PAPER - I

Signature and Name of Invigilator

1. (Signature) _____

(Name) _____

2. (Signature) _____

(Name) _____

OMR Sheet No. : ....

(To be filled by the Candidate)

Roll No. [ ][ ][ ][ ][ ][ ][ ]

(In figures as per admission card)

N 0 0 0 1 7   **Test Booklet Series** **A**

Roll No. _____

(In words)

Time : 1¼ hours]   [Maximum Marks : 100

Number of Pages in this Booklet : **24**   Number of Questions in this Booklet : **50**

Instructions for the Candidates	परीक्षार्थियों के लिए निर्देश

Instructions for the Candidates

1. Write your roll number in the space provided on the top of this page.
2. This paper consists of **fifty (50)** multiple-choice-type of questions. All questions are **compulsory**.
3. At the commencement of examination, the question booklet will be given to you. In the first 5 minutes, you are requested to open the booklet and compulsorily examine it as below :
   (i) To have access to the Question Booklet, tear off the paper seal/polythene bag on the booklet. Do not accept a booklet without sticker-seal/without polythene bag and do not accept an open booklet.
   (ii) **Tally the number of pages and number of questions in the booklet with the information printed on the cover page. Faulty booklets due to pages/questions missing or duplicate or not in serial order or any other discrepancy should be got replaced immediately by a correct booklet from the invigilator within the period of 5 minutes. Afterwards, neither the Question Booklet will be replaced nor any extra time will be given.**
   (iii) After this verification is over, the Test Booklet Number should be entered on the OMR Sheet and the OMR Sheet Number should be entered on this Test Booklet.
   (iv) The Series of this booklet is **A**, make sure that the Series printed on OMR Sheet is same as that on this booklet. In case of discrepancy in Series, the candidate should immediately report the matter to the Invigilator for replacement of the Test Booklet/OMR Sheet.
4. Each item has four alternative responses marked (1), (2), (3) and (4). You have to darken the circle as indicated below on the correct response against each item.
   Example : ① ② ● ④ where (3) is the correct response.
5. Your responses to the items are to be indicated in the **OMR Sheet given inside the Booklet only.** If you mark your response at any place other than in the circle in the OMR Sheet, it will not be evaluated.
6. Read instructions given inside carefully.
7. Rough Work is to be done in the end of this booklet.
8. If you write your Name, Roll Number, Phone Number or put any mark on any part of the OMR Sheet, except for the space allotted for the relevant entries, which may disclose your identity, or use abusive language or employ any other unfair means, such as change of response by scratching or using white fluid, you will render yourself liable to disqualification.
9. You have to return the original OMR Sheet to the invigilators at the end of the examination compulsorily and must not carry it with you outside the Examination Hall. You are however, allowed to carry original question booklet and duplicate copy of OMR Sheet on conclusion of examination.
10. Use only Blue/Black Ball point pen.
11. Use of any calculator or log table etc., is prohibited.
12. There are no negative marks for incorrect answers.
13. In case of any discrepancy in the English and Hindi versions, English version will be taken as final.

