

TEST FORM NUMBER

INSTRUCTIONS TO CANDIDATE

Maximum Marks : 160  
Total Questions : 80  
Time Allowed : 60 Min.

**Read the following instructions carefully before you begin to attempt the questions.**

This booklet contains 80 questions in all comprising the following four parts.

- Part-(I) : General Intelligence & Reasoning (20 Questions)**  
**Part-(II) : General Knowledge & General Awareness (20 Questions)**  
**Part-(III) : Elementary Mathematics (20 Questions)**  
**Part-(IV) : English Language or Hindi Language (20 Questions)**

All the questions are compulsory and carry equal marks.

Before you start to attempt the questions, you must explore this booklet and ensure that it contains all the pages and find that no page is missing or replaced. If you find any flaw in this booklet, you must get it replaced immediately.

**Each question carries negative marking also as 0.50 mark will be deducted for each wrong answer.**

You will be supplied the Answer-sheet separately by the invigilator. You must complete the details of Name, Roll number, Test name/Id and name of the examination on the Answer-Sheet carefully before you actually start attempting the questions. You must also put your signature on the Answer-Sheet at the prescribed place. These instructions must be fully complied with, failing which, your Answer-Sheet will not be evaluated and you will be awarded 'ZERO' mark.

Answer must be shown by completely blackening the corresponding circles on the Answer-Sheet against the relevant question number by **pencil or Black/Blue ball pen** only.

A machine will read the coded information in the OMR Answer-Sheet. In case the information is incompletely/ different from the information given in the application form, the candidature of such candidate will be treated as cancelled.

The Answer-Sheet must be handed over to the Invigilator before you leave the Examination Hall.

Failure to comply with any of the above Instructions will make a candidate liable to such action/penalty as may be deemed fit.

Answer the questions as quickly and as carefully as you can. Some questions may be difficult and others easy. Do not spend too much time on any question.

Mobile phones and wireless communication device are completely banned in the examination halls/rooms. Candidates are advised not to keep mobile phones/any other wireless communication devices with them even switching it off, in their own interest. Failing to comply with this provision will be considered as using unfair means in the examination and action will be taken against them including cancellation of their candidature.

No rough work is to be done on the Answer-Sheet.

No candidate can leave the examination hall before completion of the exam.

NAME OF CANDIDATE:.....  
DATE :..... CENTRE CODE :.....  
ROLL No :.....

**DO NOT OPEN THIS TEST BOOKLET UNTIL YOU ARE TOLD TO DO SO**

### General Intelligence & Reasoning

**Directions (1-2):** Select the related word/letters/number from given alternatives.

- Acrophobia : Heights :: ?  
(A) Dikephobia : Injustice  
(B) Pediophobia : Children  
(C) Atmosophobia : Atmosphere  
(D) Chorophobia : Colours
- Errata : Books :: Flaws : ?  
(A) Manuscripts (B) Metals  
(C) Speech (D) Charter

**Directions (3-6):** Find the odd numbers/word/ letters from the given alternatives.

- (A) 14 – 16 (B) 56 – 64  
(C) 77 – 88 (D) 80 – 93
- (A) JKX (B) LMY  
(C) EFK (D) DEI
- (A) Indigo (B) White  
(C) Pink (D) Blue
- (A) Bottle : Wine (B) Cup : Tea  
(C) Pitcher : Water (D) Ball : Bat



7. Srini is taller than Anlu. Ragu is taller than Chandru but shorter than Brinda. Srini is shorter than Chandru. Who is the tallest?

- (A) Srini (B) Ragu  
(C) Chandru (D) Brinda

8. The door of a house opens to the south. Entering the door there is a room towards the right hand. After entering the room there is a window towards the right hand. What will be the direction of my face, if I am standing facing towards the window?

- (A) North (B) South  
(C) East (D) West

9. In a certain code language, "INACTIVE" is written as "VITCANIE". How is "COMPUTER" written in that code language?

- (A) PMOCRETU (B) ETUPMOCR  
(C) UTEPMOCR (D) MOCPETUR

10. In a certain code language, '526' means 'sky is blue', '24' means 'blue colour', and '436' means 'colour is fun'. Which digit in that language means 'fun'?

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

11. Select the correct combination of mathematical signs to replace \* signs and to balance the given equation.

- $6 * 15 * 10 * 3 * 12$   
(A)  $\div + = \times$  (B)  $+ \div \times =$   
(C)  $\times \div + =$  (D)  $+ - = \div$

12. If  $200 \times 100 + 300 \times 200 - 10 \div 2 + 40 = 0$ , which of the following mathematical operation are correct?

- (A) + means -, - means  $\times$ ,  $\times$  means  $\div$ ,  $\div$  means +  
(B) + means -, - means  $\div$ ,  $\times$  means +,  $\div$  means  $\times$   
(C) + means  $\times$ , - means -,  $\times$  means  $\div$ ,  $\div$  means +  
(D) + means  $\div$ , - means +,  $\times$  means -,  $\div$  means  $\times$

13. How many triangles are there in the following figure?



- (A) 18 (B) 16  
(C) 22 (D) 26

14. In the question below a statement is given followed by two conclusions numbered (I) and (II). You have to take the two given statements to be true even if they seem to be at variance with commonly known facts and then decide which of the given conclusions logically follows from the two given statements, disregarding commonly known facts.

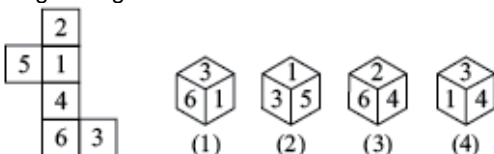
**Statements:** The crop condition continues to be critical even after the rains.

