EN/VEDTRI/9/24

This booklet contains **32** pages.

E

Test Booklet Code

← Test Booklet Number

Do not open this Test Booklet until you are asked to do so.

Carefully read the Instructions given in this Test Booklet.

Name of the Candidate (in Capitals) : _____

Roll Number : in figures _____

: in words _____

Centre of Examination (in Capitals) : _____

Candidate's Signature : _____ Invigilator's Signature : _____

Fascimile Signature Stamp of
Centre Superintendent : _____

INSTRUCTIONS

1. This question paper booklet contains **FIVE** sections. **Section "A"** Mathematics contains **50** questions of **4** marks each. **Section "B"** Intelligence, **Section "C"** English, **Section "D"** General Science and **Section "E"** Social Science contain **25** questions each, of **2** marks per question. In all, the paper consists of **150** questions for a total of **400** marks. Answer all questions.
2. Duration of the test is 3 hours. (180 minutes)
3. The question paper booklet is in English only, for all the candidates.
4. The question paper booklet is of **32** pages. Please check and ensure that the question paper booklet is complete and contains all the pages.
5. Answer all questions in the OMR answer sheet only.
6. The OMR Answer Sheet is inside this Question Paper Booklet. When you are directed to open the Question Paper Booklet, take out the OMR Answer Sheet and fill in the particulars carefully with Blue/Black ball point pen only.
7. Darken only one circle as your correct answer for each question. If you darken more than one circle for the same question, your answer will be treated as wrong.
8. There is no negative marking for a wrong answer.
9. Do not make unnecessary marks on the OMR answer sheet or fold or attempt to deface it. If you do so, your answer sheet will not be evaluated.
10. Use Blue/Black ball point pen only for writing particulars on this page and for writing answers. Do not use pencil.
11. Rough work is to be done on the space provided for this purpose in the Question Paper Booklet only and not on the OMR Answer Sheet.
12. On completion of the test, hand over the OMR Answer Sheet to the Invigilator before leaving the Room/Hall.
13. You are allowed to take away this Question Paper Booklet with you.
14. The CODE for this Booklet is **E**. Make sure that the CODE and Test Booklet Number printed on the OMR Answer Sheet is the same as that on this Question Paper Booklet. In case of discrepancy, report the matter immediately to the Invigilator for replacement of both the Question Paper Booklet and the Answer Sheet.
15. Do not write your Roll No. anywhere else except in the specified space in the Question Paper Booklet / OMR Answer Sheet.
16. Do not use white fluid for carrying out any correction on the OMR Answer Sheet.

K249A

Instructions : *Each question has four options. There is only one correct answer to each question. Choose the* ***MOST APPROPRIATE*** *option and darken/blacken the corresponding circle on the OMR Answer Sheet.*

SECTION - 'A' : MATHEMATICS

001 If $\left(a^8+\frac{1}{a^8}\right)\left(a^4+\frac{1}{a^4}\right)\left(a^2+\frac{1}{a^2}\right)\left(a+\frac{1}{a}\right)\left(a-\frac{1}{a}\right)=a^b-\frac{1}{a^b}$,

then value of b, is :

(1) 8

(2) 16

(3) 32

(4) 64

002 In a fruitstore, there are $4\left(a^2-\frac{2}{3}b^2\right)$ boxes and in each box there are $\left(\frac{3}{4}a^2+3b^2\right)$ apples. How many apples are there in the store?

(1) $3a^4+10a^2b^2-8b^4$

(2) $3a^4+12a^2b^2+8b^4$

(3) $12a^4+10a^2b^2+6b^4$

(4) $12a^4+12a^2b^2-6b^4$

003 If $x=\frac{4ab}{a+b}$, then the value of $\frac{x+2a}{x-2a}+\frac{x+2b}{x-2b}$, is :

(1) $\frac{2ab}{(a+b)^2}$

(2) 2

(3) 4

(4) $\frac{4ab}{(a+b)^2}$

004 If 8 is multiplied with 7 more than a number, it becomes the same as 15 is added to 3 times the same number. This can be represented by which of the following equations?

(1) $7\,(8+x)=3x+15$

(2) $56+x=3x+15$

(3) $8\,(7+x)=15+3x$

(4) $56x+1=3\,(x+5)$

005 $\left\{44\left(x^4-5x^3-24x^2\right)\right\}\div\left\{11x\left(x-8\right)\right\}=$

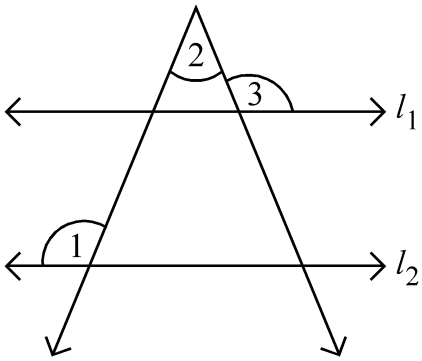
(1) $4x\,(x+3)$

(2) $7x\,(x+2)$

(3) $5x\,(x+4)$

(4) $(x+2)\,(x+3)$

006 In the figure, l_1 is parallel to l_2 and $\angle 1 = 115°, \angle 2 = 40°$, then $\angle 3$ is equal to:

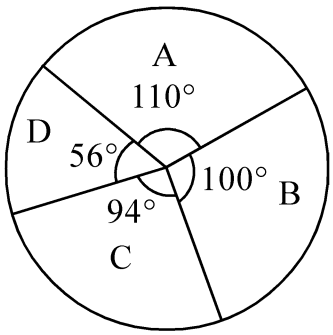


(1) 115°
(2) 110°
(3) 105°
(4) 100°

007 Survey was done on 900 schools children about their choice of TV programmes -

A. Sports
B. Comedy shows
C. Serials
D. News

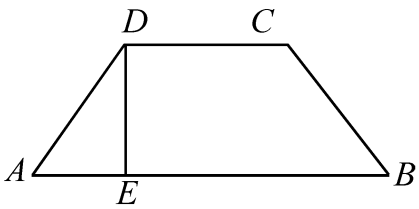
Their choices are shown in the Pie chart.



