प्रश्न पत्र क्रमांक . . . .

परीक्षा कोड : SENT - 10
वर्ष 2016-2017

3953.

उत्तर पत्रक पर छपा क्रमांक

परीक्षा केन्द्र की सील

Printed No. on Answer Sheet

Seal of Examination Centre

परीक्षार्थी का अनुक्रमांक

ROLL No. OF CANDIDATE

निरीक्षक के हस्ताक्षर
एवं दिनांक .

नोट : उपर्युक्त को परीक्षार्थी भरेंगे तथा निरीक्षक जांच कर हस्ताक्षर करेंगे।

भाग – **I** - मानसिक योग्यता	**PART - I - MENTAL ABILITY**
समय – 45 मिनट (11.00 से 11.45 बजे तक)	Time - 45 Minutes (11.00 to 11.45 P.M.)
पूर्णांक – 50	Max. Marks - 50
भाग – **II** - भाषा बोध परीक्षा	**PART - II - LANGUAGE TEST**
समय – 45 मिनट (12.00 से 12.45 बजे तक)	Time - 45 Minutes (12.00 to 12.45 P.M.)
पूर्णांक – 50	Max. Marks - 50
भाग – **III** - शैक्षिक योग्यता परीक्षा	**PART - III - SCHOLASTIC ABILITY TEST**
समय – 1.30 घंटा दोपहर 1.00 से 2.30 बजे तक	Time - 1 hour 30 minutes 1.00 to 2.30 P.M.
पूर्णांक – 100	Max. Marks - 100

परीक्षार्थियों को निर्देश

नीचे लिखे हुए निर्देशों को सावधानीपूर्वक पढ़ें, इसके बाद प्रश्नों के उत्तर चिन्हित करना प्रारम्भ करें :-

1. प्रथम, द्वितीय एवं तृतीय भाग के लिए अलग-अलग उत्तर पत्रक दिए हैं, याद रखें आपको अपने उत्तर संबंधित भाग के उत्तर-पत्रक पर ही चिन्हित करने हैं।

2. प्रश्नपत्र एवं प्रत्येक उत्तर पत्रक पर अपना अनुक्रमांक प्रवेश-पत्र में दिए गए अनुक्रमांक के अनुसार ही लिखें।

3. समस्त अंक अंग्रेजी में ही लिखें। एक चौखाने में एक ही अंक लिखें।

4. यह परीक्षा तीन भागों में ली जा रही है। प्रथम भाग में 1 से 50 तक मानसिक योग्यता के प्रश्न हैं। द्वितीय भाग में

INSTRUCTIONS TO CANDIDATES

Read the following instructions carefully before you answer the questions on Answer Sheet :-

1. The answer sheets for Part-I, Part-II & Part-III are different. Remember you have to mark you answer on related answer sheet.

2. Write Roll No. as given in admission card on this Question paper as well as on the Answer sheet.

3. Write all the Nos. in English numbers only. Write only one digit in one block.

4. This question paper contains three parts. I-Part contains 1-50 questions of mental ability. II-part contains 1-50 questions in Hindi language and

P.T.O.

1 से 50 प्रश्न हिन्दी भाषा के हैं एवं 1 से 50 प्रश्न अंग्रेजी भाषा के हैं। विद्यार्थियों को इनमें से केवल एक **भाषा का चयन करना है** अर्थात् या तो हिन्दी या अंग्रेजी। चुनी हुई भाषा को सावधानी से उत्तर पत्रक पर दिये गए निर्धारित स्थान पर अंकित करना है। तीसरे भाग में शैक्षिक योग्यता परीक्षा के 1 से 100 प्रश्न हैं। सभी प्रश्न अनिवार्य हैं। प्रत्येक प्रश्न के लिए 1 अंक निर्धारित हैं।

5. प्रत्येक सही उत्तर का एक अंक प्रदान किया जाएगा।

6. इस परीक्षा के प्रत्येक भाग के लिए निश्चित समय का निर्धारण किया गया है। आप किसी एक प्रश्न के लिये ज्यादा समय न गंवाते हुए निर्धारित समय का सदुपयोग करें।

7. भाग – I (मानसिक योग्यता) के प्रश्न-पत्र को 11.45 बजे तक समाप्त कर लें व उत्तर-पत्रक पर्यवेक्षक को तुरंत वापस करेंगे। भाग – II – (भाषा बोध परीक्षा) के प्रश्न-पत्र को 12.45 बजे तक समाप्त कर उसके उत्तर पत्रक पर्यवेक्षक को तुरंत वापस करेंगे। भाग-III (शैक्षिक योग्यता परीक्षा) के प्रश्नपत्र को 2.30 बजे तक समाप्त करके उत्तर-पत्रक पर्यवेक्षक को वापस करेंगे।

8. इस प्रश्न-पत्र का अंतिम पेज रफ कार्य करने के लिये दिया गया है।

9. उत्तर देने का तरीका :
उत्तर देने के लिए ओ.एम.आर. उत्तर पत्रक में संबंधित प्रश्न के बाजू में दिये गये चार गोलों में से केवल एक गोले को पूरा काला कीजिए।

10. उत्तर अंकित करने के लिए केवल काला/नीला बॉल – पाइंट पेन का प्रयोग करें।

11. किसी प्रकार के कैलकुलेटर, लॉग टेबिल या अन्य इलेक्ट्रॉनिक उपकरणों, मोबाइल फोन आदि का प्रयोग वर्जित है।

12. मूल्यांकन पद्धति –
प्रत्येक प्रश्न के चार संभावित उत्तर हैं, उनमें से एक उत्तर सही है। प्रश्न का सही उत्तर अंकित करने से एक अंक प्राप्त होगा। यदि एक से ज्यादा गोले काले किये जाते हैं तो यह माना जायेगा कि परीक्षार्थी को प्रश्न का सही उत्तर नहीं मालूम है और उसे कोई अंक नहीं दिये जायेंगे।

