

General English

Q.1 In the following question, out of the four alternatives, select the alternative which best expresses the meaning of the Idiom/Phrase.

To cudgel one's brains

- A. To think hard
- B. To kill by shooting in the head
- C. To manipulate
- D. To oppose someone

Q.2 In the following question, out of the four alternatives, select the word opposite in meaning to the given word.
Macabre

- A. Picturesque
- B. Appalling
- C. Horrendous
- D. Repulsive

Q.3 In the following question, out of the four alternatives, select the word similar in meaning to the given word.
Dodge

- | | |
|-----------|------------|
| A. Soften | B. Order |
| C. Avoid | D. Chaotic |

Ques (4-8):

Read the passage carefully and choose the best answer to each question out of the four alternatives.

A reason why people at school read books is to please their teacher. The teacher has said that his, that, or the other is a good book and that it is a sign of good taste to enjoy it. So a number of boys and girls, anxious to please their teacher get the book and read it. Two or three of them may genuinely like it for its own sake, and be grateful to the teacher for putting it in their way. But many will not honestly like it, or will persuade themselves that they like it. And that does a great deal of harm. The people who cannot like that book run the risk of two things happening to them; either they are put off the idea of the book. Let us suppose the book was David Copperfield – either they put off the idea of classical novels or they take a dislike to Dickens, and decide firmly never to waste their time on anything of the sort again; or they get a guilty conscience about the whole thing, they feel that they do not like what they ought to like and therefore there is something wrong with them. They are quite mistaken, of course. There is nothing wrong with them. The mistake has all been on the teacher's side. What has happened is that they have been shoved up against a book before they were ready for it. It is like giving a young child food only suitable for an adult. Result: indigestion, violent stomach-ache, and a rooted dislike of that article of food evermore.

Q.4 "The mistake has been on the teacher's side: Here the 'mistake refers to

- A. making the children to please the teacher
- B. asking the children to read books which teachers do not like
- C. discouraging children from reading more books
- D. recommending them the books intended for adults

Q.5 Indigestion and violent stomachache will be the result if the child

- A. reads books not suitable for his age
- B. does not read any book
- C. is forced to eat food meant for adults
- D. is not taken to doctor regularly

Q.6 According to the author, many boys and girls read books to

- A. win the favour of their teachers
- B. spend money in a useful way
- C. express their gratitude to their teachers
- D. show others that they are lovers of books

Q.7 The writer says that teachers should

- A. prevent children from reading any book
- B. compel children to read moral stories
- C. stop compelling children to read books recommended by them
- D. carefully supervise what children read

Q.8 The passage is about what

- A. we should do to make children read
- B. we should not do when we ask children to read
- C. teachers should teach in the classroom
- D. treatment is to be given for indigestion

Q.9 In the following question, four words are given out of which one word is correctly spelt. Select the correctly spelt word.

- | | |
|--------------|-----------------|
| A. Business | B. Dissappear |
| C. Pleashure | D. Indigesition |

Q.10 In the following question, some part of the sentence may have errors. Find out which part of the sentence has an error and select the appropriate option. If the sentence is free from error, select 'No error'.

The rivers of America (A)/ are large than (B)/ those of Europe. (C)/ No error

- | | |
|------|-------------|
| A. A | B. B |
| C. C | D. No error |

General Hindi

Q.11 निर्देश: निम्नलिखित दिए गए शब्दों में से मुहावरे का सही अर्थ दिए गए विकल्पों में से चुनिए-

एडी चोटी का जोर लगाना

- A. परेशान होना
- B. अत्यधिक दुःखी होना



- C. सुनहरा अवसर मिलना
D. बहुत कोशिश करना

Q.12 निर्देश: नीचे दिए वाक्यों में रिक्त स्थान के लिए सबसे उपयुक्त शब्द को चुनिए।

मनुष्य को चाहिए की वह _____ व्यवहार से किसी को अपमानित न करे।

- A. अपने
B. निज
C. किसी
D. अपनी

Q.13 निर्देश: नीचे दिए गए वाक्य में रिक्त स्थान पर आएगा आज ----- संकट के बादल छाए हैं

- A. देश पर
B. देश को
C. देश के
D. देश से

Q.14 निर्देश: वर्तनी के अनुसार शुद्ध शब्द का चयन कीजिए:

- A. कौतूहल
B. कुतूहल
C. कोतूहल
D. कौतुहल

Q.15 निर्देश: निम्नलिखित दिए गए शब्दों में से विलोम शब्दों का चयन करें।
उर्वर

- A. ऊसर
B. उपजाऊ
C. मर्मज्ञ
D. कर्मण्य

Q.16 निर्देश: निम्नलिखित दिए गए शब्दों में से विलोम शब्दों का चयन करें।
नूतन

- A. अर्वाचीन
B. नवीन
C. नया
D. पुरातन

Q.17 निर्देश: नीचे लिखे वाक्य के लिए एक शब्द बताइए
गोपनीय रूप से परामर्श करना।

- A. मंत्रणा
B. परामर्श
C. सलाह
D. अभिनंदन

Q.18 निर्देश: नीचे लिखे वाक्य के लिए एक शब्द बताइए
रहस्य की खोज करना।

- A. अनुसंधान
B. नवीनीकरण
C. रहस्यमयी
D. आविष्कार

Q.19 निर्देश: निम्नलिखित दिए गए शब्दों में से पर्यायवाची शब्दों का चयन करें।
कामना

- A. अंतरात्मा
B. अभिलाषा
C. प्रसन्नता
D. मनगढ़ंत

Q.20 निर्देश: निम्नलिखित दिए गए शब्दों में से पर्यायवाची शब्दों का चयन करें।
व्याल

- A. अचानक
B. जलद
C. समीर
D. सर्प

General knowledge and Current Affairs

Q.21 Who was considered to be the first non-Kshatriya dynasty?

- A. Kalasoka
B. Udayain
C. Mahapadma Nanda
D. Ajashatru

Q.22 Which of the following cities has been ranked first in the Ease of Living Index 2018?

- A. New Delhi
B. Chandigarh
C. Pune
D. Navi Mumbai

Q.23 Where is the headquarter of Food and Agriculture Organisation?

- A. Rome
B. Egypt
C. Thailand
D. Chile

Q.24 Which of the following is the largest river basin of Indian peninsular region?

- A. Mahanadi
B. Krishna
C. Godavari
D. Koyna

Q.25 Which of the following has been appointed as the new governor of Meghalaya?

- A. Satya Pal Malik
B. Lalji Tandon
C. Kaptan Singh Solanki
D. Tathagata Roy

Q.26 Who among the following is the only Indian boxer to win gold at Asian Games 2018?

- A. Vikas Krishnan
B. Gaurav Solanki
C. Amit Panghal
D. Shiva Thapa

Q.27 What is the theme of the International Youth Day (IYD) 2018?

- A. Safe Spaces for Youth
B. Youth Building Peace
C. Youth and Mental Health
D. Youth and Civic Engagement.

Q.28 Which of the following acids is present in grapes?

- A. Oxalic acid
B. Carbonic acid
C. Stearic acid
D. None of these



Q.29 Which month is announced as the "month of nutrition" with the aim of creating nutritional awareness for nutrition in urban areas as well as in rural areas by Rajasthan State Government?

- A. July
B. August
C. September
D. October

Q.30 Which of the following pairs is not correctly matched?

Country	Capital
A. Guinea Bissau	Bissau
B. Taiwan	Taipei
C. Nicaragua	Managua
D. Maldives	Malabo

- A. A
B. B
C. C
D. D

Reasoning Ability

Q.31 If A can work in 10 days and B in 20days. What is the efficiency if A and B works together?

- A. 1
B. 10
C. 5
D. 3

Q.32 A series is given with one term missing. Select the correct alternative from the given ones that will complete the series.

$\frac{3}{9}, \frac{8}{20}, \frac{18}{42}, \frac{33}{86}, ?$

- A. $\frac{66}{175}$
B. $\frac{75}{166}$
C. $\frac{53}{174}$
D. $\frac{89}{154}$

Q.33 M+N' means M is the brother of N.

'M-N' means M is the mother of N.

'M÷N' means M is the sister of N.

'M×N' means N is the father of M.

How is E related to R in the relation E+Q-R+F?

- A. Father
B. Son
C. Aunt
D. Uncle

Q.34 In the following question, by using which mathematical operators will the expression become correct?

$32 ? 2 ? 8 ? 14 ? 4$

- A. $\times, +, =$ and $\div$
B. $+, +, =$ and $\times$
C. $\times, -, =$ and $\times$
D. $+, \times, =$ and $\times$

Q.35 If alphabets are serially numbered, one of the answers given below has a meaningful word hidden in it. Identify the answer.

- A. 5, 18, 5, 8, 1, 3, 5
B. 20, 5, 1, 3, 8, 5, 18
C. 5, 1, 3, 5, 20, 8, 18
D. 18, 5, 3, 8, 1, 5, 20

Q.36 In a certain code language, SUBSTITUTION is written as ITSBUSNOITUT. Then how is DISTRIBUTION written in that code?

- A. IRTSIDNOITUB
B. IRTDISNOITUB
C. IRTSIDNOIBUT
D. IRIDISNOIUTB

Q.37 A series is given with one term missing. Choose the correct alternative from the given ones that will complete the series.

$?, 19, 37, 61, 91, 127, 169$

- A. 23
B. 17
C. 18
D. 7

Q.38 Select the related word/letters/number from the given alternatives.

CE : GK :: MQ : ?

- A. PQ
B. QW
C. SV
D. TP

Q.39 Introducing a boy Ankur says, "He is the son of the only sister of my grandfather's daughter-in-law". How is the boy related to Ankur ?

- A. Nephew
B. Son-in-law
C. Son
D. Cousin

Q.40 In the following question, select the odd number from the given alternatives.

