## HAM RADIO

Amateur Radio is a scientific activity popularly known as "Ham Radio". Amateur radio operators use two-way radio stations and communicate with others similarly authorized using various modes of communication, like voice, morse code, computers, internet etc. The things that amateur radio operators do with their radios are as diverse as the people themselves. The advanced amateur radio communication techniques include Automatic Position Reporting Systems using GPS information, Internet linking of Repeater stations, Interface with internet for exchange of emails, images etc as well as visual communication modes.

Amateur (HAM) Radio is both a Hobby activity and Service. It is an activity of self-learning, inter-communication & technical investigation carried on the duly authorized persons (i.e. Amateur Radio Operators) for a personal aim and without pecuniary interest. There are over 30 lakh people all over the world who pursue this activity in their free time, in India we have around 15000 amateur radio operators.

Any individual above the age of twelve can become an Amateur Radio operator-no matter what age, gender or physical ability. Amateur Radio Operators have to qualify a written examination conducted by Ministry of Communications & IT, Government of India and obtain license for operating / possessing a Radio Station.

A wireless communication network through Amateur Radio is one of the most effective and alternate media of communication and can play a significant role in providing reliable communications when other normal communications fail. The skills of the trained amateur radio operator can be used for public service in times of need and emergencies.

On numerous occasions, under extreme circumstances, very efficient amateur radio communication and humanitarian assistance was provided by Hams particularly during Uttarakhand Floods 2012, Aila cyclone-2009, Krishna floods-2009, Indian Ocean Tsunami-2004, Gujarat Earthquake-2001, Odisha Super Cyclone-1999 and many other natural / man-made calamities in the country.

1. Amateur radio operators use two-way radio stations. They communicate with others similarly authorized using various modes of communication. Which one is not the mode of communication

a. voice          b. morse code          c. manuscript  d. computers

2. What is the minimum age required for becoming an amateur radio operator?

a. 18    b. 21    c. 12    d. 15

3. Find the word in the passage which means "relating to money".

a. numerous    b. pecuniary    c. amateur        d. possess

4. Amateur Radio Operators have to _____

(i).  pass an oral examination conducted by Ministry of Communications & IT

(ii). obtain license for operating / possessing a Radio Station

(iii). Medical certificate of physical fitness

(iv) pass a written examination conducted by Ministry of Communications & IT

a. (i) & (ii)

b. (ii) & (iv)

c. (iii) & (iv)

d. (i) & (iv)

ANSWERS

1. c. manuscript

2. c. 12

3. b. pecuniary

4. b. (ii) & (iv)

कक्षा- नवमीं (हिंदी)

निम्नलिखित गद्यांश को पढ़कर दिए गए प्रश्नों के उत्तर दीजिए-

हमारे देश में एक ऐसा भी युग था, जब नैतिक और आध्यात्मिक विकास ही जीवन का वास्तविक लक्ष्य माना जाता था। अहिंसा की भावना सर्वोपरि थी। आज पूरा जीवन-दर्शन ही बदल गया है। सर्वत्र पैसे की हाय-हाय तथा धन का उपार्जन ही मुख्य ध्येय हो गया है, भले ही धन उपार्जन के तरीके गलत क्यों न हों? इन सबका असर मनुष्य के प्रतिदिन के जीवन पर पड़ रहा है। समाज का वातावरण दूषित हो गया है, बाह्य वातावरण तो दूषित है ही। आज सब जानते हैं कि पर्यावरण की समस्याएँ कितनी चिंतनीय हो उठी हैं। इन सबके कारण मानसिक और शारीरिक तनाव-खिंचाव और व्याधियाँ पैदा हो रही हैं। पर्यावरण की समस्याओं के कारण मानव-समाज ही नहीं, बल्कि समस्त प्राणियों के सामने जीवन-मरण की भयावह समस्या खड़ी हो गई है। बदलते हुए जीवन-दर्शन के प्रभाव से ही हमारा जीवन बुरी तरह प्रभावित हो रहा है।

प्रश्न

1. प्रस्तुत गद्यांश में कैसे युग की बात की जा रही है?

   (क) नैतिक और आध्यात्मिक विकास की (ख) पर्यावरण की समस्याओं की

   (ग) जीवन-मरण की                   (घ) धनार्जन की

2. वर्तमान जीवन-दर्शन में क्या परिवर्तन आया है?

   (क) धन उपार्जन के लिए गलत तरीके अपनाना (ख) जीवन-दर्शन में बदलाव

   (ग) समाज का दूषित वातावरण     (घ) शारीरिक और मानसिक तनाव-खिंचाव

3. 'जीवन-मरण' में कौन-सा समास है?

   (क)अव्ययीभाव समास          (ख)द्वंद्व समास

   (ग)तत्पुरुष समास                 (घ)बहुव्रीहि समास

4. प्रस्तुत गद्यांश का उचित शीर्षक लिखिए।

   (1) जीवन-दर्शन में बदलाव     (ख) नैतिक युग

   (ग)जीवन का लक्ष्य।           (घ) अहिंसा

5. आध्यात्मिक शब्द में कौन सा प्रत्यय है ?

