

1. Read the passage and answer the questions below:

A hybrid between helicopters and gliders, gyrocopters are set to make their debut in India in the next couple of months. This smaller, lighter and quiet version of the chopper will perhaps be the answer to the country's traffic problems. The catch? They'll cost approximately the same as a luxury car _ a stellar Rs 30 lakh onwards.

World over, gyrocopters are used for border security, coastal area surveillance, road patrolling and agriculture crop spraying. According to Rishabh Mehta, managing director of the company that's bringing gyrocopters to India, "While individuals can also buy them, it could take up to a year for licensing and security clearance since the government has tightened aviation rule post 26/11."

So what makes a gyrocopter so exciting? For starters, they can fly very low, only a few centimeters above the ground at a very low speed, about 30 kmph unlike a helicopter which cannot fly low and slow at the same time. Gyrocopters are also much less expensive and need very little landing space unlike a glider. Like a helicopter, the gyro needs an engine for the initial thrust. Later, the engine cuts off and it's the direction of the wind that makes it sail like a glider. However, unlike a helicopter, it cannot take-off and land vertically.

Meanwhile, the Directorate General of Civil Aviation (DGCA) has decided to formulate a separate category for gyrocopters in India. "We don't want them to operate in a city with a high population, or around a VIP or defence area," says a DGCA official.

A gyrocopter looks like a small helicopter but the main difference is, there is no engine turning the rotors. The rotors simply self-propel (which we call "autorotate") due to the way the air flows through them.

As the engine is not connected to the rotors, a gyrocopter is not seriously affected if the engine is not connected to the rotors, a gyrocopter is not seriously affected if the engine should stop in flight. This means that a gyrocopter is one of the safest methods of flying.

Gyrocopters have traditionally been open cockpit "Motorbikes of the sky" but, since late 2010, they are available as fully enclosed models. This changes the game completely.

IA. Answer the following questions:

(8x2=16)

(a) What are gyrocopters?

(b) How can they help solve the country's traffic problems?

(c) What are some of the key areas where gyrocopters can be very useful?

(d) List any two advantages that gyrocopters have over helicopters?

(e) In what sense is a gyrocopter similar to a helicopter?

(f) Why does the DGCA want to formulate a separate category for gyrocopters in India?

(g) How do the rotors of a gyrocopter work?

(h) What makes the gyrocopter the safest method of flying?

IB

(4x1=4)

(a) Find the word in para 2 of the passage that can be used in the sense "to guard something".

(b) Write the antonym of 'horizontal' in para3 of the passage.

(c) Write the synonym of 'gravely' in para6 of the passage.

(d) Frame a sentence from the word 'serveillance'.

III. Fill the suitable Articles-

(4x2=8)

1. She visited-----Safdarjung tomb last month.
2. He saw -----boy she was talking about.
3. My father is ----- honorary member of the managing committee.
4. I always like to read about sports in ----- Times of India.

IV. Fill suitable form of Verb --

(5x2=10)

1. The moon ----- in the starry sky and it looked beautiful.(rise)
2. Father ----- us to go near the lake.(forbid)
3. Mother was tired and _____ in the bed for sometime.(lie)
4. He was ----- by a bee.(sting)
5. The thief-----when he saw the policeman.(flee)

V. Underline Adjectives and name them---

(5x2=10)

1. The boy is intelligent.-----
2. Some food has been kept aside for the poor.-----
3. These apples are rotten.-----
4. His books are on the table.-----
5. Which book will you buy?-----

VI. Fill suitable degrees of comparison----

(3x2=6)

1. Akbar ruled his empire ----- than any other ruler.(wisely)
2. Of Rita and Neha, who lives ----- to the market? (near)
3. He rode the horse ----- than the other knight. (swiftly)

VII. Fill in the blanks with appropriate forms of verbs given in brackets. (1x5=5)

1. They ----- (join) me for lunch today. (present continuous)
2. The water ----- (boil) for thirty minutes before I turned off the gas.(past continuous tense)
3. We hope that the sky ----- (clear) by the time we set out on our
4. She ----- with Mr Sharma earlier also.(work) (simple past tense or the present perfect tense)
5. Villagers ----- (visit) the shrine regularly.(simple past)

VIII. Underline verbs and identify them as Transitive/Intransitive-- (5x2=10)

1. The policeman caught the thieves.-----
2. Usha Uthup sang and danced on the stage.-----
3. My sister served tea to the guest.-----
4. The machine is not working.-----
5. The Artist made beautiful paintings.-----

IX. Identify the subject and predicate---- (3x2=6)

1. Mahi's batting was flawless in the final match.
2. How beautiful the frock is!
3. India is a densely populated country.

