

BOARD PREPARATORY EXAM

SUBJECT– ENGLISH

SESSION 2019-20

Maximum Marks : 80

Class –X

Time : 3 Hours

GENERAL INSTRUCTIONS

29-11-2019

- (i) This question paper is divided into three sections.
- | | | |
|-------------|---|----------|
| Section A : | Reading | 20 Marks |
| Section B : | Writing and Grammar | 30 Marks |
| Section C : | Literature : Textbooks and Supplementary Reading Text | 30 Marks |
- (ii) All questions are compulsory.
- (iii) All questions of a particular section must be attempted in the correct order.

SECTION –A (READING)

1. Read the passage given below and answer the questions that follow. [8 Marks]
- I. When Rajat, a student studying for the Class X Board examination approached. Dr. Anoop Mishra of the Fortis Hospital, who had put on six kilograms, during preparation leave, for advice, he was told that the lack of physical activity was the primary cause of weight gain. He further advised him to follow a few signification tips.
- II. As Rajat's appetite had gone up and he had begun to snack frequently, Dr. Mishra asked him to give up the habit and have small meals at frequent intervals. He was also told not to skip a meal. In case, he still felt the urge to snack, he was advised to have sprouts and salads in lieu of snacks loaded with fat and eat fruit in place of snacks with refined sugars. To avoid the temptation of munching on biscuits, chips and namkeens, he was advised to munch on carrots, cucumber and fruits.
- III. To keep up his metabolism, and be able to concentrate for longer hours on his books, he was advised to avoid heavy meals, specially late at night. He needs to expose his body to sunlight for at least fifteen minutes a day to absorb Vitamin D, a good vitamin for regulation of weight and also for the brain.
- IV. When it came to cold drinks, Rajat was advised to drink toned milk and nimbupani to help him get rid of untimely hunger pangs. Also green teas he was told was a metabolic booster and could be tried out. As far as his study routine was concerned, Dr. Mishra advised him to take breaks frequently instead of sitting for long hours at a stretch as that could cause headaches. In case he did get a headache it was necessary to learn what triggers it, and avoid those things. The lighting of the room and placement of the chair was also important. Above all, Rajat was advised to take regular exercise, as all work and no play makes Jack a dull boy.
- 1.1 Select the most suitable option :
- (a) Rajat approached Dr. Mishra as he had –
- | | |
|---------------------|-------------------------------|
| (i) become sick | (ii) Wanted some medicine |
| (iii) gained weight | (iv) asked for a prescription |
- (b) For a better metabolism and concentration, Rajat was advised -
- | |
|---|
| (i) to avoid heavy meals |
| (ii) to have more sprouts and salads. |
| (iii) to absorb the Vitamin D from the sunlight |
| (iv) all of the above |
- 1.2 State whether the following statements are 'True' or 'False' :
- | |
|---|
| (i) Rajat was careful with his diet. |
| (ii) Rajat had put on six kilograms of weight during preparation leave. |
| (iii) Rajat was advised to not sit for long hours at a stretch. |

- 1.3 Fill in the blanks with words from the passage :
- (i) Toned milk and were advised to Rajat as good substitutes to get rid hunger pangs.
 - (ii) Rajat's appetite had gone up, so he had started to Frequently.

1.4 Search the word in the passage that is opposite in meaning to 'halt'

2. **Read the passage given below and answer the questions that follow. [12 Marks]**
Gandhiji As A Fund Raiser

Gandhiji was an incurable and irresistible fund raiser. He found special relish in getting jewellery from women. Ranibala of Burdwan was ten years old. One day she was playing with Gandhiji. He explained to her that her bangles were too heavy for delicate little wrists. She removed the bangles and gave them away to Gandhiji.

He used to talk jokingly to small girls and created distaste for ornaments and created a desire in them to part with the jewellery for the sake of the poor. He motivated them do donate their jewellery for social usage.

Kasturbai didn't appreciate this habit of Gandhiji Once she stated calmly, 'You don't wear jewels, it is easy for you to get around the boys. But what about our daughters-in-law. They would surely want them.

"Well!" Gandhiji put in mildly, "our children are young and when they grow up they will not surely choose wives who are fond of waring jewellery." Kasturbai was very upset with the answer.

Gandhiji was determined to keep the jewel to raise community fund. He was of the opinion the a public worker should accept no costly gifts. He believed that the should not own anything costly, whether give or earned. Kasturbai was a female with a desire to adorn. But Gandhiji moved towards renunciation and donated every penny earned in South Africa to the trustees for the service of South African Indians.