परीक्षार्थियों के लिए निर्देश

1. इस पृष्ठ के ऊपर नियत स्थान पर अपना रोल नम्बर लिखिए।
2. इस प्रश्न-पत्र में **पचास (50)** बहुविकल्पीय प्रश्न हैं। **सभी** प्रश्न **अनिवार्य** हैं।
3. परीक्षा प्रारम्भ होने पर, प्रश्न-पुस्तिका आपको दे दी जायेगी। पहले पाँच मिनट आपको प्रश्न-पुस्तिका खोलने तथा उसकी निम्नलिखित जाँच के लिए दिये जायेंगे, जिसकी जाँच आपको अवश्य करनी है :
   (i) प्रश्न-पुस्तिका खोलने के लिए पुस्तिका पर लगी कागज की सील/पोलिथीन बैग को फाड़ लें। खुली हुई या बिना स्टीकर-सील/बिना पोलिथीन बैग की पुस्तिका स्वीकार न करें।
   (ii) कवर पृष्ठ पर छपे निर्देशानुसार प्रश्न-पुस्तिका के पृष्ठ तथा प्रश्नों की संख्या को अच्छी तरह चैक कर लें कि ये पूरे हैं। दोषपूर्ण पुस्तिका जिनमें पृष्ठ/प्रश्न कम हों या दुबारा आ गये हों या सीरियल में न हों अर्थात् किसी भी प्रकार की त्रुटिपूर्ण पुस्तिका स्वीकार न करें तथा उसी समय उसे लौटाकर उसके स्थान पर दूसरी सही प्रश्न-पुस्तिका ले लें। इसके लिए आपको पाँच मिनट दिये जायेंगे। उसके बाद न तो आपकी प्रश्न-पुस्तिका वापस ली जायेगी और न ही आपको अतिरिक्त समय दिया जायेगा।
   (iii) इस जाँच के बाद प्रश्न-पुस्तिका का नंबर OMR पत्रक पर अंकित करें और OMR पत्रक का नंबर इस प्रश्न-पुस्तिका पर अंकित कर दें।
   (iv) इस प्रश्न-पुस्तिका का सीरीज़ **A** है। यह सुनिश्चित कर लें कि इस प्रश्न-पुस्तिका का सीरीज़, OMR पत्रक के सीरीज़ से मिलता है। अगर सीरीज़ भिन्न हो तो परीक्षार्थी दूसरी समान सीरीज़ वाली प्रश्न-पुस्तिका/ OMR पत्रक बदलने के लिए निरीक्षक को तुरंत सूचित करें।
4. प्रत्येक प्रश्न के लिए चार उत्तर विकल्प (1), (2), (3) तथा (4) दिये गये हैं। आपको सही उत्तर के वृत्त को पेन से भरकर काला करना है जैसा कि नीचे दिखाया गया है।
   उदाहरण : ① ② ● ④ जबकि (3) सही उत्तर है।
5. प्रश्नों के उत्तर **केवल प्रश्न पुस्तिका के अन्दर दिये गये OMR पत्रक पर ही** अंकित करने हैं। यदि आप OMR पत्रक पर दिये गये वृत्त के अलावा किसी अन्य स्थान पर उत्तर चिह्नांकित करते हैं, तो उसका मूल्यांकन नहीं होगा।
6. अन्दर दिये गये निर्देशों को ध्यानपूर्वक पढ़ें।
7. कच्चा काम (Rough Work) इस पुस्तिका के अन्तिम पृष्ठ पर करें।
8. यदि आप OMR पत्रक पर नियत स्थान के अलावा अपना नाम, रोल नम्बर, फोन नम्बर या कोई भी ऐसा चिह्न जिससे आपकी पहचान हो सके, अंकित करते हैं अथवा अभद्र भाषा का प्रयोग करते हैं, या कोई अन्य अनुचित साधन का प्रयोग करते हैं, जैसे कि अंकित किये गये उत्तर को मिटाना या सफेद स्याही से बदलना तो परीक्षा के लिये अयोग्य घोषित किये जा सकते हैं।
9. आपको परीक्षा समाप्त होने पर मूल OMR पत्रक निरीक्षक महोदय को लौटाना आवश्यक है और परीक्षा समाप्ति के बाद उसे अपने साथ परीक्षा भवन से बाहर न लेकर जायें। हालांकि आप परीक्षा समाप्ति पर मूल प्रश्न-पुस्तिका तथा OMR पत्रक की डुप्लीकेट प्रति अपने साथ ले जा सकते हैं।
10. केवल नीले/काले बाल प्वाईंट पेन का ही प्रयोग करें।
11. किसी भी प्रकार का संगणक (कैलकुलेटर) या लाग टेबल आदि का प्रयोग वर्जित है।
12. गलत उत्तरों के लिए कोई नकारात्मक अंक नहीं हैं।
13. यदि अंग्रेजी या हिंदी विवरण में कोई विसंगति हो, तो अंग्रेजी विवरण अंतिम माना जाएगा।

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PAPER - I

Note : This paper consists of **Fifty (50)** objective type questions of **Two (2)** marks each. **All** questions are **compulsory**.

50 Q x 2 M = 100 Marks

1. Which of the following set of statements best represents the nature and objective of teaching and learning ?

    (a) Teaching is like selling and learning is like buying.