How many children showed interest for Comedy shows?

(1) 235
(2) 250
(3) 265
(4) 275

008 $ABCD$ is a trapezium in which $AB \parallel DC$ and $DE \perp AB$. If $AB = 2DC$, $DE = 12$ cm and area of $ABCD$ = 144 cm^2, then the length of AB, is :



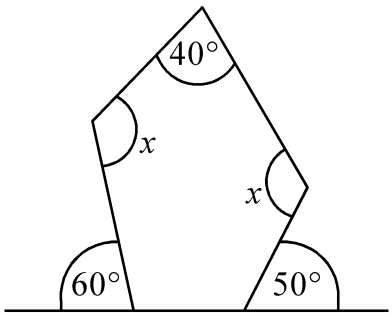
(1) 16 cm
(2) 10 cm
(3) 8 cm
(4) 20 cm

009 Which of the following statements are true?

A. Cube of any odd number is odd.
B. Cube of a single digit number cannot be a single digit number.
C. A perfect cube may end with exactly two zeroes.
D. Cube of a 2-digit number has at least 3 digits.

(1) A, B, C only
(2) B, C, D only
(3) A, B, D only
(4) A, D only

010 The value of x from the following figure, is :



(1) 35°

(2) 70°

(3) 125°

(4) 250°

011 Madan scored marks given in the following table. Every paper was of 100 marks.

Maths	English	Hindi	Science	Social Science
95	72	80	68	65

His average marks per subject is :

(1) 72

(2) 74

(3) 75

(4) 76

012 Which of the following triangles with given sides is not a right-angled triangle?

A. 3, 4, 5

B. 5, 12, 13

C. 6, 7, 8

D. 6, 8, 10

(1) A

(2) D

(3) B

(4) C

013 $\sqrt{\sqrt[3]{27} - 2 \times \sqrt[3]{8} + \sqrt[3]{125}} =$

(1) 4

(2) 3

(3) 2

(4) 1

014 The average of first five prime numbers is :

(1) 3.6

(2) 5

(3) 5.2

(4) 5.6

015 Two cubes have their surface areas in the ratio 4 : 9. What is the ratio of their volumes?

(1) 64 : 729

(2) 8 : 27

(3) 9 : 4

(4) 2 : 3

016 4 equal cuboids with dimensions 6 cm × 10 cm × 4 cm are joined side by side. The volume of the solid so formed, is :

(1) 240 cubic cm

(2) 480 cubic cm

(3) 864 cubic cm

(4) 960 cubic cm

017 Ritu is four years younger than her brother Varun. After 5 years, the sum of their ages will be 70 years. What is the present age of Ritu?

(1) 30 years

(2) $25\frac{1}{2}$ years

(3) 28 years

(4) 32 years

018 Out of a certain number of marbles, $\left(\frac{3}{5}\right)^{th}$ are red and half of the remaining are green. If the number of green marbles is 12, then how many are red marbles?

(1) 24

(2) 36

(3) 9

(4) 18

019 How many sides does a regular polygon have if each of its interior angle is 156°?

(1) 9

(2) 12

(3) 15

(4) 20

020 If two perpendicular sides of a triangle are 9 cm and 40 cm and length of the side opposite to right angle is x cm, then the value of x, is :

(1) 39

(2) 40

(3) 41

(4) 42

021 The value of a car depreciates at 10% per annum. Jayant bought the car for ₹ 8,00,000. What will be its value after 3 years?

(1) ₹ 5,83,000

(2) ₹ 5,83,890

(3) ₹ 5,92,000

(4) ₹ 5,83,200

022 The median of the data set 3, 11, 8, 9, 6, 7, 12, is

(1) 6

(2) 7

(3) 8

(4) 9

023 The average height of 6 boys is 5' 3". If one boy is 6' 1" tall, then the average height of remaining boys, is

(1) 5'

(2) 5' 1"

(3) 5' 2"

(4) 5' 4"

024 By which smallest number, 2700 must be multiplied so that the new number is a perfect cube?

(1) 6

(2) 10

(3) 15

(4) 18

025 The number of zeros at the end of number $1 \times 2 \times 3 \times 4 \times ..... \times 20$, is

(1) 6

(2) 4

(3) 5

(4) 3

026 If $a : b : c : d = 1 : 2 : 3 : 5$, then the value of $\frac{a^2+b^2+c^2}{b^2+c^2+d^2}$, is :

(1) $\frac{7}{19}$

(2) $\frac{19}{5}$

(3) $\frac{8}{17}$

(4) $\frac{4}{21}$

027 Atul drives a car at a speed of 48 km/h and starts his journey for his hometown 132 km away from residence at 9 am. At what time, will he reach his hometown?