X. Fill suitable pronouns - (5x2=10)

1. I could do many things ----- even when I was a child.
2. Can ----- open the window please?
3. Do you want to speak to -----?
4. Tara had got gifts for ----- as well as for all of us.
5. We often deceive -----.

p`0 1... inamnailaiKt gaVaMSa kao pZ,kr ide gayao p`SnaaoM ko sahl]%tr ilaiKe...

panal maanava kl maUla BaUt AavaSyaktaAaoM maom sao ek hO,yah jalvana ka AaQaar hO AaOr ivakasa ko ilae AavaSyak hO.]mmaldaom pr panal ifr jaae tao kuC hd tk manauYa sah sakta hO prMtu yaid plnao ko ilae ek igalaasa panal ko laalao pD,o haoM tao isqait Asah\ya hao jaatl hO.duBaa-gya sao rajasqaana rajya maom eosal isqait Aaja Bal doKnao kao imala jaatl hO.baaD,maor AaOr jaOsalamaor ko dUrsqa gaa^vaaom maom khavat saunaa[- dotl hO ik ek igalaasa dUQa imala sakta hO panal nahIM.yaVip isqait sava-~ [tnal gaMBalr nahIM hO prMtu yah ek kzaor sa%ya hO ik isaMcaa[- va poya jala kl samasyaa Aaja Bal mau#ya samasyaaAaoM maom sao ek hO.

A... panal maanava kl maUla BaUt AavaSyakta kOsao hO Æ

4

.....
.....
.....
.....
.....

Aa... Aaja Bal panal kl samasyaa kha^ AiQak doKnao kao imalatl hOÆ 4

.....
.....
.....
.....

..... [.. baaD,maor AaOr jaOsalamaor ko
dUrsqa gaa^vaaom maom @yaa khavat p`cailat hOÆ 4

.....
.....
.....
.....

..... [-... manauYa @yaa sah sakta hO @yaa
nahIM Æ 4

.....
.....
.....
.....
.....

]... kzaor sa%ya iksao batayaa gayaa hOO Æ
4

.....
.....
.....
.....

p`03... Aapki prlxaae^ samaaPt hao gayal hOM.Apnao ima~ sao
CuT\iTyaa^ saaqa ibatanao ka AnauraoQa krto hue p~ ilaiKe...

.....
.....

.....

.....

.....

.....

.....

.....

.....

.....

.....

.....

.....

.....

.....

.....

.....

.....

.....

.....

.....

.....

.....

.....

p` 04...inamnailaiKt maom sao iksal ek ivaYaya pr AnaucCod ilaiKe.

20

³k' basa sTa^p ka dRSya ³K' ipkinak ka vah idna

³ga' pustkalaya ³Ga' maora ip`ya Kola

.....

.....

.....

.....

.....

.....

.....

.....

.....

.....

.....

.....

.....

.....

.....

.....

.....

.....

.....

.....

.....

.....

.....

.....
.....
.....
.....
.....
.....
.....
.....
.....
.....

p` 05... SabdaoM kao Sauw kroM...

4 kva Ê

.....
irNa
p`Sana
ga`hkaya-

p` 06... inamnailaiKt SabdaoM maom Baavavaacak saM&a banaae^...

4

raYT/
Aalasal
kayar
prayaa

**p` 07...roKaMikt SabdaoM ko pyaa-yavaacal SabdaoM kao ir@t
sqaana maom ilaKoM ... 4**

³A' sarsvatI kaoBal khto hOM.

³ba' svaNa- kMgana.....sao banao haoto hOM

.

³sa' pavasa ?tu maom lagaatar.....haotI rhl.

³d' p`Bau kl AaraQanaa sao hl.....ko dSa-na haoto hOM.

**p` 08... inamnailaiKt mauhavaraMo kao Apnao vaa@yaoM maom
p`yaaoga krko ilaiKe... ³kao[-caar' 4**

mMau^h taoD,]<ar donaa , baUto kl baat na haonaa, galao ka
har bananaa , poT maom caUho kUdnaa
Aastlna ka saa^p , caa^d ka TukD,a ,

P`a 10...inado-Saanausaar kire...

k... ivaSaoYaNa banaa[e AaOr Baire...

4

A...[ithasa kl gaaqaae^ baojaaOD, hO. 3

Baart'

Aa... maOM.....kxaa maOM pZ,ta hO.

³Aaz'

[... Aalaaok maoraBaa[- hO.

