

**ATOMIC ENERGY EDUCATION SOCIETY**

**ANNUAL EXAMINATION -2018-19**

**CLASS: IX**  
**SUBJECT: ENGLISH**

**TIME: 3 HOURS**  
**MARKS: 80**

**General Instructions:**

- 1. This question paper is divided into three sections:**

<b>Section A: Reading</b>	<b>20 Marks</b>
<b>Section B: Writing and Grammar</b>	<b>30 Marks</b>
<b>Section C: Literature</b>	<b>30 Marks</b>

- 2. All questions are compulsory.**
  - 3. You may attempt any section at a time.**
  - 4. All questions of that particular section must be attempted in the correct order.**
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**SECTION-A READING [20 MARKS]**

- 1. Read the passage given below and answer the questions that follow: [ 8 Marks ]**

A cherished cousin of ginger, turmeric is a root that accounts for an excess of uses in our kitchens and lives. Bright orange-yellow in colour with a heady fragrance, turmeric has a unique earthy taste, with a touch of citrusy bitterness and the numbing punch of pepper. It is a staple in all Indian cooking, with its primary compound curcumin, giving the delectable dishes that lovely yellow tinge, a staining quality that can often turn against us. [ Hint : stained nails after devouring some delicious curry]. Coined as the most powerful spices of all, haldi is every Indian household's go-to fix for a variety of health problems. Its incredible list of healing properties include antioxidant, anti-viral, anti-bacterial, anti-fungal, anti-carcinogenic, anti-mutagenic and anti-inflammatory – that should be an enough number of antis to make you look up and rethink its usage in your food!

The use of this spice has been traced back a thousand years in India and China with some stories even suggesting that it was used about ten thousand years ago when Lord Rama walked on the Earth. Its usage has been long embedded in the ancient Ayurvedic practice and has been cited to promote the holistic health of the body – this has resulted in increased usage of it in the Western world too.

Fresh, unpeeled turmeric should be placed in a plastic, airtight bag in the refrigerator, where it will stay fresh for about two to three weeks. You can also chop it into multiple one-time use units and freeze them for up to two months, making sure it is properly packed to ensure that it doesn't dry out. If you are buying turmeric powder,

make sure it is of pure organic variety and store it well in an airtight container. Indian kitchens have already discovered countless uses for turmeric in their dishes. Considering the number of health benefits it has to offer, this powerful spice can be added to a variety of dishes in order to keep improving the quality of our lives.

**1.1 On the basis of your reading of the passage answer the following questions.**

**[1x8=8]**

- a) What gives turmeric its bright orange-yellow colour?
- b) Which root family does the turmeric belong to?
- c) Mention some healing properties of turmeric.
- d) Why has the West started consuming turmeric of late?
- e) How can one keep unpeeled turmeric fresh for weeks?
- f) While storing turmeric powder, what should be kept in mind?
- g) Where can one trace the roots of turmeric's origin?
- h) How can one identify if someone had an Indian curry?

**2. Read the following passage carefully.**

**[ 12 Marks ]**

Anger is a very powerful feeling that can happen when you are frustrated, hurt, annoyed, or disappointed. Anger can help or hurt you, depending on how you react to it. If you can react without hurting someone else, it can be a positive feeling. If you hold your anger inside, it can lead to passive-aggressive behaviour like “getting back” at people without telling them why you are being critical and hostile. Knowing how to recognize and express these feelings in appropriate ways can help you handle emergencies, solve problems, and hold on to meaningful relationships.

When you're angry, you might feel anywhere between a slight irritation to rage. When you start feeling angry, try deep breathing, positive self-talk, or stopping your angry thoughts. Breathe deeply from your diaphragm. Slowly repeat a calm word or phrase such as “relax” or “take it easy”. Repeat it to yourself while breathing deeply until the anger subsides.

Although expressing anger is better than keeping it in, there's a right way to do it. Try to express yourself clearly and calmly. Angry outbursts are stressful to your nervous and cardiovascular systems and can make health problems worse.

Consider the value of physical activity like regular exercise as a way to both improve your mood and release tension and anger. Avoid using recreational drugs and drinking too much alcohol, which can make you less able to handle frustration. Get support from others. Talk through your feelings and try to work on changing your behaviours. Try to gain a different perspective by putting yourself in another's place. Learn how to laugh at yourself and see humour in situations. Practice good listening skills. Listening can help improve communication and can build trusting feelings between people. This trust can help you deal with potentially hostile emotions. A useful communication exercise is to say to someone, "Let me make sure, I understand what you're saying" and then restate back to them what you perceive as their main message. Often, this approach helps to clarify misunderstandings that can lead to frustrations, and help identify issues on which you may ultimately "agree to disagree" without turning into a fight. Learn to assert yourself, expressing your feelings calmly and directly without becoming defensive, hostile, or emotionally charged. Read self-help books or seek help from a professional therapist to learn how to use assertiveness and anger management skills.

**2.1 Answer the following questions based on your reading of the above passage in about 30 to 40 words: [2x4=8]**

- a) What is anger?
- b) What should one do when one is angry?
- c) What can angry outbursts lead to?
- d) How can listening help in controlling anger?

