ATOMIC ENERGY EDUCATION SOCIETY
ANUSHAKTINAGAR, MUMBAI
ANNUAL EXAMINATION, 2019-2020

Class: IX **Total Marks: 80**
Sub: English **Time: 3 hours**

General Instructions:

1. The question paper is divided into three sections

Section A	Reading	20 marks
Section B	Writing & Grammar	30 marks
Section C	Literature	30 marks

2. All questions are compulsory.
3. You may attempt any section at a time.
4. All the questions of that particular section must be attempted in the correct order.
5. Marks are indicated against each question.

SECTION – A READING (20 marks)

Q.1 Read the following passage

Heavy rains in Madhya Pradesh, Rajasthan and Uttarakhand since Friday claimed 27 lives, even as rivers continued to be in spate in Bihar. Fifteen deaths were reported in Madhya Pradesh since Friday evening as the MET department predicted more showers and sounded heavy downpour alert for some districts on Sunday. "Three Indian Air Force aircraft dropped food packets and medicines in the flooded areas of Rewa district," Collector Rahul Jain said. Seven people, including a woman and four minors, were killed and three others were injured when a house collapsed in Rahatgarh area of Sagar district on Saturday.

Two people, including an old woman, were also killed and seven others were injured when a newly-constructed building collapsed owing to incessant rains at Maihar in Satna district. A jeep carrying two persons was swept away in the swollen Betwa river as it attempted to cross a bridge in Raisen district. Three bodies were recovered from a *nullah* on Saturday in Chhattarpur district. The victims were travelling in a car that was washed away off a bridge on the flooded *nullah* on Friday.

In Rajasthan, five people were killed when their house collapsed in Phool Baroda village in Baran district due to incessant rains since Saturday morning that created a flood-like situation in several parts of the state. Several people are feared stranded in Chabra, Chipabarode, Kawai, Harnavadashahaji areas as the Parvan, Parwati, Ujjad and other rivers are overflowing after the rains.

Seven members of a family were killed when their house was razed to the ground by huge boulders that rolled down the hill following a cloudburst in Pauri district of Uttarakhand on Saturday. The Army was called in to the flood-affected areas of Saran district as senior officials also rushed to the spot. At least 24 people were airlifted in Baran district and nearby areas. Several villages remained inundated after water entered buildings, houses and a private power plant in Baran.

On the basis of your reading of the passage given above, answer the questions. [8]

(a) How did the Indian Air Force help in the flooded areas of Rewa district?
(b) Where did a newly- constructed building collapse?
(c) Who was the Collector of Rewa district?
(d) Why was a jeep swept away?
(e) In which district does Phool Baroda village lie?
(f) How many people died in Rahatgarh area?
(g) Name the rivers which overflowed after the rains.
(h) Who rescued the lives of people in Baran district?

2. Read the passage given below.

Fourteen year old Michael Otto crawled out of his tent still half-sleepy. The scenery captivated him immediately; the river Elbe was steaming in the early morning light as it flowed towards the North Sea. Geese were flying over the water, which the rising sun had turned into a golden carpet. "At that moment, I felt the elemental power of the Elbe," says Michael Otto 52 years later.

Otto's relationship to the Elbe perfectly describes his way of doing business: it explains why the billionaire has done so much for the environment. Furs, paints and tropical hardwoods were taken off the product line, ecological textiles became the focus and he fought against the expansion of the Elbe as a waterway.

During his early years Michael's family faced trying times. They had to relocate themselves in Hamburg after the Russians marched through West Prussia, the present Poland. In Hamburg they were safe but poor. Michael's father decided to improve their lot by setting up a mail order shoe company. Later the parents divorced. Michael moved out to a rural suburb with his mother but he remained close to his father. The beauty of the landscape – the meadows and forests fascinated him. His desire for discovery turned into wanderlust as he stood at the harbor watching ships.

When he was 15 he accompanied his father on his first business trip to Canada. By 19, he was scouting for real-estate in Canada. He did a bank apprenticeship and studied economics. Later he started a company of his own and travelled extensively across the globe even traversing difficult terrains with nomads. In 1972, he published a book, 'Limits to Growth' where he

says, “We can exploit the earth only to the extent that it can regenerate itself.” Since then he has used this as a guiding principle of his work. Even in the uppermost echelons of business, he ensures that economy and ecology go hand in hand.

A. Choose the correct option and write the answer against the correct question number. [4]

1) Michael Otto is _____ years old.

a. 14 b. 52 c. 19 d. 66

2) Otto has done so much for the environment because of his _____

a. life in a tent b. being a billionaire c. business d. love for river Elbe

3) Michael’s father set up a mail order shoe company for _____

a. getting divorce b. being poor c. making life better d. to draw lots

4) ‘wanderlust’ means _____

a. lost in wonder b. desire to travel c. be surprise d. hopelessness

B. Answer the following briefly. [4]

1) How could Otto feel the elemental power of the Elbe?
2) How does Otto ensure that ecology is not affected by his business?
3) Why had Otto family to relocate to Hamburg?
4) What does Otto strongly advocate in his book?

C. Pick out the words from the passage that mean the following: [4]

a) drew the attention as if by a magic spell (Para 1)
b) searching / exploring (Para 4)
c) far and wide (Para 4)
d) levels / ranks (Para 4)

SECTION B – WRITING & GRAMMAR (30 Marks)

3. Given below is the profile of Sachin Tendulkar, the cricket legend. Write his bio-sketch using the inputs given in about 100-150 words. **[8]**

Birth: 24 April, 1973, Dadar, Bombay
Family: Parents-Ramesh Tendulkar & Rajni Tendulkar; Wife-Anjali, doctor; two children
Qualities: calm, patient, religious
Test debut: 15 November 1989 against Pakistan
Participation: Test Matches and International Matches
Achievements: 100 international centuries, scored more than thirty thousand runs in international cricket, double century in an ODI etc
Awards: Arjuna Award - 1994, Rajiv Gandhi Khel Ratna - 1997, Padma Shri - 1999, Padma Vibhushan-2008, Bharat Ratna - 2013
Nick names: Little Master; Master Blaster

OR

You went to see the Taj at Agra on a trip organised by your school. You were spellbound to see the spectacular beauty of the monument, but the lack of cleanliness around it disappointed you. Write a diary entry in about 100-150 words expressing your admiration and your disappointment.

4. Imagine that you encountered two strange people. They were different from normal human beings but they were exciting and quite interesting. Write a story narrating your experience with them. **[10]**

OR

Write a story in about 150-200 words beginning with the given lines.

A boy was waiting for the bus at the bus stop. He saw an old man who was crossing the road. Suddenly he noticed a car hurtling towards the old man from the opposite side. Then he…….....

5. Complete the following passage by choosing the appropriate options given below. **[4]**

Spiders are usually found in plants, shrubs, grasses (a) _____ sometimes under stones. The spider species weave webs to trap (b) _____ insects and act as bio-controlling agents to keep the insect population (c) _____ control. Spider family in India is not very much harmful to humans (d) _____ spider bite, sometimes needs treatment.