- A. 5934
B. 4420
C. 3716
D. 138

Computer Literacy

Q.41 Diagrammatic or symbolic representation of an algorithm is called _____.

- A. Data-Flow diagram
B. E-R diagram
C. Flowchart
D. Software

Q.42 What does the 'L' symbol indicates to the left of the ruler?

- A. The 'L' Symbol denotes a center tab
B. The 'L' Symbol denotes start point of text
C. The 'L' Symbol denotes a flush left-tab
D. The 'L' symbol denotes a flush right tab

Q.43 Which one of the following is a key function of a firewall?

- A. Monitoring
B. Deleting
C. Copying
D. Moving

Q.44 Coded entries which are used to gain access to a computer system are called _____.

- A. Enter codes
B. Passwords
C. Security commands
D. Code words

Q.45 Which of the following memory has stored data in large number?

- A. RAM
B. ROM
C. Cache memory
D. Hard Disk

Q.46 In Excel, when the contents and attributes of a cell or range of cells have to be erased using the menu, the user must



- A. Select the cells, choose Edit and select Clear, then All
- B. Select the cells, and click delete on the keyboard
- C. Select the cells, choose Tools, and select Clear, then Formats
- D. Select the cells, choose Tools, and select Formula Audit, then Delete

Q.47 Which of the following computer language is used for artificial intelligence?

- A. FORTRAN
- B. PROLOG
- C. C
- D. COBOL

Q.48 What kind of Protocol is used to provide Internet access from mobile?

- A. TCP/IP
- B. ISD
- C. WAP
- D. HTTP

Q.49 An example of a telecommunications device is a _____.

- A. Keyboard
- B. Mouse
- C. Modem
- D. Printer

Q.50 Why is it unethical to share copyrighted files with your friends?

- A. It is not unethical because it is legal.
- B. It is unethical because the files are being given for free.
- C. Sharing copyrighted files without permission breaks copyright laws.
- D. It is not unethical because the files are being given for free.

Pedagogy

Q.51 Trouble in interacting, narrow interests, repetitive behaviours etc. are the symptoms of which type of disorder?

- A. Attention Deficit Hyperactivity Disorder
- B. Autism
- C. Dyslexia
- D. None of the above

Q.52 Which among the following is considered as teacher's guide for running a particular lesson?

- A. Unit plan
- B. Lesson plan
- C. Simulated plan
- D. None of the above

Q.53 Which of the following is most important for keeping the good mental health of students?

- A. Provision for extra-curricular activities
- B. School's environment and the positive role of the teacher
- C. Freedom of expression
- D. Other hobbies and area of interest

Q.54 During which of the following year, education was included in the concurrent list?

- A. 1976
- B. 1975
- C. 2000
- D. 1988

Q.55 Which among the following is a instructional material used in modern language teaching?

- A. Film strip and slide projector

- B. Episcopes
- C. Language laboratory
- D. None of the above

Q.56 Directions: Answer the following questions by selecting the **most appropriate** option.

The assessment of students can be used by teachers in teaching to develop insight into

- A. not promoting those students who do not meet school standards.
- B. changing the teaching approach according to the learner's need.
- C. creating groups of 'bright' and 'weak' students in the class.
- D. identifying the students who need to be promoted to the higher class.

Q.57 Right to Education Act, 2009 states that a teacher shall perform which of the following duties?

- A. Maintain regularity and punctuality in attending school
- B. Conduct & complete the curriculum
- C. Complete entire curriculum in a specified time
- D. All of these.

Q.58 The teaching method, in which two or more teachers make a plan of the subjects co-operatively, carry it out and always evaluate its effect on the students periodically, is called

- A. audio-visual teaching .
- B. team teaching
- C. visual teaching
- D. individual teaching

Q.59 The concentration and creativity is related to which type of development?

- A. Social development
- B. Moral development
- C. Intellectual development
- D. Emotional development

Q.60 Government of India in 2005 decided to make all the schools disabled friendly-

- A. By the year 2023
- B. By the year 2020
- C. By the year 2019
- D. By the year 2024

Q.61 Direction: Answer the following questions by selecting the most appropriate option.

Education is helpful to children in their

- A. Physical development
- B. Mental development only
- C. All-round development
- D. Character development only

Q.62 What can be understood from the assessment of the result of a student?

- A. If the education system is successful or not.
- B. If the student is learning properly.
- C. If the teachers are efficient enough.
- D. If the school is a proper place for students.

Q.63 A provision for education for the children with disabilities can be done through



- A. Inclusive education
B. Mainstreaming
C. Integration
D. None of these

Q.64 Which among them are the before listening plan for the listening tasks?

- (i) Set a purpose or decide in advance what to listen for
(ii) Decide what is and is not important to understand
(iii) Determine whether to enter the text from the top to down or from the bottom up.
(iv) Decide if the strategies used were appropriate for the purpose and for the task.

- A. Only I
B. i, ii, iv
C. i, iii only
D. All of the above

Q.65 Child socialization does not refer to

- A. mould basic values
B. a process that occurs at once
C. highlight the formal aspects
D. take ideal expectations seriously

Q.66 Which of the following plays an important role in mental growth?

- A. Learning
B. Maturation
C. Both Learning and Maturation
D. Social Norms

Q.67 An educator works on the principles of child psychology. The statement means _____.

- A. Psychology
B. Child Growth
C. Child development
D. None of the above

Q.68 NCF 2005 lays emphasis on _____.

- A. learning by doing
B. rote method
C. solving the problem
D. All of these

Q.69 Which among the following is a principle of home work in mathematics?

- A. Principle of interest
B. Principle of clearance
C. Principle of sequence
D. All of the above

Q.70 What does the role of a teacher become when a class starts?

- A. An instructor.
B. A guide.
C. A manager.
D. An observer.

Subject Concerned

Q.71 'बिल्ली छत से कूद पड़ी' वाक्य में कौन-सा कारक है?

- A. अधिकरण कारक
B. कर्म कारक
C. सम्प्रदान कारक
D. अपादान कारक

Q.72 Which among the following is a way of cooking food by exposing it to dry radiant heat over open fire?

- A. Baking
B. Frying
C. Roasting
D. Boiling

Q.73 The greenhouse effect which is causing an increase in the atmospheric temperature is mainly due to

- A. oxygen
B. nitrogen
C. carbon dioxide
D. sulphur

Q.74 Which among the following is not a non-conventional source of energy?

- A. Tidal energy
B. Hydel energy
C. Thermal energy
D. Solar energy

Q.75 If $\triangle ABC$ is an equilateral triangle of side 16 cm, then the length of altitude is

- A. $2\sqrt{3}$ cm
B. $4\sqrt{3}$ cm
C. $8\sqrt{3}$ cm
D. $5\sqrt{3}$ cm

Q.76 In which of the following statement(s) is not true about the Democracy?

- I. In democratic system people of the country elect their representative
II. In democracy each people have the right to follow their religion
III. Democracies are more important and prosperous than the people
IV. Democratic country is more accountable for its citizens

- A. Only I and II
B. Only III
C. Only III and IV
D. Only IV

Q.77 Past participle of fly is

- A. Flew
B. Flying
C. Flown
D. Fly

Q.78 If in a motion, the axis of the rotation does not pass through the object, then the motion is called _____

- A. Spin motion
B. Oscillatory motion
C. Translatory motion
D. Orbital motion

Q.79 Human Development Index was formulated by

- A. World Bank
B. International Monetary Fund
C. UNTAD
D. UNDP

Q.80 Which among the following is the longest highway of India?

- A. NH 47A
B. NH 44
C. NH 7
D. NH24

Q.81 find the mode of 12, 15, 17, 21, 24, 21.

- A. 21
B. 7
C. 8
D. 24

Q.82 Iron, Manganese, copper, lead etc. are which type of minerals?

- A. Metallic minerals

- B. Non-metallic minerals
C. Energy minerals
D. None of the above

Q.83 the face value of 9 in 876595 is

- A. 90 B. 9
C. 95 D. 19

Q.84 निर्देश: निम्नलिखित शब्द का प्रत्यय बताइए:

सजावट

- A. आव B. आवट C. आहट D. टा

Q.85 उदाहरण निरीक्षण सामान्यीकरण तथा परीक्षण किस विधि के पद हैं?

- A. आगमन विधि B. निगमन विधि
C. समवाय विधि D. खेल विधि

Q.86 The moment of inertia of a body does not depend upon its

- A. axis of rotation
B. angular velocity
C. form of mass
D. distribution of mass

Q.87 किस शब्द में कोई भी उपसर्ग नहीं है

- A. असुरक्षित
B. अप्रत्याशित
C. अमोल
D. स्वार्थ

Q.88 Deepika obtained 285 marks out of a maximum of 500 marks. Percentage marks of Deepika is

- A. 27% B. 57%
C. 75% D. 25%

Q.89 A carpenter can build a cupboard in 60 hours. After 15 hours he takes a break. What fraction of the cupboard is yet to be built?

- A. 0.5 B. 0.9
C. 0.75 D. 0.25

Q.90 If the difference between the circumference and diameter of a circle is 93 cm, then the radius of the circle must be :

- A. 43.4 cm B. 21 cm
C. 21.7 cm D. 31 cm

Q.91 At village level basic health and nutrition services are provided by

- A. ASHA B. ANM
C. AWW D. All of the above

Q.92 Cobalt-60 is used in the treatment of which disease?

- A. AIDS B. SARS
C. Cancer D. Anthrax

Q.93 Which among the following layer of atmosphere consists of ozone layer?

- A. Troposphere B. Stratosphere
C. Exosphere D. Thermosphere

Q.94 The population of a village is 40000 out of which 30000 are male. Find the ratio between the number of female and number of male.

- A. 3:1 B. 1:3
C. 3:4 D. 4:3

Q.95 Population control and family planning is listed in which Schedule in the Indian Constitution?

