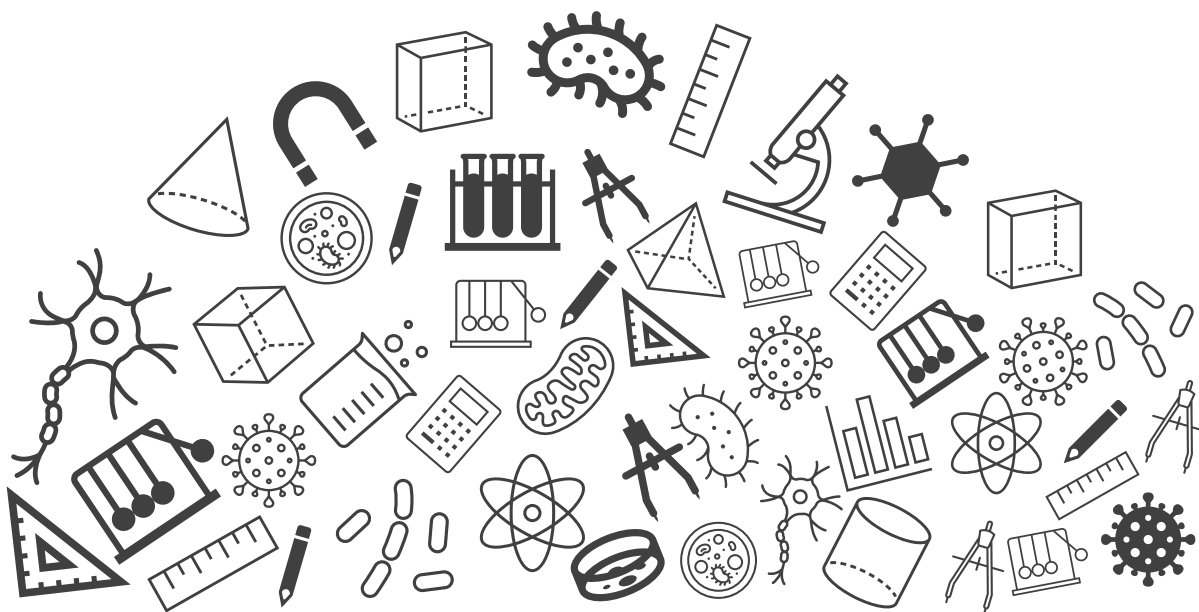




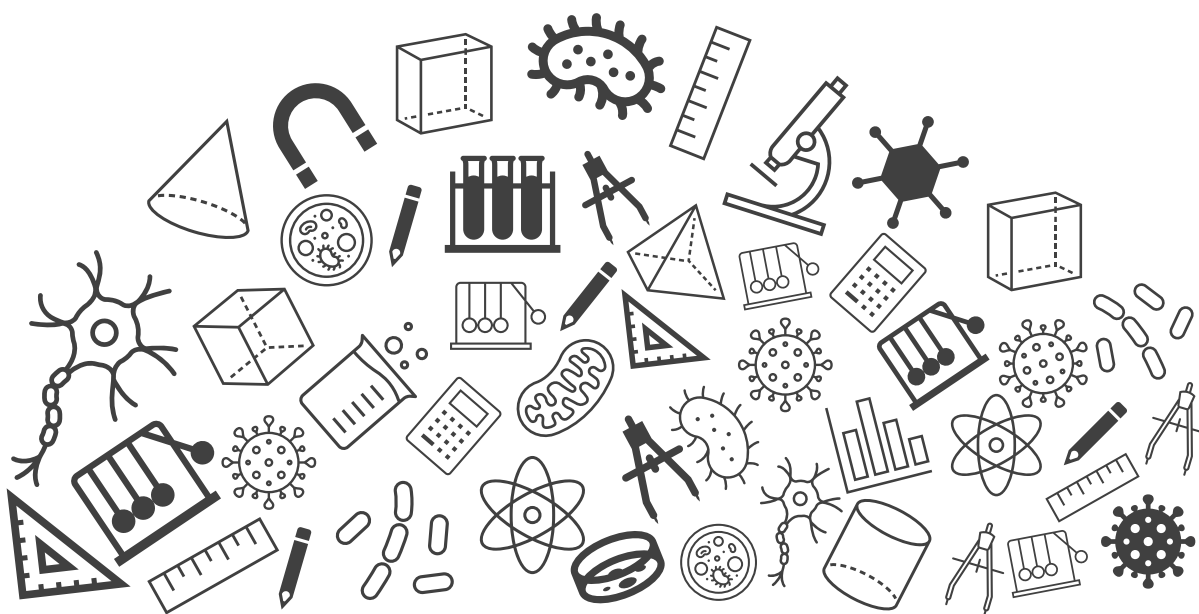
Grade 08 : Science

Exam Important Questions





Reaching the Age of Adolescence



Reaching the age of Adolescence

Topic: Exam Important Questions

1. What is adolescence?

[2 marks][Essential 40]

Solution:

- (i) Adolescence is the time period between the (0.5 marks) beginning of puberty and adulthood.
- (ii) During this period, the body undergoes (0.5 marks) several changes alongside reproductive maturity.
- (iii) It begins around the age of 11 and lasts till 18 (0.5 marks) or 19 years of age.
- (iv) The period of adolescence may vary from (0.5 marks) person to person.

2. The table below shows the data on likely heights of boys and girls as they grow in age. Draw graphs showing height and age for both boys and girls on the same graph paper. What conclusions can be drawn from these graphs?