    (b) Teaching is a social act while learning is a personal act.

    (c) Teaching implies learning whereas learning does not imply teaching.

    (d) Teaching is a kind of delivery of knowledge while learning is like receiving it.

    (e) Teaching is an interaction and is triadic in nature whereas learning is an active engagement in a subject domain.

    Code :

    (1) (a), (d) and (e)   (2) (b), (c) and (e)

    (3) (a), (b) and (c)   (4) (a), (b) and (d)

2. From the list given below identify the learner characteristics which would facilitate teaching-learning system to become effective. Choose the correct code to indicate your answer.

    (a) Prior experience of learner   (b) Learner's family lineage

    (c) Aptitude of the learner   (d) Learner's stage of development

    (e) Learner's food habits and hobbies   (f) Learner's religious affiliation

    Code :

    (1) (a), (c) and (d)   (2) (d), (e) and (f)

    (3) (a), (d) and (e)   (4) (b), (c) and (f)

3. **Assertion (A)** : All teaching implies learning.

    Reason (R) : Learning to be useful must be derived from teaching.

    Choose the **correct** answer from the following :

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

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

    (3) **(A)** is true, but **(R)** is false.

    (4) **(A)** is false, but **(R)** is true.

4. On the basis of summative tests, a teacher is interpreting his/her students, performance in terms of their wellness life style evident in behaviour. This will be called :

(1) Formative testing   (2) Continuous and comprehensive evaluation

(3) Norm - referenced testing   (4) Criterion - referenced testing

5. Which one of the following is a key behaviour in effective teaching ?

(1) Using student ideas and contribution

(2) Structuring

(3) Instructional variety

(4) Questioning

6. Which of the following research types focuses on ameliorating the prevailing situations ?

(1) Fundamental Research   (2) Applied Research

(3) Action Research   (4) Experimental Research

7. A researcher attempts to evaluate the effect of method of feeding on anxiety - proneness of children. Which method of research would be appropriate for this ?

(1) Case study method   (2) Experimental method

(3) Ex-post-facto method   (4) Survey method

8. In which of the following arrangements a wider spectrum of ideas and issues may be made possible ?

(1) Research Article   (2) Workshop mode

(3) Conference   (4) Symposium

9. In finalizing a thesis writing format which of the following would form part of supplementary pages ?

(1) List of tables and figures   (2) Table of contents

(3) Conclusions of the study   (4) Bibliography and Appendices

10. Which of the following is susceptible to the issue of research ethics ?

(1) Inaccurate application of statistical techniques

(2) Faulty research design

(3) Choice of sampling techniques

(4) Reporting of research findings

Read the passage carefully and answer question numbers from 11 to 15.

Climate change is considered to be one of the most serious threats to sustainable development, with adverse impacts on the environment, human health, food security, economic activity, natural resources and physical infrastructure. Global climate varies naturally. According to the Inter-governmental Panel on Climate Change (IPCC), the effects of climate change have already been observed, and scientific findings indicate that precautionary and prompt action is necessary. Vulnerability to climate change is not just a function of geography or dependence on natural resources; it also has social, economic and political dimensions which influence how climate change affects different groups. Poor people rarely have insurance to cover loss of property due to natural calamities i.e. drought, floods, super cyclones etc. The poor communities are already struggling to cope with the existing challenges of poverty and climate variability and climate change could push many beyond their ability to cope or even survive. It is vital that these communities are helped to adapt to the changing dynamics of nature. Adaptation is a process through which societies make themselves better able to cope with an uncertain future. Adapting to climate change entails taking the right measures to reduce the negative effects of climate change (or exploit the positive ones) by making the appropriate adjustments and changes. These range from technological options such as increased sea defences or flood - proof houses on stilts to behavioural change at the individual level, such as reducing water use in times of drought. Other strategies include early warning systems for extreme events, better water management, improved risk management, various insurance options and biodiversity conservation. Because of the speed at which climate change is happening due to global temperature rise, it is urgent that the vulnerability of developing countries to climate change is reduced and their capacity to adapt is increased and national adaptation plans are implemented. Adapting to climate change will entail adjustments and changes at every level from community to national and international. Communities must build their resilience, including adopting appropriate technologies while making the most of traditional knowledge, and diversifying their livelihoods to cope with current and future climate stress. Local coping strategies and knowledge need to be used in synergy with government and local interventions. The need of adaptation interventions depends on national circumstances. There is a large body of knowledge and experience within local communities on coping with climatic variability and extreme weather events. Local communities have always aimed to adapt to variations in their climate. To do so, they have made preparations based on their resources and their knowledge accumulated through experience of past weather patterns. This includes times when they have also been forced to react to and recover from extreme events, such as floods, drought and hurricanes. Local coping strategies are an important element of planning for adaptation. Climate change is leading communities to experience climatic extremes more frequently, as well as new climate conditions and extremes. Traditional knowledge can help to provide efficient, appropriate and time - tested ways of advising and enabling adaptation to climate change in communities who are feeling the effects of climate changes due to global warming.