13. उत्तर शीट वीक्षक को सौंपना –
वीक्षक को उत्तर शीट सौंपने के पहले सुनिश्चित कर लें कि उत्तर शीट के दोनों पृष्ठों पर सही पूर्तियां जैसे- नाम, रोल नम्बर, हस्ताक्षर, प्रश्न पुस्तिका का नम्बर आदि निर्धारित स्थान पर ठीक-ठीक भरे गये हैं।

14. उत्तर शीट के उपयोग में सावधानी –
उत्तरशीट का प्रयोग करते समय पूरी तरह से सावधानी बरतें। इसे फटने, मोड़ने या सलवट पड़ने से खराब न होने दें।

15. **कृपया परीक्षा के बाद उत्तर पत्रक निरीक्षक को लौटा दीजिए।**

16. अनुवादित विवरण में अंतर से उठे किसी भी विवाद की स्थिति में प्रश्न पत्र के अंग्रेजी विवरण को निर्णायक माना जाएगा।

1-50 questions in English Language. **The candidate has to attempt this test only in one language** i.e. either in Hindi or in English. Mark the language opted by you very carefully on the answer sheet. III part contains 1-100 Questions. All the questions are compulsary. Each Question carry one mark.

5. Every correct answer will be awarded one mark.

6. Since the time allotted to the two parts of this Question Paper is limited, you should make the best use of it by not spending too much time on any one question.

7. Solve the Part-I (Mental Ability) of the Question Paper by 11.45 am and related Answer sheet quickly sumit to the Invigilator. Part-II (Language) paper should be solved by 12.45 pm and Answer sheet submit to the invigilator Answer sheet **Part-III (Scholastic ability)** should be by 2.30 pm. and answer sheet should the submitted on previous manner.

8. The last page of this Question booklet is meant for **Rough work.**

9. **Method of marking Answer -**
To answer a question, please darken one bubble out of the given four, in the OMR Answer Sheet against that question.

10. **Use only Black / Blue Ball-point Pen to mark the answer.**

11. Use of any calculator, log tables or any other electronic Gadgets, Mobile phones is prohibited.

12. **Valuation procedure -**
There are four alternative answer to a question, only one of them is correct answer. If more then one bubble are darkened for a question, it will be presumed that the candidate does not know the correct answer; hence, no mark shall be awarded.

13. **Handing over of Answer Sheet to Invigilator -**
Please ensure that all entries in the answer sheet are filled up properly i.e. Name, Roll No., Signature, Question Booklet No. language, etc.

14. **Care in Handling the answer sheet -**
While using answer sheet adequate care should be taken not to tear or spoil due to folds or wrinkles.

15. **Please return Answer-Sheet to the invigilator after the test.**

16. English version of the question paper will be considered as final in case of any dispute arising out of variation on translated version.

NTSE STAGE – 1 (2016) (STATE OF M.P.)
SENT - 10
PART - 1 MENTAL ABILITY

Direction : In question nos 1 to 5 there is a number series with one term missing shown by question mark (?) This term is one of the alternative given. Choose that number.

1. 36, ?, 24, 18, 12
   (A) 22   (B) 28   (C) 38   (D) 30

2. 1, 1, 4, 8, 9, 27, 16, 64, 25, ?
   (A) 81   (B) 100   (C) 125   (D) 121

3. 3, 5, 8, 13, 21, ?, 55
   (A) 25   (B) 49   (C) 36   (D) 34

4. 80, 78, 75, 71, ?, 60
   (A) 76   (B) 73   (C) 65   (D) 66

5. 2, 7, 17, 32, 52, ?
   (A) 77   (B) 64   (C) 72   (D) 81

Direction: In Question no. 6-10, there is a question mark in the blank space and it is only one of the four alternatives given under the question which satisfies the same relation as is found between the two pat terns to the left of the sign :: given in the question. Find the correct alternatives.
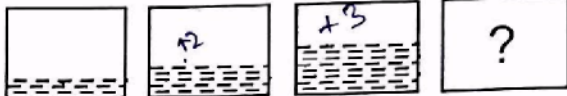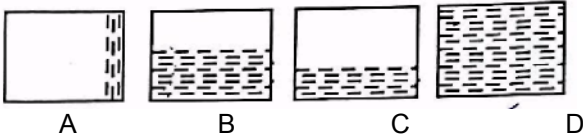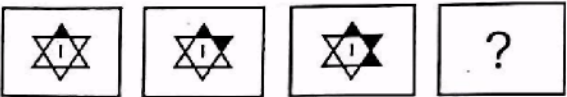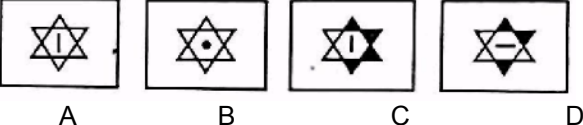
6. BEGK: ADFJ :: PSVY : ?
   (A) LOQT   (B) ROUX   (C) OTUZ   (D) ORUX

7. A B C D : N P R T : : F G H I : ?
   (A) K L M N   (B) O Q R T   (C) R T U W   (D) S U W Y

8. BLOCKED : YOLXPVW :: ? : OZFMXS
   (A) LAUNCH   (B) DEBATE   (C) LABOUR   (D) RESULT

9. aCE : bdF :: fhJ : ?
   (A) ghk   (B) gik   (C) dfH   (D) fhL

10. Menu: Food:: Catalogue: ?
    (A) Rack   (B) Newspaper   (C) Library   (D) Books

Direction : In Question no. 11 to 15, there are four terms in each question. The terms left to the symbol: : have the same relationship as the two terms to the right of symbol:: out of four terms one is missing which is one of the four alternative given, select and write the correct one in the answer sheet.
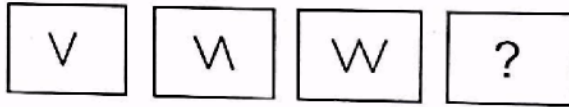
11. Teacher: Student:: Doctor: ?
    (A) Hospital   (B) Nurse   (C) Patient   (D) Pathology