(1) 11 am

(2) 11:20 am

(3) 11:40 am

(4) 11:45 am

028 If the points $A\,(3, 0)$ and $B\,(0, 4)$ are joined, then what will be the area of the triangle formed by AB and the coordinate axes?

(1) 5 unit^2

(2) 6 unit^2

(3) 7 unit^2

(4) 12 unit^2

029 If in polyhedron, V stands for number of vertices, F stands for number of faces and E stands for number of edges, then which of the following cannot be true for a polyhedron?

(1) $V = 8 \;\; F = 6 \;\; E = 12$

(2) $V = 5 \;\; F = 5 \;\; E = 8$

(3) $V = 6 \;\; F = 5 \;\; E = 10$

(4) $V = 4 \;\; F = 4 \;\; E = 6$

030 All faces of a cube of side 5 cm are red painted and is cut into smaller cubes of side one cm. What is the total volume of smaller cubes formed, which have no face with red colour?

(1) 54 cm^3

(2) 45 cm^3

(3) 34 cm^3

(4) 27 cm^3

031 What is the greatest value of A for which the 6 digit number 326A50 is divisible by 3?

(1) 2

(2) 6

(3) 8

(4) 9

032 $\frac{7}{3} + \frac{7}{3} \div \frac{14}{3} - \frac{1}{7} \div \left(-\frac{14}{49}\right) =$

(1) $\frac{7}{3}$

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

(3) $\frac{10}{3}$

(4) $\frac{1}{2}$

033 The cost of 5 kg apples is ₹ 425, the cost of 12 dozen oranges is ₹ 744 and the cost of 4 kg mangoes is ₹ 480. What is the total cost of 8 kg apples, 8 dozen oranges and 8 kg mangoes?

(1) ₹ 1,416

(2) ₹ 2,136

(3) ₹ 1,826

(4) ₹ 2,756

034 Pawan bought a second hand TV for ₹ 4,300. He spent ₹ 500 on its repair and sold it for ₹ 5,856. In this transaction, his gain was :

(1) 20%

(2) 21%

(3) 22%

(4) 24%

035 There are 120 students in a hostel and there is food provision for 25 days. How long would these provisions last out if 30 more students join the group?

(1) 30 days

(2) 22 days

(3) 20 days

(4) 17 days

036 If an item is sold at ₹ 1,292 after giving a discount of 15%, then the marked price of the item is :

(1) ₹ 1,480

(2) ₹ 1,500

(3) ₹ 1,520

(4) ₹ 1,530

037 6 kg of metal A and 24 kg of metal B are melt together to form an alloy. The percentage of metal A in the alloy is :

(1) 20%

(2) 25%

(3) $33\frac{1}{3}\%$

(4) 30%

038 What smallest number should be subtracted from 3142 to get a perfect square?

(1) 5

(2) 6

(3) 7

(4) 8

039 If alphabets A, B, C, ... are represented by numbers 1, 2, 3, ..., then the value of $\sqrt{Z-A}$, is :

(1) 5

(2) 4

(3) 7

(4) 11

040 In a polygon, sum of interior angles is 360°. Its diagonals are equal but not all the sides. What is that polygon?

(1) Parallelogram

(2) Rhombus

(3) Rectangle

(4) Square

041 If circumference of a circle is 88 cm, then the area of the circle (in cm^2) is (use $\pi = \frac{22}{7}$) :

(1) 600

(2) 612

(3) 616

(4) 620

042 Numbers 1 to 40 are written on different cards (one number on one card) and kept in a box. One card is picked up from the box. What is the probability that the card shows a perfect square number?

(1) $\frac{1}{8}$

(2) $\frac{1}{5}$

(3) $\frac{3}{20}$

(4) $\frac{1}{10}$

043 6 identical pipes can fill a tank in one hour and 30 minutes. How long will it take to fill the tank if 3 pipes stop working after filling half the tank?

(1) 135 minutes

(2) 125 minutes

(3) 110 minutes

(4) 130 minutes

044 A certain number of men can complete a work in 50 days. If there were 6 men more, the work can be finished in 10 days less. The number of men originally working are:

(1) 36

(2) 30

(3) 28

(4) 24

045 If one angle of a triangle is 63° and remaining two angles are in the ratio 1 : 2, then the measure of the largest angle of the triangle, is :