(a) (i) or	(ii) and	(iii) but	(iv) as
(b) (i) another	(ii) a	(iii) other	(iv) others
(c) (i) below	(ii) into	(iii) at	(iv) under
(d) (i) but	(ii) and	(iii) as	(iv) that

6. The following paragraph has not been edited. There is one error in each line. Write the incorrect word and the correct word as shown in the example given below: **[4]**

		Incorrect	**Correct**
The internet provide solutions to most		eg. provide	provides
in the worldly problems. So children,	(a)	_____	_____
instead of contacting there own parents,	(b)	_____	_____
use the help of internet in case of much problem,	(c)	_____	_____
thus again reduce communication that leads to	(d)	_____	_____
a generation gap between them.		X	

7. Rearrange the following jumbled words to make meaningful sentences. One is done as an example for you. **[4]**

by and large / power / is / a government / in India / undertaking / generation

Example: In India, power generation is by and large a government undertaking.

a) is growing / power / in our / phenomenal rate / the need for / at a / country

b) the past / consumes/ compared to / more power / our generation / generation

c) rate of / annually / increase is / eight to / ten percent / the

d) faces / power / the whole / severe / country / shortage of

SECTION C – LITERATURE (30 Marks)

8. Read one of the extracts below and answer the questions. **[4]**

"Observing my hesitation, he told me not to get upset, saying 'Once you decide to change the system, such problems have to be confronted."

a) Who is the speaker and why did he hesitate?

b) What system is mentioned here that had to be changed?

c) What is the meaning of 'confronted'?

d) What was the change that the speaker saw when he visited the house next time?

OR

Remember, no men are strange, no countries foreign,
Beneath all uniforms, a single body breathes
Like ours: the land our brothers walk upon
Is earth like this, in which we all shall lie.

a. What does he mean by 'uniforms'?
b. What do we have to remember?
c. What is common about human beings?
d. Where shall we all lie?

9. Answer any THREE of the following question in 30 – 40 words each. **[6]**

a) "I forgot the danger and smiled feebly at myself", says the doctor. What danger was he in? Why did he smile when he was in danger?

b) How did little Kezia come to know that her father too had a big heart?

c) Why did the author bring back Bruno from the zoo? How did they accommodate him then?

d) What was Montmorency's role in helping George and Harris in packing?

e) Why is it said that SantoshYadav found a special place in the hearts of her fellow climbers?

10. Answer any TWO of the following question in 30 – 40 words each. **[4]**

a) What made the swallow stay back with the Prince even though it was too cold?

b) How did Prashant prove his leadership qualities at the time of the super cyclone?

c) What helped the boy come back to life after his house was burnt and his cat was lost?

d) Why did Bill Bryson's mouth remain navy blue for several days?

11. Answer any ONE of the following in about 100-150 words. **[8]**

a) "A poised mind and humorous attitude can help in overcoming any difficult situation. Do you agree? Justify your answer quoting the example from 'If I were you.'

b) Ustad Bismillah Khan's life is a perfect example of the rich, cultural heritage of India and the love for one's own mother land. Explain.

12. Answer any ONE of the following in about 100-150 words. **[8]**

a) Making someone happy by our deeds is the best service to humans. Explain with the example of the woman who returned the cat for the boy in the story 'A House is not a Home'.

b) More than scolding or advice, loving concern can change a scoundrel to a decent man. Elucidate with the example of Lushkoff.

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पृष्ठों की संख्या: 7

परमाणु ऊर्जा शिक्षण संस्था

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वार्षिक परीक्षा – 2019-20

कक्षा: नौवीं (IX) विषय: हिंदी पूर्णांक 80

समान्य निर्देश -

1. इस प्रश्न पत्र के चार खण्ड हैं - क, ख, ग और घ।
2. सभी खण्डों के प्रश्नों के उत्तर देना अनिवार्य है।
3. यथासंभव प्रत्येक खंड के उत्तर क्रमशः दीजिए।

खंड 'क'

1. निम्नलिखित गद्यांश को पढ़कर पूछे गए प्रश्नों के उत्तर लिखिए । 8

भारत में सामाजिक जीवन में नवधनाढ्य वर्ग का उभार स्वाधीनता के बाद की संभवतः उल्लेखनीय घटना और प्रक्रिया है । चाहे वह राजनीति हो या व्यवसाय, प्रशासन हो या उद्यम, धर्म हो या संस्कृति - हर क्षेत्र में इस वर्ग के असर और ताकत को अनुभव किया जाता है । जीवन के हर क्षेत्र में यह गरमागरम बहस और चर्चा का विषय है । चाहे उच्च वर्गों के सजे-धजे ड्राइंगरूम हों या मेहनतकशों की गंदी बस्तियाँ या झोपड़ें, निम्न मध्यम वर्ग और चतुर्थ श्रेणी के कर्मचारियों के दफ़्तर हों या सड़क, बाज़ार, चायघर, कहवाखाने और प्रार्थना की जगहें जहाँ रोज़मर्रा के जीवन में आमलोग जमा होते हैं - यह चर्चा हर जगह सुनाई पड़ती है । नवधनाढ्य वर्ग उन लोगों में द्वेष जगाता है जो उससे पीछे रह गए हैं और वे उनकी घृणा के पात्र हैं जिन्होंने उनके ऐशो-आराम और सुरक्षा के लिए मशक्कत की और पसीना बहाया ।

I. भारत में स्वाधीनता के बाद की सर्वाधिक उल्लेखनीय घटना क्या है ? 2

II. लोग किन जगहों पर किस बारे में चर्चा करते हैं ? 2

III. नवधनाढ्य वर्ग अन्य वर्ग के लोगों में किस भावना को जगाता है ? 2

IV. उपर्युक्त गद्यांश का उपयुक्त शीर्षक क्या होगा ? 1

V. नवधनाढ्य वर्ग किसकी घृणा का पात्र है और क्यों ? 1

2. निम्नलिखित काव्यांश को पढ़कर पूछे गए प्रश्नों के उत्तर लिखिए । 7

आज की यह सुबह है बहुत प्रीतिकर,

कह रही उठ नया काम कर , नाम कर।

जो अधूरी रही वह सुबह कल गई,

मान ले अब कुछ कमी रह गई,

ले नई ताज़गी यह सुबह आ गई,

कह रही मीत- उठ, बात कर कुछ नई

ओ सृजन-दूत तू, शक्ति संभूत तू,

क्यों खड़ा राह में अश्व यों थाम कर

दूसरों की बनाई डगर छोड़ दे,

तू नई राह पर कारवाँ मोड़ दे,

फोड़ दे तू शिलाएँ चुनौती भरी,

क्रूर अवरोध को निष्करुण तोड़ दे,

व्यर्थ जाने न पाए महापर्व यह

जो स्वयं आ गया आज तेरी डगर ।

अब नए मार्ग पर रथ नए हाँकने

हर अँधेरे से दीपक लगे झाँकने

बंद अज्ञात थी आज तक जो दिशा

उस दिशा को नए नाम हैं बाँटने,

मोड़ लो सूर्य का रथ ,विपथ पथ बने

बढ़ चलो विघ्न व्यवधान सब लाँघकर।

I. इस काव्यांश का उचित शीर्षक लिखिए। 1

II. सुबह मानव को राह में खड़ा रहने पर क्या प्रश्न करती है? 1

III. ताज़गी भरी सुबह मानव से क्या कह रही है? 1

IV. 'हर अँधेरे से दीपक लगे झाँकने ' से कवि का क्या अभिप्राय है? 2

V. इस कविता का संदेश क्या है? 2

खण्ड 'ख'