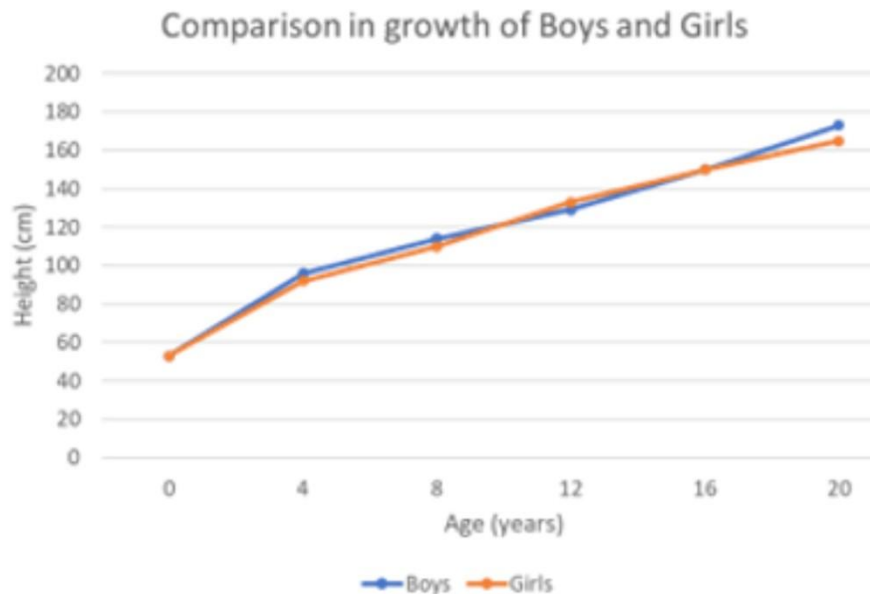
Age (Years)	Height of Boys (cm)	Height of Girls (cm)
0	53	53
4	96	92
8	114	110
12	129	133
16	150	150
20	173	165

[5 marks][NCERT Textbook Q10][Essential 40]

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Solution:



(3 marks)

- (i) From the above graph, it can be inferred that (0.5 marks)
during puberty, girls height increases faster
than boys.
- (ii) However, towards the end of puberty, boys (0.5 marks) tend
to grow taller than girls. This can be due to
the difference in duration of hormonal
secretions from the pituitary gland.
- (iii) In case of girls, the growth hormone starts (0.5 marks)
releasing around 10 years of age and declines
at 16 years.