12. Feather: Soft:: Glass:?
    (A) Black   (B) White   (C) Light   (D) Hard

13. Sky: Cloud:: Water:?
    (A) River   (B) Steam   (C) Ice   (D) Hot

14. Bird: Flying:: Animal: ?
    (A) Running   (B) Flying   (C) Walking   (D) Crying

15. Court: Justice:: School:?
    (A) Teacher   (B) Education   (C) Ignorance   (D) Student

16. Satyajit Ray is related to films in the same way as Picasso is related to
    (A) Literature   (B) Drama   (C) Poetry   (D) Painting

17. Find the relationship -
    Lucknow: Patna: Bhopal: Jaipur: ?
    (A) Indore   (B) Mysore   (C) Pune   (D) Shimla

18. Which of the following does not be long to others?
    (A) Tomato   (B) Mango   (C) Guava   (D) Papaya

19. If today is Sunday, after 90 days it will be....
    (A) Friday   (B) Saturday   (C) Sunday   (D) Monday

20. Pointing to a lady, a man said "The son of her only brother is the brother of my wife". How is the lady related to the man?
    (A) Mother's sister   (B) Grandmother
    (C) Sister of father-in-law   (D) Maternal aunt

21. Raza said "This girl is the wife of the grandson of my mother". Who is Raza to the girl?
    (A) Father   (B) Grandfather   (C) Husband   (D) Father-in-law

22. If the 2nd September 2016 was Friday. How many Friday were there in the month?
    (A) 3   (B) 4   (C) 5   (D) None of these

23. Sara is older than Mala. Gopal is older than Mala but younger than Sara. Kapil is younger than Ram and Mala. Mala is older than Ram. Who is the eldest?
    (A) Sara   (B) Mala   (C) Kapil   (D) Gopal

24. You go north, turn right, then right again and then go the left. In which direction are you now?
    (A) North   (B) South   (C) East   (D) West

25. In the given words find the odd one out
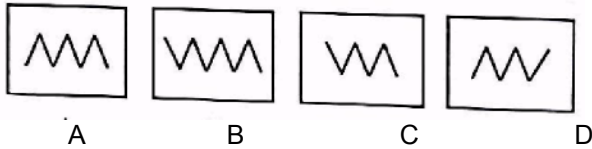   (A) Winter   (B) Summer   (C) Spring   (D) Cloud

Question no. 26 to 30 have a series with three figures. Bearing series in mind, pickup the fourth correct figure from the answer figure.

26.
Answer shapes

A   B   C   D
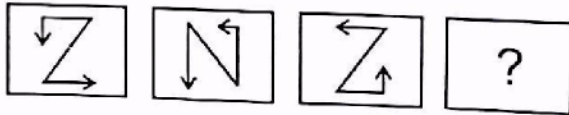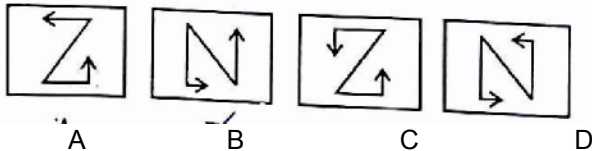
27.
Answer shapes

A   B   C   D

28.

Answer figures

A   B   C   D

29.

Answer figures

A   B   C   D

30.

Answer figures

A   B   C   D
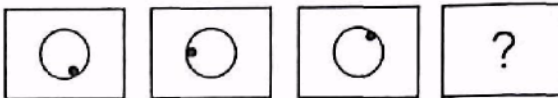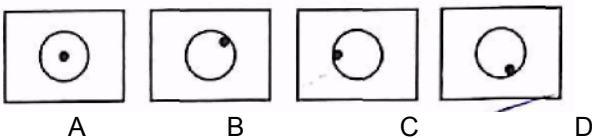
Direction: On the basis of following arrangement give answer of Question no. 31 and 32.
7, 8, 9, 7, 6, 5, 3, 4, 2, 8, 9, 7, 2, 4, 5, 9, 2, 9, 7, 6, 4, 7

31.   How many 7s are preceded by 9 and followed by 6
(A) 2   (B) 3   (C) 4   (D) 5

32.   Which figure has equal frequency?
(A) 2, 5, 3   (B) 2, 4, 5   (C) 3, 7, 5   (D) 8, 6, 5

33.   Which is correct missing letter?

F	I	O
A	J	K
E	M	?

(A) P   (B) R   (C) S   (D) V

34.   What is (?) missing number

(A) 38   (B) 39   (C) 40   (D) 44

35. Find the missing character.
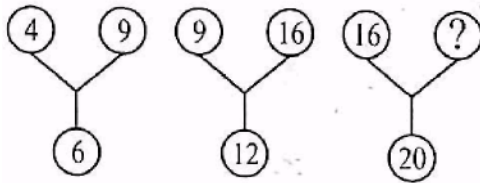
(A) 21 (B) 25 (C) 35 (D) 45

Direction: Question no. 36 to 38 each form a group with similar except one. Find the different one.

36.