3. निर्देशानुसार उत्तर दीजिए - 15

I. 'अतिरिक्त' शब्द में प्रयुक्त उपसर्ग व मूल शब्द लिखिए । 1

II. 'प्रति' उपसर्ग से दो शब्द बनाइए । 1

III. 'चौकीदार' शब्द में प्रयुक्त प्रत्यय व मूल शब्द लिखिए । 1

IV. 'आवट' प्रत्यय से दो शब्द बनाइए । 1

4. निम्नलिखित समस्तपदों का विग्रह कर समास का नाम लिखिए -

ज्ञानयुक्त, नीलगय, चतुर्भुज 3

5. अर्थ के आधार पर वाक्य-भेद बताइए -

I. मोहन कल बाजार गया था । 1

II. क्या तुम पढ़ोगे ? 1

6. निर्देशानुसार वाक्य परिवर्तन कीजिए -

I. वह किताब पढ़ता है । (निषेधवाचक वाक्य) 1

II. हर्ष गीत गा रहा है । (विस्मयादिबोधक वाक्य) 1

7. यमक अलंकार का एक उदाहरण लिखिए । 1

8. अलंकार बताइए -

I. निर्मल तेरा नीर अमृत के सम उत्तम है। 1

II. लो यह लतिका भी भर लायी 1

मधु मुकुल नवल रस गागरी।

III. मनो नीलमणि सैल पर आतप परयो प्रभात । 1

खण्ड 'ग'

9. निम्नलिखित गद्यांश को ध्यानपूर्वक पढ़कर पूछे गए प्रश्नों के उत्तर लिखिए । 5

टोपी आठ आने में मिल जाती है और जूते उस जमाने में भी पाँच रुपए से कम में क्या मिलते होंगे। जूता हमेशा टोपी से कीमती रहा है। अब तो जूते की कीमत और बढ़ गई है और एक जूते पर पच्चीसों टोपियाँ न्योछावर होती हैं। तुम भी जूते और टोपी के अनुपातिक मूल्य के मारे हुए थे। यह विडंबना मुझे इतनी तीव्रता से पहले कभी नहीं चुभी,जितनी आज चुभ रही है, जब मैं तुम्हारा फटा जूता देख रहा हूँ । तुम महान कथाकार,उपन्यास – सम्राट, युग-प्रवर्तक, जाने क्या-क्या कहलाते थे, मगर फोटो में तुम्हारा जूता फटा हुआ है।

I. 'एक जूते पर पच्चीसों टोपियाँ न्योछावर होती हैं ।'इस पंक्ति के व्यंग्य को स्पष्ट कीजिए। 2

II. लेखक को कौन-सी विडंबना चुभी और क्यों ? 2

III. लेखक ने प्रेमचंद के लिए किन विशेषणों का प्रयोग किया है? 1

10. निम्नलिखित प्रश्नों में से किन्हीं चार के उत्तर लिखिए - 2X4= 8

I. लेखक लड्कोर के मार्ग में अपने साथियों से किस करण पिछड़ गया ?

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

III. मैना जड़ पदार्थ मकान को बचाना चाहती थी, पर अंग्रेज उन्हें नष्ट करना चाहते थे । क्यों?

IV. लेखिका उर्दू-फारसी क्यों नहीं सीख पाई ?

V. 'सालिम अली प्रकृति की दुनिया में एक टापू बनने के बजाए अथाह सागर बनकर उभरे थे ।' ' साँवले सपनों की याद ' पाठ के आधार पर स्पष्ट कीजिए।

11. निम्नलिखित काव्यांश को ध्यानपूर्वक पढ़कर पूछे गए प्रश्नों के उत्तर लिखिए - 5

और पैरों के तले है एक पोखर,
उठ रही इसमें लहरियाँ।
नील तल में जो उगी है घास भूरी,
ले रही वह भी लहरियाँ।
एक चाँदी का बड़ा-सा गोल खंभा,
आँख को है चकमकाता।
हैं कई पत्थर किनारे,
पी रहे चुपचाप पानी।
प्यास जाने कब बुझेगी।

I. सरोवर के जल में सूर्य का प्रतिबिंब कैसा दिखाई देता है? वह आँखों पर क्या प्रभाव डालता है? 2

II. सरोवर के किनारे पड़े पत्थर कैसे प्रतीत हो रहे हैं? 2

III. इस काव्यांश में किन अलंकारों का प्रयोग किया गया है? 1

12. निम्नलिखित प्रश्नों में से किन्हीं चार के उत्तर लिखिए - 2X4= 8

I. किस शासन की तुलना तम के प्रभाव से की गई है और क्यों ?

II. 'इस विजन में, दूर व्यापारिक नगर से प्रेम की प्रिय भूमि उपजाऊ अधिक है'- पंक्तियों में नगरीय संस्कृति के प्रति कवि का क्या आक्रोश है ?

III. मेघ रूपी मेहमान के आने पर वातावरण में क्या परिवर्तन हुए ?

IV. कवि को दक्षिण दिशा पहचानने में कभी मुश्किल क्यों नहीं हुई ?

V. रसखान श्रीकृष्ण का सान्निध्य किस-किस रूप में पाना चाहते हैं? और क्यों?

13. निम्नलिखित प्रश्नों में से किन्हीं दो के उत्तर लिखिए - 2X2= 4

I. ' मेरे संग की औरतें ' पाठ के आधार पर लिखिए कि जीवन में कैसे इंसानों को श्रद्धा भाव से देखा जाता है?

II. ' रीढ़ की हड्डी ' शीर्षक की सार्थकता स्पष्ट कीजिए।

III. 'आज माटीवाली बुड्ढे को कोरी रोटियाँ नहीं देगी' - इस कथन के आधार पर माटीवाली के हृदय के भावों को अपने शब्दों में लिखिए।

खण्ड 'घ'

14. निम्नलिखित विषयों में से किसी एक विषय पर दिए गए संकेत-बिंदुओं के आधार पर 200 से 250 शब्दों में निबंध लिखिए - 10

I. संगति का प्रभाव

संकेत बिंदु -

•भूमिका संगति के प्रकार

• संगति का प्रभाव

• उदाहरण

• उपाय

• निष्कर्ष

II. धरती पर बढ़ता तापमान

संकेत बिंदु :

- तापमान बढ़ने के कारण
- बढ़ते तापमान के दुष्परिणाम
- संभावित उपाय
- हमारी भूमिका

III. मेरे सपनों का भारत

संकेत बिंदु :

- सर्वगुण सम्पन्न
- धनधान्य से सम्पन्न
- भारत में चरित्रवान नागरिक
- देशहित सर्वोपरि
- उपसंहार

