tamil (b) Sanskrit (c) Sinhala (d) English

189. Match the following

**List I**

- (A) Communalist  
 (B) Feminist  
 (C) Secularist  
 (D) Casteist:

**List II**

1. A person who believes in equal rights and opportunities for women and men  
 2. A person who believes that religion is the principal basis of community  
 3. A person who thinks that caste is the principal basis of community  
 4. A person who does not discriminate other on the basis of religious beliefs

**Codes:**

- |             |             |             |             |
|-------------|-------------|-------------|-------------|
| A B C D     | A B C D     | A B C D     | A B C D     |
| (a) 2 1 3 4 | (b) 2 1 4 3 | (C) 4 1 2 3 | (d) 3 4 1 2 |

190. The control of the preparation of electoral rolls for Parliament and Legislative elections in India vest with

- (a) Election Commission (b) Cabinet  
 (c) Parliament (d) the President

191. Match the following

**List - I**

- A. Haryanka Dynasty  
 B. Maurya Dynasty  
 C. Satvahan Dynasty  
 D. Kushan Dynasty

**List - II**

1. Bindusara  
 2. Kadphises - I  
 3. Udyain  
 4. Gautami putra Satakarni

**Codes**

- |             |             |             |             |
|-------------|-------------|-------------|-------------|
| A B C D     | A B C D     | A B C D     | A B C D     |
| (a) 3 1 4 2 | (b) 4 3 2 1 | (C) 1 3 4 2 | (d) 2 4 3 1 |

192. Which country came to be known as the 'Bread Basket of the World?  
 (a) Russia (b) USA (c) India (d) Vietnam
193. India's most important potential water power region is  
 (a) Himalayas (b) Western Ghats  
 (c) Eastern Ghats (d) Vindhyas
194. The total income of the country divided by its total population is termed as  
 (a) average income (b) per capita income  
 (c) national income (d) developmental income
195. The details given on the packing of the commodity such as price, date of manufacturing, date of expiry, ingredients used etc, an example of which of the following rights of the consumer?  
 (a) Right to choose (b) Right to be informed (c) Right to appeal (d) Right to represent
196. Maximum strength of the Lok Sabha is fixed at  
 (a) 545 (b) 530 (c) 552 (d) 550
197. **Column I** **Column II**  
 (i) Nehru report (p) Federalism  
 (ii) Govt. of India Act 1935 (q) Fundamental right  
 (iii) Morley Minto Reforms (r) diarchy in provinces  
 (iv) Montagu Chelmsford Reforms (s) Separate Electorate for
- Match the following and select the correct code:  
 (a) (i)-p, (ii)-q, (iii)-r, (iv)-s (a) (i)-q, (ii)-p, (iii)-s, (iv)-r  
 (c) (i)-s, (ii)-r, (iii)-q, (iv)-p (d) None of these
198. Which among the following regions of Earth's surface are called Horse Latitudes?  
 (a) Equatorial Low Pressure Belt (b) Sub Tropical High Pressure Belt  
 (c) Sub Polar Low Pressure Belt (d) Polar belt
199. Gross domestic capital formation is defined as  
 (a) flow of expenditure devoted to increased or maintaining of the capital stock  
 (b) expenditure incurred on physical assets only  
 (c) production exceeding demand  
 (d) net addition to stock after depreciation
200. Which of the following Chinese traveller came to India during the reign of Harshavardhana?  
 (a) Hiuen-Tsang (b) Fa Hein  
 (c) Nicolo Conti (d) Both A & B

# ANSWER KEYS

## NTSE Paper - 3

1	C	31	B	61	C	91	D	121	D	151	D	181	A
2	B	32	D	62	C	92	B	122	C	152	C	182	A
3	D	33	C	63	B	93	C	123	B	153	C	183	A
4	D	34	A	64	A	94	D	124	A	154	B	184	B
5	B	35	A	65	B	95	A	125	B	155	A	185	D
6	A	36	D	66	C	96	B	126	C	156	C	186	D
7	B	37	D	67	D	97	D	127	D	157	C	187	C
8	D	38	C	68	B	98	C	128	B	158	D	188	C
9	B	39	B	69	C	99	B	129	A	159	A	189	A
10	D	40	D	70	B	100	C	130	C	160	A	190	A
11	A	41	C	71	B	101	B	131	D	161	C	191	A
12	D	42	C	72	C	102	D	132	B	162	B	192	B
13	C	43	B	73	D	103	A	133	A	163	C	193	A
14	A	44	D	74	A	104	D	134	C	164	A	194	B
15	A	45	B	75	C	105	B	135	B	165	D	195	B
16	B	46	C	76	C	106	B	136	A	166	C	196	C
17	D	47	A	77	B	107	C	137	A	167	A	197	B
18	B	48	C	78	C	108	B	138	C	168	C	198	B
19	C	49	B	79	D	109	C	139	C	169	A	199	D
20	D	50	D	80	B	110	C	140	B	170	A	200	A
21	D	51	B	81	C	111	A	141	C	171	A		
22	A	52	D	82	A	112	D	142	B	172	A		
23	C	53	C	83	C	113	B	143	D	173	B		
24	A	54	A	84	A	114	B	144	D	174	A		
25	C	55	A	85	A	115	C	145	D	175	C		
26	B	56	A	86	C	116	B	146	A	176	B		
27	D	57	C	87	B	117	B	147	B	177	A		
28	C	58	B	88	D	118	D	148	B	178	D		
29	A	59	B	89	B	119	C	149	B	179	C		
30	D	60	A	90	C	120	B	150	D	180	D		