**2.2 On the basis of your reading of the above passage, answer the following questions:**

**[1x4=4]**

- a) Pick out synonym of 'decreases' from the passage. (Paragraph -2)
- b) Pick out antonym of 'aggressive' from the passage. (Paragraph -4)
- c) Find another word from the passage which means 'inimical'. (Paragraph -4)
- d) Find a word from the passage which means same as 'point of view'. (Paragraph -4)

**SECTION-B WRITING AND GRAMMAR [ 30 MARKS]**

3. Write an article for your school magazine about your visit to Nepal in about 100 to 150 words taking inputs from the lesson “Kathmandu”.

**OR**

On a recent family trip to Kolkata, you visited the Snake Park. Various snakes fascinated you but you were feeling sad seeing them in glass cages. Pen down your feelings in your diary in about 100 to 150 words taking inputs from the Poem “The Snake Trying”. [ 8 Marks]

4. Write a short story in 150 to 200 words based on the following outline.

[10 Marks]

Mohanlal a wealthy businessman ----- alone at his dining table ----- thief entered ----- Mohanlal thanked ----- to give company ----- birthday ----- gave him food and drinks ----- gave a purse full of silver coins -----years passed by----- fortune changed--- business ruined----- Mohanlal became poor ----- 50<sup>th</sup> birthday ----- alone----- no food and drinks----- bell rang ----- a man emerged -----recognised ----- the old thief -----brought lots of food and money----- happy time again.

5. Complete the passage given below with the help of the options that follow:

[1x4=4]

A volcano is basically a mountain that i]----- downward to a pool of ii]- ----- rock below the surface of the earth. When pressure iii] ----- ----- up, eruptions occur. Gases and rock shoot up iv] ----- the opening and fill the air with lava fragments.

- |                     |           |            |              |
|---------------------|-----------|------------|--------------|
| i] a) open          | b) opens  | c) opening | d) will open |
| ii] a) melting      | b) melted | c) molten  | d) melt      |
| iii] a) is building | b) builds | c) build   | d) has built |
| iv] a) in           | b) by     | c) through | d) from      |

6. The following passage has not been edited. There is an error in each line. Write the incorrect word and the correction in your answer sheet. [1x4=4]

	Incorrect word	correction
According to tradition Gautama Buddha sit	a]-----	-----
in meditation in the Bo tree at	b]-----	-----
Bodh Gaya. Unfortunately an original tree	c]-----	-----
has disappeared and is replace	d]-----	-----
by a successor.		

**7. Rearrange the following words and phrases to make meaningful sentences.**

**[1x4=4]**

- a] the hand/ your library/ should be/ as well as/ free and/ accessible/to/ to the eye/
- b] one of/ that of reading/ known to/ is/ greatest/ the/ pleasures/ man
- c] a rich variety/ adventure and wisdom/ the / world of books / has / of
- d] own/ you/ book/ convenience/ can enjoy the/ at your/you.

**SECTION –C LITERATURE [ 30 MARKS]**

**8. Read one of the extracts given below and answer the questions that follow:**

**[1x4=4]**

Now in memory comes my mother,  
As she used to in years ago,  
To regard the darling dreamers  
Ere she left them till the dawn.

- a] Who comes alive in the narrator's memory?
- b] What did he remember about his mother?
- c] Who are the 'darling dreamers' in the above lines?
- d] What does the expression 'till the dawn' mean here?

**OR**

“Remember that they have eyes like ours that wake  
Or sleep, and strength that can be won  
By love. In every land is common life  
That all can recognise and understand”.

- a] What do we have to remember?
- b] What is common in their and our eyes?
- c] What can be won?
- d] How can we become strong?

**9. Answer the following questions in 30 to 40 words.**

**[2x5=10]**

- a] What is the difference between two types of schools as mentioned in the lesson “The Fun They Had”?
- b] What characteristics does Abdul Kalam say he has inherited from his parents?
- c] Why was Bruno sent to the zoo?
- d] “In spite of the storm and the fierce winds, it didn’t fall.” Explain.
- e] Why didn’t the swallow leave the prince and go to Egypt?

**10. Answer one of the following questions in about 100 to 150 words.**

**[8 Marks]**

A] Write a short note on the bond between Bruno and his mistress.

**OR**

B] It was hard work that gave both Evelyn Glennie and Ustad Bismillah Khan the accolades they received. Comment.

**11. Answer one of the following questions in about 100 to 150 words.**

**[8 Marks]**

A] Give a character sketch of the king in the ‘Kingdom of Fools’.

**OR**

B] Describe the problems the co-passengers faced when Bill Bryson was travelling on the same flight.

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वार्षिक परीक्षा -2018-19

(पृष्ठों की संख्या-5)

कक्षा : नौवीं (9)

समय: 3 घंटे

विषय: हिंदी

पूर्णांक : 80

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सामान्य निर्देश :

- 1 - इस प्रश्न-पत्र के चार खंड हैं -क, ख, ग, घ ।
  - 2 - चारों खंडों के प्रश्नों के उत्तर लिखना अनिवार्य है।
  - 3 - यथासंभव प्रत्येक खंड के उत्तर क्रमशः लिखिए।
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खंड - क