15. अपने विद्यालय में छात्र-छात्राओं के लिए उत्तम पेयजल व्यवस्था के सम्बंध में कुछ सुझावों का उल्लेख करते हुए अपने प्रधानाचार्य को पत्र लिखिए । 5

अथवा

वाद-विवाद प्रतियोगिता में प्रथम आने पर अपने मित्र को बधाई पत्र लिखिए ।

16. रेलवे स्टेशन पर खड़े दो व्यक्तियों के मध्य होने वाले संवाद को लिखिए । 5

अथवा

यात्री तथा टिकट निरीक्षक के मध्य होने वाले संवाद को लिखिए ।

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ATOMIC ENERGY EDUCATION SOCIETY

ANNUAL EXAMINATION – 2019 - 20

Class – IX **Time : 3 Hours**

Subject : Mathematics **Marks: 80**

General Instructions:

a) All questions are compulsory
b) The question paper consists of 40 questions divided into four sections A, B, C & D.
c) Section A comprises of 20 questions of 1 mark each. Section B comprises of 6 questions of 2 marks each. Section C comprises of 8 questions of 3 marks each. Section D comprises 6 questions of 4 marks each.
d) There is no overall choice. However internal choices have been provided in two questions of 1mark each, two questions of 2 marks each, three questions of 3 marks each and three questions of 4 marks each. You have to attempt only one of the alternatives in all such questions.
e)Use of calculators is not permitted.

SECTION – A

Q 1- 10 are multiple choice questions. Select the most appropriate answer from the given options.

1. Between two rational numbers there is/are (1)

   a) infinite number of rational numbers b) one and only one rational number

   c) no rational number d) no irrational number

2. The co-efficient of y in the expansion $(5 - y)^2$ is (1)

   (a) 5 (b) – 10 (c) 10 (d) 1

3. How many triangles are possible having angles 60^0, 80^0 and 40^0. (1)

   a) only one b) none c) infinite d) only 3

4. An exterior angle of a triangle is 110^0 and its two interior opposite angles are equal.

   Each of these equal angles equal to (1)

   (a) 55^0 (b) 45^0 (c) 35^0 (d) can't find

5. In a cylinder, radius is halved and height is doubled. The volume will be (1)

   (a) four times (b) doubled (c) same (d) halved

6. The class mark of a class interval is 10.5 and its class size is 7. Its class interval is (1)

   (a) 7 – 14 (b) 10 – 17 (c) 11 – 18 (d) 5 – 12

7. In ΔABC, if $\angle C > \angle B$ then (1)

(a) AB = AC (b) AB > AC (c) AB < AC (d) None of these

8. Which of the following statements is true? (1)

(a) Every square is a rhombus

(b) The diagonals of a rectangle are perpendicular

(c) The diagonals of a rhombus are equal

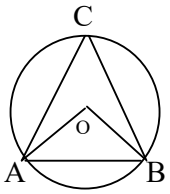
(d) A quadrilateral is a square if all of its sides are equal.

9. Which of the following is true if $\Delta PQR \cong \Delta SET$? (1)

a) PQ = SE b) QR = ST c) ∠P = ∠T d) PR = SE

10. In the given fig. if ∠OAB = 40^0, then ∠ACB is equal to (1)

(a) 40^0 (b) 50^0 (c) 70^0 (d) 60^0

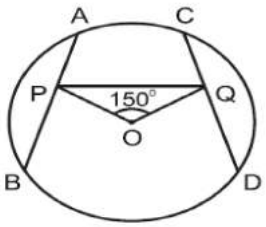


(11 – 15) Fill in the blanks:

11. The point whose ordinate is 4 and which lies on y – axix is_____ (1)

12. The line 2x + 3y = 6 cuts the x – axis at _____and y axis at _____ (1)

13. In fig. AB and CD are two equal chords of a circle with centre O. OP and OQ are perpendiculars on chords AB and CD respectively. If ∠POQ = 150^0, then ∠APQ is ___ (1)



14. If E be an event, then P(E) + P (not E) = _____. (1)

OR

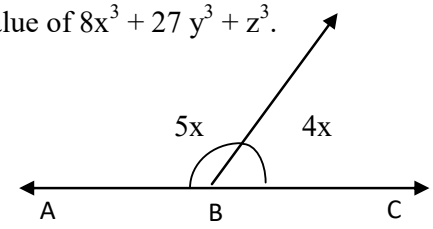
Probability of an impossible event is _____

15. The total surface area of the cone whose radius is r/2 and slant height $2l$ is _____ (1)

(16 – 20) Answer the following :

16. If $2x + 3y + z = 0$, then find the value of $8x^3 + 27y^3 + z^3$. (1)

17. In fig, find the value of x.



OR

If the supplementary angle of an angle is 3 times of its complementary angle, find the angle.

18. Find the decimal expansion of 31/16. (1)

19. Find the mode of the data 4, 9 ,5, 4, 9, 5, 4, 5, 9, 5. (1)

20. If – – then find the value of . (1)

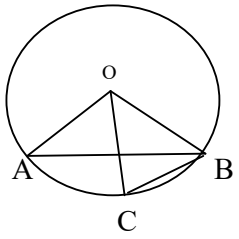
SECTION – B

21. If the area of an equilateral triangle is $16\sqrt{3}$ cm^2, then find the perimeter of the triangle. (2)

OR

Find the area of an isosceles triangle whose two equal sides are 10 cm each and third side is 8 cm.

22. In the given fig. $\angle OAB = 30^0$ and $\angle OCB = 57^0$. Find $\angle ABC$ (2)



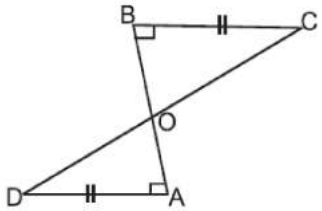
23. The angles of a quadrilaterals are in the ratio 3 : 5 : 9 : 13. Find the angles of the quadrilateral. (2)

24. If $x - \frac{1}{x} = 4$ then find the value of $x^2 + \frac{1}{x^2}$. (2)

OR

Find the value of k, if $x - 1$ is a factor of $p(x)$ if $p(x) = x^2 + x + k$

25. AD and BC are equal perpendiculars to a line segment AB as given in fig. below. Show that CD bisects AB. (2)



26. The curved surface area of a right circular cylinder of height 14 cm is 88 cm^2. Find the diameter of the base of the cylinder. (2)

SECTION C

27. Locate $\sqrt{10}$ on the number line. (3)

OR

Find four different irrational numbers between $\frac{5}{7}$ and $\frac{9}{11}$.

28. Two sides of a triangle are 9 m, 40 m and the perimeter is 90 m. Find the area of the triangle. (3)

29. Without ploting the points, write the quadrant in which following points will lie. (3)

(a) Point whose ordinate is -7 and abscissa is 1

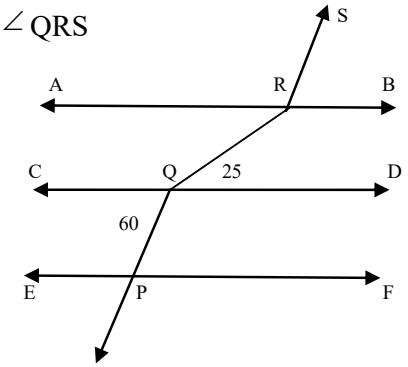
(b) Point whose abscissa is -4 and ordinate is -4

(c) Point whose abscissa is 2 and ordinate is 5.