2.1 Answer the questions given below : [2 × 4 = 8 Marks]

- (a) How did Gandhiji create a distaste for jewellery in Ranibala ?
- (b) What was Kasturbai's apprehension about their daughters-in-law ?
- (c) What solution did Gandhiji suggest for the problem posed by Kasturbai ?
- (d) How did Gandhiji serve the community ?

2.2 Find meanings of the words given below from the options that follow : [1 × 4 = 4 Marks]

- (e) incurable (Para 1)
 - (i) unreliable
 - (ii) untreatable
 - (iii) disagreeable
 - (iv) unbeatable
- (f) motivated (Para 2)
 - (i) encouraged
 - (ii) emboldened
 - (iii) incited
 - (iv) softened
- (g) upset (Para 4)
 - (i) puzzled
 - (ii) furious
 - (iii) confused
 - (iv) distressed
- (h) renunciation (Para 5)
 - (i) giving up
 - (ii) disagreement
 - (iii) opposition
 - (iv) termination

SECTION –B (WRITING & GRAMMAR)

3. (a) Your school has decided to take part in half marathon organised by an N.G.O in New Delhi. Write a letter in 100-120 words to the Area Manager of the N.G.O requesting permission to participate in the half marathon on 29 Nov. 2019 starting from National Stadium. Request the N.G.O. to provide you school with 200 T-shirts for boys and girls aged 15-17 year. You are school Captain, Manish Mehta, Sarvodaya Vidyalaya, Saket. [8 Marks]

OR

(b) Write a complaint letter to the District Collector. Kanpur drawing his attention to the nuisance caused by loudspeakers in the city during examination days. (100-150 words)

4. "..... Ultimately I won it as I was determined to achieve my goal." The closing of the story is given below. You can start your own story but you cannot change the end. Write the story in 150-200 words.

Hints : humble family background – no guidance or support – ambition – difficulties – didn't give up – long struggle pave the way for success [10 Marks]

OR

Write a story in 150-200 words based on the following outline :

Ram and Mohan, two friends studies in a village school. One day they were returning from the school . On the way there was a forest (The Bear Encounter)

5. There is an error in each line. Write the incorrect word and the correction in the space provided.

[1 x 4 = 4 Marks]

Passage		Error	Correction
All of us enjoy to watch movies	(a)
We don't think about how a film created while we watch it.	(b)
However, behind every success film there is a lengthy, creative process	(c)
Who involves a variety of different activities	(d)

6. Complete the paragraph given below by filling in the blanks with the help of the options that follow :

[1 x 4 = 4 Marks]

I met a smart young person (a)_____ wanted a 'selfie' (b)_____ me. (c) I could _____ say 'no' (d) So we (d) _____ on top of a boundary wall.

- (a) (i) Which (ii) who (iii) whose (iv) whom
 (b) (i) with (ii) on (iii) for (iv) to
 (c) (i) hard (ii) harder (iii) hardest (iv) hardly
 (d) (i) sit (ii) sits (iii) sat (iv) sitting

7. (a) to / very / deforestation / can / to be / prove / damaging / Mother Earth **[1 x 4 = 4 Marks]**

(b) should / individual / his / each / a / on / plant / tree / birthday

(c) must / we / live / that / we / understand / trees / cannot / without

(d) if / we / to / encourage / we / must / afforestation / the / want / keep / Earth / green

SECTION –C

(LITERATURE AND SUPPLEMENTARY READING TEXT)

8. Read the following extracts carefully and answer the questions that follow. **[1 x 4 = 4 Marks]**

1. The moon was coming up in the east, behind me, and stars were shining in the clear sky above me. There wasn't a cloud in the sky. I was happy to be alone high up above the sleeping countryside. I was flying my old Dakota aeroplane over France back to England. I was dreaming of my holiday and looking forward to being with my family. I looked at my watch at one thirty in the morning.

I should call Paris Control soon. I through. As I looked down past the nose of the aeroplane, I saw the lights of a big city in front of me.

- (i) How was the weather when the pilot started flying his aeroplane ?
 (a) Cloudy (b) Clear (c) Stormy (d) Foggy
- (ii) Why was the pilot flying his old Dakota
 (a) Because he had to report back to head quarter
 (b) Because he had to monitor the weather conditions
 (c) Because he was on a secret vigil against enemy
 (d) Because he wished to have morning breakfast with family
- (iii) Which word in the extract means the same as land outside towns or cities ?
 (a) Countryside (b) Behind (c) Dreaming (d) High
- (iv) in the extract means 'hoping with pleasure'.
 (a) Coming up (b) Shining up (c) Looking forward to (d) Look at

OR

..... Now

He senses first responsibility

In a world of possessions. People will take

Balls, balls will be lost always, little boy.

