



GPS OLYMPIAD 2023-24

SAMPLE PAPER

CLASS 11th

Total Question: 90

Duration: 2 hrs

Paper Pattern				
Sections	(A) English	(B) <u>For Science stream</u> : Physics, Chemistry, Mathematics, Biology (Any three)	(C) Mental Ability	(D) Current Affairs
No. of Questions	15	45	15	15

Marking Scheme: There is no negative marking. Every correct response shall be rewarded with 1 mark.

Instructions:

1. This question booklet contains consecutively numbered pages. If a page(s) is misprint or missing, please request the invigilator to change the question booklet.
2. Place do not open the question booklet by breaking open the seal before the invigilator permits you to do so.
3. The accompanying OMR sheet is to be filled-in with the suitable choice by darkening the concerned circle. Please use a blue or black ballpoint pen only for the purpose. Please do not put any other mark on the OMR sheet otherwise the response may not get validated.
4. Use of unfair means is strictly prohibited and may invite cancellation of candidature by cancellation of OMR Sheet.
5. Candidates are advised to keep the question paper with them and mark their choices on the question paper in addition to marking them on the OMR sheets. They will then be able to tally their responses with the answer key which will be subsequently uploaded shortly after the examination. The uploading of question paper and all other important information in regard to the Olympiad will be done on the website: gpsdadiya@ac.in

Note: This is a Sample Paper and Actual Question Paper Contains 90 Questions.

Section A: English

Please read the passage below and answer questions 1 and 2

All our life is based on choice. We choose at different levels of our existence. We choose between white and blue, between certain psychological impulses of like and dislike, between certain ideas, beliefs, accepting some and discarding others. So our mental structure is based on this process of choice, this continuous effort at choosing, distinguishing, discarding, accepting, rejecting. And in that process there is constant struggle, constant effort. There is never a direct comprehension, but always the tedious process of accumulation, of the capacity to distinguish, which is really based on memory or the accumulation of knowledge and, therefore, there is this constant effort made through choice. Nor, is not choice ambition? Our life is ambition. We want to be somebody, we want to be well thought of, want to achieve a result. If I am, not wise, I want to become wise. If I am violent, I want to become nonviolent. The 'becoming' is the process of ambition. Can we find a way of life which is not based on ambition, which is not of choice, which is a flowering in which the result is not sought? All that we know of life is a series of struggles ending in results that are being discarded for greater results. That is all we know. So if we observe our own ways of thinking, should we not inquire into this question of ambition? What do we mean by it, and is it possible to live without ambition? We see that ambition breeds competition-whether in children, in school, or among the big politicians, all the way up. This ambition produces certain industrial benefits, but in its wake, obviously there is the darkening of the mind, the technological conditioning, so that the mind loses its pliability, its simplicity and, therefore, is incapable of directly experiencing. The man who flowers is the man who is, who is not becoming. Is there not a difference between the flowering mind and the becoming mind? The becoming mind is a mind that is always rowing, becoming, enlarging. Gathering experience as knowledge. We know that process full well in our daily life, with all its results, with all its conflicts, its miseries and strife, but we do not know the life of flowering. And is there not a difference between the two which we have to discover-not by trying to demarcate, to separate, but to discover-in the process of our living? When we discover this, we may perhaps be able to set aside this ambition, the way of choice, and discover a flowering, which is the way of life, which may be true action.

Q. 1. Which of the following is the opposite of the word renunciation?

- (a) Accommodation (b) Refusal (c) Denial (d) Abnegation

Q. 2. Whether the above paragraph will support the statement that one's life should be purposeful, full of activity, struggle and achievement.

- (a) Yes (b) No (c) Indifferent (d) None of the above

Section B: For Science stream: Biology, Chemistry, Physics, Mathematics (PCB/PCM)

You may kindly select as appropriate out of PCB or PCM

Biology

Q. 3. Which type of Starch as a stored food present in the algae?

- (a) Mannitol (b) Laminarin (c) Floridean (d) All of these

Q. 4. On which location is complete the light reaction of photosynthesis in a Chloroplast?

- (a) Stroma (b) Grana (c) Lamellae (d) None of these

Chemistry

Q. 5. The number of water molecules is maximum in:

- (a) 18 g of water (b) 18 moles of water (c) 18 molecules of water (d) 1.8 g of water

Q. 6. The total number of H-atoms in 8.5 g of NH_3 is:

- (a) 9.03×10^{23} (b) 3.01×10^{23} (c) 1.204×10^{24} (d) 6.02×10^{23}

Physics

Q. 7. Suppose a player has several baseballs. Which baseball will be in the air for the longest time.

- (a) The one with maximum height (b) The one with greatest initial velocity (c) The one leaving the bat at 45° with respect to the ground (d) The one with farthest range

Q. 8. We need to store 1 liter of cold water in warm weather for as long as possible. In which of the following shapes should a flask be built for the task. Assume the thickness and the material are same for all the shapes.