30. Find the values of a and b if $\frac{\sqrt{3}-1}{\sqrt{3}+1} = a + b\sqrt{3}$ (3)

31. In the given fig. AB ‖ CD ‖ EF and PQ ‖ RS, $\angle RQD = 25^0$ and $\angle CQP = 60^0$. (3)

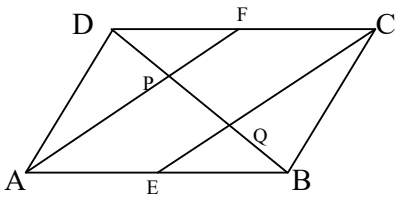
Find $\angle QRS$



32. " Parallelograms which are on the same base and between the same parallels are equal in area". Prove it. (3)

(OR)

In a parallelogram ABCD, E and F are the midpoints of sides AB and CD respectively. Show that the line segment AF and EC trisect the diagonal BD.



33. Give the geometrical representation of $2x + 9 = 0$ as an equation (3)

a. In one variable b. In two variables

34. A recent survey found that the ages of workers in a factory are distributed as follows. (3)

Age (in years)	20 – 29	30 – 39	40 – 49	50 – 59	60 and above
No. of workers	38	27	86	46	3

If a person is selected at random, find the probability that the person is

(a) 40 years or more

(b) Below 40 years.

(c) Below 50 but over 39 years.

(OR)

Cards with numbers 1, 2, 3, ---------- 100 are placed in a box and mixed thoroughly. One card is drawn. What is the probability that the card is drawn is

(a) A prime number less than 30?

(b) A multiple of 5 and 7?

(c) A multiple of 8?

SECTION D

35. Factorize: (i) $4x^2 + 9y^2 + 16z^2 + 12xy - 24yz - 16xz$

(ii) $2x^2 + y^2 + 8z^2 - 2\sqrt{2}xy + 4\sqrt{2}yz - 8xz$ (4)

OR

Use the factor theorem to determine whether $g(x)$ is a factor of $p(x)$ in each of the following.

(i) $p(x) = 2x^2 + x^2 - 2x - 1$, $g(x) = x + 1$

(ii) $p(x) = 2x^2 + 3x^2 - 3x + 1$, $g(x) = x + 2$

36. Construct a triangle ABC in which BC = 7 cm, $\angle B = 75^0$ and AB + AC = 13cm (4)

OR

Construct a triangle PQR in which $\angle Q = 60^0$, $\angle R = 45^0$ and PQ + QR + RP = 11cm

37. Prove that the angle subtended by an arc at the centre is double the angle subtended by it at any point on the remaining part of the circle. (4)

38. Draw the graphs of the lines following linear equation in two variables : 2x – 5y = 9. (4)

39. The volume of a right circular cone is 9856 cm^3. If the diameter of the base is 28 cm, Find (4)

(i) height of the cone (2)

(ii) slant height of the cone (1)

(iii) curved surface area of the cone (1)

OR

The length, breadth and height of a room are 5m, 4m and 3m respectively. Find the cost of white washing the walls of the room and the ceiling at the rate of Rs. 7.5 per square metre.

40. The following table gives the life times of 400 neon lamps. (4)

Life time (in hours)	300 – 400	400 – 500	500 – 600	600 – 700	700 – 800	800 – 900	900 – 1000
No of Lamps	14	56	60	86	74	62	48

(i) Represent the above information with the help of a histogram. (3)

(ii) How many lamps have a lifetime of 700 or more hours (1)

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[**Total No. of Printed Pages: 05**]

Atomic Energy Education Society
Annual Examination 2019-20

Class : IX **Time : 3 Hours**

Subject : Science **Marks : 80**

General Instructions:

a) The Question Paper consists of **30 questions** and divided into **three** Sections – **A, B and C**. You have to attempt all the sections.

b) All questions are compulsory. However an internal choice is given for three questions in Section-B and three questions in Section-C.

c) Section-A comprises of 20 questions in all, out of which 10 questions are multiple choice type questions of 1 mark each, 2 questions are based on assertion and reasoning which carries 1 mark each and 8 questions are very short answer type questions of 1 mark each.

d) Section-B comprises of 10 short answer type questions of 3 marks each.

e) Section-C comprises of 6 long answer type questions of 5 marks each.

f) The question paper will be distributed at 9:15 am. **From 9:15 am to 9:30 am, the students will read the question paper only** and will not write any answer on the answer-sheet.

g) **No separate answer sheet will be provided for Physics, Chemistry and Biology. All the questions are compulsorily to be answered using the same single Answer Sheet. Schools are advised to ensure the said practice**.

SECTION – A

1. Why does the weight of a body vary from poles to equator? **[1]**

2. Name the causal organism of AIDS. **[1]**

3. Answer question numbers 3 (a) – 3 (d) on the basis of your understanding of the following paragraph and the related studied concepts:

A homogeneous mixture of two or more substances is called a true solution. It consists of solute and solvent. The particle size of a true solution is less than 1 nm. A suspension is a heterogeneous mixture in which the solute particles do not dissolve but remain suspended throughout the bulk of the medium. A colloid is a mixture that is actually heterogeneous but appears to be homogeneous as the particles are uniformly spread throughout the solution.

3 (a) Among -true solution, suspension and colloid- which ones are stable? **[1]**

3 (b) Which type of mixture can be separated by filtration? **[1]**

3 (c) Which type of mixture will not show Tyndall effect? **[1]**

3 (d) In which type of mixture, the particles cannot be seen with the naked eyes? **[1]**

4. Question numbers 4(a) - 4(d) are based on Table-A given below. Study this table and answer the questions that follow:

Table –A : Cell size and No. of chromosomes

Cells	Size (μm)	No. of chromosomes
A	5	3
B	26	2
C	12	4
D	2	1
E	45	6

4 (a) Can you find any discrepancy with respect to Cell A and Cell D? **[1]**

4 (b) Find out from the following, pairs of an eukaryotic cell. **[1]**

(i) A, B and D (ii) B, C and E (iii) C, D and E (iv) A, C and D

4 (c) Give one difference between prokaryotic cell and eukaryotic cell. **[1]**

4 (d) Identify the prokaryotic cell from the following: **[1]**

(i) *Homo sapiens* (ii) Garden lizard (iii) *Hibiscus* (iv) Blue green algae

5. Which of the following will form a homogeneous mixture? **[1]**

(a) Sand and water (b) Oil and water

(c) Salt and water (d) Chalk powder and water

6. The rate of change of displacement with time is: **[1]**

(a) Speed (b) Acceleration (c) Retardation (d) Velocity

7. If A and B are two bodies of masses 20 kg and 40 kg respectively, then: **[1]**

(a) A has more inertia than B (b) B has more inertia than A

(c) A and B have same inertia (d) They will not have any inertia

8. Instrument used for measuring the density or relative density of liquids is known as: **[1]**

(a) Spherometer (b) Hydrometer (c) Buoyancy meter (d) Mercury meter

9. Which of the following is a viral disease? **[1]**

(a) Anthrax (b) Cancer (c) Syphilis (d) Rabies

10. The coastal areas during day time are characterized by: **[1]**

(a) movement of air from sea towards land (b) movement of air from land towards sea

(c) flow of air in any direction (d) flow of air at a very high speed

11. Which one of the following fishes is a surface feeder? **[1]**

(a) Rohu (b) Mrigal (c) Common carp (d) Catla

12. A man with a box on his head is climbing up a ladder. What work is said to be done by the man on the box? **[1]**

(a) positive (b) negative (c) zero (d) undefined

For question numbers 13 and 14, two statements are given- one labeled Assertion (A) and the other labeled Reason (R). Select the correct answer to these questions from the codes (i), (ii), (iii) and (iv) as given below:

(i) Both A and R are true and R is correct explanation of the assertion.