1-निम्नलिखित गद्यांश को पढ़कर प्रश्नों के उत्तर लिखिए-

मनुष्य संसार का एक श्रेष्ठ प्राणी है। ईश्वर ने उसे चिंतन और मनन की अद्भुत शक्ति प्रदान की है। वह जिस संसार में रहता है, उसके आधार वह एक और संसार बसा लेता है। वह संसार उसके सपनों का संसार होता है। प्रत्येक मनुष्य के सामने कुछ आदर्श होते हैं, उनकी महत्त्वाकांक्षाएँ होती हैं, जिनको वह अपने जीवन में साकार करने के लिए उतावला होता है। हर एक व्यक्ति अपनी-अपनी रुचि के अनुसार अपना-अपना लक्ष्य निर्धारित करता है। कोई डॉक्टर बनने की इच्छा से प्रेरित है, तो कोई इंजीनियर बनने के सपने साकार करना चाहता है। कोई उद्योगपति बनकर देश का उद्धार करना चाहता है। कोई अभिनेता बनना चाहता है और देश के जन-जीवन के पटल पर छाकर प्रशंसा प्राप्त करना चाहता है। कोई स्कूल खोलकर इस अंधी दुनिया को प्रकाश देना चाहता है। भाव यह है कि संसार में कोई भी ऐसा मनुष्य नहीं है, जो कुछ न कुछ न बनना चाहे। ध्येय अथवा लक्ष्य के बिना जीवन निरर्थक है। ध्येयहीन जीवन ऐसा ही है, जैसे कोई नाविक बिना पतवार और डौड़ों के नाव को समुद्र में भाग्य के भरोसे छोड़ दे। उसका परिणाम बुरा ही होगा। जीवन में लक्ष्य का चुनाव अपनी इच्छाओं और अपने साधनों के अनुरूप करना चाहिए। ध्येय चुनते समय स्वार्थ और परमार्थ में समन्वय रखना चाहिए। अपनी रुचि एवं प्रवृत्ति को भी सामने रखना चाहिए। यह विश्वास रखना आवश्यक है कि जो लक्ष्य उसने चुना है, वह स्वयं उसके लिए महान हो, भले ही लोग उसे सामान्य मानें।

क- मनुष्य संसार का श्रेष्ठ प्राणी क्यों है?	2
ख- ध्येय अथवा लक्ष्य के बिना जीवन निरर्थक है। कैसे?	2
ग- ध्येय चुनते समय किन बातों का ध्यान रखना चाहिए?	2
घ- 'समन्वय' शब्द का संधि विच्छेद करके लिखिए।	1
ङ- 'संसार' शब्द का पर्यायवाची शब्द लिखिए।	1

## 2-निम्नलिखित काव्यांश को पढ़कर प्रश्नों के उत्तर लिखिए -

संकटों से वीर घबराते नहीं, आपदाएँ देख छिप जाते नहीं।  
 लग गए जिस काम में, पूरा किया, काम करके व्यर्थ पछताते नहीं।  
 हो सरल अथवा कठिन हो रास्ता, कर्मवीरों को न इससे वास्ता।  
 बढ़ चले तो अंत तक बढ़ चले, कठिनतर गिरिश्रृंग ऊपर चढ़ चले।  
 कठिन पंथ को देख मुस्काते सदा, संकटों के बीच वे गाते सदा।  
 है असंभव कुछ नहीं उनके लिए, सरल संभव कर दिखाते वे सदा।  
 यह असंभव कायरों का शब्द है, कहा था नेपोलियन ने एक दिन।  
 सच बताऊँ, जिंदगी ही व्यर्थ है दर्प बिन, उत्साह बिन, और शक्ति बिन।

क- कविता के लिए उपयुक्त शीर्षक लिखिए।	1
ख- नेपोलियन ने क्या कहा था?	1
ग- कवि के अनुसार जिंदगी किन तीन साधनों के बिना व्यर्थ है?	1
घ- कर्मवीरों के लिए कोई भी कार्य 'असंभव' नहीं होता है। क्यों ?	2
ङ- कवि ने कर्म वीरों की क्या-क्या विशेषताएँ बताई हैं?	2

## खंड - ख

### 3-निर्देशानुसार उत्तर लिखिए-

क- अपकीर्ति (उपसर्ग तथा मूल शब्द लिखिए)	1
ख- 'अभि' उपसर्ग से बनने वाला एक शब्द लिखिए।	1
ग- 'मिठास' (मूल शब्द तथा प्रत्यय लिखिए)	1
घ- 'कार' प्रत्यय से बनने वाला एक शब्द लिखिए।	1

### 4- निम्नलिखित समस्तपदों का विग्रह करके समास का नाम लिखिए - 3

क- सेनापति	ख- यथाशक्ति	ग- सीताराम
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5-क-अर्थ के आधार पर निम्नलिखित वाक्यों के भेद लिखिए -