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(iv)Whereas, in case of boys, it starts releasing (0.5 marks] around 12 years of age and continues up to 18-20 years.

3. Reproductive age in women starts when their

[1 mark][NCERT Textbook Q7(b)][Essential 40]

- i) menstruation starts
- ii) pimples appear
- iii) body weight increases
- iv) height increases

Solution:

- The correct answer is option b: ii and iv. (2 marks)

(i)Estrogen is a female sex hormone released by the ovaries. So statement i is false.

(ii)Testosterone is the male sex hormone that controls the development of male secondary sexual characteristics. So statement ii is true.

(iii)Sperms are the male gametes produced by the testes. So statement iii is false.

(iv)In the case of no fertilisation, the uterine wall disintegrates and is discharged out from the vagina in the form of blood and mucus. Thus, statement iv is true

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4. What are sex hormones? Why are they named so? State their function.

[3 marks][NCERT Textbook Q6][Essential 40]

Solution:

- Sex hormones are the hormones that are secreted by the ovaries in females and testes in males. (1 mark)
- They are named so because they are responsible for development of the secondary sexual characters in females and males. (1 mark)
- The female sex hormones are estrogen and progesterone and these hormones stimulate the development of female secondary sexual characteristics. (0.5 marks)
- The male sex hormone is testosterone and its function is to stimulate the development of male secondary sexual characteristics. (0.5 marks)

5. What is menstruation? Explain.

[3 marks][Essential 40]

Solution:

- In females, the ova begin to mature with the onset of puberty. (0.5 marks)
- A single ova matures and is released by one of the ovaries once in about 28 to 30 days. (0.5 marks)

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- During this period, the wall of the uterus becomes thick for a possible fertilisation of the ovum. (0.5 marks)
- If the fertilisation fails to take place, the ovum and the thickened lining of the uterus along with its blood vessels are shed off. (0.5 marks)
- This causes bleeding in women and is called menstruation. (0.5 marks)
- It lasts for 4 to 5 days in a month. (0.5 marks)

6. Write the notes on the secondary sexual characters.

[3 marks][NCERT Textbook Q8(b)][Essential 40]

Solution:

- Secondary sexual characters are the features that help in distinguishing the male and the female from each other. They are the physical or the behavioral characteristics that appear in humans at the time of puberty. (1 mark)
- Some of the secondary sexual characters are:

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7. Match the following.

P	Facial hair and moustache	i	Girls
Q	Breast enlargement	ii	Both boys and girls
R	Hair on armpits and genital regions	iii	Boys

- I. P: ii; Q: iii; R: i
- ii. P: iii; Q: i; R: ii
- iii. P: i; Q: ii; R: iii
- iv. P: ii; Q: i; R: iii

[3 marks][Essential 40]

Solution:

- The correct option is option B. (1 mark each)

P	Facial hair and moustache	iii	Boys
Q	Breast enlargement	i	Girls
R	Hair on armpits and genital regions	ii	Both boys and girls

8. The most conspicuous visible change that occurs in boys during puberty is .

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- i. menstruation starts
- ii. pimples appear
- iii. body weight increases
- iv. height increases

[1 mark][NCERT Textbook Q7(b)][Essential 40]

Solution:

- The most conspicuous visible change that occurs in boys during puberty is an increase in height. This is the time for accelerated growth wherein long bones elongate further and make boys look tall. (1 mark)

9. Endocrine glands release hormones directly into the bloodstream for transportation to the target site.

[2 marks][NCERT Exemplar Q8(ii)]

Solution:

- Bloodstream and target site.
 - Endocrine glands are the glands that secrete their hormones directly into the blood stream. (1 mark)
 - These hormones then act on the target site (1 mark)