**Conclusions: I.** The crop condition was not critical before rains.

**II.** The crop condition was expected to improve after the rains.

- (A) Neither conclusion (I) nor (II) follow  
(B) Both conclusions (I) and (II) follow  
(C) Only conclusion (II) follow  
(D) Only conclusion (I) follow

15. Which one of the following box can be created by folding the given figure.

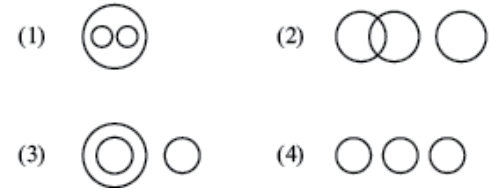


- (1) (2) (3) (4)

- (A) 1 (B) 2  
(C) 3 (D) 4

16. Which one of the following diagram best depicts the relationship among given classes?

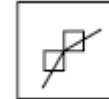
**Induction, Deduction, Dialectic method**



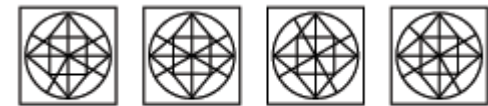
- (A) 1 (B) 2  
(C) 3 (D) 4

17. From the given answer figure, select the one in which the question figure is hidden/embedded.

**Question Figure**



**Answer Figures**



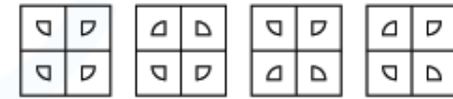
- (A) 1 (B) 2  
(C) 3 (D) 4

18. A piece of paper is folded and cut as shown below in the question figures. From the given answer figures, indicate how it will appear when opened?

**Question Figures**



**Answer Figures**



- (A) 1 (B) 2  
(C) 3 (D) 4

19. Find the mirror image of the given question. Brahamputra 983725

- (A) 523789 283725  
(B) 253789 983725  
(C) 983725 283725  
(D) 253789 983725

20. Select a figure from the answer figure, which will continue the series as established by the four problem figures.

**Question Figure**



**Answer Figures**



- (A) 1 (B) 2  
(C) 3 (D) 4

21. Who among the following, was the founder of the Satya Shodhak Samaj?

- (A) B. R. Ambedkar (B) Jyotiba Phule  
(C) Narayan Guru (D) Rama Swami Naiker

22. Nicolo de Conti, the Italian traveler visited Vijaynagar Empire during the times of \_\_\_\_\_.

- (A) Devaraya I (B) Devaraya II  
(C) Krishnadev Raya (D) Achyuta Raya

23. Which is the highest peak in Andaman and Nicobar Islands?

- (A) Saddle Peak (B) Mount Thullier  
(C) Mount Diavolo (D) Mount Koyate

24. Tamil Nadu coast gets most of its rainfall during \_\_\_\_\_.

- (A) October and November (B) July and January  
(C) December and January (D) August and September

25. Which of the following physical quantities will change, if an iron ball is taken to the moon from the earth?

- (A) Mass (B) Weight  
(C) Density (D) Volume

26. Calorimeter is used to measure \_\_\_\_\_.

- (A) Temperature (B) Heat  
(C) Current (D) Melting Point

27. Time period is the time taken to complete one oscillation. This definition of time period is true for \_\_\_\_\_.

- (A) longitudinal Wave (B) transverse Wave  
(C) simple Pendulum (D) All the above

28. Which of the following pairs is correctly matched?

- (A) Gypsum-calcium hydroxide  
(B) Milk of lime-sodium sulphate  
(C) Glauber's salt-calcium sulphate  
(D) Saltpetre-potassium nitrate

29. Cellulose is the chief constituent of \_\_\_\_\_.

- (A) cell wall  
(B) cell membrane  
(C) secondary wall of xylem  
(D) body wall of insects

30. The term 'GM food' refers to the food \_\_\_\_\_.

- (A) that grows under genetic measures  
(B) that is genetically modified  
(C) that grows under geographical modification  
(D) with greater glucose metabolism

31. What kind of citizenship is offered by Indian constitution?

- (A) Single Citizenship  
(B) Dual Citizenship  
(C) Both Single Citizenship and Dual Citizenship  
(D) None of these

32. Gomti and Son River are tributaries of \_\_\_\_\_.

- (A) Brahmaputra river (B) Ganga river  
(C) Indus river (D) Godavari river

33. Who decides Monetary Policy in India?

- (A) NITI Aayog  
(B) Ministry of Finance  
(C) Monetary Policy Committee  
(D) Finance Commission

34. Who has become the first woman to command Armed Forces Transfusion center?

- (A) Col Sonia Anand (B) Col Navneet Duggal  
(C) Col Sunita BS (D) Col Reenu Khanna

35. Ranthambhore National Park is located in \_\_\_\_\_.

- (A) Madhya Pradesh (B) Gujarat  
(C) Maharashtra (D) Rajasthan

36. Inland Waterways Authority of India has signed an MoU with which company to start movement of e-Commerce cargo in Ganga river?

- (A) Amazon (B) eBay  
(C) Flipkart (D) Walmart

37. The mobile application "Jan aushadhi Sugam" has been launched by \_\_\_\_\_.

- (A) Ministry of Health and Family Welfare  
(B) Ministry of Human Resource Development  
(C) Ministry of Home Affairs  
(D) Union Ministry of Chemicals and Fertilizers

38. India's first female flight commander is \_\_\_\_\_.

- (A) Suman Thakral (B) Anuradha Chaturvedi  
(C) Shalija Dhani (D) Mithali Kanth

39. Gingee Fort is located in \_\_\_\_\_.

- (A) Hyderabad (B) Puducherry  
(C) Balasore (D) Jaipur

40. Who was the first woman judge of the Supreme Court who passed away recently?

- (A) Ruma Pal (B) Sujata Manohar  
(C) Fatima Biwi (D) R Bhanumathi

### Elementary Mathematics

41. What is the simplified value of

$$\left(1 - \frac{1}{3}\right)\left(1 - \frac{1}{4}\right)\left(1 - \frac{1}{5}\right) \dots \left(1 - \frac{1}{99}\right)\left(1 - \frac{1}{100}\right)?$$

- (A)  $\frac{2}{99}$  (B)  $\frac{1}{25}$   
(C)  $\frac{1}{50}$  (D)  $\frac{1}{100}$

42. A man divides his property so that his son's share to his wife's and wife's share to his daughters are both as in the ratio 3 : 1. If the daughter gets ₹ 10000 less than son, then what is the value of the whole property?