(क)-भगवान आपका भला करें। 1

(ख)-शायद आज वर्षा होगी। 1

ख-निर्देशानुसार वाक्य-परिवर्तन करके लिखिए -

(क)-तुम कल वहाँ जाओगे। (निषेधवाचक में) 1

(ख)-वह विदेश से लौटा है। (प्रश्नवाचक में) 1

6- निम्नलिखित काव्य-पंक्तियों में प्रयुक्त अलंकार नाम लिखिए -

क- काली घटा का घमंड घटा। 1

ख- फूलों की धड़कन में सुनती हूँ तुमको मैं। 1

ग- सुबरन को खोजत फिरत कवि व्यभिचारी चोर। 1

घ- मधुर-मधुर ,मुस्कान मनोहर , मनुज वेश का उजियाला। 1

खंड - ग

7 - निम्नलिखित गद्यांश को पढ़कर प्रश्नों के उत्तर लिखिए -

यह कैसा आदमी है, जो खुद तो फ़टे जूते पहनकर फ़ोटो खिंचा रहा है, पर किसी पर हँस भी रहा है! फ़ोटो भी खिंचाना था, तो ठीक जूते पहन लेते, या न खिंचाते। फ़ोटो न खिंचाने से क्या बिगड़ता था? शायद पत्नी का आग्रह रहा हो और तुम 'अच्छा चल भई' कहकर बैठ गए होगे। मगर यह कितनी बड़ी 'ट्रेजडी' है कि आदमी के पास फ़ोटो खिंचाने को भी जूता न हो। मैं तुम्हारा यह फ़ोटो देखते-देखते, तुम्हारे क्लेश को अपने भीतर महसूस करके जैसे रो पड़ना चाहता हूँ, मगर तुम्हारी आँखों का यह तीखा दर्द भरा व्यंग्य मुझे एकदम रोक देता है।

क- लेखक प्रेमचंद को क्या सलाह दे रहा है? 2

ख- 'ट्रेजडी' से लेखक का क्या आशय है? 2

ग- लेखक क्या नहीं कर पाया? 1

8- निम्नलिखित प्रश्नों के उत्तर लिखिए- (2X4=8)

क- कांजीहौस क्या है? उसमें बंद जानवरों को किसने तथा कैसे बचाया?

ख- तिब्बत की कौन-कौन -सी बातें लेखक को अच्छी लगीं? ('ल्हासा की ओर' पाठ के आधार पर उत्तर लिखिए। )

ग- किस घटना ने सालिम अली के जीवन की दिशा को बदल दिया और उन्हें पक्षी प्रेमी बना दिया?

घ- नाना साहब कौन थे? उनसे अंग्रेजों की नाराजगी का क्या कारण था?

9 - निम्नलिखित काव्य-पंक्तियों के के आधार पर प्रश्नों के उत्तर लिखिए -

काननि दै अँगुरी रहिबो जबहीं मुरली धुनि मंद बजैहै।

मोहनी तानन सों रसखानि अटा चढ़ि गोधन गैहै तौ गैहै।

टेरि कहीं सिगरे ब्रजलोगनि काल्हि कोऊ कितनो समुझैहै।

माई री वा मुख की मुसकानि सम्हारी न जैहै, न जैहै, न जैहै।।

क- गोपियाँ श्रीकृष्ण की मुरली की धुनि क्यों नहीं सुनना चाहती थीं? 2

ख- गोपियाँ अपनी बातें किससे कहना चाहती हैं? गोपियाँ कृष्ण की किस अदा पर स्वयं को नहीं रोक सकेंगी? 2

ग- 'टेरि' का शाब्दिक अर्थ क्या है? 1

10- निम्नलिखित प्रश्नों के उत्तर लिखिए - (2X4=8)

क- 'कैदी और कोकिला' पाठ में कवि ने कोयल को बावली क्यों कहा है?

ख- सरसों को ' सयानी' कहकर कवि क्या कहना चाहता होगा?

ग- मेघ के आने की तुलना पाहुन से क्यों की गई है?

घ- बंद द्वार की साँकल खोलने के लिए 'वाख' की कवयित्री ललदयद ने क्या उपाय सुझाया है?

11 - टिहरी शहर का मोह वहाँ के लोगों के लिए विरासत में मिली पुरानी वस्तुओं के मोह के समान है, आज के युवा वर्ग को विरासत में मिली वस्तुओं के प्रति मोह क्यों नहीं है? 4

अथवा

डराने-धमकाने, उपदेश देने या दबाव डालने की जगह सहजता से किसी को सही राह पर लाया जा सकता है। कैसे? 'मेरे संग की औरतें' पाठ के आधार पर तर्क सहित उत्तर लिखिए।

## खंड-घ

12-निम्नलिखित विषयों में से किसी एक विषय पर 250 शब्दों का सारगर्भित निबंध लिखिए- 10

क- छात्र और अनुशासन

संकेत बिंदु : प्रस्तावना, जीवन का आरंभिक काल, अनुशासित जीवन, अनुशासनहीनता के कारण, उपसंहार

ख- परिश्रम ही सफलता की कुंजी है

संकेत बिंदु : प्रस्तावना, परिश्रम का महत्त्व, परिश्रम और आत्मिक शांति, उपसंहार

ग- मेरा प्रिय मित्र

संकेत बिंदु : प्रस्तावना, मित्रता का महत्त्व, अच्छे मित्रों की विशेषताएँ, उपसंहार

13- अपने विद्यालय में आयोजित होने वाले वार्षिकोत्सव का वर्णन करते हुए अपने मित्र/सहेली को पत्र लिखिए । 5

## अथवा

शिक्षण-शुल्क में छूट देने का निवेदन करते हुए अपने विद्यालय के प्रधानाचार्य / प्रधानाचार्या को प्रार्थना-पत्र लिखिए।

14-परीक्षा से दो दिन पहले दो मित्रों के बीच हुई बातचीत को संवाद के रूप में लिखिए। 5

## अथवा

ग्राहक तथा सब्जीवाले के बीच हुए वार्तालाप को संवाद के रूप में लिखिए।

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**Atomic Energy Education Society**  
**Annual Examination 2018-19**