A B C D

37.
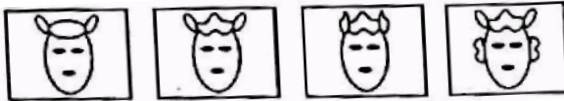
A B C D

38.
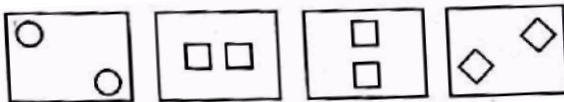
A B C D

39. What is the number of rectangles in the following figure?
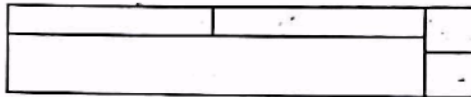
(A) 6 . (B) 7 (C) 9 (D) 11

40. In the following question there is a sign (?) at the vacant place. Find out the missing number.
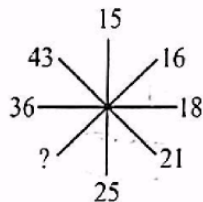
(A) 28 (B) 32 (C) 30 (D) 35

41. In the following question there is a sign (?)at the vacant place. Find out the missing number.

(A) 68 (B) 140 (C) 156 (D) 158

Courtesy : NTSE

42.   In the following question, find out the missing number at the vacant place.

(A)   12   (B) 14   (C) 4   (D) 13

43.
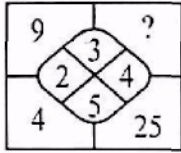
(A)   10   (B) 12   (C) 20   (D) 16

44.   A family consisted of a man, his wife, his three sons, their wives and three children in each son's family. How many members are there in the family?
(A)   12   (B) 14   (C) 17   (D) 19

45.   A 26 feet long piece of wood is cut to make three pieces of equal length, the length of each piece is -
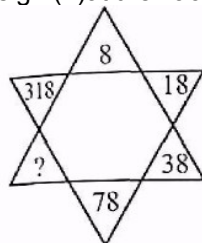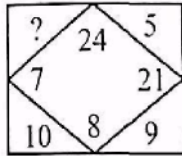(A)   8 feet 8 inches (B) 8 feet 2 inches   (C) 8 feet 6 inches   (D) 8 feet 4 inches

Direction: In questions (46-48). Eight friends A, B, C, D, E, F, G and H arc sitting around a circular table facing the centre, not necessarily in the same order. C is third to the left of E, B is not an immediate neighbour of either E or C. H is not an immediate neighbour of E, D is. third to the right of B, H is second to the left of A. F is not immediate neighbour of H.

46.   Who is sitting third to the left of B?
(A) E   (B) A   (C) G   (D) B

47.   Which of the following pairs of people correctly represents the pair of people who are immediate neighbour of H?
(A)   DC   (B) GA   (C) AD   (D) BG

48.   Who is sitting between B and C?
(A) H   (B) F   (C) A   (D) G

49.   If farmer LC' has two daughters - A and B as well as one son ;D" so what is the relation between D to A?
(A)   Sister   (B)   Bhabhi (sister-in-law)
(C)   Uncle   (D)   Brother

50.   If Ajay is taller than Tara, but shorter than Atul, Atul is shorter than Sharad then who is tallest
(A) Ajay   (B) Tara   (C) Shared   (D) Atul

ENGLISH

Choose the correct word from the options to fill in the blanks-

1. Priya _____ her teacher for not submitting the assignment on due date,
    (A) apologised to   (B) annoyed   (C) argue   (D) complained

2. A wise enemy is _____ than a foolish friend.
    (A) good   (B) better   (C) best   (D) None of the above

3. The teacher scolded the students _____ were naughty.
    (A) who   (B) what   (C) whom   (D) why

4. Time is precious, do not it.
    (A) Avaist   (B) west   (C) waste   (D) vest

5. After a week's rain, the _____ , was at its highest.
    (A) humid   (B) humidity   (C) humidness   (D) None of the above

6. Charity begins at
    (A) hotel   (B) home   (C) theater   (D) abroad

    Direction: Questions 7 to 10 choose the correct meaning of the phrases / idioms given below

7. To give away
    (A) to distribute   (B) to sell   (C) to share   (D) to take care of

8. To hold one's tongue
    (A) to keep quiet   (B) to talk loosely   (C) to examine   (D) to speak loudly

9. Pull somebody's leg
    (A) to throw someone out   (B) to trip a person
    (C) to tease someone   (D) to stretch one's legs

10. Once in a blue moon
    (A) Happens everyday   (B) Happen very often
    (C) Never happens   (D) Happens very rarely

    Direction: Questions 11 to 14 Select the word that is opposite in meaning to the word given.

11. Disclose
    (A) to close   (B) conceal   (C) to reveal   (D) to cover

12. Inferior
    (A) mean   (B) secondary   (C) superior   (D) grand

13. Innocent
    (A) ignorance   (B) simple   (C) recent   (D) cunning

14. Solitary
    (A) isolated   (B) accompanied   (C) detached   (D) lonesome

    Direction: Questions 15 to 18
    Select the most appropriate option to fill in the blanks from the given alternatives.

15. Medicines should not be placed the reach of small children.
    (A) against   (B) within   (C) behind   (D) None of the above

16. Neeraj is _____ than Pankaj.
    (A) oldest   (B) as old as   (C) older   (D) more older

17. He _____ that he was on the wrong floor.
(A) reprimanded   (B) realized   (C) asked   (D) None of the above

18. A group of stars that forms a pattern is called a _____ .
(A) constellation   (B) fleet   (C) bunch   (D) crew

Direction: Questions 19 to 23
The following passage contains numbered blank spaces. Fill in the blanks with the appropriate word given in each case.

With a culture that has for centuries _____(19) deep respect to its natural environment _____ (20) it as the _____ (21) of the gods, it comes as no surprise that the government of Bhutan has_____ (22) a controlled tourism policy. The only means of_____ (23) to this gorgeous but land-locked mountain Kingdom is by road through the tiny border town Phuntsholing near the Doars region of West Bengal.