   (क) ई    (ख) इय    (ग) इक    (घ) ईक


उत्तर - 1.(क) नैतिक और अध्यात्मिक विकास की  2.(क) धन उपार्जन के लिए गलत तरीके अपनाना  3.(ख) द्वंद्व समास    4.(क) जीवन-दर्शन में बदलाव   5.(ग) इक

अधोलिखितम् अनुच्छेदम् पठित्वा प्रदत्तप्रश्नानाम् यथानिर्देशम् उत्तराणि लिखत-

बाल्यावस्था जीवनस्य महत्वपूर्णः कालः भवति। अस्मिन् समये यदि वयं परिश्रमं कुर्मः तदा जीवन सुखमयं भवति। विद्यार्थी बाल्यकाले विद्याध्ययने प्रवृत्तः भवति चेत् तस्य परीक्षाफलं शोभनं भवति, विषयस्यापि ज्ञानं सरलतया भवति। सः स्वस्वप्नं पूरयितुं समर्थो भवति। एवमेव चरित्रनिर्माणे चापि बाल्यकालः महत्वपूर्ण स्थानम् आदधाति। बाल्यकाले यादृशाः संस्काराः लभ्यन्ते तादृशः एव आचारः व्यवहारः च आजीवनम् अस्माभिः सह तिष्ठतः। अत एव अस्माभिः बाल्यकाले अवधानपूर्वकं गुणाधानस्य प्रयासः कर्त्तव्यः। अस्मिन् समये अध्ययनप्राप्तये अपि सावधानमनसा प्रयत्नः करणीयः। शरीरस्वास्थ्यरक्षायै चापि बाल्यकालादेव पौष्टिकाहारः ग्रहीतव्यः व्यायामः चापि करणीयः।

(i) ‘अनवधानमनसा’ इत्यस्य विलोमपदं गद्यांशात् चित्वा लिखत।

    1) ध्यानमनसा      ख) सावधानमनसा    ग) मनसा   (घ) सावधानेन

(i) ‘महत्त्वपूर्णः कालः’ इत्यनयोः किं विशेषणपदम्?

    1) पूर्णः ख) महत्त्वम् ग) कालः घ) महत्त्वपूर्णः

(ii) ‘बाल्यावस्था जीवनस्य महत्त्वपूर्णः कालः भवति’ इति वाक्ये किं क्रियापदम्?

    1) कालः ख) भवति ग) जीवनस्य घ) बाल्यावस्था

(iii)  ' आदधाति ' क्रियापदस्य अत्र कर्तृपदम् किम् अस्ति ?

1) महत्वपूर्णः ख) चापि  ग) चरित्रनिर्माणे      घ) बाल्य कालः

**_उत्तरम्_**(i) ख) सावधानमनसा  (ii)घ) महत्त्वपूर्णः (iii) ख) भवति (iv)(घ) बाल्यकालः

## CLASS 9 SOCIAL SCIENCE

Most of the Himalayan rivers are perennial. It means that they have water throughout the year. These rivers receive water from rain as well as from melted snow from the lofty mountains. The two major Himalayan rivers, the Indus and the Brahmaputra originate from the north of the mountain ranges. They have cut through the mountains making gorges. The Himalayan rivers have long courses from their source to the sea. They perform intensive erosional activity in their upper courses and carry huge loads of silt and sand. In the middle and the lower courses, these rivers form meanders, oxbow lakes, and many other depositional features in their floodplains. They also have well-developed deltas.

A large number of the Peninsular rivers are seasonal, as their flow is dependent on rainfall. During the dry season, even the large rivers have reduced flow of water in their channels. The Peninsular rivers have shorter and shallower courses as compared to their Himalayan counterparts. However, some of them originate in the central highlands and flow towards the west. Most of the rivers of peninsular India originate in the Western Ghats and flow towards the Bay of Bengal.

1). Which statement is incorrect about Himalayan rivers?

(a) Himalayan rivers have water throughout the year

(b) Himalayan rivers have long courses from their source to sea

(c) they carry huge loads of silt and sand

(d) Himalayan rivers are seasonal rivers

2). Which of the following is not a depositional feature of Himalayan rivers?

(a) Meanders
(b) Waterfall
(c) Oxbow lake
(d) Delta

3). Many Peninsular rivers are seasonal because,

(a) their flow depends on Glaciers

(b) their flow depends on water of Oceans

(c) their flow depends on rainfall

(d) their flow depends on their tributaries

4). If a river cuts a mountain and passes through it, which one of the following features will be made by the river?

(a) oxbow lake

(b) meanders

(c) Delta

(d) Gorge

5). Which of the following will be the features of rivers of Kerala?