- A. The State List B. The Union List
C. The Concurrent List D. The Residual Subjects

Q.96 what is difference between place value and face value of 3 in 1863.

- A. 0 B. 1
C. 10 D. 9

Q.97 find the mode of 4, 8, 9, 7, 2, 9, 5, 6.

- A. 9 B. 7
C. 8 D. 2

Q.98 How many oceans touch the Indian mainland?

- A. 0 B. 1
C. 2 D. 3

Q.99 The source of oxygen liberated as by product during photosynthesis is

- A. carbon dioxide B. water
C. glucose D. chlorophyll

Q.100 The radius of the base of a right circular cone is 6cm and its slant height is 10cm. Then its volume is? (use $\pi = 22/7$)

- A. 301.71 cm³
B. 310.71 cm³
C. 311.17 cm³
D. 310.17 cm³

Q.101 Which of the following substances is not miscible with water?

- A. Milk B. Honey
C. Alcohol D. Oil

Q.102 What kind of a noun is 'greenhouse'?

- A. Concrete Noun B. Abstract Noun
C. Compound Noun D. Material Noun

Q.103 "हीरा" शब्द किस लिंग का है।

- A. स्त्रीलिंग B. पुल्लिंग
C. A और B दोनों D. इनमें से कोई नहीं

Q.104 $\frac{391}{667}$ The minimum value of is:

- A. $\frac{17}{27}$
B. $\frac{17}{29}$
C. $\frac{16}{17}$
D. $\frac{17}{32}$

Q.105 The Digha Nikaya, a Buddhist text, contains the Buddha's:

- A. Hymns B. Rituals
C. Stories D. Speeches



Q.106 Which of following type of state of matter contains super excited and super energetic particles?

- A. Bose Einstein state
- B. Liquid state
- C. Solid state
- D. Plasma state

Q.107 Superlative form of slowly is

- A. Slower
- B. Slowest
- C. Most slowly
- D. More slowly

Q.108 Which among the following is a natural disaster?

- A. Fires
- B. Oil spills
- C. Nuclear explosions
- D. Drought

Q.109 The tense of the verb in the given sentence is What were you doing when he arrived?

- A. Past continuous
- B. Present continuous
- C. Simple past
- D. None of these

Q.110 At which place India ranked in terms of forest cover in the world?

- A. 1st
- B. 5th
- C. 7th
- D. 10th

Q.111 Find the greatest possible length which can be used to measure exactly the length 700cm, 385cm and 1295cm.

- A. 20cm
- B. 35cm
- C. 45cm
- D. 55cm

Q.112 मेघ आए बड़े वन ठन के सँवर के 'पाहुन ज्यों आए हों गाँव में शहर के' उपयुक्त रेखांकित पंक्तियों में अलंकार है।

- A. मानवीकरण अलंकार
- B. रूपक अलंकार
- C. उत्प्रेक्षा अलंकार
- D. उपमा अलंकार

Q.113 Physical quantities, which have _____ only and no _____ are called scalar quantities.

- A. direction, magnitude
- B. magnitude, direction
- C. speed, velocity
- D. velocity, speed

Q.114 The SI unit of acceleration is _____.

- A. meters per seconds square
- B. meters per second
- C. seconds per meter
- D. seconds per meter squared

Q.115 What is the value of $(1/2)\%$ in decimals?

- A. 0.0005
- B. 0.005
- C. 0.06
- D. 0.5

Q.116 Sumit can do a work in 20 days while Rahul can do the same work in 30 days. If they finish the work in 10 days with the help of Mandeep and they get 6000 Rs for the whole work. Find the amount of share of Mandeep.

- A. 2000 RS
- C. 1000 RS

- B. 3000 RS
- D. 1500 RS

Q.117 $LMNO$ is a parallelogram. Diagonals LN and MO intersect each other at the point A . If $\angle OLN = 20^\circ$ and $\angle LAM = 40^\circ$, then find $\angle OMN$.

- A. 20°
- B. 40°
- C. 50°
- D. 60°

Q.118 Which among the following are the disease which can be transferred from one human or animal to another?

- A. Communicable disease
- B. Non-communicable disease
- C. Congenital disease
- D. None of the above

Q.119 Which among the following soil is also known as regur soil?

- A. Alluvial soil
- B. Black soil
- C. Laterite soil
- D. Red soil

Q.120 Water covers how much percent of earth surface?

- A. $1/3^{\text{rd}}$
- B. $1/4^{\text{th}}$
- C. $1/6^{\text{th}}$
- D. $3/4^{\text{th}}$

Q.121 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.

The sage said, "God helps those who help themselves"

- A. The sage said that God helps those who help themselves.
- B. The sage said that God helped those who help themselves.
- C. The sage said that God helps those who helped themselves.
- D. The sage said that God helped those who helped themselves.

Q.122 Who proposed the Relational frame theory of Language Acquisition?

- A. Lev Vygotsky
- B. Skinner
- C. Steven C Hayes
- D. Noam Chomsky

Q.123 निर्देश: निम्नलिखित में से तत्सम शब्द है।

- A. वधू
- B. घी
- C. खजूर
- D. पलंग

Q.124 'हे राम! तुम कहाँ हो' वाक्य में कौन-सा कारक है?

- A. सम्बन्ध
- B. अधिकरण
- C. सम्बोधन
- D. अपादान

Q.125 Which of the following reminds us our rich tradition of respect for diversity?

- A. Songs and symbols that emerged during freedom struggle
- B. Dresses and Food habits
- C. Geographical and cultural factors
- D. None of the above



Q.126 If the velocity of a body is doubled then what will happen to its kinetic energy

- A. gets doubled B. becomes half
C. does not change D. becomes 4 times

Q.127 The circumference of a circular playground is 220 m. There is 7 m wide path around the ground. The area of the path is ?

- A. 1694 m² B. 1958 m²
C. 1600m² D. 1700m²

Q.128 Identify the top tier of the Panchayati Raj system:

- A. Panchayat Samiti or Village level Panchayat
B. Zila Parishad or Janpad Panchayat or Block Level Panchayat
C. Gram Panchayat or Village Level Panchayat
D. None of the above

Q.129 Which of the following is true regarding the activities and results of women's movement?

- A. A law against female infanticide
B. In 1980, they spoke out about the success of justice to dowry death cases
C. A law in 2006 against domestic violence
D. Guideline in 1996 against sexual harassment of women in work place

Q.130 Thermosets can be used for making -

- (I) Auto parts
(II) Aircraft parts
(III) Polyethylene
(IV) Tires

- A. I, II Only B. I, II, III
C. I, II, IV D. All of the above

Q.131 A man sells a car to his friend 10% loss. If the friend sells it for Rs. 54,000 and gains 20%, the original cost price of the car was

- A. Rs. 50,000 B. Rs. 40,000
C. Rs. 45,000 D. Rs. 30,000

Q.132 The caste system gave rise to a number of social evils and intolerances and made people to take the extreme step of changing their religion in order to escape from its clutches. Which practice among the following lead to such religious conversations?

- A. Endogamy B. Polygamy
C. Untouchability D. Slavery

Q.133 Form an adjective from the given word.
Noise

- A. Noisiness B. Noisily
C. Noisy D. Noisome

Q.134 Push or pull on an object is known as -

- A. Gravity
B. Force
C. Friction
D. None of the above

Q.135 Boron, silicon, germanium, arsenic, antimony, and tellurium etc. are the examples of -

- A. Metals
B. Non-metals
C. Metalloids
D. None of the above

Q.136 Which among the following crop season exists from March to June?

- A. Rabi crop
B. Kharif crop
C. Zaid crop
D. None of the above

Q.137 Give the plural of the given word.

Belief

- A. Believes B. Beliefves
C. Beliefs D. Believe

Q.138

In the following question, a sentence has been given in Active/Passive Voice. Out of the four alternatives suggested, select the one which best expresses the same sentence in Passive/Active Voice.

Do you understand what I mean?

- A. Was what I mean understood by you?
B. Is it understood by you what I mean?
C. Is what I mean understood by you?
D. What mean is not understood by you?

Q.139 What kind of environment the teacher should create in order to improve student's motivation?

- A. Give students a sense of control
B. Create a threatening environment
C. Use lecture
D. Ask more questions

Q.140 'मुझसे उठा नहीं गया' वाक्य में वाच्य है।

- A. कृत्रवाच्य
B. कर्मवाच्य
C. भाववाच्य
D. उपर्युक्त में से कोई नहीं

Q.141 निम्न में से कौन सा शब्द एकवचन का शब्द है।

- A. कौए B. कौआ
C. लड़के D. केले

Q.142 Set the planets of the Solar System in terms of their size in descending order

- A. Earth, Mars, Uranus, Neptune, Jupiter, Saturn, Venus, Mercury
B. Jupiter, Saturn, Uranus, Neptune, Earth, Venus, Mars, Mercury
C. Mercury, Neptune, Jupiter, Saturn, Earth, Mars, Venus, Uranus
D. Uranus, Venus, Saturn, Neptune, Earth, Mars, Jupiter, Mercury

Q.143 The resistance of motion when one object rubs against another is known as -



- A. Gravity
- B. Friction
- C. Force
- D. None of the above

Q.144 Bats have a natural tendency to detect the obstacles in their path by receiving

- A. Electromagnetic waves
- B. Infrasonic waves
- C. Ultrasonic waves
- D. None of the above

Q.145 Which instrument is used to measure relative density of liquids?

- | | |
|-----------------|----------------|
| A. Ellipsometer | B. Dynamometer |
| C. Hydrometer | D. Hygrometer |

Q.146 What is the Target Growth Rate of 12th five year plan?

- | | |
|--------|-------|
| A. 9% | B. 8% |
| C. 10% | D. 7% |

Q.147 The radioactive isotope of hydrogen is called

- | | |
|--------------|------------|
| A. deuterium | B. protium |
| C. radium | D. tritium |

Q.148 Directions: Answer the following questions by selecting the **most appropriate** option.