A A

11. Given below are the factors of vulnerability of poor people to climate change. Select the code that contains the correct answer.

(a) Their dependence on natural resources

(b) Geographical attributes

(c) Lack of financial resources

(d) Lack of traditional knowledge

Code :

(1) (a), (b) and (c)

(2) (b), (c) and (d)

(3) (a), (b), (c) and (d)

(4) (c) only

12. Adaptation as a process enables societies to cope with :

(a) An uncertain future

(b) Adjustments and changes

(c) Negative impact of climate change

(d) Positive impact of climate change

Select the most appropriate answer from the following code :

(1) (a), (b), (c) and (d)

(2) (a) and (c)

(3) (b), (c) and (d)

(4) (c) only

13. To address the challenge of climate change, developing countries urgently require :

(1) Imposition of climate change tax

(2) Implementation of national adaptation policy at their level

(3) Adoption of short-term plans

(4) Adoption of technological solutions

14. The traditional knowledge should be used through :

(1) Its dissemination

(2) Improvement in national circumstances

(3) Synergy between government and local interventions

(4) Modern technology

A-000 ||||||||||||||||||||||||||||||||||| **8**

A A

15. The main focus of the passage is on :

(1) Combining traditional knowledge with appropriate technology

(2) Co-ordination between regional and national efforts

(3) Adaptation to climate change

(4) Social dimensions of climate change

16. The interaction between a teacher and students creates a zone of proximal :

(1) Difference   (2) Confusion

(3) Development   (4) Distortion

17. The spatial audio reproduction in a classroom can reduce the students' :

(1) Cognitive load in understanding

(2) Respect for the teacher

(3) Motivation for excellence

(4) Interest in technology - orientation

18. The classroom communication should essentially be :

(1) Contrived   (2) Empathetic   (3) Abstract   (4) Non-descriptive

19. A good communicator begins his/her presentation with a :

(1) Complex question   (2) Non-sequitur

(3) Repetitive phrase   (4) Ice-breaker

20. In a classroom, the probability of message reception can be enhanced by :

(1) Establishing a viewpoint

(2) Exposing the ignorance of students

(3) Increasing the information load

(4) Using high decibel audio tools

21. In the series 1, 6, 15, 28, 45, ... the next term will be :

(1) 66   (2) 76   (3) 56   (4) 84

22. The next term in the series ABD, DGK, HMS, MTB, ... is :

    (1) NSA   (2) SBL   (3) PSK   (4) RUH

23. In certain code, "COVALENT" is coded as BWPDUOFM. The code of "ELEPHANT" will be :

    (1) MFUIQRTW   (2) QMUBIADH

    (3) QFMFUOBI   (4) EPHNTEAS

24. Ajay is a friend of Rakesh. Pointing to an old man Ajay asked Rakesh who is he ? Rakesh said "His son is my son's uncle". The old man is related to Rakesh as :

    (1) Grandfather   (2) Father-in-law

    (3) Father   (4) Uncle

25. A postman walked 20 m straight from his office, turned right and walked 10 m. After turning left he walked 10 m and after turning right walked 20 m. He again turned right and walked 70 m. How far he is from his office ?

    (1) 50 m.   (2) 40 m.   (3) 60 m.   (4) 20 m.

26. It is Truism to say that no one was there when life first appeared on earth. Any assertion about life's origin, thus, should be treated as a theory.