**Class : IX**

**Time : 3 Hours**

**Subject : Mathematics**

**Marks : 80**

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**To be filled by the student**

**Student's Name** : \_\_\_\_\_

**Name of the School** : \_\_\_\_\_

**Class/ Sec** : \_\_\_\_\_ **Roll No.** : \_\_\_\_\_

**Date of Examination** : \_\_\_\_\_

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**General Instructions :**

- i) All questions are compulsory.
- ii) The question paper consists of 30 questions divided into four sections A, B, C and D.
  - Section – A comprises of 6 questions of 1 mark each.
  - Section – B comprises of 6 questions of 2 marks each.
  - Section – C comprises of 10 questions of 3 marks each and
  - Section – D comprises of 8 questions of 4 marks each.
- iii) There is no overall choice. However, internal choice has been provided in 4 questions of 3 marks each and 3 questions of 4 marks each. You have to attempt only one of the alternatives in all such questions.
- iv) Use of calculators is not permitted.

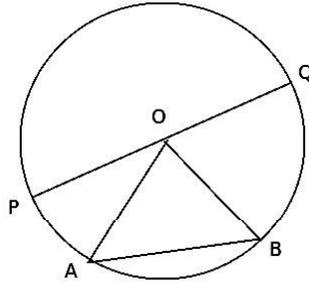
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**Section-A**

**Question numbers 1 to 6 carry 1 mark each.**

- 1. Express  $0.4\bar{7}$  in the form of  $\frac{p}{q}$  where p and q are integers,  $q \neq 0$ .
- 2. Ram and Kumar have some apples. Ram said to Kumar, if you give me 10 apples, I will have twice the apples left with you. Represent this situation as a Linear Equation in two variables.
- 3. State any two Euclid's Axioms.
- 4. The angles of a Quadrilateral are in the ratio 6:4:3:2. Find the measure of the largest angle.

5. In the given figure, AB is chord of a circle with Centre O. If  $PQ = 2AB$ . Prove that  $\angle AOB = 60^\circ$



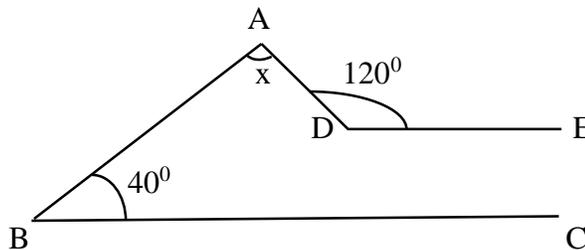
6. Find the side of a cube whose total surface area is  $486 \text{ cm}^2$ .

### Section-B

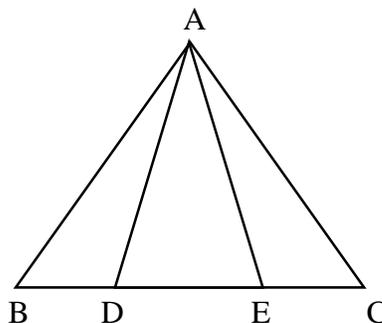
**Question numbers 7 to 12 carry 2 marks each.**

7. The polynomial  $2x^3 - kx^2 + 7x - 1$ , when divided by  $(x - 1)$  leaves the remainder 3, then find the value of k.

8. In the given figure, BC is parallel to DE. If  $\angle ABC = 40^\circ$  and  $\angle ADE = 120^\circ$ , find x



9. In an isosceles triangle ABC with  $AB = AC$ , D, E are points on BC such that  $BE = CD$ . Show that  $AD = AE$



10. Find the area of the triangle whose sides measure 13cm, 14 cm and 15cm.

11. Find the mean of all prime numbers between 20 and 30.

12. A coin is tossed 150 times and outcomes are given below.

Outcomes	Head	Tail
Frequency	85	65

Find the probability of getting (i) One Head (ii) No Head.

### Section-C

**Question numbers 13 to 22 carry 3 marks each.**

13. Show that  $a^{\frac{x^2-y^2}{x+y}} a^{\frac{y^2-z^2}{y+z}} a^{\frac{z^2-x^2}{z+x}} = 1$

14. Factorise :  $x^3 - 23x^2 + 142x - 120$

Or

The Polynomial  $y^3 + 6y^2 - 3$  and  $2y^3 - 5y + (b - 2)$  when divided by  $(y - 4)$ , leave the same remainder in each case. Find the value of b.

15. Draw the graph of the line  $2x - y = 3$ . From the graph, find the coordinate of the point when  $x = 3$ .

16. In an isosceles triangle ABC,  $AB = AC$ , the bisectors of B and C intersect each other at O. A is joined to O. Show that (i)  $OB = OC$  (ii) AO bisects A.

Or

S is any point on side QR of triangle PQR. Show that  $PQ + QR + PR > 2PS$

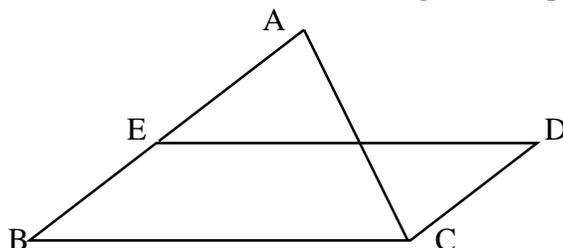
17. Prove that the line segment joining the mid points of any two sides of a triangle is parallel to its third side and also equal to half the third side.