A certain sum of money is distributed to A and B in the ration 2:

5. If A received Rs. 100 then the money received by B is

- | | |
|------------|------------|
| A. Rs. 250 | B. Rs. 300 |
| C. Rs. 200 | D. Rs. 150 |

Q.149 Meenal purchased a car for Rs. 250000 and sold it for Rs. 348000. What is the percent profit the made on the car?

- | | |
|---------|---------|
| A. 40 | B. 39.2 |
| C. 38.4 | D. 38 |

Q.150 Which of the fraction is smallest

$\frac{2}{3}$, $\frac{1}{2}$, $\frac{3}{5}$, $\frac{1}{3}$

- | | |
|------------------|------------------|
| A. $\frac{2}{3}$ | B. $\frac{1}{2}$ |
| C. $\frac{3}{5}$ | D. $\frac{1}{3}$ |

// Smart Answer Sheet //

Correct

Indicates percentage of students who answered questions correctly.

Skipped

Indicates percentage of students who skipped questions.

Q.	Ans.	Correct	Skipped
1	A	36.84 %	35.81 %
2	A	56.14 %	35.91 %
3	C	44.89 %	38.08 %
4	D	18.99 %	37.05 %
5	C	44.38 %	37.77 %
6	C	47.27 %	34.98 %
7	C	50.26 %	37.25 %
8	B	29.82 %	36.85 %
9	A	55.11 %	37.56 %
10	B	49.95 %	37.46 %
11	D	7.33 %	37.87 %
12	A	51.5 %	36.53 %
13	A	57.69 %	35.6 %
14	A	8.77 %	36.22 %
15	A	18.16 %	39.63 %
16	D	27.66 %	35.09 %

Q.	Ans.	Correct	Skipped
17	A	53.97 %	37.46 %
18	A	61.61 %	34.37 %
19	B	19.92 %	36.63 %
20	D	27.04 %	37.98 %
21	C	19.81 %	28.59 %
22	C	27.04 %	29.93 %
23	A	22.19 %	29.0 %
24	C	27.45 %	30.14 %
25	D	18.78 %	28.49 %
26	C	8.57 %	24.97 %
27	A	31.58 %	28.79 %
28	D	9.8 %	27.56 %
29	C	37.77 %	27.25 %
30	D	17.34 %	26.73 %
31	D	14.24 %	42.93 %
32	C	48.81 %	42.01 %

Q.	Ans.	Correct	Skipped
33	D	28.59 %	46.44 %
34	C	36.22 %	44.89 %
35	B	14.86 %	46.23 %
36	A	27.14 %	45.1 %
37	D	36.64 %	40.76 %
38	B	35.81 %	48.4 %
39	D	50.57 %	44.79 %
40	D	28.69 %	43.76 %
41	C	18.78 %	41.18 %
42	B	19.71 %	50.88 %
43	A	6.6 %	45.83 %
44	B	34.06 %	46.64 %
45	D	40.25 %	47.37 %
46	A	23.22 %	49.12 %
47	B	30.55 %	40.76 %
48	C	27.86 %	44.9 %

Q.	Ans.	Correct	Skipped
49	C	16.82 %	43.45 %
50	C	36.12 %	42.72 %
51	B	27.04 %	50.57 %
52	B	19.61 %	46.54 %
53	B	41.69 %	44.79 %
54	A	27.97 %	44.06 %
55	C	43.34 %	46.44 %
56	B	25.08 %	43.65 %
57	D	38.7 %	41.69 %
58	B	37.36 %	40.45 %
59	C	24.25 %	43.86 %
60	B	8.46 %	41.18 %
61	C	36.22 %	42.31 %
62	A	15.69 %	47.16 %
63	A	52.43 %	42.0 %
64	C	29.62 %	45.82 %

Q.	Ans.	Correct	Skipped
65	B	18.68 %	44.58 %
66	C	19.71 %	40.66 %
67	C	43.65 %	45.2 %
68	A	29.62 %	41.38 %
69	D	48.71 %	42.41 %
70	C	17.34 %	44.37 %
71	D	18.78 %	43.97 %
72	C	41.38 %	45.0 %
73	C	39.11 %	40.56 %
74	C	49.54 %	41.69 %
75	C	48.5 %	43.14 %
76	B	53.77 %	38.18 %
77	C	14.86 %	42.42 %
78	D	49.95 %	43.96 %
79	D	12.69 %	41.9 %
80	B	52.53 %	43.14 %



Q.	Ans.	Correct	Skipped
81	A	32.4 %	44.17 %
82	A	36.74 %	41.59 %
83	B	39.01 %	43.24 %
84	B	20.54 %	44.68 %
85	A	41.9 %	39.01 %
86	B	36.53 %	43.24 %
87	D	35.29 %	46.75 %
88	B	26.32 %	43.34 %
89	C	10.42 %	42.31 %
90	C	19.81 %	47.99 %
91	D	39.32 %	42.41 %
92	C	50.46 %	41.59 %
93	B	43.76 %	43.96 %
94	B	28.59 %	42.93 %

Q.	Ans.	Correct	Skipped
95	C	7.22 %	46.34 %
96	A	34.98 %	43.76 %
97	A	13.83 %	44.17 %
98	B	52.01 %	42.52 %
99	B	37.56 %	44.28 %
100	A	22.39 %	45.82 %
101	D	47.99 %	43.86 %
102	C	38.39 %	40.56 %
103	B	25.28 %	50.16 %
104	B	17.54 %	50.16 %
105	D	38.8 %	43.35 %
106	D	13.11 %	44.89 %
107	C	20.54 %	42.21 %
108	D	35.91 %	39.84 %

Q.	Ans.	Correct	Skipped
109	A	13.11 %	42.0 %
110	D	22.6 %	47.27 %
111	B	47.88 %	24.88 %
112	A	66.77 %	23.12 %
113	B	70.18 %	24.66 %
114	A	69.04 %	24.66 %
115	B	34.16 %	25.9 %
116	C	63.26 %	24.25 %
117	A	31.58 %	24.97 %
118	A	71.93 %	24.46 %
119	B	34.26 %	24.46 %
120	D	51.5 %	24.14 %
121	A	21.36 %	39.11 %
122	C	29.82 %	36.95 %

Q.	Ans.	Correct	Skipped
123	A	14.24 %	36.12 %
124	C	49.64 %	37.77 %
125	A	9.49 %	36.12 %
126	D	33.64 %	35.09 %
127	A	55.83 %	34.26 %
128	B	11.35 %	39.63 %
129	C	30.86 %	38.08 %
130	C	26.93 %	37.47 %
131	A	28.28 %	33.64 %
132	C	24.87 %	32.61 %
133	C	32.82 %	33.43 %
134	B	26.83 %	30.76 %
135	C	25.7 %	25.38 %
136	C	17.54 %	33.65 %

Q.	Ans.	Correct	Skipped
137	C	45.92 %	22.5 %
138	C	15.07 %	31.16 %
139	A	40.66 %	27.04 %
140	C	15.69 %	31.58 %
141	B	48.71 %	36.84 %
142	B	36.74 %	39.63 %
143	B	41.59 %	40.04 %
144	C	39.11 %	41.39 %
145	C	32.82 %	34.26 %
146	B	27.97 %	38.08 %
147	D	37.36 %	38.28 %
148	A	50.46 %	32.82 %
149	B	14.55 %	39.84 %
150	D	29.62 %	42.52 %

Performance Analysis

Avg. Score (%)	33.33%
Toppers Score (%)	100.0%
Your Score	



//Hints and Solutions//

1. The idiom "cudgel one's brains" means to try very hard to comprehend, solve, think of, or remember something. Therefore, option A is the correct answer.

2. Macabre means causing horror; gruesome and horrifying; ghastly; horrible.

Picturesque means visually attractive, especially in a quaint or charming way.

Appalling means causing shock or dismay; horrific.

Horrendous means extremely unpleasant, horrifying, or terrible.

Repulsive means arousing intense distaste or disgust.

So, the correct antonym of the given word is "picturesque".

3. Dodge means to avoid something or someone by quick movement.

Avoid means to keep away from or stop oneself from doing something.

Soften means to become soft or softer.

Order means an authoritative command or instruction.

Chaotic means to be in a state of complete confusion and disorder.

Hence, the correct option is (C).

4. As per the context of the passage, the "mistake" has been referred to the teacher's recommending any particular book to his/her students. This book might not be suitable for their minds or it might be for adults. So, the correct answer is option D.

5. In the passage, the author says that a book is like food. If food suitable only for adults is given to a young child, it will cause many problems like indigestion, violent stomach-ache, and a permanent dislike for that food. So, the correct answer is option C.

6. The line of the passage, "a number of boys and girls, anxious to please their teacher get the book and read it" gives us the answer of the question. Option C is the correct answer.

7. In the passage, the author has talked about the disadvantages of compelling children to read books recommended by teachers. There are a lot of negative impacts of this on their mind. So, the correct answer is option C.

8. The whole passage revolves around the disadvantages of making the students read a book advised by their teacher. Few students might like it for its content, few might not like it. Those who don't like it still read it for many reasons. They might read it to please their teacher and many will just persuade themselves that the book is good and there is something wrong with them. So, we can say that the aim of the passage is to educate us about what should not be done when we ask children to read. Option B is correct.

9. Option A has the correctly spelt word. Business is a person's regular occupation, profession, or trade. The correct spellings of the other words along with their meanings are:

Disappear = to go to a place or into a condition where the person or thing cannot be seen

Pleasure = a feeling of happy satisfaction and enjoyment.

Indigestion = pain or discomfort in the stomach associated with difficulty in digesting food.

10. The error is in part (B) of the sentence. In the sentence, rivers of the two countries are being compared, so instead of positive degree, comparative degree should be used in the sentence. So, instead of 'large', 'larger' should come.