- (A) ₹ 16250 (B) ₹ 16000  
(C) ₹ 18250 (D) ₹ 17000

43. A house was sold for ₹ 12,600 at a profit of 5% on the cost price. What percent would have been gained if it had been sold for ₹ 13,000?

- (A) 20% (B) 9%  
(C) 10% (D)  $8\frac{1}{3}\%$

44. The printed price of an article is ₹ 900 but the retailer gets a discount of 40%. He sells the article for ₹ 900. What is the retailer's gain percent?

- (A) 40% (B) 60%  
(C)  $66\frac{2}{3}\%$  (D)  $68\frac{1}{3}\%$

45. Find out the capital required to earn a monthly interest of ₹ 500 per month as 6% simple interest.

- (A) ₹ 1,00,000 (B) ₹ 1,20,000  
(C) ₹ 1,10,000 (D) ₹ 1,30,000

46. A can do a piece of work in 5 days, and B can do it in 6 days. If C, who can do the work in 12 days, joins them, how long will they take to complete the work?

- (A)  $2\frac{2}{9}$  days (B)  $3\frac{1}{2}$  days

(C)  $2\frac{2}{3}$  days

(D)  $3\frac{2}{3}$  days

47. What is the value of  $\sqrt{20 - \sqrt{20 - \sqrt{20} \dots \infty}}$  ?  
 (A) 4  
 (C) 1

(B) 5  
 (D) 3

48. Two trains 121 metres and 99 metres in length respectively are running in the same direction, one at the rate of 40 km/hr and the other at the rate of 32 km/hr. In what time (in seconds) will they be completely clear to each other?  
 (A) 95  
 (C) 99

(B) 97  
 (D) 92

49. The average age of 30 boys of a class is equal to 14 years. When the age of the class teacher is included, the average becomes 15 years. What is the age of the class teacher?  
 (A) 42  
 (C) 47

(B) 45  
 (D) 41

50. What is the sum of  $(2 + 2^2 + 2^3 + 2^4 + \dots + 2^{12})$ ?  
 (A) 8085  
 (C) 8187

(B) 8190  
 (D) 8798

51. Express  $\frac{(4 + \sqrt{15})^{3/2} + (4 - \sqrt{15})^{3/2}}{(6 + \sqrt{35})^{3/2} - (6 - \sqrt{35})^{3/2}}$  in rational form.

(A)  $\frac{7}{12}$

(B)  $\frac{7}{26}$

(C)  $\frac{7}{13}$

(D) None of these

52. What is the value of the expression  $\frac{(a-b)^2}{(b-c)(c-a)} + \frac{(b-c)^2}{(a-b)(c-a)} + \frac{(c-a)^2}{(a-b)(b-c)}$  ?

(A) 0

(B) 3

(C)  $\frac{1}{3}$

(D) 2

53. If  $a + b + c = 0$  then what is the value of  $\frac{1}{(a+b)(b+c)} + \frac{1}{(a+c)(b+a)} + \frac{1}{(c+a)(c+b)}$  = ?

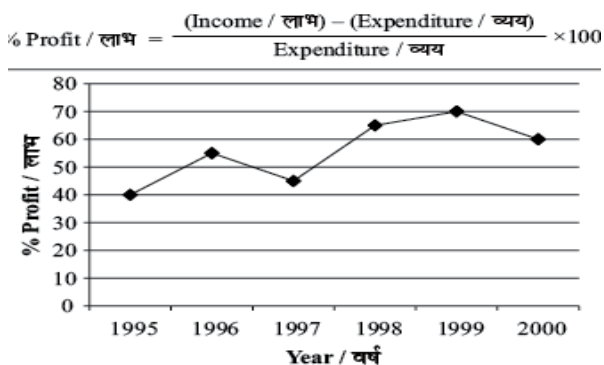
(A) 1

(B) 0

(C) 3

(D) 2

**Directions (54-57):** The following line graph shows the annual percent profit earned by a company during the period 1995-2000. Study the line – graph and answer the questions.



54. The income of the company during the year 2000 was 48 crores. What was the expenditure of the company in that year (in crore ₹)?  
 (A) 40  
 (B) 25

(C) 50

(D) 30

55. What is the range of profit made by the company (in percentage)?  
 (A) 15  
 (C) 25

(B) 30  
 (D) 20

56. The expenditure of the company during the year 1995 was ₹ 20 crores. What was the income of the company in that year (in thousand crore ₹)?  
 (A) 25  
 (C) 15

(B) 12  
 (D) 28

57. Profit earned by the company is maximum in the year \_\_\_\_\_.  
 (A) 2000  
 (C) 1995

(B) 1997  
 (D) 1999

58. What will be the unit digit of the number  $N = 3^{81} \times 4^{23} \times 7^{42}$ ?  
 (A) 2  
 (C) 6

(B) 4  
 (D) 8

59. In a Rhombus ABCD,  $\angle A = 60^\circ$  and  $AB = 12$  cm, then what is the diagonal BD (in cm)?  
 (A)  $2\sqrt{3}$   
 (C) 12

(B) 6  
 (D) 10

60. If 60% of A's income is equal to 75% of B's income, then B's income is equal to x% of A's income. What is the value of x?  
 (A) 70  
 (C) 80

(B) 60  
 (D) 90

**English Language**

**Directions (61-62):** In the following questions, a part of the sentence has an error and others are correct. Find out which part of the sentence has an error. If there is no error, your answer is (D) i.e. 'No error'.

61. My friends insisted (A)/ that I should see the movie (B)/ from beginning to the end. (C)/ No error (D)  
 (A) A  
 (C) C  
 (B) B  
 (D) D

62. It is wrong on your part to call into (A)/ questions the integrity (B)/ of your elder brother. (C)/ No error (D)  
 (A) A  
 (C) C  
 (B) B  
 (D) D

**Directions (63-64):** In the following questions, sentences are given with blanks to be filled in with an appropriate word. Four alternatives are suggested for each question. Choose the correct alternative out of the four as your answer.