(1) 63°

(2) 70°

(3) 78°

(4) 82°

046 If the area of a circle is 2464 cm^2, then the radius of the circle (in cm), is (use $\pi = \frac{22}{7}$):

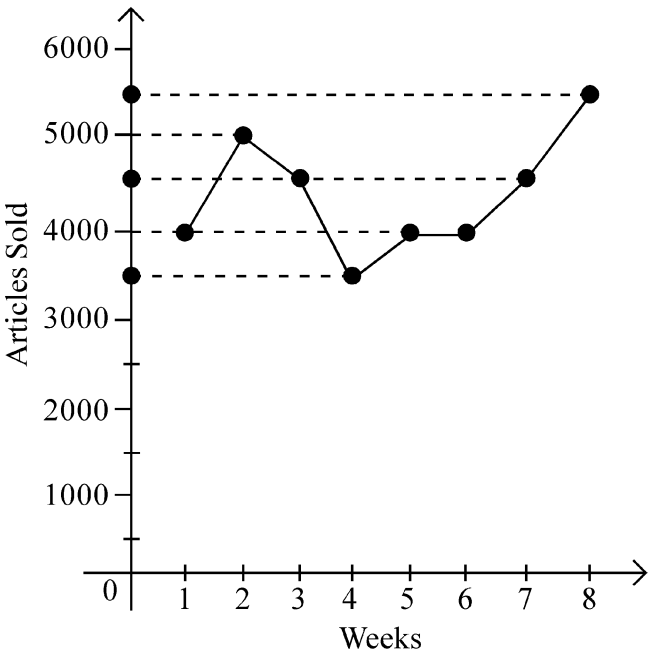
(1) 24

(2) 26

(3) 28

(4) 56

047 The given line graph shows the number of articles sold by a company in the first 8 weeks of a particular year.



What is the average number of articles sold in 8 weeks?

(1) 5892

(2) 4875

(3) 4375

(4) 2945

048 If $a = \sqrt{2} + 1$, $b = \sqrt{3} - \sqrt{2}$ and $c = \sqrt{6} + 2\sqrt{2}$ then the value of $a^2 + b^2 - c$, is :

(1) 8

(2) $8 - 3\sqrt{6}$

(3) $8 + 4\sqrt{2}$

(4) $11 - 3\sqrt{6}$

049 $(2.5a - 3.5b)^2 - (3.5a - 2.5b)^2 =$

(1) $-6a^2 - 6b^2$

(2) $6b^2 - 6a^2$

(3) $6a^2 + 6b^2$

(4) $6a^2 - 6b^2$

050 If 30% of $(A + B)$ = 50% of $(A - B)$, then $A : B$ is :

(1) 3 : 5

(2) 5 : 3

(3) 4 : 1

(4) 1 : 4

Instructions : *Each question has four options. There is only one correct answer to each question. Choose the* ***MOST APPROPRIATE*** *option and darken/blacken the corresponding circle on the OMR Answer Sheet.*

SECTION - 'B' : INTELLIGENCE

051 A number is greater than 3 but less than 8. Also, it is greater than 6 but less than 10. The number is :

(1) 5

(2) 6

(3) 7

(4) 8

052 If DELHI can be coded as CCIDD, how would you code BOMBAY?

(1) AJMTVT

(2) AMJXVS

(3) MJXVSU

(4) WXYZAX

053 Amit is standing in the North of Bob who is in the West of Chetan on a ground. The position of Amit with respect to Chetan is in the direction :

(1) East

(2) North-West

(3) North-South

(4) North

054 Complete the analogy.

MAN : PDQ : : WAN : ?

(1) NAW

(2) ZDQ

(3) YDQ

(4) YQD

055 Complete the analogy.

25 : 125 : : 36 : ?

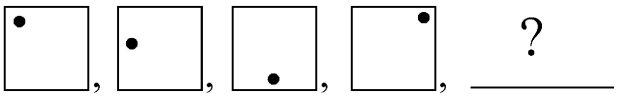
(1) 126

(2) 206

(3) 216

(4) 318

056 Find the next pattern in the sequence.



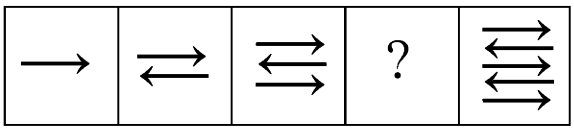
(1)

(2)

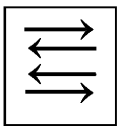
(3)

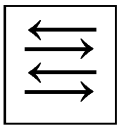
(4)

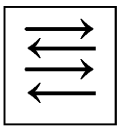
057 Replace the question mark in the following series :

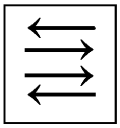


Choose the correct answer from the options given below.

(1) 

(2) 

(3) 

(4) 

058 Arrange the following words as per order in the dictionary.

A. Consume

B. Consciousness

C. Conscience

D. Conservation

E. Consequence

Choose the correct answer from the options given below.

(1) C, B, A, E, D

(2) C, A, B, E, D

(3) C, E, B, D, A

(4) C, B, E, D, A

059 Find the odd one out :

(1) 13

(2) 17

(3) 37

(4) 63

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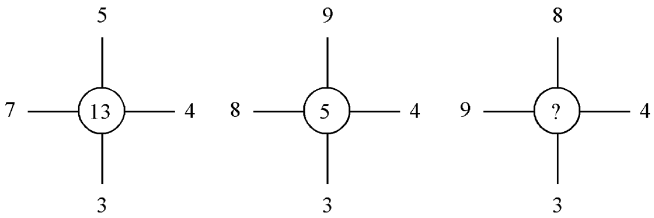
060 Find the missing number :



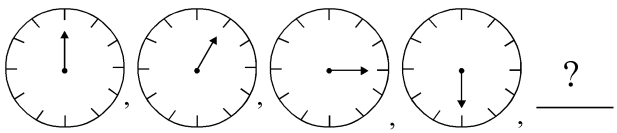
(1) 12

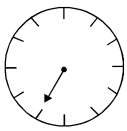
(2) 14

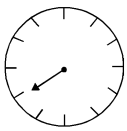
(3) 15

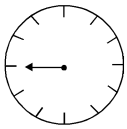
(4) 18

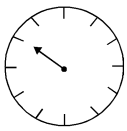
061 Find the next pattern in the sequence.