11. **मुहावरे का अर्थ** : कोई भी वाक्यांश जो अपने साधारण अर्थ को छोड़कर कोई विशेष अर्थ व्यक्त करता हो तो उसे व्याकरण की भाषा मुहावरा कहते हैं। एडी चोटी का जोर लगाना मुहावरे का अर्थ होता है - बहुत कोशिश करना ठोर दण्ड देना

वाक्य प्रयोग: नन्द ने परीक्षा पास करने के लिए एडी चोटी का जोर लगा दिया।

12. मनुष्य को चाहिए की वह अपने व्यवहार से किसी को अपमानित न करे, अपने शब्द से वाक्य का अर्थ स्पष्ट होता है अतः यह वाक्य के लिए उपयुक्त है।

13. आज देश पर संकट के बादल छाए हैं। देश को, देश के और देश से ये सभी शब्द गलत है। **देश पर** शब्द वाक्य को शुद्ध रूप से परिपूर्ण करता है।

14. उपरोक्त शब्दों में 'कौतूहल' वर्तनी के अनुसार शुद्ध रूप है बाकी सभी शब्द वर्तनी के अनुसार गलत शब्द है। कौतूहल का अर्थ कुतूहल होता है।

15. दिए गए शब्दों में उर्वर का विलोम शब्द ऊसर है उर्वर शब्द का अर्थ उपजाऊ, कर्मण्य का अर्थ कर्म कुशल तथा मर्मज्ञ का अर्थ रहस्य को जाननेवाला।

16. विलोम शब्द का अर्थ : ऐसे शब्द जिनके अर्थ विपरीतया उल्टा हों, उनशब्दों को विलोम शब्द कहते हैं।

दिए गए शब्दों में नूतन का विलोम शब्द पुरातन है नूतन शब्द के पर्यायवाची शब्द निम्न हैं, नव, नवीन, नव्य, आधुनिक, अर्वाचीन, वर्तमानकालीन, नया आदि है।

17. गोपनीय रूप से परामर्श करना को मंत्रणा कहते हैं। दूसरे से ली जानेवाली सलाह को परामर्श कहते हैं तथा अभिनन्दन का अर्थ श्रद्धापूर्वक किया जानेवाला वंदना होती है।

18. **एकार्थी** शब्द का अर्थ: जिन शब्दों का प्रयोग अनेक शब्दों के स्थान पर किया जाए वे उन शब्दों को एकार्थी शब्द या एक शब्द कहलाते हैं। जैसे रहस्य की खोज करना को अनुसंधान कहते हैं। नवीन वस्तु का निर्माण करना को आविष्कार कहते हैं तथा नवीनीकरण का अर्थ नया रूप देना होता है।

19. पर्यायवाची शब्द का अर्थ : ऐसे शब्द जिनके अर्थ समान हों, पर्यायवाची शब्द कहलाते हैं।

दिए गए शब्दों में कामना का सम्बंधित/पर्यायवाची शब्द अभिलाषा है कामना शब्द के पर्यायवाची शब्द निम्न हैं इच्छा, आकांक्षा, चाह, आदि है।

20. दिए गए शब्दों में व्याल का सम्बंधित/पर्यायवाची शब्द सर्प है व्याल शब्द के पर्यायवाची शब्द निम्न हैं नाग, विषधर, भुजंग, उरग, अहि पन्नग आदि है।

21. **Mahapadma Nanda** was considered to be the first non-Kshatriya dynasty The Nanda dynasty originated from the region of **Magadhain ancient India** during the 4th century BCE and lasted between 345–321 BCE. At its greatest extent, the empire ruled by the Nanda Dynasty extended from **Bengal** in the east, to the **Punjab region** in the west and as far south as the Vindhya Range. The rulers of this dynasty were famed for the great wealth which they accumulated. The Nanda Empire was later conquered by Chandragupta Maurya, founder of the **Mauryan Empire**.



22. Pune has been ranked first in the Ease of Living Index 2018 launched by the union minister Hardeep Singh Puri. The survey was conducted on 111 cities in the country, based on four parameters governance, social institutions, economic and physical infrastructure.

23. The Headquarter of Food and Agriculture Organisation is in Rome.

- The Food and Agriculture Organization of the United Nations is a specialised agency of the United Nations that leads international efforts to defeat hunger.

24. (1) Godavari basin is the largest river basin in peninsular India. It is also the second largest river in the India after Ganga. It is also known as Dakshin Ganga or Ganga of South.

(2) The Godavari originates in the Western Ghats(Triambakeshwar) of central India near Nashik in Maharashtra, and flow into the Bay of Bengal.

25. Former Governor of Tripura, Tathagata Roy was sworn in as the Governor of Meghalaya at Raj Bhavan, Shillong by the Chief Justice of Meghalaya High Court, Mohammad Yaqoob Mir. Roy replaced Ganga Prasad who has been transferred and appointed as the new governor of Sikkim. Roy was appointed as the governor of Tripura in May 2015 and for some time in 2016 also held the additional charge of Arunachal Pradesh.

26. India's Amit Panghal stunned the reigning Olympic champion to clinch gold in the men's Light Fly (49kg) finals at Asian Games 2018.

Amit beat Uzbekistan's Hasanboy Dusmatov to finish at the top.

27. The theme of International Youth Day (IYD) 2018 is "Safe Spaces for Youth".

The International Youth Day (IYD) is celebrated every year on 12th August to recognize the efforts of the world's youth in enhancing global society.

28. 1. The principal organic acids found in **grapes** are **tartaric** and **malic** acid which accounts for over **90%** of the total acids present. **Grapes** also contains **citric** acid to a small extent.

2. **Malic** acid is also found in **apples**, **wine** and **rhubarb**. It is used as a flavouring agent to impart a **tart** taste to foods.

29. Rajasthan government declared that September would be observed as the 'month of nutrition'. In this month, the awareness would be created in both rural and urban areas. From next month, students of Class 1 to 8 of government schools will be given milk daily instead of thrice a week. The students will get milk on a daily basis for which additional funds of Rs 203 crore will be allocated.

30. • The Maldives is located in the Indian Ocean and its capital is Male.

- Malabo is the capital city of Equatorial Guinea.

- In 2017 Equatorial Guinea recent member country of OPEC (The Organization of the Petroleum Exporting Countries).

31. let total work is 20 so eff. Of A is $20/10 = 2$ and B is $20/20 = 1$. So combined eff. Is $2+1=3$

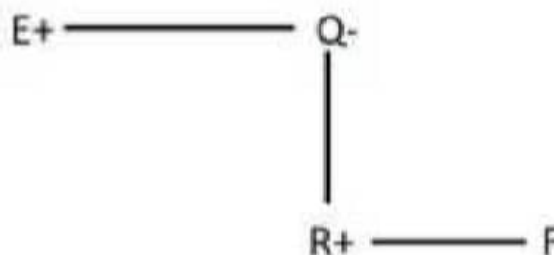
32. The original series is $\frac{3}{9}, \frac{8}{20}, \frac{18}{42}, \frac{33}{86}, ?$

In the above series the sequence in numerator is $+5, +10, +15, +20 \dots$ and that in the denominator is $+11, +22, +44, +88 \dots$

So, the numerator of the missing fraction should be $(33 + 20)$ i.e. 53 and the denominator should be $(86 + 88)$ i.e. 174

Thus the missing term is $\frac{53}{174}$

Hence, C is the required answer.



33.

So, it is clear that E is Uncle of R.

Hence, the correct option is (D).

34. Considering operators at option (C),

Given expression: $32 ? 2 ? 8 ? 14 ? 4$

$\Rightarrow 32 \times 2 - 8 = 14 \times 4$

$\Rightarrow 64 - 8 = 56$

$\Rightarrow 56 = 56$

Thus using operators at option C the given expression becomes correct.

35. 5 18 5 8 1 3 5
 ↓ ↓ ↓ ↓ ↓ ↓ ↓
 E R E H A C E

20 5 1 3 8 5 18
 ↓ ↓ ↓ ↓ ↓ ↓ ↓
 T E A C H E R

5 1 3 5 20 8 18
 ↓ ↓ ↓ ↓ ↓ ↓ ↓
 E A C E T H R

18 5 3 8 1 5 20
 ↓ ↓ ↓ ↓ ↓ ↓ ↓
 R E C H A E T

Clearly, only, (20, 5, 1, 3, 8, 5, 18) make a meaningful word 'TEACHER'.

Hence, option B is correct.



36. The given word is divided into two equal parts. Then, the letters in each part are written in the reverse order to generate the code.

SUBSTITUTION
 ↓ ↓
 ITSBUS NOITUT

Similarly,

DISTRIBUTION
 ↓ ↓
 IRTSID NOITUB

Hence, option A is the right answer.

37. The pattern followed here is,

$$169 - 127 = 42 (7 \times 6)$$

$$127 - 91 = 36 (6 \times 6)$$

$$91 - 61 = 30 (5 \times 6)$$

$$61 - 37 = 24 (4 \times 6)$$

$$37 - 19 = 18 (3 \times 6)$$

$$19 - ? = 12 (2 \times 6)$$

$$\rightarrow 19 - 12 = ?$$

$$\rightarrow 7 = ?$$

Hence, "7" is a term which will complete the series.

38. There are 26 alphabets in English and if we assign numbers to each and every alphabet starting from 'A', 'B', 'C' etc., it will appear to be:

A=1, B=2, C=3, D=4...likewise, till Z=26

$$\left. \begin{array}{l} C + E = 8 \\ G + K = 18 \end{array} \right\} \text{Difference is 10}$$

$$\left. \begin{array}{l} \text{Likewise, } M + Q = 30 \\ Q + W = 40 \end{array} \right\} \text{Difference is 10}$$

Hence, the correct option is B.