63. In a little publicised deal, Pepsi cola has \_\_\_\_\_ the entire soft drink market in Afghanistan.  
 (A) conquered  
 (C) captured  
 (B) swallowed  
 (D) occupied

64. Ravi had to drop his plan of going to picnic as he had certain \_\_\_\_\_ to meet during that period.  
 (A) preparations  
 (C) urgencies  
 (B) observations  
 (D) commitments

**Direction (65-66):** Choose the word which is most nearly the SAME in meaning as the word given below.

65. METICULOUS  
 (A) VIGILANT  
 (C) UNSCRUPULOUS  
 (B) CLEAN  
 (D) PAINSTAKING

66. NIGGARD

- (A) MISER (B) LOYAL  
(C) DIVINE (D) SHREWD

**Direction (67-68):** Choose the word which is most nearly the **OPPOSITE** in meaning as the word given below.

67. **CELIBACY**  
(A) CHASTITY (B) MISOGYNY  
(C) MATRIMONY (D) DIVORCE
68. **CALLOUS**  
(A) CONFIDENT (B) CARELESS  
(C) SENSITIVE (D) CAPABLE

**Directions (69-70):** In the following questions, four alternatives are given for the idioms/phrases being underlined. You are required to choose the correct meaning of the given idioms/phrases.

69. A cakewalk  
(A) A difficult achievement  
(B) A walkway made with cakes  
(C) An easy achievement  
(D) Walk away with a cake
70. By fits and starts  
(A) Consistently (B) Irregularly  
(C) In high spirits (D) Enthusiastically

**Directions (71-72):** In the following questions, a part of sentence is underlined. Four alternatives are given to the underlined part which will improve the sentence. In case no improvement is needed, mark your answer as (D) i.e. "No improvement".

71. We met him immediately after the session in which he had been given a nice speech.  
(A) would be giving (B) has been given  
(C) had given (D) No improvement
72. The man who has committed such a serious crime must get the mostly severe punishment.  
(A) be getting the mostly severely  
(B) get the most severe  
(C) have got the most severely  
(D) No improvement

**Direction (73-74):** In the following questions, out of the four alternatives choose the one which can be substituted for the given words/sentence.

73. Large scale departure of people.  
(A) Migration (B) Emigration  
(C) Immigration (D) Exodus
74. Lottery in which an article is assigned by lot to one of those buying tickets.  
(A) Auction (B) Raffle  
(C) Audit (D) Transit

**Directions (75):** In the following question, a sentence has been given in Direct/Indirect speech. Out of the four alternatives suggested, select the one which best expresses the same sentence in Indirect/Direct speech.

75. Mrs. Shankar said, "I know what it is to be depressed."  
(A) Mrs. Shankar knows what it is to be depressed.  
(B) Mrs. Shankar is depressed she said.  
(C) Mrs. Shankar said that she was knowing what it was to be depressed.  
(D) Mrs. Shankar said that she knew what it was to be depressed.

**Directions (76-80):** The passage given below is followed by a set of five questions. Read the passage carefully and choose the best answer to each question out of the four alternatives.

Stammering is a habit disorder linked with lack of self-confidence. Basically, for a child to understand a language, there are four stages. The first is learning to understand the spoken language and the second is speaking. Both of these usually develop around the age of two. The third stage is speaking complex sentences, which develops at around three and the fourth is when the child recognises the written alphabet. In 80 percent of children while the third and fourth stage are at play, the first two get disturbed because something new is being incorporated in the mind. This is absolutely normal. But what over cautious mothers do is fret a lot and the child develops a fear which later manifests itself as stammering. In fact, most text books on stammering state in bold that "had there not been any over cautious mothers, hardly anyone would have suffered from stammering." Fluency can be incorporated in the speech of such patients through hypnosis.

76. Stammering is actually caused because of  
(A) physical disorder (B) hindered growth  
(C) lack of self-confidence (D) lack of understanding
77. The second stage of a child's understanding the language is  
(A) speaking (B) Writing  
(C) listening (D) reading
78. \_\_\_\_\_ are basically the reason for developing a fear in the child's mind.  
(A) Parents (B) Over cautious mothers  
(C) Fathers (D) Uncles
79. Fluency in such patients can be incorporated in the speech of such patients through  
(A) hypnosis (B) vidence  
(C) punishment (D) ovucautiousness
80. By the time the child becomes two years old he/she can  
(A) speak complex sentences  
(B) only understand spoken language  
(C) understand and speak simple language  
(D) write the alphabets

## Hindi Language

61. 'अक्षौहिणी' का सन्धि -विच्छेद है।  
(A) अक्षः + हिणी (B) अक्ष + ऊहिनी  
(C) अक्षो + अहिणी (D) अक्ष + ओहिणी
62. सही मुहावरा का चयन करें।  
(A) नेत्रों में मिट्टी डालना  
(B) आँखों में रेत फेंकना  
(C) आँखों में धूल झोंकना  
(D) आँखों में कचरा डालना
63. "मुदित महीपति मंदिर आये। सेवक सचिव सुमंत बुलाए।।"  
दिए गए पद में कौन सा अलंकार है?  
(A) यमक (B) श्लेष  
(C) अनुप्रास (D) इनमें से कोई नहीं
64. 'पार्वती-मंगल' के रचनाकार कौन हैं?  
(A) गोस्वामी तुलसीदास  
(B) सूर्यकान्त त्रिपाठी निराला