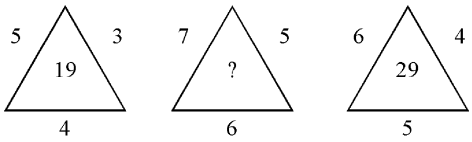
(1) 

(2) 

(3) 

(4) 

062 Find the missing number :



(1) 25

(2) 37

(3) 41

(4) 47

063 Complete the analogy :

3 : 11 : : 7 : ?

(1) 42

(2) 29

(3) 38

(4) 51

064 Complete the following analogy :

Y : 2 : : T : ?

(1) 9

(2) 7

(3) 8

(4) 12

065 Complete the analogy.

Lizard : Reptile : : Whale : ?

(1) Rodent

(2) Amphibian

(3) Mammal

(4) Ocean

066 Find the missing number in the following series :

1, 9, 25, 49, ?, 121

(1) 64

(2) 81

(3) 91

(4) 100

067 Arrange the following in the chronological order.

A. Birth

B. Death

C. Funeral

D. Marriage

E. Education

Choose the correct answer from the options given below.

(1) A, E, D, C, B

(2) A, C, D, E, B

(3) A, E, D, B, C

(4) A, E, B, D, C

068 Find the odd one out :

(1) BCD

(2) KMN

(3) GHI

(4) WXY

069 Anil, Bobby, Chetan, Deepak and Elen are five friends. Anil is shorter than Bobby but taller than Elen. Chetan is the tallest. Deepak is shorter than Bobby and taller than Anil. Who is in the middle with respect to their heights?

(1) Bobby

(2) Chetan

(3) Deepak

(4) Anil

070 If February 1, 2004 was Wednesday, what day was March 12th 2004?

(1) Sunday

(2) Saturday

(3) Tuesday

(4) Monday

071 Find the odd one out :

(1) Pen

(2) Sharpener

(3) Scale

(4) Stationery

072 How many such 5's are there in the following number sequence each of which is immediately preceded by 3 or 4 but not immediately followed by 8 or 9?

3 5 9 5 4 5 5 3 5 8 4 5 6 7 3 5 7 5 5 4 5 2 3 5 1 0

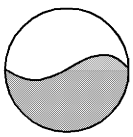
(1) 3

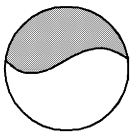
(2) 4

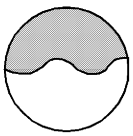
(3) 5

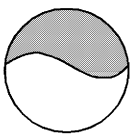
(4) 6

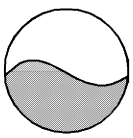
073 Identify the correct water image of the following figure.



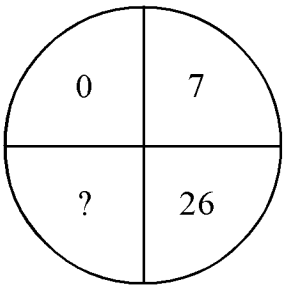
(1) 

(2) 

(3) 

(4) 

074 Find the missing number out of the options given below :



(1) 45

(2) 60

(3) 63

(4) 76

075 Arrange the following in a logical order (Increasing order).

A. Day

B. Week

C. Second

D. Minute

E. Hour

Choose the correct answer from the options given below.

(1) A, B, C, D, E

(2) C, D, E, B, A

(3) C, D, B, E, A

(4) C, D, E, A, B

Instructions : *Each question has four options. There is only one correct answer to each question. Choose the* ***MOST APPROPRIATE*** *option and darken/blacken the corresponding circle on the OMR Answer Sheet.*

SECTION - 'C' : ENGLISH

Read the passage carefully and answer the questions given below : ***(Q. 76 - 081)***

The Walt Disney Company became the first major media company to ban advertisements for candy bars and junk food on its television channels, radio stations and websites, to stop food manufacturers from peddling nutritionally challenged fattening junk for kids. The ban covers foods with too much sugar, too much salt or a full meal more than 600 calories. Predictably, the outraged public said that banning smoking in public places and artery-blocking trans fats in food was bad enough, but stopping them from guzzling comfort drinks by the litres was almost a human rights violation.

It seems most people are not just happy choosing their own poison. They also want it in super-sized doses, guaranteed to kill sooner than later, for after tobacco use, obesity is the biggest public health bugbear that triggers more avoidable diseases and deaths than malnutrition. Overweight and obesity are the leading causes for global deaths, killing 2.8 million adults each year. Worldwide obesity has more than doubled since 1980. The reasons for poor lifestyle choices are many, with almost all driven by socio-economic causes such as low education and limited income. Like killer infections, obesity and the resultant type-2 diabetes affect the poor more than the affluent, largely because processed and fast food are cheaper and take less or no time to prepare than healthy home-cooked meals. Limiting food choices, however, is not enough.

The need is to get children off their chairs and into the playgrounds. Too much screen time, largely social - networking followed by online and video gaming and television, are making healthy children fat and putting them at risk of type-2 diabetes in the second decade of their lives. The lifestyle disease that interferes with the way the body metabolises glucose typically affects people in their fifties and sixties and is linked with a host of complications.

The official measure of obesity in adults is Body Mass Index (BMI), which is calculated by dividing a person's weight in kilograms by the square of his height in metres (kg/m^2). The WHO definition is: a BMI greater than or equal to 25 is overweight, 30 is obese, but the cut-offs for the South Asians are 23 for overweight and 25 for obese.