(ii) Both A and R are true but R is not the correct explanation of the assertion.

(iii) A is true but R is false.

(iv) A is false but R is true.

13. Assertion : Isobars do not differ in their chemical properties. **[1]**

Reason : Isobars are atoms of different elements having the same mass numbers.

14. Assertion : A body can have acceleration even if its velocity is zero at a given instant of time.

Reason : A body is momentarily at rest when it reverses its direction of motion. **[1]**

SECTION – B

15. (a) Give reasons: **[2]**

(i) Ice floats on water.

(ii) A desert cooler cools better on a hot dry day.

(b) Convert 370 K into Celsius scale (^{0} C). **[1]**

OR

(a) What is evaporation? **[1]**

(b) In the following examples state which factor is responsible for the change in rate of evaporation and how? **[2]**

(i) Wet clothes dry faster on spreading them.

(ii) Clothes dry faster in sun than in shade.

16. Give three characteristics of the particles of matter. **[3]**

17.(a) What are the limitations of Rutherford's model of atom. **[2]**

(b) On the basis of Thomson's model of atom, explain how the atom is neutral as a whole. **[1]**

18. Draw a labeled diagram of a neuron. **[3]**

19. (a) State the constituents of phloem. **[2]**

(b) How does cork act as a protective tissue? **[1]**

OR

(a) Draw a diagram showing apical, intercalary and lateral meristem. **[2]**

(b) Define a meristem. **[1]**

20. (a) Write two differences between Acute and Chronic disease. **[2]**

(b) State one of the principles of treatment. **[1]**

21. (a) State Archimedes' Principle. **[2]**

(b) What is the SI unit of (i) G and (ii) g? **[1]**

OR

An object is thrown vertically upwards and it rises to a height of 10 m. **[3]**

Calculate: (i) the velocity with which the object was thrown upwards and

(ii) the time taken by the object to reach the highest point.

22. The average atomic mass of a sample of an element X is 16.2 u. What are the percentages of isotopes $^{16}_{8}X$ and $^{18}_{8}X$ in the sample? **[3]**

23. (a) Write any one of the equations of motion. **[1]**

(b) A car accelerates uniformly from 18 km/h to 36 km/h in 5 s. **[2]**

Calculate (i) the acceleration and (ii) the distance covered by the car in that time.

24. (a) What is animal husbandry? **[1]**

(b) Differentiate between milch and draught animals. **[2]**

SECTION – C

25. (a) Write down the formula of: **[2]**

(i) Aluminium chloride (ii) Magnesium hydroxide

(b) Calculate the mass of 3.011 X 10^{23}numbers of N atoms? **[2]**

(*Given: Atomic mass of N= 14 u*)

(c) What are polyatomic ions? Give one example. **[1]**

OR

(a) Which postulate of Dalton's atomic theory is the result of the law of Conservation of mass? **[1]**

(b) Give the names of the elements present in the following compounds: **[2]**

(i) Quick lime (ii) Baking Powder

(c) What is the mass of 0.5 moles of water molecules? **[2]**

(*Given: Atomic mass of H = 1 u, O = 16 u*)

26. (a) Name the largest phylum of animal kingdom. **[1]**

(b) Explain the basis of grouping organisms into five kingdoms. **[2]**

(c) What is binomial nomenclature? Who proposed it? **[2]**

OR

(a) State any four characteristics of mammals. **[2]**

(b) What are *Gymnosperms*? Give two characteristics. **[3]**

27. (a) Draw a neat and labeled diagram of Nitrogen Cycle in nature. **[3]**

(b) What would happen if ozone layer in the atmosphere disappears? **[2]**

28. (a) Define kinetic energy. Derive an expression possessed by an object of mass 'm' and moving with velocity 'v'. **[3]**

(b) A ball of mass 400 g rolls on a ground with uniform speed of 25 m/s. Find the kinetic energy possessed by it. **[2]**

OR

(a) Define 1 watt of power. **[1]**

(b) Find the energy in kWh consumed in 10 hours by four devices of power 500 W each. **[2]**

(c) What is the work done by the force of gravity on a satellite moving round the earth? Justify your answer. **[2]**

29. (a) State Newton's second law of motion. **[2]**

(b) A truck starts from the rest and rolls down a hill with a constant acceleration. It travels a distance of 400 m in 20 s. Find its acceleration and also the force acting on it, if its mass is 7000 kg. **[3]**

30. (a) Expand SONAR. **[1]**

(b) How does it work? **[2]**

(c) A sound wave travels at the speed of 339 m/s. If its wave length is 1.5 cm then what is the frequency of the wave. **[2]**

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ATOMIC ENERGY EDUCATION SOCIETY
ANNUAL EXAMINATION 2019-20

CLASS: IX **TIME: 3hrs**

SUBJECT: SOCIAL SCIENCE **MARKS: 80**

General Instructions:

i. The question paper has **35** questions in all.

ii. Marks are indicated against each question.

iii. Questions from serial number **1** to **20** are objective type questions. Each question carries **one mark**. Answer them as instructed.

iv. Questions from serial number **21** to **28** are **3 marks** questions. Answer of these questions should not exceed **80 words** each.

v. Questions from serial number **29** to **34** are **5 marks** questions. Answer of these questions should not exceed **120 words** each.

vi. Question number **35** is a map question of **6 mark**s with two parts **- 35 a.** from History (2 marks) and **35b.** from Geography (4 marks).

SECTION A

1. Match the following items given in column A with those in column B. Choose the correct answer from the options given below: [1]

COLUMN A		COLUMN B	
A.	Active citizens	1	Tax levied by the church
B.	Feudal privileges	2	Society of France before 1789
C.	Old Regime	3	Entitled to vote
D.	Tithe	4	Services by peasants to lords

2. What was the Comintern? [1]

(a) Bolshevik-founded international union of pro-Bolshevik socialist parties.

(b) USSR's Communist University.

(c) Collective farms in USSR.

(d) Term refers to non-Russian communities in USSR

3. Which one of the following is the longest rivers of the peninsular India?

(a) Narmada (b) Godavari (c) Krishna (d) Tapi [1]

4. What does Bugyal mean? [1]

OR

Who was the first inspector general of forests in India?