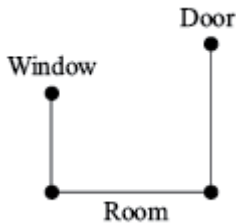
- (C) मीरा बाई  
(D) महादेवी वर्मा
65. निम्न में से कौन सा शब्द पुल्लिंग है?  
(A) झुण्ड (B) देवी  
(C) समिति (D) राज्यसभा
66. निम्नलिखित वर्णों में कौन-सा वर्ण मूर्धन्य व्यंजन है?  
(A) च (B) ज  
(C) ट (D) झ
67. निम्न में से किस व्यंजन का उच्चारण स्थान "कण्ठ" है।  
(A) र (B) त  
(C) क (D) च
68. 'क्ष' वर्ण किन वर्णों के संयोग से बना है? निम्नांकित विकल्पों में से सही विकल्प की पहचान कीजिए:  
(A) क् + ष (B) क+छ  
(C) छ+ह (D) च+प
69. 'संकल्प' में प्रयुक्त उपसर्ग है-  
(A) सम् (B) सं  
(C) सम (D) समक
70. 'मोहन बाजार जा रहा है' इस वाक्य में उद्देश्य है:-  
(A) मोहन (B) खरीददारी  
(C) घूमना (D) बाजार
71. निम्न में से किस समूह में सभी शब्द तत्सम हैं?  
(A) शर्करा, पवन, ज्येष्ठ, अग्नि  
(B) काष्ठ, घृत, घोड़ा, कारीगर  
(C) ओष्ठ, किताब, रानी, चाकू  
(D) निष्ठुर, चम्मच, हाथी, कार्य
72. निम्न कवियों में से "साकेत" के रचनाकार कौन हैं?  
(A) मैथिली शरण गुप्त (B) रामचंद्र शुक्ल  
(C) महादेवी वर्मा (D) निराला
73. निम्न में से किस उपन्यास के लेखक मुंशी प्रेमचंद्र जी हैं?  
(A) भूले विसरे चित्र (B) इरावती  
(C) रंगभूमि (D) तितली
74. "कुरूक्षेत्र" के लेखक हैं।  
(A) मुंशी प्रेमचंद्र (B) रवीन्द्रनाथ टैगोर  
(C) रामधारी सिंह 'दिनकर' (D) जयशंकर प्रसाद
75. (श्रीमान प्रधानाध्यापक महोदय,) इस वाक्य में चिन्ह (,) को क्या कहा जाता है?  
(A) कोष्ठक चिन्ह (B) विराम चिन्ह  
(C) अर्द्ध विराम (D) अल्प विराम
76. 'नगरप्रवेश' में कौनसा समास है?  
(A) अव्ययीभाव (B) द्वंद्व  
(C) तत्पुरुष (D) बहुव्रीहि
77. 'निकृष्ट' में उपसर्ग है-  
(A) निक (B) निक्  
(C) निर् (D) निक्स्
78. "मै उस लड़की से मिला था जिसकी किताब खो गई थी" यह वाक्य:-  
(A) सरल वाक्य (B) मिश्र वाक्य  
(C) संयुक्त वाक्य (D) कर्तृवाच्य वाक्य
- निर्देश (79-80):** निम्नलिखित गाद्यांश को पढ़िए और पूछे गए प्रश्नों के सही उत्तर दीजिए।
- राष्ट्रीय एकता की बहुत बड़ी पहचान है-राष्ट्रभाषा। सम्पूर्ण राष्ट्र में अन्तराज्तीय व्यवहार के लिए एक राष्ट्रीय भाषा का होना आवश्यक है। भारत की राष्ट्रभाषा हिमालय से लेकर कन्याकुमारी तक विशाल राष्ट्र को एक सूत्र में पिरो सकती है। संविधान ने हिन्दी को 'राजभाषा' माना है। भारत के राजनीतिज्ञों ने राष्ट्रीय एकता के इस सूत्र को राजनीति का मुद्दा बना दिया है। राष्ट्रीय एकता की प्रतीक हिन्दी की बात करने वालों को संकीर्णतावादी कहना ठीक नहीं है। भारत की सभी भाषाओं को विकसित और समृद्ध होने का अधिकार है। उनमें परस्पर विरोध ठीक नहीं। अंग्रेजी उनकी फूट का लाभ उठा रही है। इस देश की खूबियाँ इसी देश के चश्में से पहचानी जा सकती हैं, विदेशी चश्में नहीं। अंग्रेजी प्रयोग के अपने क्षेत्र हैं। देश के चौमुखी विकास में आज उसका भी योगदान है पर वह यहाँ के आम लोगों की भाषा कभी नहीं हो सकती।
79. 'देश का चश्मा' से क्या अभिप्राय है?  
(A) देश में बना चश्मा  
(B) देश को देखने का नजरिया  
(C) देश की भाषाएँ  
(D) देश की संस्कृति
80. 'भारत के राजनीतिज्ञों ने राष्ट्रीय एकता' के इस सूत्र को राजनीति का मुद्दा बना दिया है। उपरोक्त वाक्य में 'इस सूत्र' से क्या अभिप्राय है?  
(A) भारतीय भाषाएँ (B) राष्ट्रभाषा  
(C) अंग्रेजी (D) प्रश्न

**Space for rough work**

**General Intelligence & Reasoning**

- 1.(A) Acrophobia is fear of Heights and Dikephobia is fear of Injustice.
- 2.(B) Errata comprises of errors in books. Similarly, flaws are defects in metals.
- 3.(D) 80 and 93 are co-prime numbers.
- 4.(A) Sum of place value of first two letters in all except JKX is equal to the place value of third alphabet.
- 5.(D) Only primary colour is blue.
- 6.(D) In all other pairs, first is used to hold the second.
- 7.(D) Srini > Anlu  
Brinda > Ragu > Chandru  
Chandru > Srini  
Hence, Brinda is the tallest.

8.(A)



Thus, he is facing north direction.

- 9.(B) All the letters of the word, except the last letter are written in a reverse order to obtain the code.
- 10.(B)

sky (is) blue → 5 2 (6)

blue (colour) → 2 4

(colour) (is) fun → (4) 3 (6)

Thus, fun is coded as 3.