³maamaa'

[-...]sanaaOjavaana nao saahsa ka pircaya

idyaa. ³jaaOSa'

K... roKaMikt SabdaoM maOM sava-naama ko BaodaoM ko naama

ilaiKe...

4

vah toja daOD,ta hO.

.....

]saka kao[- kuC nahIM ibagaaD,
sakta.....

]sao kaOna hra sakta
hOÆ.....

jaao Bal hranaa caahta hO]sao svayaM hl harna pD,ta
hO.....

ga... samaasa ivaga`h kroM AaOr naama Bal ilaKoM...

4

haqa¹ mau^h

.....

iktaba¹

ka[^]pl.....

kalaaQana.....

...

Baartr%na.....

.

Ga... saMiQa kire...

4

maha +?iYa

.....

p`it+ ek

.....

sau +Aagat

.....

laGau+

]<ar.....

ca ... inamnailaiKt Anaok SabdaoM ko ilae ek sahl Sabd ilaiKe...

4 ijasao Baulaayaa na jaa

sako.....

vaYa- maoM ek baar haonao

vaalaa.....

[-Yyaa- krnao

vaalaa.....

laok ilaKnao vaalaa

.....

Ga...ivalaaoma ilaiKe...

4

]pisqat..... sabala.....

pxa..... maUK-

.....

A) Tick the correct answer for each of the following: (10 × 2 = 20)

- 1) The natural number along with zero are called-
a) Whole number b) Natural number c) Integer d) Even number
- 2) Every whole number has a predecessor except-
a) 1 b) 2 c) 3 d) 0
- 3) Which is the smallest prime number-
a) 2 b) 5 c) 7 d) 3
- 4) If the sum of the digits of a numbers is divisible by 3 then the number is divisible by-
a) 3 b) 9 c) 5 d)4
- 5) One complete turn is called revolution and the angle for one revolution is called-
a) Complete angle b) Right angle c) Zero angle d) Supplementary angle
- 6) When the two lines intersect and the angle between them is right angle, then the line are said to be
a) Perpendicular b) Parallel line c) Intersect line d) Median
- 7) A quadrilateral in which pair of two opposite side is parallel is called-
a) Trapezium b) hexagon c) heptagon d) rectangle
- 8) Polygon with side 6 is called-
a) Hexagon b) octagon c) decagon d) heptagon
- 9) The numbers with negative sign are less than zero and are called –
a) Negative numbers b) Positive numbers
c) Whole numbers d) Natural numbers
- 10) The fraction, where the numerator is bigger than the denominator are called –
a) Improper fraction b) Proper fraction
c) Like fraction d) Mixed fraction

B) All the question from Q. No.11 to Q. No. 18 carry 4 marks each. (8× 4 = 32)

11) Find the HCF of the (36, 84)

12) Find the area of rectangle with sides are 3cm and 4cm.

13) Give expression for the following case “p multiplied by 7”.

14) Complete the table to the equation:

M	1	2	3
M+ 10	-	-	-

15) Distance travelled by Hamid and Akhtar in an hour are 9km and 12 km. find the ratio of speed of Hamid to the speed of Akhtar.

16) Determine if the following is in proportion 32, 48, 70, 210.

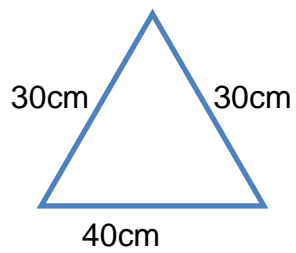
17) Ekta earns Rs 3000 in 10 days. How much will she earn in 30 days?

18) Find the side of the square whose perimeter is 20 m.

C) All question from Q. No. 19 to Q. No. 26 carry 6 marks each. (8× 6 = 48)

19) The area of a rectangular garden 50 m long is 300 sq m. find the width of the garden.

20) What is the perimeter of following figure -



21) Cost of 4 dozen banana is Rs 180. How many bananas can be purchased for Rs 90.

22) Shekhar is a famous cricket player. He so far scored 6980 runs in a test match he wishes to complete 10,000 runs. How many runs does he need?

23) In a year Seema earn 1,50,000 and save 50,000 find the ratio of:

a) money that Seema earns to money she saves

b) money that she save to the mopey she spends.

24) The length of a rectangular box is 4 meter less than 3 times the breadth of the hall.
What is the length, if the breadth is b meters?

25) In a Mathematics test, the following marks were obtained by 40 students. Arrange them in a table using tally marks.