5. Complete the following table with correct information with regard to the Western Ghats: [1]

The Western Ghats	Average Height	Highest Peak
	?	?

6. What are called 'Mango Showers'? Why? [1]

7. Correct the following statement and rewrite: [1]

Literacy rate among females is higher than males.

OR

The workforce population includes people from 25years to 45 years.

8. Which language is the word democracy derived from? [1]

OR

How is electoral system in Fiji non-democratic?

9. Who exercises the control over those who run the government in India? [1]

(a) President (b) Lok Sabha (c) Rajya Sabha (d) Judiciary

10. Election held to fill the vacancy caused by death or resignation of a member of legislature is known as _____. [1]

OR

One-third of the seats are reserved for ----------in local bodies, in rural and urban areas.

11. How a state (South Africa) denounced by the entire world was being seen as a model of democracy? [1]

OR

Why do we need to make amendments in our constitution?

12. Ahmad lives in a village of Hisar in Haryana. He has a small farm of 2 hectares. He himself, his wife and his elder son Asif, do all the farm related work like tilling, sowing the seed and manuring. For irrigation, he is dependent on rainfall. Every year, most of his crop fails. One day, his friend suggested him to use a special type of seeds, chemical fertilizers and pesticides.

He followed his friend's suggestion. He took agriculture loan and arranged the aforesaid items. This time his crops did not fail. Moreover, his production is increased.

Analyze the information given above and consider which one of the following farming method he used to achieve more production: [1]

(a) Multiple cropping method

(b) Modern farming method

(c) Traditional farming method

(d) None of the above

13. Which of the following is not related to poverty? [1]

(a) Parents are not able to send their children to school

(b) Lack of clean water and sanitation facilities.

(c) Lack of money to buy a new car.

(d) Lack of regular job at a minimum decent level.

14. The government distributes food grains to the deficit areas and among poor strata of society at a price lower than the market price is also known as

(a) Fair Price. (b) Issue Price (c) Minimum Support Price (d) None of these [1]

15. In _____ unemployment, certain months do not provide much work to the people. [1]

16. Mention any one basic difference between land and capital (money). [1]

17. Which of the following is a significant step towards providing elementary education to all the children in the age group of 6-14 years? [1]

a) Sarva Shiksha Abhiyaan

b) Mid-Day Meal Scheme

c) Adult Education Programme

d) Non-Formal Education

18. What is the main aim of Mahatma Gandhi National Rural Employment Guarantee Act,2005? [1]

19. Which of the following is a fixed capital? [1]

a) Wool

b) Money to make payment

c) Colours

d) Machines

20. Ration shops in India are regulated by: [1]

(a) Food Corporation of India

(b) State government

(c) Central government

(d) National Sample Survey Organization (NSSO)

SECTION B

21. Read the sources given below and answer the questions that follows: [3]

Source A – The Effects of the War

Germany retaliated with passive resistance and printed paper currency recklessly. With too much printed money in circulation, the value of the German mark fell. In April the US dollar was equal to 24,000 marks, in July 353,000 marks, in August 4,621,000 marks and at 98,860,000 marks by December, the figure had run into trillions. As the value of the mark collapsed, prices of goods soared.

Source B – Reconstruction

The Soviet Red Army inflicted a crushing and humiliating defeat on Germany at Stalingrad. After this the Soviet Red Army hounded out the retreating German soldiers until they reached the heart of Berlin, establishing Soviet hegemony over the entire Eastern Europe for half a century thereafter.

Source C – Youth in Nazi Germany

All boys between the ages of six and ten went through a preliminary training in Nazi ideology. At the end of the training they had to take the following oath of loyalty to Hitler: 'In the presence of this blood banner which represents our Fuhrer I swear to devote all my energies and my strength to the savior of our country, Adolf Hitler. I am willing and ready to give up my life for him, so help me God.' (From W Shirer, The Rise and Fall of the Third Reich)

Source A – The Effects of the War

21 (1) Why did Germany print so much paper currency?

Source B – Reconstruction

21 (2) What was the aim of the Hitler behind the attack on Soviet Russia?

Source C – Youth in Nazi Germany

21 (3) Analyze the motive behind the trainings and oath.

22. Explain the circumstances that led to the collectivization programme in USSR. [3]

OR

Analyze the disturbances in Russia during 1904 which caused the Bloody Sunday.

23. Explain briefly the social divisions of Maasais. [3]

OR

Explain some of the common customs and beliefs of the people of Bastar.

24. Classify the northern plains on the basis of the variations in the relief features. write characteristics of any three of them. [3]

OR

Differentiate between the Himalayan and the Peninsular rivers.

25. Analyze the role of cooperatives in ensuring food security in India. [3]
26. "Illiterate and unhealthy are a liability for the economy." Justify the statement with suitable examples. [3]
27. Give any three arguments against democracy. [3]
28. Which three evils are tackled by Right against exploitation? Explain. [3]

SECTION C

29. "The period from 1793 to 1794 in French History is termed as the Reign of Terror" Give any five reasons in support of the statement. [5]
30. Explain the factors which govern the climate of any place. [5]

OR

Describe the mechanism of monsoon.

31. Discuss the various processes responsible for population change in India. [5]

OR

Describe the steps taken by the government to protect the flora and fauna of the country.

32. State the various poverty alleviation programmes introduced by the government of India to remove poverty. [5]
33. What do you understand by the Independence of the judiciary? How can you say that judiciary in India is independent? [5]

OR

Describe any 5 powers and functions of the Prime Minister of India.

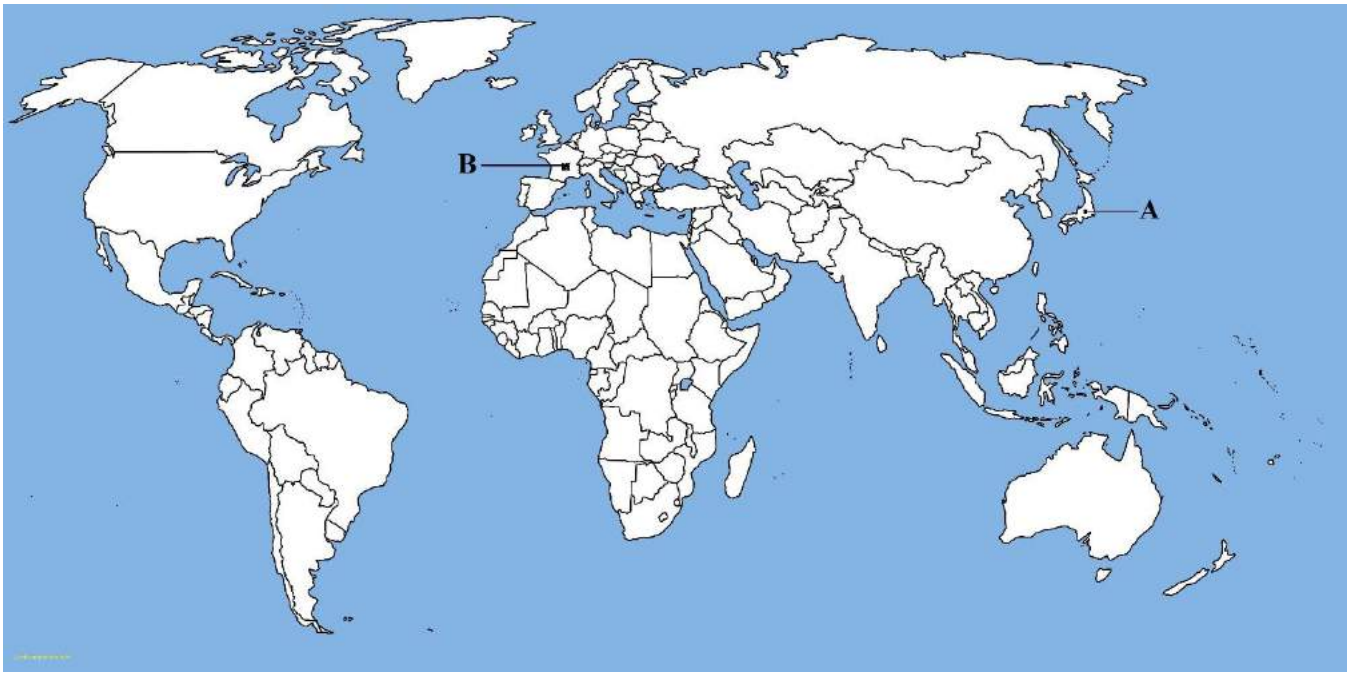
34. Explain briefly the challenges to the free and fair election in India. [5]