11.(C)

$$6 \times 15 \times 10 \times 3 \times 12$$

$$\Rightarrow 6 \times 15 \div 10 + 3 = 12$$

$$\Rightarrow 9 + 3 = 12$$

12.(B)

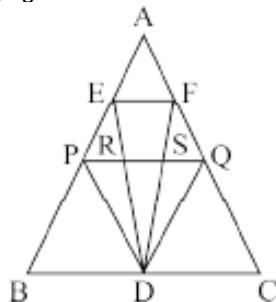
$$200 \times 100 + 300 \times 200 - 10 \div 2 + 40 = 0$$

$$\Rightarrow 200 + 100 - 300 + 200 \div 10 \times 2 - 40 = 0$$

$$\Rightarrow 200 + 100 - 300 + 40 - 40 = 0$$

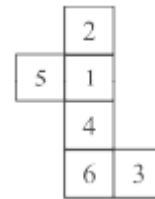
$$\Rightarrow 0 = 0$$

- 13.(A) The figure in question may be labelled as shown in the following figure:



Smallest triangles = AEF, EPR, FSQ, PRD, RSD, SQD  
Single triangles = PBD, QDC, EFD = 3  
Triangles formed with two triangles = PSD, RQD, FDQ, EDP = 4  
Triangles formed with three or four triangles = APQ, FDC, BDE, PQD = 4  
Largest triangle = ABC = 1  
Total triangles = 6 + 3 + 4 + 4 + 1 = 18

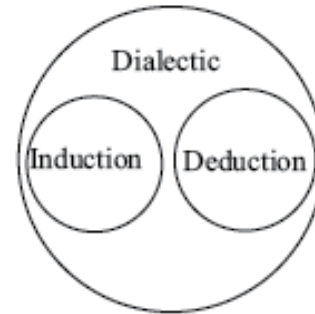
- 14.(C) According to the statement, conclusion (I) does not follow and conclusion (II) is valid. Thus, option (C) is correct.
- 15.(D) According to figure,



- 2 is opposite of 4.
- 1 is opposite of 6.
- 5 is opposite of 3.

Thus, we know opposite faces cannot be adjacent to each other. So, option (D) is the correct figure.

16.(A)



- 17.(A)
- 18.(C)
- 19.(B)
- 20.(D)

**General Knowledge & General Awareness**

- 21.(B)
- 22.(A)
- 23.(A)
- 24.(A)
- 25.(B)
- 26.(B)
- 27.(D)
- 28.(D)
- 29.(A)
- 30.(B)
- 31.(A)
- 32.(B)
- 33.(C)
- 34.(C)
- 35.(D)
- 36.(A)
- 37.(D)
- 38.(C)
- 39.(B)
- 40.(C)

**Elementary Mathematics**

41.(C)

$$\frac{2}{3} \times \frac{3}{4} \times \frac{4}{5} \times \dots \times \frac{98}{99} \times \frac{99}{100}$$

$$= \frac{2}{100} = \frac{1}{50}$$

42.(A)

Son	:	Wife	:	Daughter
3	:	1	:	3
9 : 3 : 1				

43.(D)

$$9x - x = 8x = 10000$$

$$x = 1250$$

Total property = 13x = ₹ 16250

∴ SP of the house = ₹ 12,600

∴ Profit = 5%

$$\therefore \text{CP of the house} = \frac{12600}{1.05} = 12000$$

$$\therefore \text{Required \% gain} = \frac{13000 - 12000}{12000} \times 100\%$$

44.(C)

CP = 60% of 900 = ₹ 540

SP = ₹ 900

$$\text{Profit} = \frac{360}{540} \times 100 = 66\frac{2}{3}\%$$

45.(A)

$$SI = \frac{P \times R \times T}{100}$$

- 46.(A)  $500 = \frac{P \times 6 \times 1}{100 \times 12}$   
 $P = ₹ 100000$   
 Let the total work is 60 units.  
 $(A + B + C)$ 's one day work  
 $= 12 + 10 + 5 = 27$  units  
 Total time  $= \frac{60}{27} = \frac{20}{9} = 2\frac{2}{9}$  days
- 47.(A)  $x = \sqrt{20 - \sqrt{20 - \sqrt{20}}} \dots \infty$   
 $x = \sqrt{20 - x}$   
 $x^2 = 20 - x$   
 $x^2 + x - 20 = 0$   
 $x = 4 ; x = -5$
- 48.(C) Relative speed  $= 40 - 32 = 8$  km/hr  
 $= 8 \times \frac{5}{18} = \frac{40}{18}$  m/s  
 Time  $= \frac{(121 + 99) \times 18}{40} = 99$  seconds
- 49.(B) Sum of boys age  $= 30 \times 14 = 420$   
 Sum when teacher's age included  
 $= 15 \times 31 = 465$   
 Teacher's age  $= 465 - 420 = 45$  years
- 50.(B) Sum  $= \frac{a(r^n - 1)}{(r - 1)} = \frac{2 \times (2^{12} - 1)}{(2 - 1)}$   
 $= 2 \times 4095 = 8190$
- 51.(C)  $4 + \sqrt{15} = \frac{1}{2}(8 + 2\sqrt{15})$   
 $= \frac{1}{2}(3 + 5 + 2\sqrt{3} \cdot \sqrt{5}) = \frac{1}{2}(\sqrt{3} + \sqrt{5})^2$   
 $6 + \sqrt{35} = \frac{1}{2}(12 + 2\sqrt{35})$   
 $= \frac{1}{2}(7 + 5 + 2\sqrt{7} \cdot \sqrt{5})$   
 $= \frac{1}{2}(\sqrt{7} + \sqrt{5})^2$  etc.  
 Hence, given expression  

$$\frac{\left\{ \frac{1}{2}(\sqrt{5} + \sqrt{3})^2 \right\}^{\frac{3}{2}} + \left\{ \frac{1}{2}(\sqrt{5} - \sqrt{3})^2 \right\}^{\frac{3}{2}}}{\left\{ \frac{1}{2}(\sqrt{7} + \sqrt{5})^2 \right\}^{\frac{3}{2}} - \left\{ \frac{1}{2}(\sqrt{7} - \sqrt{5})^2 \right\}^{\frac{3}{2}}}$$

$$= \frac{(\sqrt{5} + \sqrt{3})^3 + (\sqrt{5} - \sqrt{3})^3}{(\sqrt{7} + \sqrt{5})^3 - (\sqrt{7} - \sqrt{5})^3}$$

$$\ominus (a + b)^3 + (a - b)^3 = 2(a^3 + 3ab^2) \&$$

$$\ominus (a + b)^3 - (a - b)^3 = 2(b^3 + 3a^2b)$$

$$= \frac{2\left( (\sqrt{5})^3 + 3\sqrt{5}(\sqrt{3})^2 \right)}{2\left( (\sqrt{5})^3 + 3(\sqrt{7})^2 \sqrt{5} \right)}$$

$$= \frac{5\sqrt{5} + 9\sqrt{5}}{5\sqrt{5} + 21\sqrt{5}} = \frac{5 + 9}{5 + 21} = \frac{14}{26} = \frac{7}{13}$$