    The above two statements constitute :

    (1) A historical explanation   (2) A narrative

    (3) An argument   (4) A conjecture

27. Given below are four statements. Among them two are related in such a way that they can both be true but they cannot both be false. Select the code that indicates those two statements :

    Statements :

    (a) Honest people never suffer.

    (b) Almost all honest people do suffer.

    (c) Honest people hardly suffer.

    (d) Each and every honest person suffers.

    Code :

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

28. A deductive argument is invalid if :

(1) Its premises and conclusion are all true.

(2) Its premises and conclusion are all false.

(3) Its premises are all false but its conclusion is true.

(4) Its premises are all true but its conclusion is false.

29. Given below are two premises (a and b). From those two premises four conclusions (i), (ii), (iii) and (iv) are drawn. Select the code that states the conclusion/conclusions drawn validly (taking the premises singularly or jointly).

Premises :   (a) All bats are mammals.

(b) No birds are bats.

Conclusions : (i) No birds are mammals.

(ii) Some birds are not mammals.

(iii) No bats are birds.

(iv) All mammals are bats.

Code :

(1) (i) only   (2) (i) and (ii) only

(3) (iii) only   (4) (iii) and (iv) only

30. Just as melting ice - cubes do not cause a glass of water to overflow, melting sea - ice does not increase oceanic volume.

What type of argument is it ?

(1) Analogical   (2) Hypothetical

(3) Psychological   (4) Statistical

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Answer the questions 31 to 35 based on the data given in the table below.

Table : Number of registered vehicles in India and India's population.

Year	Total vehicles (Lakhs)	Two wheelers (Lakhs)	Cars, Jeeps, Taxis (Lakhs)	Buses (Lakhs)	Goods vehicles (Lakhs)	Others (Lakhs)	Population (India) (Millions)
1961	6.65	0.88	3.1	0.57	1.68	0.42	439.23
1971	18.65	5.76	6.82	0.94	3.43	1.70	548.15
1981	53.91	26.18	11.60	1.62	5.54	8.97	683.32
1991	213.74	142.00	29.54	3.31	13.56	25.33	846.42
2001	549.91	385.56	70.58	6.34	29.48	57.95	1028.73
2011	1417.58	1018.65	191.23	16.04	70.64	121.02	1210.19

31. The maximum decadal growth in population of India is registered in the period :

(1) 1961 - 1971   (2) 1991 - 2001   (3) 2001 - 2011   (4) 1981 - 1991

32. In which year the decadal growth (%) in number of cars surpassed that of the two wheelers ?

(1) 1991   (2) 2001   (3) 1981   (4) 2011

33. What was the average decadal growth in the number of cars during 1961 - 2011 ?

(1) ~ 131%   (2) ~ 68%   (3) ~ 217%   (4) ~ 157%

34. In the year 2001, out of total number of vehicles, the number of passenger vehicles (4 wheelers) accounted for :

(1) ~ 14%   (2) ~ 24%   (3) ~ 31%   (4) ~ 43%

35. What was the per capita ownership of two wheelers in India in the year 2011 ?

(1) ~ 0.084%   (2) ~ 0.0084%   (3) ~ 0.84%   (4) ~ 0.068%

36. What is the name for a webpage address ?

(1) Domain   (2) Directory   (3) Protocol   (4) URL

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37. The data storage hierarchy consists of :

(1) Bytes, bits, fields, records, files and databases

(2) Bits, bytes, fields, records, files and databases

(3) Bits, bytes, records, fields, files and databases

(4) Bits, bytes, fields, files, records and databases

38. Which of the following domains is used for - profit businesses ?

(1) .org   (2) .net   (3) .edu   (4) .com

39. What is the full form of USB as used in computer related activities ?

(1) Ultra Security Block   (2) Universal Security Block

(3) Universal Serial Bus   (4) United Serial Bus

40. Which of the following represents billion characters ?

(1) Terabytes   (2) Megabytes

(3) Kilobytes   (4) Gigabytes

41. Which of the following pollutants is the major cause of respiratory diseases ?

(1) Suspended fine particles   (2) Nitrogen oxides

(3) Carbon monoxide   (4) Volatile organic compounds

42. **Assertion (A)** : In urban areas, smog episodes occur frequently in winters.