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

- a) Find how many students obtained marks equal to or more than 7
- b) How many students obtained marks below 4.

26) Sony travels 20 km 50 m every day. Out of this she travels 10 km 200 m by bus and the rest by the train. How much distance does she travel by train?

9. What is used in making or breaking a circuit?

- A. PLUG
- B. BATTERY
- C. WIRE
- D. SWITCH

10. When south poles of two magnets are kept close, they will

- A. Attract
- B. Repel
- C. Rotate
- D. Remain Unaffected

Q II. Fill in the blanks:

(1X10=10)

1. _____ is less dense than water even though it is a solid.
2. The air we breathe in is rich in _____.
3. Garbage present in space is called _____.
4. _____ is a method to collect rainwater from the rooftops of the buildings.
5. To increase the size of the shadow, move the object _____ the source.
6. _____ bodies help in locomotion in water.
7. The part that stores food in an onion bulb is _____.
8. Living things respond to _____.
9. In sugar solution, sugar is _____ and water is a solvent.
10. _____ have no definite shape or volume.

Q III. Give a scientific term/ one word:

(1X10=10)

1. Deficiency of this mineral causes goitre. _____.
2. The process of removing hair from sheep. _____.
3. Portion between two nodes on a stem. _____.
4. A solution to which no more of a solute can be added at room temperature. _____.

5. This structure protects our heart and lungs. _____.
6. Liquids that are soluble in water. _____.
7. An organism that feeds on the dead bodies of plants and animals.
_____.
8. A condition in which a person has too much body fat.
_____.
9. The physical appearance and feel of any material.
_____.
10. The female reproductive part of the flower. _____.

Q IV. Give one example of:

(1X5=5)

1. Amphibians: _____.
2. Periodic Motion: _____.
3. Translucent objects: _____.
4. Characteristics of living things: _____.
5. Ball and socket joint: _____.

Q V. Find the odd one out from each of the following groups:

(1X5=5)

1. Elbow joint, Knee joint, Skull joint, Hip joint. _____.
2. Lamina, Stamen, Midrib, petiole. _____.
3. Battery, Key, wires, Filament. _____.

4. Light year, Decade, Century, week. _____.

5. Precipitation, Condensation, Evaporation, Freezing.
_____.

**Q VI. Given below are a few jumbled words taken from various methods of separation of components of mixture. Arrange them into meaningful words:
(1x5=5)**

1. ESHTRGIN: _____.

2. NOWWINGIN: _____.

3. GINIEVS: _____.

4. NOTIORAAVPE: _____.

5. ATINOLILISTD: _____.

Q VII. Give one difference between: (2X5=10)

1. Homogeneous mixture and heterogeneous mixture.

2. Parallel venation and reticulate venation.

3. Herbs and trees.

4. Closed circuit and open circuit.

5. Reuse and recycle.

Q VIII. Answer the following questions in one word/ one sentence: (2X5=10)

1. How do cotton fabrics keep our body cool ?

2. Why is rusting considered as chemical change?

3. Why do gaseous particles move very fast in all directions?

4. We can move our arm in all directions but not our knee. Give reason.

5. What is the advantage of hollow bones in the birds?

Q IX. Diagram based question:
Identify the nutrients in the following food items:

(2X5=10)

1. _____



2. _____



3. _____



4. _____



5. _____



SECTION – B (G.K.) (25)

Q I. Match the names of theories with the names of scientists who propounded them. (2X5=10)

- | | |
|--------------------------------|-------------------|
| 1. The laws of gravitation | a. W. Heisenberg |
| 2. The atomic theory | b. Gregor Mendel |
| 3. The uncertainty principle | c. A.H. Becquerel |
| 4. The laws of heredity | d. Isaac Newton |
| 5. The theory of radioactivity | e. John Dalton |

1. _____ 2. _____ 3. _____ 4. _____ 5. _____

Q II. Look at the pictures given below and identify the spices. (2X5=10)



1. _____ 2. _____



3. _____ 4. _____



5. _____

Q III. Multiple choice questions -Tick the correct answer:

(1X5=5)

1. Which is the biggest mammal on land?
a. Blue whale b. Elephant c. Cow d. Shark
2. How many pairs of legs does a spider have?
a. 4 b. 6 c. 8 d. 2
3. Which is the only bird that can fly backwards?
a. Humming bird b. Pigeon c. Crow d. Swift
4. Which is the only bird that flies underwater?
a. Penguin b. Ostrich c. Swan d. Duck
5. What is the Latin name for humans?
a. Homo humans b. Homo sapiens c. Resw d. Retrte