18. Two parallel chords of a circle are 12 cm and 16cm in length. If the diameter of the circle is 20 cm, find the distance between the parallel chords, if they are on opposite sides of the Centre.

Or

Show that quadrilateral formed by the angle bisectors of angles a quadrilateral is a cyclic quadrilateral.

19. A triangle ABC and a parallelogram BCDE have the same base as shown in the figure and having same area. If the sides of the triangle are 26cm, 28cm and 30cm and the parallelogram stands on the base 28cm, find the height of the parallelogram.



20. The sum of length, breadth and height of a cuboid is 19cm and the length of its diagonal is 11cm. Find the Surface area of the cuboid.

Or

If  $h$ ,  $c$  and  $V$  be the height, CSA and Volume of a cone respectively, show that  $9V^2 + 3\pi Vh^3 - c^2h^2 = 0$

21. Construct a frequency polygon to represent the following data.

Class Interval	20 – 30	30 – 40	40 – 50	50 – 60	60 – 70	70 – 80
Frequency	5	10	19	24	18	6

22. Over the past 200 working days, the number of defective parts produced by a machine is given below.

No. of defective parts	0	1	2	3	4	5	6	7	8	9	10	11	12	13
No. of days	50	32	22	18	12	12	10	10	10	8	6	6	2	2

Find the probability that tomorrow's output will have

- (i) no defective part
- (ii) at least one defective part
- (iii) more than 13 defective.

### Section-D

**Question numbers 23 to 30 carry 4 marks each.**

23. Find the value of  $a$  and  $b$  if  $\frac{7+\sqrt{5}}{7-\sqrt{5}} - \frac{7-\sqrt{5}}{7+\sqrt{5}} = a + \frac{7}{11}\sqrt{5} b$

24. If  $a^{\frac{1}{3}} + b^{\frac{1}{3}} + c^{\frac{1}{3}} = 0$ , by using suitable identity find the value of  $(a + b + c)^3$

Or

If  $x^3 + ax^2 + 22x - b$  has  $(x - 4)$  as a factor and leaves a remainder 4, when divided by  $(x - 3)$ , find  $a$  and  $b$ .

25. Give geometrical representation of  $x = 5$  as an equation in (i) one variable (ii) Two variable. How many solution(s) of  $x = 5$  are there on (i) number line (ii) Cartesian plane.

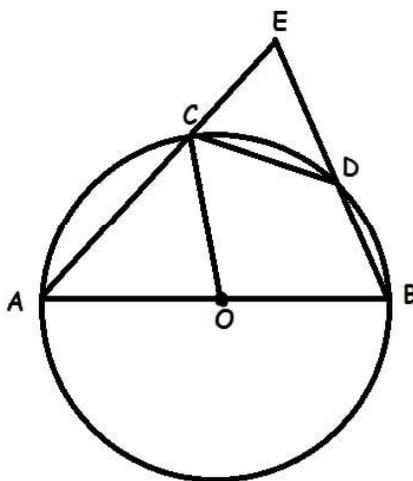
26. In which quadrant (or) on which axis each of the following points lie.  
 (i) (-3,5)      (ii) (4,-1)      (iii) (2,0)      (iv) (2,2)      (v) (-3,-6)  
 (vi) (0, -3)      (vii) (1.5,-3.5)      (viii) (-7, 0)

27. ABC is a right triangle at C. A line through the midpoint M of hypotenuse AB and parallel to BC intersect AC at D. Show that (i) D is mid-point of AC (ii)  $MD \perp AC$   
 (iii)  $CM = MA = \frac{1}{2} AB$

Or

Prove that parallelograms on the same base and between same parallel are equal in area.

28. In the given diagram, AB is a diameter of the circle, CD is a chord equal to the radius of the circle. AC and BD when extended intersect at a point E. Prove that  $\angle AEB = 60^\circ$ .



Or

If two non-parallel sides of a trapezium are equal, prove that it is cyclic.

29. Construct a triangle ABC in which  $\angle B = 60^\circ$ ,  $\angle C = 45^\circ$  and  $AB + BC + CA = 11$  cm.
30. Twenty seven solid iron spheres, each of radius  $r$  and surface area  $S$  are melted to form a sphere with surface area  $S_1$ .  
 Find the (i) radius of the new sphere  
 (ii) ratio of  $S$  and  $S_1$



**ATOMIC ENERGY EDUCATION SOCIETY**  
**ANNUAL EXAMINATION 2018-19**

**CLASS: IX****SUBJECT: SOCIAL SCIENCE****TIME: 3 Hrs.****MARKS: 80**

Student's Name: \_\_\_\_\_

Name of the School: \_\_\_\_\_

Class/Sec: \_\_\_\_\_ Roll No. : \_\_\_\_\_

Date of Examination: \_\_\_\_\_

**Instructions:**

- (i) There are 26 questions in all. All questions are compulsory.
- (ii) Marks for each question are indicated against the question.
- (iii) Questions from serial number 1 to 7 are very short Answer type Questions. The answer these questions should not exceed 30 words limit. Each question carries one mark.
- (iv) Question from serial number 8 to 18 is 3 marks questions. Answer of these questions should not exceed 80 words each.
- (v) Question from serial number 19 to 25 is 5 marks questions. Answers of these questions should not exceed 100 words each.
- (vi) Question number 26 is a map question. It has two parts 26(A) and 26(B) 26 (A) of 2 marks from History and 26(B) of 3 marks from Geography. After completion attaches the map inside your answer book.