076 What did the Walt Disney Company ban?

(1) Candy bars

(2) Junk food

(3) The foods were healthy

(4) Advertisement for candy bars and junk food

077 What was purpose behind the ban?

(1) The foods were unhealthy

(2) The foods were healthy

(3) The foods were cheap

(4) The foods were costly

078 Overweight and obesity are the leading causes for global deaths, killing _____ adults each year.

(1) 2.6 million

(2) 8 million

(3) 8.2 million

(4) 2.8 million

079 Obesity affects _____ more than the affluent.

(1) the middle class

(2) the educated

(3) the poor

(4) the sick

080 '<u>Limiting</u> food choices, however, isn't enough.'

Choose the synonym of underlined word.

(1) Restricting

(2) Calculating

(3) Ignoring

(4) Restructuring

081 Choose the correct option :

The antonym of 'miser' is

(1) Rich

(2) Strong

(3) Popular

(4) Generous

082 Choose the correct option from the following :

Her uncle who _____ to her was _____.

(1) had been kind, dead

(2) was dead, kind

(3) is dead, kind

(4) has been kind, dead

083 Fill in the blank with correct preposition:

I saw him climbing _____ the tree to pluck mangoes.

(1) upon

(2) on

(3) up

(4) over

084 Choose the correct spelt word :

(1) Autonomus

(2) Autonomous

(3) Autonemous

(4) Autenomus

085 Choose the correct sentence having an adverb :

(1) He waited long for me.

(2) He went on a long journey.

(3) He came by an early flight.

(4) He is of my near relation.

086 Change into passive voice :

'Please don't disturb me.'

(1) You are requested not to disturb me.

(2) You are requested not disturb me.

(3) Please do not disturb me.

(4) You are requested do not disturb me.

087 Fill in the blank with correct conjunction:

She is rich _____ she is not contented.

(1) since

(2) yet

(3) as

(4) while

088 Change the given sentence to Passive Voice :

People speak different languages all over the world.

(1) Different languages are spoken all over the world.

(2) Different languages were being spoken all over the world.

(3) Different languages was spoken all over the world.

(4) Different languages were spoken all over the world.

089 Choose the correct meaning of the given Idiom / Phrase :

'Helter skelter'

(1) Natural and simple

(2) Here and there

(3) Merits and demerits

(4) Arrogant and naughty

090 Choose the correct meaning of the following idiom :

'A wolf in a sheep's clothing'

(1) A very relatable person

(2) A weak person

(3) A fair and honest person

(4) A dangerous person pretending to be a harmless person

091 Choose the correct conjunction for the following :

This is the ring _____ she gifted me.

(1) beside

(2) where

(3) that

(4) if

092 Fill in the blank :

Neither she _____ he was present in the class.

(1) nor

(2) or

(3) and

(4) but

093 Fill in the blank :

_____ she lost her daughter.

(1) Hello!

(2) Alas!

(3) Hurrah!

(4) Look!

094 Choose the most appropriate option :

Reema is too generous not to help the needy.

(1) Reema is so generous not to help the needy.

(2) Reema is so generous that she can help the needy.

(3) Reema is so generous enough to help the needy.

(4) Reema is so generous she will help.

095 Superlative degree of 'Top' is :

(1) Topest

(2) Topmost

(3) Toppest

(4) Most Top

096 Choose the correct option indicating the meaning of the given sentence :

She is too slow to be a runner.

(1) She is so slow to be a runner.

(2) She is slow to run.

(3) She is so slow that she cannot be a runner.

(4) She is too slow, she couldn't be a runner.

097 Choose the correct Question Tag for the following sentence :

It is quite hot outside today, _____ ?

(1) is it

(2) isn't it

(3) doesn't it

(4) aren't it

098 Spot the error :

He is | the carpenter | who | made my chair.

(A) (B) (C) (D)

(1) A

(2) B

(3) D

(4) No error

099 Change the given sentence to indirect narration :

Rita said to me, "I never eat junk food."

(1) Rita told me that she never ate junk food.

(2) Rita said to me that she never eats junk food.

(3) Rita said that she never ever eats junk food.

(4) Rita told me that I never ate junk food.

100 Change the given sentence to indirect narration :

They said to Rahul, "We are watching cricket."

(1) They said Rahul that they are watching cricket.

(2) They told Rahul that they were watching cricket.

(3) They told Rahul that they are watching cricket.

(4) They told Rahul that they have been watching cricket.

Instructions : *Each question has four options. There is only one correct answer to each question. Choose the* ***MOST APPROPRIATE*** *option and darken/blacken the corresponding circle on the OMR Answer Sheet.*

SECTION - 'D' : GENERAL SCIENCE

101 Which source book keeps a record of all endangered animals and plants?

(1) Blue Data Book

(2) Green Data Book

(3) Red Data Book

(4) White Data Book

102 Identify the endemic flora of the Pachmarhi Biosphere Reserve from the following :

(1) Bison and flying squirrel

(2) Bison and sal

(3) Sal and wild mango

(4) Flying squirrel and wild mango

103 When fertilisation does not occur then the released egg and thickened lining of the uterus is shed off. It is called :