52.(B)  $\frac{(a-b)^2}{(b-c)(c-a)} + \frac{(b-c)^2}{(a-b)(c-a)} + \frac{(c-a)^2}{(a-b)(b-c)}$   
 $= \frac{(a-b)^3 + (b-c)^3 + (c-a)^3}{(a-b)(b-c)(c-a)}$   
 [Since,  $(a - b) + (b - c) + (c - a) = a - b + b - c + c - a = 0$   
 $\therefore (a - b)^3 + (b - c)^3 + (c - a)^3 = 3(a - b)(b - c)(c - a)$

(c - a)]

Hence,  $\frac{3(a-b)(b-c)(c-a)}{(a-b)(b-c)(c-a)} = 3$

- 53.(B)  $a + b + c = 0$   
 then,  

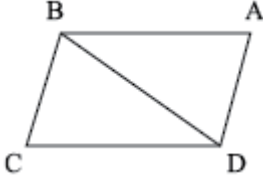
$$\frac{1}{(a+b)(b+c)} + \frac{1}{(a+c)(b+a)} + \frac{1}{(c+a)(c+b)}$$

$$= \frac{(c+a) + (b+c) + (a+b)}{(a+b)(b+c)(c+a)}$$

$$= \frac{c+a+b+c+a+b}{(a+b)(b+c)(c+a)}$$

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

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

$$= \frac{2 \times 0}{(a+b)(b+c)(c+a)} = 0$$
- 54.(D) Let expenditure be x.  
 Expenditure in year 2000  $= \frac{48-x}{x} \times 100 = 60$   
 $16x = 480$   
 $x = 30$
- 55.(B) Maximum profit made by the company = 70%  
 Minimum profit made by the company = 40%  
 Hence, the range in percentile =  $70 - 40 = 30\%$
- 56.(D) Let the income of the company in the year 1995 is x thousand crores.  
 $\therefore \% \text{ Profit} = \frac{\text{Income} - \text{Expenditure}}{\text{Expenditure}} \times 100$   
 $\therefore 40 = \frac{x-20}{20} \times 100$   
 $x = 28$  thousand crores  
 Profit earned by the company is maximum in year 1999.
- 57.(D) year 1999.
- 58.(D)  $3^{81} \times 4^{23} \times 7^{42} = 3^1 \times 4^3 \times 7^2$   
 $= 3 \times 4 \times 9 = 108$
- 59.(C)   
 Rhombus's diagonal bisect the angle.  
 $\angle A = 60^\circ$ , then  $\angle B = 180^\circ - 60^\circ$   
 $\angle ABC = 120^\circ$   
 Now,  $\angle ABD = \angle CBD = 60^\circ$   
 $\triangle ABD$  is an equilateral triangle.  
 So, Diagonal  $BD = 12$  cm
- 60.(C)  $60 \times \frac{A}{100} = 75 \times \frac{B}{100}$   
 $4A = 5B$   
 $A \times \frac{x}{100} = B$   
 $A \times \frac{x}{100} = \frac{4}{5}A$   
 $\Rightarrow x = 80$
- English Language**
- 61.(C) from "the" beginning.  
 62.(A) 'call in questions'.  
 63.(C) captured  
 64.(D) commitments  
 65.(D) painstaking



- 66.(A) miser  
67.(C) matrimony  
68.(C) Callous (Adjective) means 'cruel, insensitive'.  
69.(C) An easy achievement.  
70.(B) Irregularly  
71.(C) Use past perfect tense.  
72.(B) Superlative degree as 'most' will be used ; 'mostly' is adverb form.  
73.(D) Exodus  
74.(B) Raffle  
75.(D) Mrs. Shankar said that she knew what it was to be depressed.  
76.(C) Refer to the first line of the passage.  
77.(A) Speaking.  
78.(B) Refer to the last third line of the passage.  
79.(A) Last line of the passage.  
80.(C) Refer to the second and third line of the passage.