1. What was proposed by Montesquieu in his book 'The Spirit of the Laws'? (1)
2. In which hemisphere is India located? (1)
3. What do you know about the Kalangs of Java? (1)
4. What does 'referendum' mean? (1)
5. What kind of manufacturing units are set up in Palampur? (1)
6. What was Lenin's April thesis? (1)
7. Which world war situation discredited the government of Russia and the Czar? (1)

OR

Which tribunal was set up after World War II to punish the Nazi's for their crime against humanity?

8. Differentiate between active citizens and passive citizens (3)

OR

Describe the divisions in French society before the French Revolution.

9. Give a brief information on the three types of plate movements on the Earth. (3)
10. Discuss the significant differences between the Himalayan and the Peninsular rivers. (3)
11. What changes were brought about by the Bolsheviks immediately after the October revolution? (3)
- OR
- Explain the condition of workers in Russia before 1917. (3)
12. Give arguments in favour of democracy. (3)
13. What is the significance of the “Preamble” to the Indian constitution (3)
- OR
- What is universal adult suffrage? Why has it been adopted in India? (3)
14. In India, a value of free and fair election has always been promoted.’ Support the statement with facts. (3)
15. Modern farming methods require more inputs which are manufactured in industry. Do you agree? (3)
16. “The employment structure is characterized by self-employment in primary sector”. Explain. (3)
17. Identify the social and economic groups which are most vulnerable to poverty in India. (3)
18. What kind of changes did the Nazi schools undergo during the Nazi Rule? (3)
19. Explain any five ways in which the lives of the villagers were affected by forests act. (5)
- OR
- Explain why nomadic tribes need to move from one place to another. What are the advantages to the environment of this continuous movement?
- OR
- Why were the Indian farmers reluctant to grow opium?
20. What steps have been taken by the government to protect the flora and fauna of the country? (5)
21. What are the significant features of the National Population Policy 2000? (5)
22. Why is there a need for political institutions? (5)
23. What is Secularism? How did the Indian Constitution make India a secular state? (5)
24. Describe the causes for poverty in India. (5)
25. Describe the role of cooperatives in food security. (5)

26. (a) On the given outline map of Europe locate and mark the following:

(2)

Two Axis powers of Europe who participated in World War II.

- (1) Germany      (2) Italy



26. (b) On the given outline map of India locate and mark the following: (3)

- (i) A place situated on three seas.
- (ii) A State in India which has favourable sex ratio.
- (iii) A mountain range indicated on the map.



**Atomic Energy Education Society**  
**Annual Examination-2018-19**

**Class : IX**  
**Subject : Science**

**Time : 03 Hrs**  
**Marks : 80**

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To be filled by the student

Student's Name: \_\_\_\_\_

Name of the School: \_\_\_\_\_

Class /Sec. : \_\_\_\_\_ Roll No.: \_\_\_\_\_

Date of Examination: \_\_\_\_\_

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**General Instructions:**

- i) The question paper comprises of two sections, A and B. You are to attempt both the sections.
- ii) All questions are compulsory, however, there is an internal choice in three questions of three marks each, two questions of five marks each and one question (for assessing the practical skills) of two marks.
- iii) All questions of Section A and B are to be attempted separately.
- iv) Question numbers **1 and 2** in Section-A are **one-mark** questions. These are to be answered in one word or in one sentence.
- v) Question numbers **3 to 5** in Section-A are **two marks** questions. These are to be answered in 30 words each.
- vi) Question numbers **6 to 15** in Section-A are **three marks** questions. These are to be answered in about 50 words each.
- vii) Questions numbers **16 to 21** in Section-A are **five marks** questions. These are to be answered in 70 words each.
- viii) Questions numbers **22 to 27** in Section-B are based on practical skills. Each question is a **two marks** question. These are to be answered in brief.

## SECTION-A

1. What is dry ice? 1
2. What are milch and draught animals? 1
3. A racing car has a uniform acceleration of  $4 \text{ m/s}^2$ . What distance will it cover in 10 seconds after start? 2
4. What do you mean by 'acceleration due to gravity'? 2
5. Calculate the formula unit masses of  $\text{K}_2\text{CO}_3$  and  $\text{ZnO}$ . 2  
(Atomic mass of  $\text{Zn} = 65\text{u}$ ,  $\text{K} = 39\text{u}$ ,  $\text{C} = 12\text{u}$ ,  $\text{O} = 16\text{u}$ )
6. Where are chromosomes located in a cell? What are they composed of? What information do they contain? 3
7. Why are railway tracks laid on large sized concrete sleepers? 3
8. What are the immediate and contributory causes of diseases? Explain it with the help of a child suffering from diarrhoea. 3
9. An element 'X' has valency three (3). Write the chemical formula of its 3
  - a) Chloride
  - b) Oxide
  - c) Nitrate

OR

What is the mass of

- a) 2 moles of Nitrogen molecules?
  - b) 4 moles of aluminium atoms (Atomic mass of aluminium = 27)?
  - c) 10 moles of  $\text{Na}_2\text{SO}_3$  (Sodium Sulphite) (Atomic mass of  $\text{Na} = 23\text{u}$ ,  $\text{S} = 32\text{u}$ ,  $\text{O} = 16\text{u}$ )?
10. Explain the difference between uniform acceleration and non-uniform acceleration. Give an example for each. 3

OR

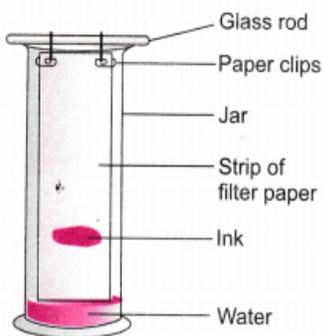
A bus is travelling at a speed of  $72 \text{ km/h}$ . Brakes are applied so as to produce a uniform acceleration of  $-0.4 \text{ m/s}^2$ . Find how far the bus will go before it is brought to rest?