39. Ankur's grandfather's daughter-in-law is either Ankur's mother or Ankur's aunt. The only sister of either Ankur's mother or Ankur's aunt is again Ankur's aunt and the son of Ankur's aunt is Ankur's cousin. Thus the boy is cousin of Ankur.

Hence, the correct option is (D).

40. $5^2 + 9 = 34$

$$4^2 + 4 = 20$$

$$3^2 + 7 = 16$$

$$1^2 + 3 = 4$$

Hence, the correct option is (D).

41. A **flowchart** is a type of diagram that represents an **algorithm, workflow** or process, showing the **steps as boxes** of various kinds, and their order by **connecting** them with arrows.

This **diagrammatic** representation illustrates a **solution model** to a given problem.

42. The "L" indicates a custom, **left-aligned** tab. The **ruler** appears near the **top of your** document **window** and controls the horizontal spacing of **paragraph margins**, tables, columns and tabs.

43. A firewall is a network security system that **monitors** and controls the **incoming** and **outgoing** network traffic based on predetermined security rules.

44. **Password** is a type of protection which **contains code** to access.

Note: A password is a word or **string of characters** used for user authentication to prove identity or access approval to **gain access** to a resource.

45. A **hard disk drive** (HDD) is a **data storage device** used for storing and retrieving digital information using one or more rigid **rapidly rotating disks** (platters) coated with magnetic material.

46. Cells are the basic building blocks of a worksheet. They can contain a variety of content such as text, formatting attributes, formulas, and functions. To work with cells, you'll need to know how to select them, insert content, and delete cells and cell content

47. **PROLOG** is a general purpose logic programming language associated with **artificial intelligence** and computational linguistics.

Note:- Artificial intelligence (AI) is the intelligence exhibited by machines or software. It is also the name of the **academic field** of study which studies how to **create computers** and computer software that are capable of **intelligent** behavior.

48. **WAP**(Wireless Application Protocol) is a **technical standard** for accessing information over a **mobile** wireless network.

49. A **modem (modulator-demodulator)** is a device that modulates signals to encode digital information and demodulates signals to decode the transmitted information. The goal is to produce a signal that can be transmitted easily and decoded to reproduce the original digital data. Modems can be used with any means of transmitting analog signals, from light emitting diodes to radio. A common type of modem is one that turns the digital data of a computer into modulated electrical signal for transmission over telephone lines and demodulated by another modem at the receiver side to recover the digital data.

50. Sharing copyrighted files without permission breaks copyright laws. So, it is unethical to share copyrighted files with your friends.

51. Autism spectrum disorder (ASD) is a brain-based condition – that is, where the brain hasn't developed in a typical way.

52. A lesson plan is the teacher's guide for running a particular lesson. A lesson plan is a teacher's detailed description of the course of instruction or "learning trajectory" for a lesson. A daily lesson plan is developed by a teacher to guide class learning. Details will vary depending on the preference of the teacher,



subject being covered, and the needs of the students. There may be requirements mandated by the school system regarding the plan. A lesson plan is the teacher's guide for running a particular lesson, and it includes the goal, how the goal will be reached and a way of measuring how well the goal was reached.

53. School's environment and the positive role of the teacher is most important for keeping the good mental health of students.

54. During 1976, education found its place in the concurrent list of Indian government. Those entities which are placed under the concurrent list have involvement of both, the state and the central government for its functioning and performance. This was the prime concept behind framing of NCF in relation with education policy.

55. The language laboratory is an audio or audio-visual installation used as an aid in modern language teaching. It is a place where the learners have to listen on headphone. The language labs are set up with a view to provide listening activities in order to make them developing good speech habit. The learning material is recorded on audio tapes which are played back by teacher is to be drilled and the same is monitored by the mentor.

In this lab learner himself records his practice and listens of it.

56. The assessment of students can be used by teachers in teaching to develop insight into changing the teaching approach according to the learner's need. After a assessment a teacher can review which question do most the students choose or avoid, what will concepts students still find difficult etc.

57. A teacher appointed under sub-section (1) of section 23 shall perform the following duties, namely: maintain regularity and punctuality in attending school; conduct and complete the curriculum in accordance with the provisions of sub-section of section 29. Complete entire curriculum within the specified time; assess the learning ability of each child and accordingly supplement additional instructions, if any, as required. Hold regular meetings with parents and guardians and apprise them about the regularity in attendance, ability to learn, progress made in learning and any other relevant information about the child; and perform such other duties as may be prescribed.

58. Team teaching is the cooperative or joint effort of two or more teachers in the pursuit of assessment of students. Team teaching involves a group of instructors working purposefully, regularly, and cooperatively to help a group of students of any age learn. The team-teaching approach allows for more interaction between teachers and students.

59. Intellectual development refers changes that develop a person's ability for thinking, reasoning and judging, etc. The ability to maintain concentration is helpful in problem solving while creative activities are beneficial to improving intellectual and cognitive skills. Children should be allowed to experiment with creative activities, which is useful in problem solving, imagination and critical thinking. Creative activities help children to think more and find out the answers. Hence, creativity and concentration are mainly related to intellectual development.

60. A Comprehensive Plan of Action for Children and Youth with Disabilities, presented by the minister for Human Resource

Development, Arjun Singh, in March 2005. This Action Plan advocates inclusive education, and envisages making all schools "disabled-friendly" by 2020.

61. You want your child to have every advantage in life, especially when it comes to his education. Children are born ready to learn, During the first few years of your child's life, his brain is like a sponge. When he is engaged in enriching activities. He will make significant strides in physical, social, emotional and cognitive development. That is education is helpful to children in their all round development.

62. Once the result of a student is published it can be assessed. The result of a student is not only the measurement of what the student has learned. Rather it is the method through which it can be observed if the entire educational system is successful to attain the goal it decided to achieve at the beginning of the educational process. So, from the assessment of the result of a student one can understand if the education system is successful or not.

63. A provision for education for the children with disabilities can be done through inclusive education. Inclusive education happens when children with and without disabilities participate and learn together in the same classes. Inclusive education is about children with disabilities – whether the disability is mild or severe, hidden or obvious – participating in everyday activities, just like they would if their disability were not present. It's about building friendships, membership and having opportunities just like everyone else.

64. Set a purpose or decide in advance what to listen for or determine whether to enter the text from the top to down or from the bottom up are the plans of before listening, while decide what is and not important to understand is a during or after listening task.

Or decide if the strategies used were appropriate for the purpose and for the task is a after listening plan.

65. Socialization is an important process in child development. It is the process whereby individuals, especially children, become functioning members of a particular group and take on the values, behaviors, and beliefs of the group's other members. Child socialization does not refer to a process that occurs at once. It is a continuous process.

66. Learning is a progressive and stable alteration in activities, that occurs as a consequence of preparation, training or experience. It has a major role in mental growth and development while maturation is the process by which a person can change, grow, and develop throughout life.

So, both learning and maturation play an important role in the mental growth.

Hence, the correct option is (C).

67. Child development entails the biological, psychological and emotional changes that occur in human beings between birth and the end of adolescence as the individual progresses from dependency to increasing autonomy. It is a continuous process with a predictable sequence, yet having a unique course for every child.

68. National Curriculum Framework 2005 lays emphasis on learning by doing for children. It gives real-life problems to the children and then guides the students to solve the problem by providing them with a hands-on activity to learn the solution.

69. Following are the principle of homework in mathematics:

Principle of accuracy

Principle of interest

Principle of clearance

Principle of relevance

Principle of economy

Principle of sequence

70. A class begins with all the students and the teacher enter the classroom. The teacher needs to make the student disciplined and instruct them to settle down. Then he/she needs to maintain an ideal classroom atmosphere which is important for the learning process. Therefore, the teacher no longer remains an instructor but a manager who has to control the classroom and the students.

71. जिस संज्ञा से अलग होने का भाव प्रकट हो उसे 'अपादान कारक' कहते हैं। जैसे - 'बिल्ली छत से कूद पड़ी' बिल्ली का छत से गिरने का बोध हो रहा है अतः उसमें अपादान कारक है।

72. It is a way of cooking food by exposing it to dry radiant heat over open fire, in oven, or at times within surrounding hot embers, sand, or stones. Vegetables, meat, corn, potatoes, and sweet potatoes are roasted.

73. Carbon dioxide (CO₂) is the primary greenhouse gas emitted through human activities. Changes in CO₂ emissions from fossil fuel combustion are influenced by many long-term and short-term factors, including population growth, economic growth, changing energy prices, new technologies, changing behavior, and seasonal temperatures.

74. Thermal energy is a conventional source of energy. Conventional resources are those resources which cannot be renewed and we are using them since very long time e.g. coal, petroleum, natural gas etc.

Tidal energy, hydel energy, solar energy are non-conventional sources of energy.

75. side of an equilateral triangle = 16cm

We have, length of the altitude of equilateral

$$\text{triangle} = \frac{\sqrt{3}}{2} \times \text{side}$$

$$= \frac{\sqrt{3}}{2} \times 16 = 8\sqrt{3}\text{cm}$$

76. Statement third is not true about the democracy as it is saying that democracies are more important and prosperous than the citizens. In simple words Government and system is made for people not the people are made for the Government and system. The prosperity of the any country depends on the correct policies of the Government as the result democracy cannot guarantee prosperity.

77. Past participle of 'fly' is 'flown'. 'Flew' is the past tense whereas 'flying' is the present continuous. Hence the correct answer is option C.

78. If in a motion, the axis of the rotation does not pass through the object, then the motion is called Orbital motion. Satellite moves around the earth in orbital motion. Their motion is governed by kepler's Law.

79. Pakistani economist Mahbub ul Haq and Indian economist Amartya Sen developed the Human Development Index which was later used by the United Nations Development Programme to measure the nation's development. In simple words it is tool to count or measures an economy's development in terms of social and economic aspects.