19. (A) accorded   (B) subjected   (C) anticipated   (D) abided

20. (A) generating   (B) accepting   (C) guiding   (D) trying

21. (A) assylum   (B) alter   (C) abode   (D) forbade

22. (A) allowed   (B) assigned   (C) adopted   (D) administered

23. (A) access   (B) attack   (C) adjust   (D) control

Direction: Questions 24 to 27
Read the following passage and answer the questions given after it.
Advertisements have almost become an integral part of our lives. Even small children watch TV advertisements with a great deal of interest attracted by its visuals, though, they may not understand its message.

Advertisements can be termed as the backbone of the commercial world. If a company or a firm has to popularise its products, it has to advertise through various means such as handbills, posters, printmedia and the television. Advertisements on the TV make an instant appeal to people because of interesting visuals dramatizing the products or services. Today advertisement has become a very powerful factor in our everyday life. Hence, we should be watchful lest we are misled or misinformed by the deceptive advertisements. Those who prepare the matter for advertisement and publicity are called copywriters. They are experts in conveying the message in short, crisp sentences, slogans and eye-catching visuals.

24. Short visuals shown on the TV publicising some products are
(A) items   (B) fillers   (C) advertisements   (D) one-act plays

25 Advertisements on the TV make an instant
(A) appeal   (B) approach   (C) approval   (D) agreement

26. Those who prepare the matter for advertisements are called.
(A) dramatists   (B) playwrights   (C) scriptrwriters   (D) copywriters

27. A message in an advertisement should be
(A) detailed   (B) lengthy   (C) boring   (D) short and crisp

Direction: Questions 28 to 39

Read the passage and answer the questions given below it.

When I fell asleep, I dreamt about what it would be like to have a rocket ship. If I had a rocket ship my fast destination would be Earth's moon which is called Luna. When I will go to Luna I would jump all around because there is little gravity. I would be able to jump very high. After this, I would fly to Saturn and travel around its beautiful rings. On my way to Saturn, I would try to avoid Asteroids. Asteroids are large pieces of rock and minerals.

In my science class I learnt that it would take me almost my entire life to travel to Pluto which is the last planet in our solar system. Pluto is so far from our Sun that it is super cold. I wish I could see Pluto UP close.

28.   What is the name of Earth's moon?
        (A) Moona   (B) Muna   (C) Loona   (D) Luna

29.   Which of the following is true
        (A) You wouldn't be able to jump on Moon
        (B) The Moon's gravity will allow you to jump high
        (C) The Earth has less gravity than its Moon
        (D) Pluto is super hot

30.   What is the unique feature of Saturn?
        (A) It's a moon   (B) It has lots of water
        (C) It is bright pink in colour   (D) It has rings

31.   Asteroids are
        (A) large piece of rock & mineral   (B) reservoirs of water
        (C) mountain peaks   (D) None of the above

32.   Which is the last planet in our solar system?
        (A) Sun   (B) Moon   (C)Pluto   (D) Saturn

Direction: Questions 33 to 43

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

33.   They always   him for his accent.
        (A) pull   (B) tease   (C) chase   (D) None of the above

34.   Our gardner went to the to buy a few pots of the flowering plants.
        (A) orchard   (B) nursery   (C) estate   (D) plantation

35.   _____ is a paper written in one's own handwriting.
        (A) Manuscript   (B) Transcript   (C) Typescript   (D) None of the above

36.   The students get a monthly _____ which usually consists of writing a report.
        (A) grade   (B) assignment   (C) point   (D) register

37.   The donkey _____when a heavy load was put on its back.
        (A) brayed   (B) trumpeted   (C) grunted   (D) bellowed

38.   The hardworking farmer tilled their farms from dawn to _____
        (A) midnight   (B) dusk   (C) twilight   (D) sunrise

39.   The police has captured the entire _____of thieves.
        (A) troup   (B) crew   (C) gang   (D) party

40.   The previous owner of our factory _____a burglar alarm system in the factory.
        (A) installed   (B) established   (C) executed   (D) implemented

41. Everyone was _____ by a device small enough to fit on a desk.
    (A) interested   (B) fascinated   (C) satisfied   (D) scrutinized

42. I'll think _____ your idea carefully before I take a final decision
    (A) over   (B) in   (C) to   (D) under

43. He died _____ cholera.
    (A) to   (B) upon   (C) of   (D) in

44. The captain _____ his brave soldiers.
    (A) ordered   (B) requested   (C) said that   (D) pleaded

Direction : Questions 45 to 50
Fill in the blanks with the right form of the verb.

45. These_____ no mystery so great as misery.
    (A) are   (B) is   (C) am   (D) none of these

46. You _____ me of marvellous things
    (A) tell   (B) writes   (C) tells   (D) speaks

47. The Happy Prince _____ sad.
    (A) look   (B) looked   (C) say   (D) none of these

48. Kalids _____ Shakuntalam.
    (A) read   (B) wrote   (C) write   (D) written

49. They have _____ a project.
    (A) prepare   (B) prepares   (C) prepared   (D) been prepared

50. You must _____ before you speak.
    (A) jump   (B) laugh   (C) hurry   (D) think

PHYSICS

1. A 4 Ω resistance wire is doubled by folding it, the new resistance is
   (A) 1Ω (B) 2Ω
   (C) 3Ω (D) None of these

2. Which of the following terms does not represent electrical power in a circuit:
   (A) I^2R (B) IR^2
   (C) VI (D) V^2/R

3. In a vernier calliper if 10 vernier scale divisions is equal to 8 main scale divisions (m.m.), then what
   is   the least count of vernier calliper?
   (A) 0.2mm (B) 0.1 mm
   (C) 0.8mm (D) 0.01 mm

4. If initial velocity of an object is 'u' and acceleration is 'a' then find the distance travelled in n^{th}
   second.

   (A) $S_n = un + \dfrac{an^2}{2}$ (B) $S_n = un + an^2$

   (C) $S_n = u + \dfrac{a}{2}(2n + 1)$ (D) $S_n = \left(u + \dfrac{a}{2}\right)n^2$