Reason (R) : In winters, a lot of biomass is burnt by people for heating purposes or to keep themselves warm.

Choose the correct answer from the code given below :

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

(2) Both **(A)** and **(R)** are true but **(R)** is not the correct explanation of **(A)**

(3) **(A)** is true and **(R)** is false

(4) Both **(A)** and **(R)** are false

A-000   18

43. Occurrence of natural hazards is affected by :

(a) Land use changes   (b) Drainage and construction

(c) Ozone depletion   (d) Climate change

Choose the correct answer from the code given below :

(1) (a), (c) and (d)   (2) (a), (b) and (c)

(3) (a), (b) and (d)   (4) (b), (c) and (d)

44. Which of the following pollutant gases is **not** produced both naturally and as a result of industrial activity ?

(1) Chlorofluoro carbons   (2) Nitrous oxide

(3) Methane   (4) Carbon dioxide

45. Among the following fuels of energy, which is the most environment friendly ?

(1) Ethanol   (2) Biogas   (3) CNG   (4) Hydrogen

46. Which of the following are the goals of higher education in India ?

(a) Access

(b) Equity

(c) Quality and Excellence

(d) Relevance

(e) Value based education

(f) Compulsory and free education

Select the correct answer from the code given below :

(1) (a), (b) and (e) only   (2) (a), (b), (e) and (f)

(3) (a), (b), (c), (d) and (e)   (4) (a), (b), (c), (d), (e) and (f)

47. Which of the following has been ranked the best college in the country (2017) as per the National Institutional Ranking Framework (NIRF) ?

(1) Miranda House, Delhi   (2) St. Stephen's College, Delhi

(3) Fergusson College, Pune   (4) Maharaja's College, Mysore

48. Which of the following universities has received the Visitor's Award for the best Central University in India in Feb. 2017 ?

    (1) Jawaharlal Nehru University (2) Banaras Hindu University

    (3) Tezpur University (4) University of Hyderabad

49. Who among the following can be removed by the President without Parliament's resolution ?

    (1) Judge of a High Court (2) Governor of a State

    (3) Chief Election Commissioner (4) Comptroller and Auditor - General

50. Which of the following come(s) within the ambit of the term 'corruption' ?

    (a) Misuse of official position

    (b) Deviation from rules, laws and norms

    (c) Non-action when action is required

    (d) Harm to public good

    Select the **correct** answer from the code given below :

    (1) (a) only (2) (a) and (b) only

    (3) (a), (b) and (d) (4) (a), (b), (c) and (d)

- o 0 o -

SUBJECT CODE & NAME:-

| QNO ANS | QNO   ANS | QNO   ANS | QNO   ANS |

| 1   2 | 26   3 | 51 | 76 |

| 2   1 | 27   4 | 52 | 77 |

| 3   3 | 28   4 | 53 | 78 |

| 4   4 | 29   3 | 54 | 79 |

| 5   3 | 30   1 | 55 | 80 |

| 6   3 | 31   1 | 56 | 81 |

| 7   3 | 32   4 | 57 | 82 |

| 8   3 | 33   1 | 58 | 83 |

| 9   4 | 34   1 | 59 | 84 |

| 10   4 | 35   9 | 60 | 85 |

| 11   1 | 36   4 | 61 | 86 |

| 12   1 | 37   2 | 62 | 87 |

| 13   2 | 38   4 | 63 | 88 |

| 14   3 | 39   3 | 64 | 89 |

| 15   3 | 40   4 | 65 | 90 |

| 16   3 | 41   1 | 66 | 91 |

| 17   1 | 42   2 | 67 | 92 |

| 18   2 | 43   3 | 68 | 93 |

| 19   4 | 44   1 | 69 | 94 |

| 20   1 | 45   4 | 70 | 95 |

| 21   1 | 46   3 | 71 | 96 |

| 22   2 | 47   1 | 72 | 97 |

| 23   3 | 48   1 | 73 | 98 |

| 24   3 | 49   2 | 74 | 99 |

| 25   1 | 50   4 | 75 | 100 |

9=ALL,A=12,B=13,C=14,D=123,E=124,F=134,G=1234,H=23,I=24,J=234,K=34