11. Why do wind currents in coastal area move from the sea towards the land during the day but during night it moves from land to sea? 3

OR

Describe the major factors which lead to water pollution. Give examples.

12. Establish the relation between speed of sound, its wave length and frequency. Find the frequency of the sound wave which travels at a speed of 340 m/s, if its wave length is 0.85 m. 3
13. A farmer wants to harvest more than two varieties of crop at a time from his crop field. He has no idea about the cropping patterns. Suggest him one method to get the desired result. Also state any two other advantages of this method. 3
14. Raj took some ammonium chloride in a China dish and put an inverted funnel with a cotton plug on its stem. He then heated it slowly: 3
- What would he observe?
  - Name and define the phenomenon that takes place.
  - Name any two other substances with which he can make a similar observation.
15. Explain any three factors or processes that makes soil. 3
16. a) State the principle of conservation of energy. What are the various energy transformations that occur when you are riding a bicycle? 2
- b) A body of mass 250 g has a momentum of 4 kg m/s. Find its kinetic energy? 3
17. A child wanted to separate the mixture of dyes constituting a sample of ink. He marked a line on a filter paper with a pencil and put a small drop of ink on the centre of the line on the filter paper and placed it in a glass jar containing water as shown in the diagram. The filter paper was removed when the water reached near the top of the filter paper. 5
- What would you expect to see if the ink contains three different coloured dyes?
  - Name the technique used.
  - Suggest two more applications of this technique.



18. Cockroach, spider and prawns are placed under phylum Arthropoda. State the reason for this. Write two other distinct features of this phylum. Give another example of an aquatic arthropod and a terrestrial arthropod. 5

OR

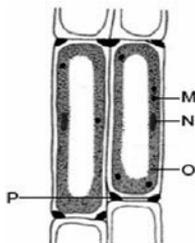
- a) To which division of Plantae do algae belong? Write one characteristic of the division. Give one example. (2)
- b) Name the Kingdom /phylum/division/group: (3)
- i) Which includes unicellular eukaryotic organisms?
- ii) In which mode of nutrition is saprophytic.
- iii) In which seeds are not enclosed in fruits.
19. a) You are given an element  ${}_7\text{X}^{14}$ . Find out following 3+2=5
- i) Number of protons, electrons and neutrons in 'X'
- ii) Valency of 'X'
- iii) Electronic configuration of 'X'.
- b) If Bromine atom is available in the form of two isotopes  ${}_{35}\text{Br}^{79}$  (49.7%) and  ${}_{35}\text{Br}^{81}$  (50.3%), calculate the average atomic mass of Bromine atom.

20. Answer the following:

- a) State Newton's second law of motion. 1
- b) Derive a formula to find the force acting on a body using this law. 2
- c) Find the force required to change the velocity of a body of mass 10 kg from 5 m/s to 8 m/s in 2 s. 2

OR

- a) Describe Newton's third law of motion with an example. (2)
- b) A bullet of mass 0.02 kg is fired from a gun weighing 7.5 kg. If, the initial velocity of the bullet is 200 m/s, calculate the speed with which the gun recoils. (3)
21. a) Water hyacinth plant floats on water surface. Name the tissue and its type due to which it is possible and also explain the special feature of this tissue that helps in this. 3
- b) Label the parts M,N,O,P in the diagram given below: 2



## SECTION-B

22. While determining the density of a solid sphere, a student noted down the following readings. 2

Mass of the sphere = 64 g

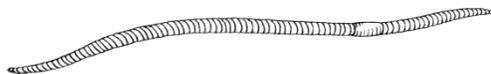
Initial reading of water level in the cylinder = 62 ml

Reading of water level in the cylinder after immersing the sphere = 70 ml

On the basis of the above observation, find the density of the sphere.

23. Rita found that the spring balance she was given to find mass of the solid had a zero error of +5 g. The least count of the spring balance is 5 g and when she suspended the solid from its hook, she observed that the pointer came to 20<sup>th</sup> division. What is the mass of the solid? 2

24. Some students observed the given specimen carefully and recorded their observations. Comment upon one adaptive feature and one key feature of the phylum of the given animal. 2



OR

Write the steps involved in preparation of temporary slide of human cheek cells in the correct sequence.

25. Write any two characteristic features that differentiate monocot and dicot plants. 2

26. 'X' is a mixture of iron filings and Sulphur and 'Y' is a product obtained by heating the mixture 'X' and crushing it to a fine powder. On bringing a magnet over both 'X' and 'Y' what will happen? 2

27. A solution when kept for some time formed two layers. The solution cannot pass through the filter paper. What type of solution is it? Explain. 2

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