5. What is the temperature which is identical in both Celsius and Fahrenhite temperature scale?
   (A) $-40°$ (B) $-4°$
   (C) $0°$ (D) none of the above

6. If a person goes from town A to town B by a speed of 50 km/h and comes back with a speed of 150
   km/h then average speed of the person is
   (A) 100 km/h (B) 75 km/h
   (C) 0 km/h (D) 200 km/h

7. Angle of elevation of pole star observed from any where on the Earth is approximately equal to
   (A) longitude of the place (B) latitude of that place
   (C) constant (D) both longitude and latitude

8. If 3 resistances R_1, R_2 and R_3 are connected in series and is parallel then their equivalent
   resistances are R_S and R_p respectively then correct relationship is ($R_1 > R_2 > R_3$)

   (A) $R_s < R_3, R_P > R_1$ (B) $R_s = R_1 + R_2 + R_3, R_P = \dfrac{R_1^2 + R_2^2 + R_3^2}{R_1 + R_2 + R_3}$

   (C) $R_S < R_P$ (d) $R_S > R_1, R_P < R_3$

9. Between which 2 planets the orbit of Seres lies
   (A) Earth-Mars (B) Venus-Earth
   (C) Mars-Jupiter (D) Jupiter-Saturn

10. Dentists use to see large image of the teeth of patients using
    (A) Convex mirror (B) Convex lens
    (C) Concave lens (D) Concave mirror

11. A human being has a horizontal field of view of about_____ with one eye and of about_____
    with   both eyes
    (A) 120°, 150° (B) 150°, 180°
    (C) 180°, 210° (D) 210°,240°

12. To prevent electrical circuits from damage we use fuse wire of ....
    (A) high resistance and low melting point (B) high resistance and high melting point
    (C) low resistance and low melting point (D) low resistance and high melting point

13. Biggest planet of the solar system is
    (A) Mercury (B) Saturn
    (C) Jupiter (D) Uranus

Courtesy : NTSE

CHEMISTRY

14. All the elements in a group have the -
    (A) Same valency
    (B) Different valency
    (C) Variable valency
    (D) None of these

15. The atomic number of E, F, G, H are given below, which element belongs to zero group -
    Element   Atomic number
    (A) E   5
    (B) F   7
    (C) G   10
    (D) H   16

16. Which of the following compounds is bad conductor of electricity?
    (A) Ionic compound
    (B) Electrovalent compound
    (C) Covalent compound
    (D) None of these

17. The addition of oxygen to a substance is called -
    (A) Redox
    (B) Oxidation
    (C) Reduction
    (D) None of these

18. The molecular formula of Sucrose is -
    (A) CH_2O
    (B) $C_6H_{12}O_6$
    (C) $C_{12}H_{22}O_{11}$
    (D) CH_3COOH

19. Coal is a fuel-
    (A) Fossil fuel
    (B) Nuclear fuel
    (C) Bio fuel
    (D) None of these

20. Strong electrolytes is -
    (A) NH_4OH
    (B) $Ca(OH)_2$
    (C) H_2CO_3
    (D) NaCl

21. Chemical formula of Teflon is –

    (A) $(-CF_2-CF_2-)_n$
    (B) $\left(.....CH_2 - \underset{\underset{Cl}{|}}{\overset{\overset{CH}{|}}{|}} \right)_n$

    (C) $(-CH_2-CH_2-)_n$
    (D) None of these

22. The properties of the product are different from those of the constituents is called -
    (A) Mixture
    (B) Element
    (C) Compound
    (D) Acid

23. Which Vitamin is found in abundance in Amla?
    (A) Vitamin-A
    (B) Vitamin-C
    (C) Vitamin-B
    (D) Vitamin-D

24. Dilute solution of alkaline potassium permanganate is known as -
    (A) Bayer's reagent
    (B) Tollen's reagent
    (C) Fehling solution
    (D) Benedict solution

25. The chemical formula of Plaster of Paris is –
    (A) Calcium Sulphate [$CaSO_4$]
       [$CaSO_4 \frac{1}{2}H_2O$]
    (B) Calcium Sulphate Hemihydrate
    (C) Barium Sulphate [$BaSO_4$]
    (D) None of these

26. Bromine is a –
    (A) Non-metal
    (B) Metal
    (C) Metalloids
    (D) None of these

BIOLOGY

27. The study of interaction between living organism and environment called -
(A) Ecology   (B) Phytogeography   (C) Psychology   (D) Mycology

28. In how many parts human brain is divided -
(A) 4   (B) 5   (C) 3   (D) 2

29. Chromosome number in the daughter cells after meiosis is -
(A) 1/2   (B) 1/3   (C) 1/4   (D) 1/5

30. The instrument for measuring blood pressure is called -
(A) Manometer   (C) Sphygmomanometer
(C) Barometer   (D) Potentiometer

31. The anther contains -
(A) Sepal   (B) Carpel   (C) Petal   (D) Pollen grains

32. The largest gland in human body is -
(A) Pituitarygland   (B) Liver   (C) Adrenal gland   (D) Thyroid gland

33. Which cell organelle is known as suicidal bag
(A) Ribosome   (B) Centrosome   (C) Lysosome   (D) Peroxysome

34. Plant part used as medicine of Terminalia arjuna-
(A) Leaves   (B) Fruits   (C) Bark   (D) Roots

35. Energy flow in an Ecosystem is –
(A) Unidirectional   (B) Bidirectional   (C) Multidirectional (D) None of these

36. World Environment Day is celebrated on -
(A) 5 June   (B) 11 July   (C) 16 October   (D) 26 December

37. C_4 cycle mechanism is given by -
(A) Hill   (B) Arnan   (C) Hatch & Slack   (D) Celvin

38. Which pollutant is dangerous for Taj Mahal?
(A) Sulphur dioxide SO,   (B)   Carbon dioxide CO,
(C) Carbon monooxide CO   (D)   All of these

39. Which of the following is an example of Insectivorous plant -
(A) Amla   (B) Baheda   (C) Utricularia   (D) Isoetes
40. Which is prokaryotic cell amongst the following?
(A)   Amoeba   (B) Bacteria   (C) Yeast   (D) Volvox

HISTORY

41. Big Bath has been found in which of the Indus valley site?
    (A) Harappa   (B) Mohenjodaro   (C) Lothal   (D) Chahnudaro

42. Which statement about the position of women in the Rig Vedic society is not true?
    (A) They enjoyed high status in the society.
    (B) Parda system and child marriages were prevalent.
    (C) They had right to higher education,
    (D) Dowry was not known.