### Hindi Language

- 61.(B) अक्षौहिणी का सही सन्धि-विच्छेद है: अक्ष + ऊहिनी।  
62.(C) 'आँखों में धूल झोंकना' सही मुहावरा है। कोई भी ऐसा वाक्यांश जो अपने साधारण अर्थ को छोड़कर किसी विशेष अर्थ को व्यक्त करे उसे मुहावरा कहते हैं।  
63.(C) दिए गए पद में अनुप्रास अलंकार है। जब किसी काव्य को सुंदर बनाने के लिए किसी वर्ण की बार-बार आवृत्ति हो तो वहाँ अनुप्रास अलंकार कहलाता है। इससे वाक्य की सुन्दरता बढ़ जाती है। प्रश्न में दिए गए वाक्य में भी म एवं स वर्ण की आवृत्ति एक से अधिक बार हो रही है इसीलिए दिए गए पद में अनुप्रास अलंकार है। एक और अन्य उदाहरण के माध्यम से हम इसे समझा सकते हैं। "चारु चन्द्र की चंचल किरणें खेल रही थीं जल थल में।"  
64.(A) "पार्वती-मंगल" के रचनाकार गोस्वामी तुलसीदास हैं, गोस्वामी तुलसीदास की अन्य प्रमुख रचनाएँ रामचरितमानस, रामललानहछू, वैराग्य-संदीपनी, बरवै रामायण, पार्वती मंगल, जानकी मंगल, दोहावली, गीतावली, विनयपत्रिका आदि हैं।  
65.(A) झुण्ड एक पुल्लिंग है। झुण्ड का अर्थ समूह अथवा टोली होता है। इसी एक वाक्य के माध्यम से समझ सकते हैं। जैसे कि- हाथियों का झुण्ड। या अन्य उदाहरण- भेड़ों का झुण्ड आ रहा है।  
**पुल्लिंग-** संज्ञा के जिस रूप से पुरुष या नर का बोध हो, उसे पुल्लिंग कहते हैं। जैसे- लड़का दौड़ता है। लेखक ने एक बेहतरीन किताब लिखी। इस वाक्य में लेखक एक पुल्लिंग शब्द है।  
66.(C) मूर्धन्य व्यंजन ऐसे किरिट व्यंजन (यानि जिह्वा के लचीले के सामने के हिस्से से उच्चारित) होते हैं जो जिह्वा द्वारा वर्त्य कटक और कठोर तालू के बीच उच्चारित होते हैं। इनमें "ट", "ठ", "ड", "ढ", "ड" और "ण" शामिल हैं। च, छ, ज, झ, ई, य, तालव्य व्यंजन है।  
67.(C) "क" व्यंजन का उच्चारण स्थान कण्ठ स्थानों के सपर्श से बोले जाते हैं इसलिए इन्हें स्पर्श व्यंजन भी कहते हैं। इनके संख्या पांच है क, ख, ग, घ, ङ। इसे क वर्ग भी बोला जाता है।  
68.(A) क्ष = क् + ष के संयोग से मिलकर बना है जो व्यंजन दो या दो से अधिक व्यंजनों के मेल से बनते हैं, वे संयुक्त व्यंजन कहलाते हैं।  
69.(A) संकल्प=सम्+कल्प, संकल्प शब्द सम् उपसर्ग जिसका अर्थ अच्छा, साथ पूर्ण होता है एवं मूल शब्द कल्प जिसका अर्थ लगभग बराबर होता है। ये दोनों शब्द मिलकर संकल्प शब्द बनाते हैं जिसका अर्थ दृढ़, निश्चय अथवा इरादा होता है। उपसर्ग=उप(समीप)+सर्ग(सृष्टि करना) अर्थात् किसी शब्द के समीप आकर नए शब्द का निर्माण करने वाले शब्द उपसर्ग कहलाते हैं।  
70.(A) 'मोहन बाजार जा रहा है' इस वाक्य में 'मोहन' उद्देश्य है।

- 71.(A) 'शर्करा, पवन, ज्येष्ठ, अग्नि' के समूह में सभी शब्द तत्सम हैं। तत्सम शब्द - जो शब्द संस्कृत से ज्यों के त्यों ग्रहण कर लिए गए हैं तथा जिनमें कोई ध्वनि परिवर्तन नहीं हुआ है, वे तत्सम शब्द कहलाते हैं।  
72.(A) "साकेत" के रचनाकार मैथिलीशरण गुप्त जी हैं। गुप्त जी ने "साकेत" में उर्मिला की विरह व्यथा और कैकेयी के संताप को व्यक्त किया है।  
73.(C) रंगभूमि उपन्यास के लेखक मुंशी प्रेमचंद्र जी हैं। इस उपन्यास में त्याग प्रेम और बलिदान का आदर्श प्रस्तुत किया गया है। इस उपन्यास का प्रमुख पात्र 'सूरदास' गांधी के आदर्शों पर चलता है।  
74.(C) "कुरूक्षेत्र" के रचनाकार रामधारी सिंह 'दिनकर' हैं। रामधारी सिंह 'दिनकर' की अन्य प्रमुख रचनाएँ रेणुका, हुंकार, द्वंद्वगीत, धूप और धुआँ, रश्मिरथी, नीम के पत्ते, उर्वशी आदि प्रमुख हैं।  
75.(D) दिए गए वाक्य (श्रीमान प्रधान अद्यापक महोदय,) में महोदय के बाद अल्प विराम का उपयोग किया गया है। इस चिन्ह का प्रयोग वाक्य में तब किया जाता है जब वाक्य में बहुत कम ठहराव की स्थिति हो।  
76.(C) नगरप्रवेश का समास विग्रह नगर में प्रवेश होता है। इसमें दोनों पदों को जोड़ने पर में विभक्ति लुप्त हो जाती है। इसीलिए नगरप्रवेश में तत्पुरुष समास है। नगरप्रवेश में सप्तमी तत्पुरुष समास है इसमें में, पै एवं पर विभक्ति लुप्त हो जाती है। जिस समास में बाद का अथवा उत्तर पद प्रधान होता है एवं दोनों पदों के बीच का कारक चिन्ह लुप्त हो जाता है, उसे तत्पुरुष समास कहते हैं। जैसे- पदच्युत= पद से च्युत।  
77.(C) निकृष्ट=निर्+कष्ट, इस शब्द में निर् उपसर्ग है जिसका अर्थ भीतर, नीचे, निषेध होता है एवं कष्ट यहाँ मुख्य शब्द है जिसका अर्थ पीड़ा अथवा व्यथा होता है। ये दोनों शब्द मिलकर निकृष्ट शब्द का निर्माण करते हैं जिसका अर्थ नीच अथवा अधम होता है। उपसर्ग=उप(समीप)+सर्ग(सृष्टि करना) अर्थात् किसी शब्द के समीप आकर नए शब्द का निर्माण करने वाले शब्द उपसर्ग कहलाते हैं।  
78.(B) "मै उस लड़की से मिला था जिसकी किताब खो गई थी"  
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यह वाक्य मिश्र वाक्य है। जिन वाक्यों में एक मुख्य या प्रधान वाक्य हो और अन्य आश्रित उपवाक्य हों, उन्हें मिश्रित वाक्य कहते हैं। मिश्र वाक्य में प्रधान वाक्य को आश्रित वाक्य से जोड़ने के लिए - जो, क्योंकि, जितना आदि  
79.(B) 'देश का चश्मा' से अभिप्राय है कि देश को देखने का नजरिया।  
80.(A) 'भारत के राजनीतिज्ञों ने राष्ट्रीय एकता के इस सूत्र को राजनीति का मुद्दा बना दिया है। वाक्य में 'इस सूत्र' का मतलब भारतीय भाषाओं से है।