SECTION D

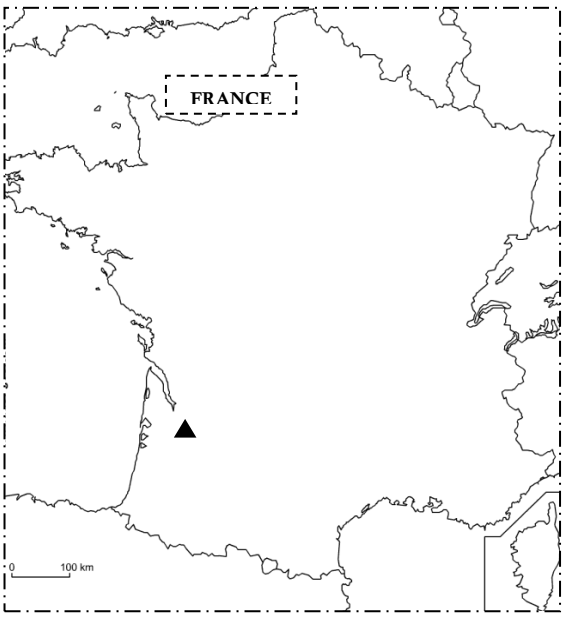
35. A.1. Two places A and B have been marked on the outline map of world. Identify them and write their correct names on the lines drawn near them: 2M

A) A country which fought the second world war as axis power.

B) A country which fought the second world war as allied power.



35. A.2 On the outline map of France identify the place 1M



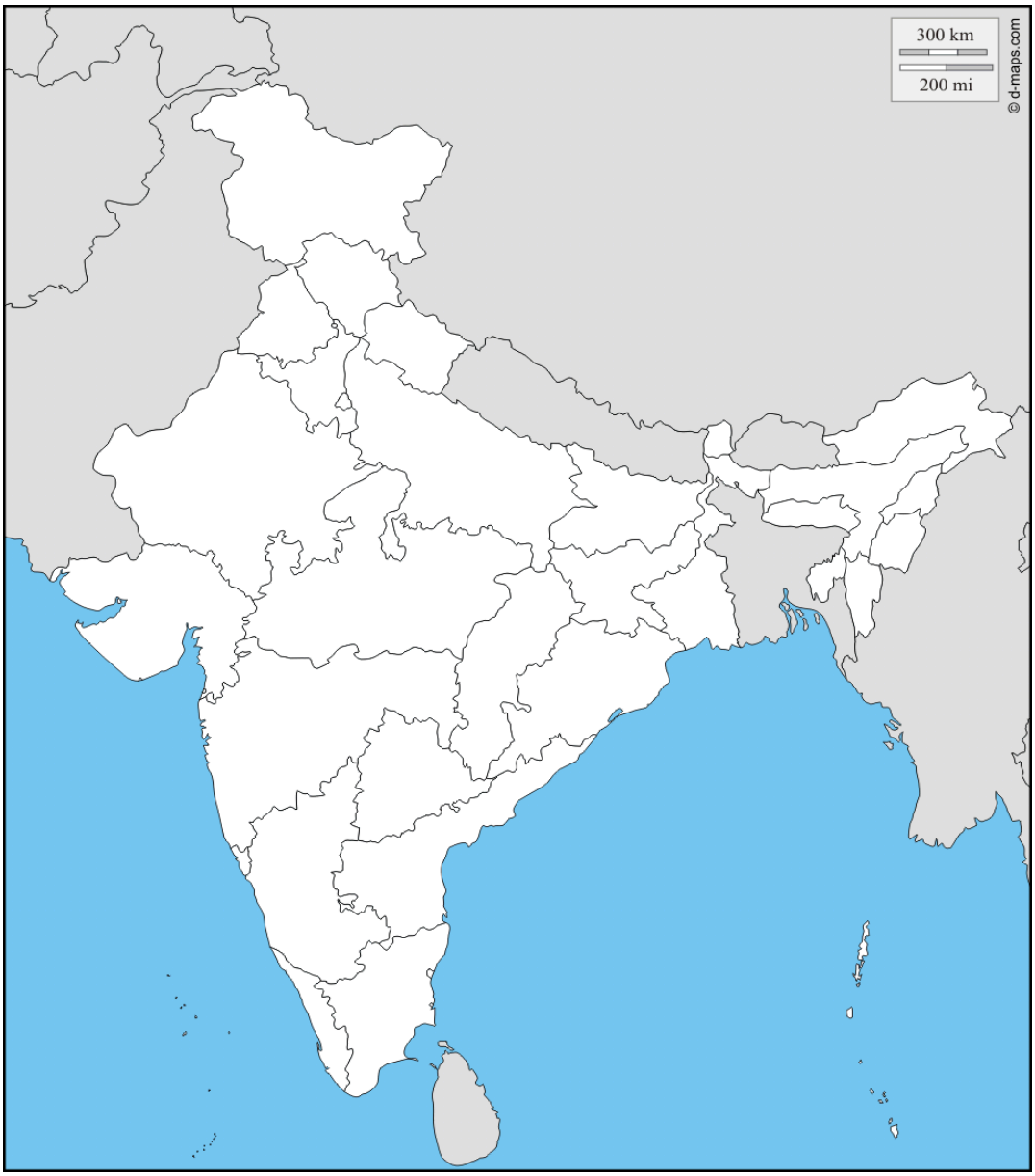
36. On the given outline map of India, locate and label any three of the following places: 3M

a) Aravali range

b) Konkan Coast

c) Wular Lake

d) Kaziranga

e) Mahanadi

f) A state which has favorable sex ratio