43. When did the first urbanization take place?
    (A) In the new stone age   (B) In the Indus Valley civilization
    (C) During he Mauryan period   (D) During the Gupta period

44. Which ruler of ancient India is known as Devanam Priyadasi?
    (A) Bindusar   (B) Chandra Gupta Maurya
    (C) Ashoka   (D) Brihadatta

45. What are tripitakas?
    (A) Vedic Literature
    (B) Compilation of Buddha's sermons
    (C) Main principles of Lord Mahavira
    (D) Compilation of account of Alexander's invasion into India

46. Which ruler followed the policy of 'Blood and Iron' for strengthening administration?
    (A) Balban   (B) Rajiya
    (C) Htutmish   (D) Feroze-Shah-Tughlaq

47. Which king of the sultanate period is known as the mad sultan'?
    (A) Mohd-bin-Tughlaq   (B) Feroze-Shah-Tughlaq
    (C) Jalal-ud-din-Khilji   (D) Alauddin-Khilji

48. To which place of Madhya Pradesh is Jungle Satyagraha related?
    (A) Reewa   (B) Indore   (C) Chhatarpur   (D) Seoni

49. Who was the Governor General of India in 1857?
    (A) Dalhousie   (B) William Bentick   (C) Canning   (D) Rippon

50. Who gave the slogan of Do or Die' during the Indian freedom struggle?
    (A) Vipin Chandra Pal   (B) Lala Lajpat Rai
    (C) Mahatma Gandhi   (D) Bal Gangadhar Tilak

51. What was the main objective of British in dividing Bengal?
    (A) To strengthen administrative system in Bengal
    (B) To suppress nationalist feelings
    (C) To promote nationalist feelings
    (D) To help in promotion of language and culture

52. Through which newspaper did Lala Lajpat Rai inspire the people of India to struggle for independence?
    (A) Kesari   (B) Samvad Kaumudi
    (C) Hindustan   (D) Kayastha Samachar

53. Communal electorate was first introduced through which Act?
    (A) 1773 Act   (B) 1861Act   (C) 1909Act   (D) 1919Act

54. Which Article of the Indian constitution gives a special status to the state of Jammu & Kashmir?
    (A) 370   (B) 395   (C) 368   (D) 384

55. How many times has National emergency been declared in India?
    (A) One   (B) Two   (C) three   (D) Four

GEOGRAPHY

56. Oldest mountain in India is:
(A) Himalaya   (B) Vindhyachal   (C) Satpura   (D) Aravali

57. Where is Bharat Heavy Electricals Limited (BHEL) situated?
(A) Sagar   (B) Bhopal   (C) Indore   (D) Jabalpur

58. Which of the following is the most important factor to determine the type of forest?
(A)Climate   (B) Type of soil   (C) Productivity of soil   (D) Wind direction

59. Which of the following is everlasting physical resource for power generation in India?
(A) Uranium   (B) Coal   (C) Petroleum   (D) Water

60. Madhya Pradesh is _____ largest state of India in term of area.
(A) Second   (B) Third   (C) First   (D) Fourth

61. The leading producer of coal in India.
(A) Jharkhand   (B) Bihar   (C) Rajasthan   (D) Andhra Pradesh

62. Thehighest rainfall in the world is received at
(A) Chcrrapunji   (B) Mawsynram   (C) Shilong   (D) Calicut

63. Which of the following river does not fall in the Bay of Bengal-
(A) Narmada   (B) Vanganga   (C) Mahanadi   (D) Krishna

64. Blue revolution is related to -
(A) Fruit Production (B) Fish Production   (C) Sheep rearing   (D) Milk Production

65. How many railway zones are there in India?
(A) 9   (B) 6   (C) 14   (D) 15

66. Tropic of cancer does not pass through which of the following States?
(A) Gujarat   (B) Rajasthan   (C) West Bengal   (D) Orissa

67. The Nagarjun Sagar Dam is located on the river-
(A) Godavari   (B) Krishna   (C) Kaveri   (D) Narmada

68. Topographical Maps of India are prepared by-
(A) Geological Survey of India   (B) Archaeological Survey of India
(C) Survey of India   (D) National Geographical Survey of India

69. What is Bailadila famous for?
(A) Bauxite   (B) Iron Ore   (C) Copper   (D) Coal

70. In which region is the method of making contour bands used for soil conservation?
(A) Delta region   (B) Plateau region   (C) Hills   (D) Plains

CIVICS

71. In a parliamentary form of Government, real powers of the State are vested in which body?
(A) President
(B) Chief Justice of Supreme Court
(C) Prime-Minister
(D) Parliament

72. Which fundamental right of Indian Constitution has been deleted by the 44th Amendment Act?
(A) Right against exploitation
(B) Right to property
(C) Right to liberty
(D) Right to equality

73. When is 'Human Right Day' celebrated?
(A) 10th November
(B) 10th December
(C) 10th January
(D) 10th October

74. Who is known as the father of Indian Constitution?
(A) Dr. B. R. Ambedkar
(B) Mahatma Gandhi
(C) Jawaharlal Nehru
(D) Sardar Patel