80. NH 44 (3475 km) is the longest highway of India while NH 47A is the smallest highway of India.

81. 12, 15, 17, 21, 24, 21

Mode = 21

82. - Metallic minerals are the minerals that contains metallic elements.

- Metallic minerals are hard having a shiny appearance of their own. They are malleable and ductile. For example - iron, manganese, copper, lead etc.

83. The face value of 9 in 876595=9

84. जो शब्दांश शब्दों के अंत में विशेषता या परिवर्तन ला देते हैं, वे प्रत्यय कहलाते हैं। जैसे - सजावट = सज + आवट में आवट प्रत्यय है।

85. उदाहरण निरीक्षण सामान्यीकरण तथा परीक्षण आगमन विधि के पद हैं। इस विधि में छात्र उदाहरणों की सहायता से सामान्य सिद्धांत निकालते हैं। आगमन विधि में चार पदों का अनुसरण करके छात्र व्याकरण के नियम व उपनियम खुद निकालते हैं। इसके चार पद होते हैं:-

(1) उदाहरण

(2) निरीक्षण

(3) सामान्यीकरण

(4) परीक्षण

अतः विकल्प (A) सही है।

86. The moment of inertia, otherwise known as the angular mass or rotational inertia, of a rigid body determines the torque needed for a desired angular acceleration about a rotational axis. It depends on the body's mass distribution and the axis chosen, with larger moments requiring more torque to change the body's rotation but does not depends on Angular velocity of the body.

87. जो शब्दांश शब्दों के आदि में जुड़ कर उनके अर्थ में कुछ विशेषता लाते हैं, वे उपसर्ग कहलाते हैं। स्वार्थ शब्द में कोई भी उपसर्ग नहीं है।

88. Required percentage = $\left(\frac{285}{500} \times 100\right)\% = \frac{285}{5}\% = 57\%$

Thus, Percentage marks of Deepika is 57%

89. Since, the carpenter can build a cupboard in 60 hours.

$$\text{Work done after 15 hours} = \frac{15}{60} = \frac{1}{4}$$

$$\text{Part of work yet to left} = 1 - \frac{1}{4} = \frac{3}{4} = 0.75$$

90. $2\pi r - 2r = 93$

$$2r \left(\frac{22}{7} - 1 \right) = 93$$

$$r = 21.7 \text{ cm}$$

91. At village level basic health and nutrition services are provided by health functionaries like – accreted Social Health Activist (ASHA), Auxiliary Nurse Midwife (ANM), and Anganwadi Worker (AWW). There is one ICDS centre for every 400-800 population and one health sub-centre for every 5000 population at the village level.

92. Cobalt - 60 therapy is the medical use of gamma rays from the radioisotope cobalt-60 to treat conditions such as cancer.

93. The stratosphere is the second-lowest layer of Earth's atmosphere. It lies above the troposphere and is separated from it by the tropopause. It contains the ozone layer, which is the part of Earth's atmosphere that contains relatively high concentrations of that gas.

94. Male = 30000, Female = 40000 – 30000 = 10000

$$\text{Ratio} = \frac{\text{Female}}{\text{Male}} = \frac{10000}{30000} = 1:3$$

95. Population control and family planning is listed in the Concurrent List in the Indian Constitution. The Concurrent List or List-III is a list of 52 items given in the 7th Schedule to the Constitution of India. It includes the power to be considered by both the central and state government. The legislative section is divided into three lists: Union List, State List and Concurrent list.

96. The place value of 3 in 1863=3

The face value of 3 in 1863=3

Hence difference between place value and face value=3-3=0

97. 4, 8, 9, 7, 2, 9, 5, 6

Mode = 9

98. The Indian Ocean, which touches the southern tip of the Indian mainland is the only ocean touching the Indian mainland. The other two bodies of water are the Bay of Bengal in the east and the Arabian Sea in the west.

99. The source of oxygen liberated as by product during photosynthesis is Water.

100. Height of the cone = $\sqrt{10^2 - 6^2} = 8 \text{ cm}$

$$\text{Volume of a right circular cone} = \frac{1}{3}\pi r^2 h$$

$$= \frac{1}{3} \times \frac{22}{7} \times 6^2 \times 8$$

$$\approx 301.71 \text{ cm}^3$$

101. Except oil, all the given substances is miscible with water. Miscibility is the property of substances to mix in all proportions forming a homogeneous solution.

102. Material nouns refer to materials or substances from which things are made. A compound noun contains two or more words which join together to make a single noun eg. Softball, toothpaste, policeman, fish tank

Concrete nouns are nouns that can be touched, smelled, seen, felt, or tasted.

More ethereal, theoretical concepts use abstract nouns to refer to them. For eg. Concepts like love, freedom etc.

103. "हीरा" शब्द "पुल्लिंग" लिंग का है। क्योंकि – रत्नों, धातुओं, पर्वतों, सागरों आदि का नाम पुल्लिंग माना जाता है। जिन संज्ञा शब्द से पुरुष जाति का बोध होता है उन्हें पुल्लिंग कहते हैं।

104. Given:

$$\frac{391}{667}$$

$$\text{H.C. F of 391 and 667} = 23$$

On dividing the numerator and denominator by 23 we get,

$$= \frac{391 \div 23}{667 \div 23}$$

$$= \frac{17}{29}$$

Hence, the correct option is (B).

105. The Digha Nikaya is a Buddhist scripture, the first of the five nikaya, or collections, in the Sutta Pitaka, which is one of the "three baskets" that compose the Pali Tripitaka of Buddhism. The Buddhist text "The Digha Nikaya" was of significance as it contained the Buddha's speeches and pronouncements. It is a valued historical source for learning about the Vajjis.

106. Plasma state contains free super excited and highly energetic particles.

- Mainly these particles are in form of ionised gases.

- This state occurs when matter is heated to very high temperatures.

107. With adverbs ending with "-ly", the determiner "most" must be added to form superlative degree. Thus, the correct answer is option C.

108. Fires, transport accidents, industrial accidents, oil spills and nuclear explosions and radiation, War and deliberate attack are man made disasters while drought is a natural disaster.

109. The structure of the past continuous tense is: subject + auxiliary verb be (conjugated in simple past tense) + main verb (present participle, base+ing).

110. India is ranked 10th in the world with 24.4% of land area under forests cover and tree cover.

111. Required length=HCF of 700cm,385cm and 1295cm.



$$\begin{array}{r}
 385) 700(1 \\
 \underline{385} \\
 315) 385(1 \\
 \underline{315} \\
 70) 315(4 \\
 \underline{280} \\
 35) 70(2 \\
 \underline{70} \\
 x \\
 35) 1295(37 \\
 \underline{105} \\
 245 \\
 \underline{245} \\
 x
 \end{array}$$

Hence, greatest possible length = 35cm

112. पंक्तियों में समूची प्रकृति को मेघ की प्रतीक्षा में व्यग्र दिखाया गया है। किन्तु, मेघ बहुत विलम्ब से आता है। संभवतः इसी कारण से कवि ने मेघ का मानवीकरण करके उसकी तुलना उस पाहुन से की है, जो 'बन-ठन के, सँवर के' आने के चक्कर में देरी से पहुँचता है। इस पंक्ति में मानवीकरण अलंकार है।

113. Scalar quantity is a physical quantity which has magnitude only and no direction.

For example: Mass has only a value, no direction.

114. Acceleration, is the rate of change of velocity of an object with respect to time. An object's acceleration is the net result of any and all forces acting on the object, as described by Newton's Second Law. The SI unit for acceleration is metre per second squared (m s^{-2}). Accelerations are vector quantities (they have magnitude and direction) and add according to the parallelogram law. As a vector, the calculated net force is equal to the product of the object's mass (a scalar quantity) and its acceleration.

$$115. \frac{1}{2}\% \text{ in decimals} = \frac{1}{2} \times \frac{1}{100} = \frac{0.5}{100} = 0.005$$

$$116. \text{Sumit 1 day's work} = \frac{1}{20}$$

$$\text{Rahul 1 day's work} = \frac{1}{30}$$

$$(\text{Sumit} + \text{Rahul} + \text{Mandeep}) 1 \text{ day's work} = \frac{1}{10}$$

$$\text{Mandeep 1 day's work} = \frac{1}{10} - \frac{1}{20} - \frac{1}{30} = \frac{6-3-2}{60} = \frac{1}{60}$$

$$\therefore \text{Wages of Sumit, Rahul and Mandeep are in ratio} =$$

$$\frac{1}{20} : \frac{1}{30} : \frac{1}{60} = 3 : 2 : 1$$

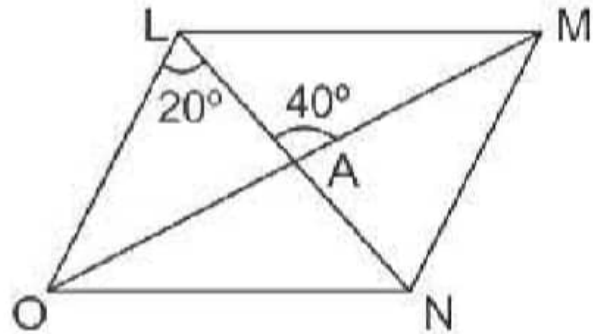
$$\text{Mandeep's share} = 6000 \times \frac{1}{6} = 1000\text{RS}$$

117. Given

$$\angle OLN = 20^\circ \text{ and } \angle LAM = 40^\circ$$

As we know,

- Sum of the angles of a triangle is 180°
- Linear pair is 180° .
- Alternate angles are equal.



$$\angle LAM + \angle NAM = 180^\circ \text{ (linear pair)}$$

$$\Rightarrow \angle NAM = 180^\circ - 40^\circ$$

$$\Rightarrow \angle NAM = 140^\circ$$

$$\angle OLN = \angle MNL \text{ (alternate angles)}$$

$$\Rightarrow \angle MNL = 20^\circ$$

In triangle AMN,

$$\angle NAM + \angle AMN + \angle ANM = 180^\circ$$

$$\Rightarrow 140^\circ + \angle AMN + 20^\circ = 180^\circ$$

$$\Rightarrow \angle AMN = 180^\circ - 160^\circ$$

$$\Rightarrow \angle AMN = 20^\circ$$

So,

$$\angle OMN = 20^\circ$$

Hence, the correct option is (A).