And no one buys a ball back. Money is external.

- (i) What does the boy understand ?
- (a) Money is not everything (b) To grow up and cope with loss
(c) Same ball cannot be found (d) stop crying
- (ii) What does the poet mean by 'money is external' ?
- (a) Money has to be earned (b) Money is meant to be spent
(c) Money is not fixed (d) Money can be earned with hard work
- (iii) What does the word 'balls' signify ?
- (a) Sports material (b) Wishes of a child
(c) Boy's childhood and innocence (d) Sense of loss
- (iv) What does the poet mean by 'In a world of possessions' ?
- (a) Sense of loss (b) Material things
(c) Energy on loves to possess things (d) World of wealth and prosperity

9. Answer any five of the following questions in 30-40 words [2 × 5 = 10 Marks]

- (i) Do you think Tricky, was enjoying his stay at the hospital?
(ii) Why did narrator follow the pilot of another aeroplane?
(iii) What does Anne write in her first essay ?
(iv) How life on a tower would be different from life anywhere else for Amanda
(v) How, does the boy feel at the loss of his ball ?
(vi) What was the passion of Horace Danby was Matilda sad after the ball ?
(vii) Why was Matilda sad after the ball ?

10. Attempt any one out of two long answer type questions in 100-120 words - [8 Marks]

- (i) Why did Anne think that she could confide more in her diary than in the people.

OR

- (ii) Pen down the character sketch of Wanda Petronski.

11. Attempt any one out of two long answer type questions in 100 -120 words [8 Marks]

- (i) What great quality made Ausable a successful secret agent?

OR

- (ii) Excess of every thing is bad. Comment in the wake of Mrs. Pumphrey's love for Tricky.

BOARD PREPARATORY EXAM

fo"k; - fglnh *v*

I = %2019-20

vf/kdre vrd : 80

d{kk -x

I e; : 3 ?k.Vs

I kekl; funð k

- (i) I Hkh izu djuk vfuok; ZgS
- (ii) bl izu i = ea pkj [k.M fn; s x; s gS
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 [k.M ^?k* & j puk

[k.M ^d*&vi fBr x | k k

1. fuEufyf[kr x | k k dks /; kui m d i < dj i n s x, A' uka ds mUkj fyf[k, [10 Marks]
 f'k{k fdl h Hkh nsk dh fodkl i fØ; k dk , d vfkUu vax gS bl fy, ekuo I ekt ea bl smPp i kFkfedrk nh xbz gA
 f'k{k I s rkr; Z g&' kDr dks xg.k dj eut; }kjk I gh vFkZ ea vi uh {kerkva dk mi; kx djuk I h[kuk] vKku ds
 vdkdj I sfudydj Kku ds izdk'k dh vqj c<ekA f'k{k }kjk gh Kku vqj vKku ds e/; varj dks I e>dj eut;
 I gh fn'kk dh vqj c<ek gS rFk I E; d-Kku ds izdk'k ea thou dk I okxh.k fodkl dj ikrk gS rc , d k I e>uk
 fcydy rdz wZ gSfd i pfyr f'k{k iz.kkyh nsk i wZ gA
 , d fLFkr ea f'k{k uhfr ea I qkj djuk vfuok; ZgS tkrk gA i k'pkr; f'k{k i) fr dk vuqj.k djus ds dkj.k ge
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 I cl segUoi wZ fo'kkrk ; g ekuh tkrh gSfd og uhfr; ka I s i fjiwZ FkA uhfr vFkZ-I gh fn'kk&funð k ; s eut; ds
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 f'k'V vpkj.k dk gh fn'kk&funð djrh gA bl izdkj f'k{k vqj uhfr dk e[; mnas; , d gh gA
 ¼d½ f'k{k dk 0; fDr ij D; k i Hkko i Mfk gS \ [2 Marks]
 ¼[½ i k'pkr; f'k{k i) fr useut; ij D; k i Hkko Mkyk gS \ [2 Marks]
 ¼x½ f'k{k vqj uhfr dk e[; mnas; D; k gS \ [2 Marks]
 ¼k½ i Lrq x | k k dk I okZ/kd mi; qR 'kh'kd rdz I fgr nft , A [2 Marks]
 ¼³½ *iru* dk fojhrkFkd 'kCh fyf[k, A [2 Marks]