(1) Pregnancy

(2) Menarche

(3) Menopause

(4) Menstruation

104 Increase in height during puberty depends on :

(1) Genes inherited from mother only

(2) Eating right kind of food and exercise

(3) Exercise and genes inherited from parents

(4) Eating right kind of food and genes inherited from parents

105 Consider the following statements :

A. Endocrine glands release hormones into the blood stream to reach a target site.

B. Hormones are not chemical substances.

Select the correct answer using the code given below :

(1) Only A is correct

(2) Only B is correct

(3) A and B are correct

(4) Neither A nor B is correct

106 The magnitude of the power of an earthquake is expressed on a scale called

(1) Richter scale

(2) Vernier scale

(3) Ratio scale

(4) Graphic scale

107 Calorific value of a fuel is expressed in :

(1) Joule

(2) Kilo Joule per kg (kJ/kg)

(3) Kilo Joule

(4) Kilo Joule/m^2

108 Tin cans are made by electro plating tin on to iron because Tin :

(1) is less reactive than Iron

(2) is more reactive than Iron

(3) does not react with Iron

(4) and Iron both are least reactive

109 Arrange the rolling, sliding and static friction in increasing order of friction and choose the correct option.

(1) Rolling, Static, Sliding

(2) Rolling, Sliding, Static

(3) Static, Sliding, Rolling

(4) Static, Rolling, Sliding

110 Which of the following is not a Rabi crop?

(1) Wheat

(2) Pea

(3) Mustard

(4) Paddy

111 Identify the methods for replenishing the soil with nutrients from the following :

A. Growing different crops alternately.

B. Usage of manures.

C. Sowing healthy seeds.

D. Growing legumes as fodder in one season and wheat crop in the next season.

Choose the correct option from the following :

(1) A, C and D

(2) A, B and D

(3) A and D

(4) B and C

112 When electric current is passed through the Copper Sulphate solution?

(1) Copper gets deposited on the electrode connected to the positive terminal of the battery.

(2) Copper gets deposited on the electrode connected to the negative terminal of the battery.

(3) No reaction takes place

(4) Copper gets deposited either on positive or on negative terminal of the battery.

113 Match the following :

Heavenly body		**Characteristics**
A. Orion	I.	Small objects revolving around Sun between Mars & Jupiter.
B. Comet	II.	Brightest star in the sky located close to Orion.
C. Sirius	III.	A constellation can be seen during winter time in late evenings.
D. Asteroid	IV.	An object which revolves around Sun in elliptical orbit and has a bright head and a tail.

Choose the correct option from the answers given below :

(1) A-III, B-IV, C-I, D-II

(2) A-III, B-IV, C-II, D-I

(3) A-IV, B-III, C-II, D-I

(4) A-III, B-II, C-IV, D-I

114 Which of the following gases has the highest concentration in the atmosphere?

(1) Oxygen

(2) Carbon dioxide

(3) Nitrogen

(4) Sulphur dioxide

115 Global Warming is **not** responsible for :

(1) Increase in sea level

(2) More severe storms

(3) Increased droughts

(4) More earthquakes

116 Identify the multicellular microorganism from the following :

A. Bacteria

B. Aspergillus

C. Paramaecium

D. Penicillium

Choose the correct option from the following :

(1) A only

(2) A and B only

(3) B, C and D only

(4) B and D only

117 The bulb of the dropper, immersed in water is pressed. When the pressure is released, water gets filled in the dropper. This happens due to

(1) Force of water

(2) Force of gravity

(3) Pressure of water

(4) Atmospheric pressure

118 An oscillating body is making 360 oscillations in 3 minutes. Its frequency in hertz will be

(1) 120

(2) 2

(3) 20

(4) 12

119 A person who is standing 2 m in front of a plane mirror, seems to be _____m away from his image.

(1) 2 m

(2) 4 m

(3) 0.5 m

(4) 1 m

120 Which of the following statements are <u>not true</u> for metals?

A. Metals are good conductor of heat and electricity.

B. The property of metals by which they can be beaten into thin sheets is called ductility.

C. Metals produce ringing sounds so they are said to be Sonorous.

D. In general metallic oxides are acidic in nature.

Choose the correct option from below :

(1) B and C

(2) C and D

(3) B and D

(4) A, B and D

121 Polythene and PVC are examples of :

(1) Thermoplastics

(2) Thermosetting plastics

(3) Melamine

(4) Bakelite

122 Match List I with List II :

List I	List II
A. Coke	I. Obtained during the processing of coal to get coke.
B. Coal Tar	II. Almost pure form of carbon
C. Coal Gas	III. Petroleum
D. Petrol	IV. Naphthalene balls

Choose the correct option from the answers given below :

(1) A-I, B-II, C-III, D-IV

(2) A-II, B-IV, C-III, D-I

(3) A-II, B-IV, C-I, D-III

(4) A-III, B-II, C-IV, D-I

123 A combustible substance catches fire/burn as long as its temperature is _____, its ignition temperature.

(1) Higher than

(2) Lower than

(3) Equal to or higher than

(4) Equal to or lower than

124 Which of the following is/are present only in plant cell?

A. Cell membrane

B. Cell wall

C. Chloroplast

D. Nuclear membrane

Select the correct answer using the code given below :

(1) B and C

(2) A and D

(3) B

(4) C

125 Given below are the different stages in the life cycle of frog. Arrange them in order of occurrence.

A. Fertilisation

B. Tadpole

C. Laying of eggs

D. Development of embryos

Choose the correct option from the following :