75. The term of member of the Rajya Sabha is
(A) 5 years
(B) 2 years
(C) 6 years
(D) Same as that of the Lok Sabha

ECONOMICS

76. What is Barter System?
(A) Exchange of goods for dollars
(B) Exchange of goods for rupees
(C) Exchange of goods for coins
(D) Exchange of goods for goods

77. On what basis the enterprises are classified in 'Public' and 'Private' sectors?
(A) Employment conditions
(B) Nature of Economic activities
(C) Ownership of Enterprise
(D) Number of workers employed

78. In ancient times, which country was known as 'Golden Sparrow'?
(A) France
(B) New Zealand
(C) J & K India
(D) China

79. In India, the first five-year plan started from which year?
(A) 1947
(B) 1951
(C) 1948
(D) 1950

80. In which of the following sectors only services are produced?
(A) In private sector
(B) In primary sector
(C) In secondary sector
(D) In tertiary sector

MATHEMATICS

81. If in a right angled triangle ABC, $\cos A = \dfrac{9}{41}$, then the value of cot A and cosecA will be

(A) $\dfrac{40}{9}, \dfrac{40}{41}$

(B) $\dfrac{9}{40}, \dfrac{41}{40}$

(C) $\dfrac{9}{41}, \dfrac{41}{9}$

(D) $\dfrac{9}{40}, \dfrac{40}{41}$

82. In $\triangle ABC, if \angle B = 90^\circ, AB = 5, BC = 12$, then sin C= ....

(A) $\dfrac{12}{13}$

(B) $\dfrac{5}{13}$

(C) $\dfrac{5}{12}$

(D) $\dfrac{13}{5}$

83. $(\sec\theta + \tan\theta)(1-\sin\theta) = ...$
    (A) 0 (B) = 1
    (C) $\cos\theta$ (D) $\sin\theta$

84. If $\tan\theta = \dfrac{1}{\sqrt{3}}$, then the value of

    $\dfrac{\cosec^2\theta - \sec^2\theta}{\cosec^2\theta + \sec^2\theta}$ is

    (A) $\sqrt{3}$ (B) 1
    (C) $\dfrac{1}{\sqrt{2}}$ (D) $\sqrt{2}$

85. For what value of k, the equation $3x^2 + 2x + k = 0$ will have real roots :
    (A) $k \le \dfrac{1}{3}$ (B) $k \ge \dfrac{1}{3}$
    (C) $k = \dfrac{2}{3}$only (D) None of the above

86. The product of Meera's age 5 years ago and her age 8 years later is 30. Her present age is –
    (A) 11 years (B) 9 years
    (C) 7 years (D) 5 years

87. The area of right angled triangle is 96sq mtr. If base is three times the altitude, the length of base is –
    (A) 24 mtr. (B) 20 mtr.
    (C) 18 mtr. (D) 15 mtr.

88. What is the probability that a leap year has 53 Sundays?
    (A) $\dfrac{7}{53}$ (B) $\dfrac{7}{52}$
    (C) $\dfrac{1}{7}$ (D) $\dfrac{2}{7}$

89. One card is drawn at random from a deck of 52 cards. The probability of getting a face card is
    (A) $\dfrac{3}{13}$ (B) $\dfrac{1}{26}$
    (C) $\dfrac{3}{26}$ (D) $\dfrac{4}{13}$

90. The perimeter of the rectangular field is 206 meter. What will be its area if its length is 23 meter more than its breadth?
    (A) 1520 meter^2 (B) 2420 meter^2
    (C) 2480 meter^2 (D) 2520 meter^2

91. The total surface area of a cube is 864 cm^2. Its volume is :
    (A) 3456 cm^3 (B) 432 cm^3
    (C) 1728 cm^3 (D) 3466 cm^3

92. The length of the longest pole that can be kept in a room of size 12m × 9m × 8m is :
    (A) 29m (B) 17 m
    (C) 21m (D) 19 m

93. Which point on x-axis is equidistant from the point A(7,6) and B(-3,4)?
    (A) (0, 4) (B) (–4, 0)
    (C) (3, 0) (D) (0, 3)

Courtesy : NTSE

94. The point A(0, 6), B(-5, 3) and C(3, 1) are the vertices of a triangle which is :
    (A) Isosceles   (B) Equilateral
    (C) Rightangled   (D) None of these

95. The x-axis divides the line joining A(2, –3) and B(7, 4) in the ratio :
    (A) 2 : 1.5   (B) 2 : 3
    (C) 3 : 2   (D) 1 : 2

96. If A and B are two non empty sets, then $A \cup B =$
    (A) $\{x \mid x \in A \text{ and } x \in B\}$ (B) $\{x \mid x \in A \text{ or } x \in B\}$
    (C) $\{x \mid x \in A \text{ and } x \notin B\}$ (D) $\{x \mid x \notin A \text{ and } x \in B\}$

97. If A is a non empty set, ϕ is empty set $\cup$ and is universal set, then $A \cap \phi =$
    (A) $\cup$ (B) a
    (C) ϕ (D) A'

98. Selling price of one things is $\dfrac{3}{2}$ times of its cost price. What will be the percentage of profit?
    (A) $20\dfrac{1}{2}$ (B) $25\dfrac{1}{4}$
    (C) $33\dfrac{1}{3}$ (D) 50

99. A sold a bicycle to B on 20% profit. B sold it to C on 25% profit. If C paid Rs. 225 for it, then what was the cost price of bicycle to A?
    (A) 110   (B) 125
    (C) 120   (D) 150

100. The height of a cylinder is 14 cm and its curved surface area is 264 cm^2, the volume of cylinder is :
    (A) 308 cm^3 (B) 396 cm^3
    (C) 1232 cm^3 (D) 1848 cm^3