(a) Rivers have long course from their source to Sea

(b) Rivers are perennial

(c) during dry season, rivers reduced flow of water in their channels

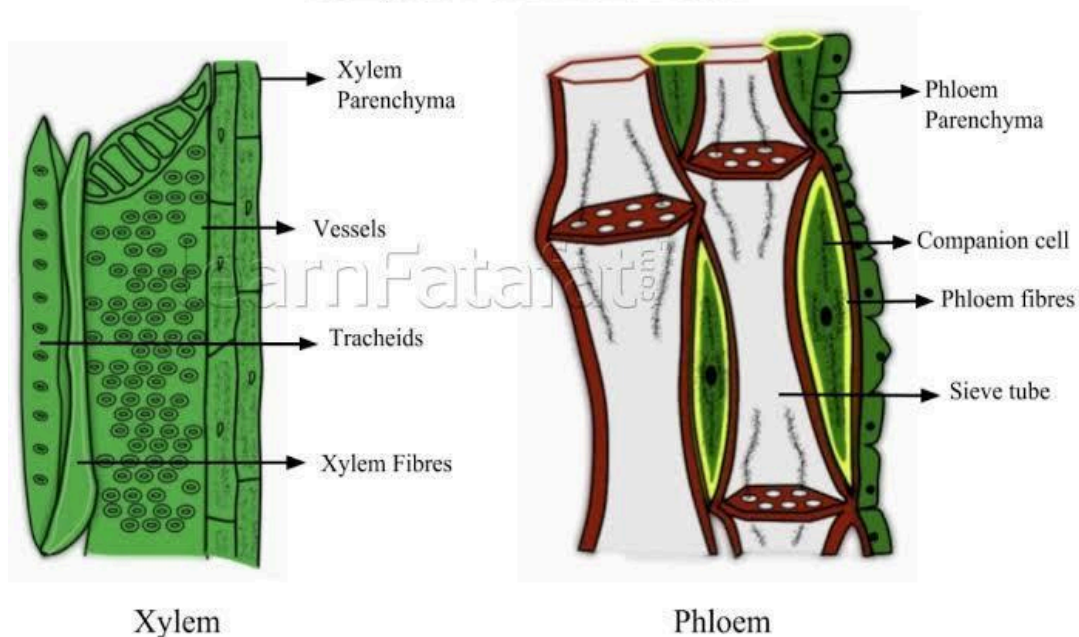(d) they form well developed deltas


ANSWER KEY

1) (d)
2) (b)
3) (c)
4) (d)
5) (c)

# Subject: Science

## Complex Permanent Tissue



Xylem

Phloem

The complex permanent tissues are made up of more than one type of cells. They coordinate together to perform the same specialized functions in the plant body. They are classified into two types – XYLEM & PHLOEM.

1. A long tree has several branches. The tissue that helps in the sideways condition of water in the branches is
    A. Xylem vessels
    B. Sieve tube
    C. Phloem parenchyma
    D. Xylem parenchyma

2. Xylem fibres have role in storage of food
    A. True
    B. False
    C. Can't say
    D. Partially true/ false

3. Cell responsible for the transportation of food and nutrients.
    A. Sieve cells
    B. Phloem parenchyma
    C. Xylem parenchyma
    D. Phloem fibres

4. Match the following

| A ) Xylem vessels | 1.Support to plant |

| | |
|---|---|
| B) Xylem fibres | 2. Transport water |
| C) Xylem parenchyma | 3. Store food |

<u>A.</u> A- 2  B- 1  C- 3
<u>B.</u> A-3  B –2  C – 1
<u>C.</u> A - 1 B – 3  C – 2
<u>D.</u> A-2  B – 3  C – 1

**ANSWER KEY**
<u>1.</u> D) Xylem parenchyma
<u>2.</u> B) False
<u>3.</u> A) Sieve cells
<u>4.</u> A) A-2  B-1  C-3

## CCT MATHS – IX

UFO's are any unexplained moving objects observed in the sky, especially one assumed by some observers to be of extraterrestrial (coming from a place outside the plane earth) origin. Rahul a student of class IX has an interest in Space Science. So, he makes a model of a triangular shape of UFO which is shown in the below figure. The measurement of the sides of UFO are in the ratio 5:5:8 and its perimeter is 180 cm respectively.



Answer the following questions:

1. What are the measures of the sides of the triangular UFO?

   a) 50cm,60cm,50cm

   b) 50cm,50cm,80cm

   c) 80cm,60cm,60cm

   d) 50cm,80cm,80cm

2. Find the semi perimeter of the given UFO shape.

   a) 90 cm

   b) 100 cm

   c) 80cm

   d) 92 cm

3. What is the measure of altitude of the triangle with respect to its longest side?

   a) 35 cm

   b) 40 cm

   c) 30 cm

   d) 45 cm

4. What is the area of the UFO?

   a) 1200 cm$^2$

   b) 1400 cm$^2$

   c) 1800 cm$^2$

   d) 1500 cm$^2$

5. Find the total cost to make the UFO, if the rate of the material is ₹ 800 per $cm^2$.

   a) Rs 9,90,000

   b) Rs 9,50,000

   c) Rs 8,60,000

   d) Rs 9,60,000

   ANSWERS

   1. b) 50cm, 50cm, 80cm

   2. a) 90cm

   3. c) 30cm

   4. a) 1200cm$^2$

5.   d) Rs 9,60,000