(1) A, C, B, D

(2) C, A, D, B

(3) C, B, D, A

(4) D, A, C, B

Instructions : *Each question has four options. There is only one correct answer to each question. Choose the* ***MOST APPROPRIATE*** *option and darken/blacken the corresponding circle on the OMR Answer Sheet.*

SECTION - 'E' : SOCIAL SCIENCE

126 Who began a campaign against the practice of Sati?

(1) Rammohan Roy

(2) Ishwarchandra Vidyasagar

(3) Jyotirao Phule

(4) Shri Narayana Guru

127 Where is The Tata Iron and Steel Company situated?

(1) On the banks of Hooghly river

(2) On the banks of Son river

(3) On the banks of Ganges

(4) On the banks of Subarnarekha

128 When was The English Education Act introduced?

(1) 1735

(2) 1800

(3) 1835

(4) 1870

129 Match List I with List II :

List I	**List II**
A. Sukta	I. Slave
B. Chariots	II. Sacrifice
C. Yajna	III. Used in battles
D. Dasa	IV. Well said

Choose the correct option from the answers given below :

(1) A-II, B-IV, C-III, D-I

(2) A-IV, B-I, C-III, D-II

(3) A-III, B-II, C-IV, D-I

(4) A-IV, B-III, C-II, D-I

130 Where is Gangri glacier?

(1) Assam

(2) Mizoram

(3) Ladakh

(4) Uttarakhand

131 Which of the following soldiers was hanged to death on 29 March 1857?

(1) Bhagat Singh

(2) Rajguru

(3) Sukhdev

(4) Mangal Pandey

132 Where were the Mughal emperor Bahadur Shah Zafar and his wife Begum Zinat Mahal sent to prison?

(1) Delhi

(2) Meerut

(3) Rangoon

(4) Lucknow

133 Which of the following books contain the ideas of Chanakya?

(1) Upnishads

(2) Arthashastra

(3) Yogdarshan

(4) Prashasti

134 Who created the sacred space Dharmsal?

(1) Baba Guru Nanak

(2) Kabir

(3) Tukaram

(4) Eknath

135 What is the place where a river flows into another water body called?

(1) River's mouth

(2) Delta

(3) Basin

(4) Tributary

136 Arrange the following steps of terrace farming in chronological order :

A. The sides of each plot are raised to retain water.

B. They cultivate rice on it.

C. The land on a hill slope is made into flat plots.

D. Plots are carved out in steps.

(1) A, B, C, D

(2) B, C, D, A

(3) D, B, C, A

(4) C, D, A, B

137 For how many years is a Gram Panchayat elected?

(1) 1

(2) 3

(3) 2

(4) 5

138 Which one of the following may be called a 'dwarf" planet?

(1) Pluto

(2) Saturn

(3) Mercury

(4) Venus

139 Where was the Harappan city of Dholavira located?

(1) Rajasthan

(2) Rann of Kutch

(3) Gulf of Khambhat

(4) Punjab

140 Which of the following is a conventional source of energy?

(1) Biogas

(2) Firewood

(3) Solar energy

(4) Wind energy

141 Ox bow lakes are found in :

(1) Mountains

(2) Deserts

(3) Glaciers

(4) River valleys

142 Match List I with List II :

	List I		List II
A.	Biotic	I.	Rivers, Lakes, Seas, Oceans
B.	Hydrosphere	II.	Thin layer of air
C.	Atmosphere	III.	Hard top layer of the earth
D.	Lithosphere	IV.	The world of living organisms

Choose the correct option from the answers given below :

(1) A-I, B-II, C-III, D-IV

(2) A-II, B-III, C-I, D-IV

(3) A-III, B-I, C-II, D-IV

(4) A-IV, B-I, C-II, D-III

143 Where are mushroom rocks found?

(1) Valleys

(2) Glaciers

(3) Hills

(4) Deserts

144 Which of the following is formed by the material carried by glaciers?

(1) Flood plains

(2) Moraines

(3) Beach

(4) Loess

145 Which of the following are the key features of the Constitution of India?

A. Federalism.

B. Parliamentary form of Government.

C. Separation of Powers.

Select the correct answer using the code given below :

(1) A and B only

(2) B and C only

(3) A and C only

(4) A, B and C

146 Which of the following is a human made resource?

(1) Technology

(2) Water

(3) Copper

(4) Natural gas

147 Which of the following is NOT a component of maps?

(1) Distance

(2) Direction

(3) Plan

(4) Scale

148 Which of the following is NOT a natural ecosystem?

(1) Forest

(2) Sea

(3) Aquarium

(4) Desert

149 Match List I with List II :

List I	**List II**
A. Prejudice	I. Difference in language, food, dress, customs etc.
B. Stereotype	II. Judging people negatively.
C. Discrimination	III. Fixing people into one image.
D. Diversity	IV. Inequality

Choose the correct option from the answers given below :

(1) A-I, B-II, C-III, D-IV

(2) A-II, B-III, C-IV, D-I

(3) A-III, B-II, C-I, D-IV

(4) A-IV, B-III, C-II, D-I

150 Which of the following is the main work of Patwari?

(1) Maintaining law and order

(2) Measuring land and keeping land records

(3) Maintaining accounts of the village

(4) Settles disputes of the villagers

SPACE FOR ROUGH WORK

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