- (a) cubical (b) Conical, with radius=height (c) spherical (d) Cylindrical, with radius=height

Mathematics

Q. 9. If $X = \{8^n - 7n - 1; n \in \mathbb{N}\}$ and $Y = \{49(n - 1) : n \in \mathbb{N}\}$ then

- (a) $X \subset Y$ (b) $Y \subset X$ (c) $X = Y$ (d) None of these

Q.10 $\lim_{x \rightarrow 0} \frac{xy\sqrt{y^2 - (y-x)^2}}{(\sqrt{8xy - 4x^2} + \sqrt{8xy})^3}$ equals.....

- (a) $\frac{1}{512}$ (b) $\frac{1}{128}$ (c) $\frac{1}{64}$ (d) $\frac{1}{2\sqrt{2}}$

Section C: Mental Ability

Q.11 If > denotes '+', < denotes '-', + denotes '÷', - denotes '=', = denotes 'less than' and × denotes 'greater than', which of the following is a correct statement?

- (a) $3 + 2 > 4 = 9 + 3 < 2$ (b) $3 > 2 > 4 = 18 + 3 < 1$ (c) $3 > 2 < 4 \times 8 + 4 < 2$ (d) $3 + 2 < 4 \times 9 + 3 < 3$

Q.12 In a certain code language, 'poki top ma' means 'Usha is playing cards', 'kop jaki ma' means 'Asha is playing tennis', 'ki top sop ho' means 'they are playing football' and 'po sur kop' means 'cards and tennis'. Which word in that language means 'Asha'?

- (a) ja (b) Ma (c) kop (d) Top

Section D: Current Affairs

Please study the paragraph given below and answer questions 13 and 14.

The Competition Commission of India (CCI) had on October 20 last year fined Google for its anti-competitive practices and abusive conduct in the Android mobile device ecosystem. The quantum of penalty imposed was ₹13,37.76 crores and CCI also issued ten non-monetary directions against

the tech giant to be complied by January 20 this year. In 2019, CCI ordered a detailed probe following complaints by consumers of Android-based smartphones. Android is an open-source mobile Operating System (OS), which was acquired by Google in 2005. Smartphones need an OS to run applications and programs. Google's Android is the dominant mobile OS, powering over 95 per cent of India's smartphones. Google operates and manages the Android OS and licenses other Google proprietary applications such as Chrome, Gmail, Maps, YouTube, Play Store etc. Original Equipment Manufacturers (OEMs) or smartphone manufacturers use Android and through it, Google's apps on their mobile phones. In the Android case, CCI found Google in contravention of the Competition Law for various agreements executed with smartphones OEMs in connection with licensing of its mobile operating system Android. These agreements required OEMs to mandatorily pre-install the entire Google Mobile Suite (GMS), including a wide range of key Google apps such as Google Maps, Gmail, YouTube, etc., with no option to un-install the same. The requirement of prominent placement of such apps was also found to be imposition of unfair condition on device manufacturers. CCI also found Google to be abusing its dominant position by making pre-installation of Google's proprietary apps (particularly Google Play Store) conditional upon signing of Anti-fragmentation Agreement (AFA)/Android Compatibility Commitment Agreement (ACC) for all android devices manufactured/distributed/marketed by device manufacturers. This was found by CCI to have reduced the ability and incentive of device manufacturers to develop and sell devices operating on alternative versions of Android i.e., Android forks, and limited technical or scientific development to the prejudice of the consumers, in violation of the provisions of competition law. The ten non-monetary directives include: OEMs shall not be restrained from (a) choosing from amongst Google's proprietary applications to be pre-installed and should not be forced to pre-install a bouquet of applications, and (b) deciding the placement of pre-installed apps, on their smart devices. Also, Google shall not restrict uninstalling of its pre-installed apps by the users; Google shall allow the users, during the initial device setup, to choose their default search engine for all search entry points.

- Q.13 (i) The Competition Commission of India is a statutory body established in the year 2002
- (ii) The Competition Commission of India promotes competition and prohibits anti-competitive practices.
- (iii) The Competition Commission of India does not prevent combinations between two or more entities.
- (iv) The Competition Commission of India found actions of Google anti-competitive.

Which of the above statements is correct ?

- (a) (i), (iii), (iv) (b) (i), (ii), (iii) (c) (i), (ii), (iv) (d) (ii), (iii), (iv)

Q.14 What is an Operating System (OS) of a mobile phone?

- (i) It is an interface between hardware and software installed on a mobile phone
- (ii) It is an interface between two software applications stored on a mobile phone
- (iii) Google Android and Apple iOS are the only two OS in the world
- (iv) After the CCI ruling, Google cannot dictate OEMs to necessarily install its Apps

Which of the above statements is correct ?

- (a) (i), (iii), (iv) (b) (i), (ii), (iii) (c) (i), (ii), (iv) (d) (ii), (iii), (iv)