118. The disease which can be transferred from one human or animal to another are called communicable disease. These diseases are caused by germs such as bacteria, viruses, and spread by an infected person, animals or object to other persons.

119. Black soil is also known as regur soil. It is found in the areas of deccan plateau, valleys of Krishna, Godavari, Andhra Pradesh, Madhya Pradesh and Tamil Nadu.

120. Water is a renewable resource which is essential for sustenance of life. It covers $\frac{3}{4}$ th of the earth's surface.

121. The reported speech of the spoken sentence consists of a proverb. As we know that no changes are made to the tense of the reported verb in indirect speech if the reported speech consists of any universal truth, habitual fact or a proverb. Thus, option A is correct as no changes has been made here in the tense of the reported speech.

122. Relational frame theory is a psychological theory of human language. It was developed originally by Steven C. Hayes. Relational frame theory argues that the building block of human language and higher cognition is 'relating', i.e. the human ability to create bidirectional links between things.



123. संस्कृत के जो शब्द मूल रूप में प्रयुक्त होते हैं, वे तत्सम शब्द कहलाते हैं 'वधू' तत्सम शब्द है। बाकी सभी शब्द तदभव शब्द हैं।

124. जिस वाक्य में विस्मयसूचक शब्द का प्रयोग होता है वहाँ संबोधन कारक होता है। जिससे किसी को बुलाने अथवा सचेत करने का भाव प्रकट हो उसे संबोधन कारक कहते हैं और संबोधन चिह्न (!) लगाया जाता है। जैसे- 1-अरे भैया ! क्यों रो रहे हो ? 2-हे गोपाल ! यहाँ आओ। इन वाक्यों में 'अरे भैया' और 'हे गोपाल !' संबोधन कारक हैं।

125. Songs were composed and sung for those brave people who fought against British. Symbols such as national flags are used as a mark of protest throughout the country. They serve as constant reminders for our respect to diversity.

126. If the velocity of a body is doubled, its kinetic energy will be increased by 4 times, because kinetic energy is directly proportional to the square of the velocity of the object. Since $k.e = mv^2/2$

127. $\Rightarrow$ circumference of circular playground = 220 m.
 $\Rightarrow$ let, r_1 = radius of circular playground
 $\Rightarrow 2\pi r_1 = 220m$.
 $\Rightarrow 2 \times 22/7 \times r_1 = 220$
 $R_1 = 220 \times 7 / (2 \times 22) = 35m$.
 Area of path = $\pi(R_2^2 - R_1^2)$.
 $= 22/7 (42^2 - 35^2)$
 $= 22/7 (42+35)(42-35)$
 $= 22/7 \times 77 \times 7$
 $= 1694m^2$.
 Answer is $1694m^2$

128. - The Zila Parishad makes the top tier of the Panchayati Raj system.

- Zila Parishad is primarily a coordinating body supervising the activities of the Panchayats and Panchayat Samiti.

129. The Protection of Women from Domestic Violence Act 2005 is an Act of the Parliament of India enacted to protect women from domestic violence. It was brought into force by the Indian government from 26 October 2006.

130. Once cooled and hardened these plastics retain their shape and cannot return to their original form. They are hard and durable. Thermosets can be used for auto parts, aircraft parts and tires.

131. Let X be the original price of car.

A man sells a car to his friend 10% loss

Hence S. P. = $X - (10X)/100 = X - (X/10) = 9X/10$

Therefore this is cost price for friend

S.P. for friend = RS 54000

Gain = 20%

Hence S.P. = $9X/10 + 20 \times (9X/10)/100 = (9X/10) + (9X/50) = 54X/50$

Hence $54000 = 54X/50 \Rightarrow X = 1000 \times 50 = 50000$ Rs.

Original price of car = Rs 50000

132. Untouchability, considered to be the biggest social evil that existed in those days because of hierarchy and supremacy in the caste system, was practiced on the lowest group of the caste

system who were called the chandalas, harijans, or untouchables in general. They were not part of the varna pyramid because they were considered as the impure ones and treated as untouchables and were forced into a lot of social restrictions. This led a lot of these people initially convert to Buddhism, Jainism and also later to Christianity and Islam in order to escape from this extremely inhuman treatment given to them.

133. The adjective form of the word is 'noisy' which means 'making or given to making a lot of noise.' Thus C is the correct answer.

The word 'noisiness' means 'the auditory effect characterized by loud and constant noise.'

The adverb 'noisily' means 'in a manner that makes a lot of noise.'

The word 'noisome' means 'having an extremely offensive smell.'

134. In physics, force is a push or pull on an object. A force can cause an object to accelerate, slow down, remain in place, or change shape.

135. A metalloid is a chemical element that exhibits some properties of metals and some of nonmetals.

136. In the Indian sub-continent, crops grown on irrigated lands which do not have to wait for monsoons, in the short duration between Rabi and Kharif crop season, mainly from March to June, are "Zaid crops". These crops are mainly grown in the summer season during a period called the "Zaid crop season."

137. If the noun ends with f or fe, the f is often changed to ve before adding the -s to form the plural version. The word 'belief' is an exception so option C is the correct answer.

138. Basic rules to be followed for Active/Passive conversions are:

1. The object of the active verb becomes the subject of the passive verb.
2. The finite form of the verb is changed (to be+ past participle).
3. The subject of the active sentence becomes the object of the passive sentence (or is dropped).
4. Preposition "by" is used before object.

Here, the subject is "you" and the object is "what I mean" which is a clause. When we change the given sentence into passive voice, "you" becomes the object and "what I mean" becomes the subject.

Now the given sentence is in active voice. It is in interrogative form of present tense. The structures for active/passive voices are:

Active: Do/does + subject + verb (1st form) + object....?

Passive: Is/are/am + object + verb (IIIrd form) + by + subject....?

So, based on the above structures, we can convert the given sentence into passive voice:

Is what I mean understood by you?

139. Guidance from a teacher is important to keeping kids on task and motivated, allowing students to have some choice and control over what happens in the classroom is actually one of the



best ways to keep them engaged. When teachers create a safe, supportive environment for students, affirming their belief in a student's abilities rather than laying out the consequences of not doing things, students are much more likely to get and stay motivated to do their work.

140. क्रिया के उस रूपान्तर को भाववाच्य कहते हैं, जिससे वाक्य में क्रिया अथवा भाव की प्रधानता का बोध हो। क्रिया के लिंग वचन कर्म के लिंग एवं वचन के अनुसार होते हैं। अतः 'मुझसे उठा नहीं गया' वाक्य में भाववाच्य है।

वाच्य का अर्थ: क्रिया के उस परिवर्तन को वाच्य कहते हैं, जिसके द्वारा इस बात का बोध होता है कि वाक्य के अन्तर्गत कर्ता, कर्म या भाव में से किसकी प्रधानता है।

141. निम्न में से कौआ शब्द एक शब्द वचन है। जहाँ शब्द के जिस रूप से संख्या के एक होने का बोध होता है उसे एकवचन कहते हैं। कौए, लड़के, केले, ये शब्द बहुवचन के हैं क्योंकि ये संख्या में एक से अधिक होने का बोध करा रहे हैं।

142. Our solar system has eight Planets and a star called Sun. In terms of their size in descending order, the correct order is:
 Jupiter - (142,800 km diameter), Saturn - (120,660 Km diameter), Uranus - (51,118 km diameter), Neptune - (49,528 km diameter), Earth - (12,756 km diameter), Venus - (12,104 km diameter), Mars - (6787 km diameter) and Mercury - (4879.4 km diameter).

143. Friction is the resistance of motion when one object rubs against another. Anytime two objects rub against each other, they cause friction.

144. Bat uses ultrasonic sound waves and echoes. This technique is called echolocation. The technique is used to capture prey, such as crickets. They are one of the few mammals that can use sound to navigate by using this unique trick, known as echolocation.

145. A **hydrometer** is an instrument that measures the **specific gravity (relative density)** of liquids - the ratio of the density of the liquid to the density of water.

146. The target growth rate of India's twelfth five year plan is 8 percent and it is a decided growth rate by National Development Council (NDC) in the year 2012. The aim of twelfth five year plan is to faster, sustainable and inclusive growth of India by creating more jobs for rural people in the non-farm field.

147. Tritium, (T, or ^3H), the isotope of hydrogen with atomic weight of approximately 3. Its nucleus, consisting of one proton and two neutrons, has triple the mass of the nucleus of ordinary hydrogen. Tritium is a radioactive elements having a half-life of 12.32 years.

148. Money distributed between A and B in the ratio 2: 5

Let total money = X Rs.

A receives $\frac{2X}{7}$ Rs.

A receives Rs 100 .

$$\frac{2X}{7} = 100 \Rightarrow X = 350Rs$$

$$\text{Now B's share} = \frac{5X}{7} = \frac{5 \times 350}{7} = 250Rs$$

149. Cost price of car = Rs. 250000

Selling price of car = 348000

Profit = selling price – cost price

$$\text{Profit} = 348000 - 250000 = 98000$$

$$\% \text{ profit} = 98000 \times 100 / 250000 = 39.20 \%$$

150. LCM of 3,2,5,3=30

$$2/3 = 2/3 \times 10/10 = 20/30$$

$$1/2 = 1/2 \times 15/15 = 15/30$$

$$3/5 = 3/5 \times 6/6 = 18/30$$

$$1/3 = 1/3 \times 10/10 = 10/30$$

Smallest is 10/30 i.e. 1/3