[k.M ^[k*&0; kdj .k

2. okD; dh i f j Hk'kk nrs gq ml ds vakra ds uke crkb, A [4 Marks]
3. I a qR o fefJr ; k feJ okD; ka I s vki D; k I e>rs gA [4 Marks]
4. fuEufyf[kr okD; ka dks I a qR okD; ka ea cnfy, [2 x 2 = 4 Marks]
 (i) vki oghacBdj Arh{k djA
 (ii) ; fn og rst nkMfk] rks thr tkrkA
5. okP; fdl sdgrsgA mnkgj.k I fgr I e>k, A [4 Marks]

6. okP; dsfdrusHkn g& [4 Marks]

7. fuEufyf[kr okD; ka ea okP; i gpkudj Hkn crkb,
(i) ep>l s cks> mBk; k ugha tkrkA [2 x 4 = 8 Marks]
(ii) jk"Vf fr dy Hk" k. k n&A
(iii) ejk fe= l eL; k ij fopkj dj jgk g&
(iv) vfer l snkMk ugha tkrkA

[k.M 'x'&iB; i qrd

8. xkfi ; ka }kj k m) o dks HkK; oku dguseaD; k 0; x; fufgr g& [4 x 7 = 28 Marks]

9. y{e.k usohj ; ks) k dh D; k & D; k fo' kSkrk, j crkb&

10. dfork dk 'kh"kd *mRl kg* D; ka j [kk x; k g&

11. *urkth dk p'ek* i k B dk ifjp; fyf[k, A

12. l s kuh u gkrsgq Hkh p'epkys dks ykx dSVu D; ka dgrs Fks

13. [krhckMh l s t q/s xgLFk ckyxkfcu Hkxr vi uh fdu pkj f=d fo' kSkrkvka ds dkj .k l k/kq dgykrs Fks

14. y{kd dks uokc l gk ds fdu gko&Hkoka l segl v gpk fd os mul sckrphr djus ds fy, rfud Hkh mRl pl ugha g&

[k.M 'k'&jpuk

15. fuEufyf[kr fo" k; ka ij fn, x, l dsr fcnq/ka ds vk/kkj ij 200&250% 'kCnka ea , d fucak fyf[k, A [14 Marks]

(i) foephdj .k %uk/cnh½

l dsr fcnq

◆ Hkfedk

◆ foephdj .k ds dkj .k

◆ foephdj .k dk YkkHk

◆ foephdj .k dh gkfu

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(ii) cky&Je

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◆ mi l gkj



VIBRANT ACADEMY

Believe in Excellence (India) Pvt. Ltd.

BOARD PREPARATORY EXAM

SUBJECT- SCIENCE

SESSION 2019-20

Maximum Marks : 80

Class -X

Time : 3 Hours

25-11-2019

GENERAL INSTRUCTIONS

1. The question paper comprises three sections - A, B and C. Attempt all the sections.
2. All questions are compulsory.
3. Internal choice is given in each section.
4. All questions in Section A are one-mark questions comprising MCQ, VSA type and assertion-reason type questions. They are to be answered in one word or in one sentence.
5. All questions in Section B are three-mark, short-answer type questions. These are to be answered in about 50 - 60 words each.
6. All questions in Section C are five-mark, long-answer type questions. These are to be answered in about 80 - 90 words each.
7. This question paper consists of a total of 30 questions.

Section - A

1. Complete the following reactions : [1]
 $\text{HCl} + \text{H}_2\text{O} \rightarrow$
 $\text{NaOH} + \text{H}_2\text{O} \rightarrow$
2. How does valency of an element vary across a period ? [1]
3. Ohm's law state that the current passing through a conductor is directly proportional to the potential difference across its ends, provided the temperature and other physical conditions (mechanical strain etc.), remain unchanged
i.e., $I \propto V$
or $V \propto I$
 $V = RI$

Where R is a constant and is called resistance of the conductor. The resistance of a conductor depends upon the temperature. As the temperature increases, the random motion of free electrons also increases. If the number density of charge carrier electrons remains constant as in the case of a conductor, then the increase of random motion increases the resistivity. The variation of resistance with temperature is given by the following relation

$$R_t = R_0(1 + \alpha t + \beta t^2)$$

Where R_t and R_0 are the resistance at $t^\circ\text{C}$ and 0°C respectively and α and β are constants. The constant β is very small so it can be assumed negligible.

$$\therefore R_t = R_0(1 + \alpha t)$$

$$\text{or } \alpha = \frac{R_t - R_0}{R_0 \times t}$$

This constant is called as temperature coefficient of resistance of the substance. If $R_0 = 1 \text{ ohm}$, $t = 1^\circ\text{C}$, then

$$\alpha = (R_t - R_0)$$

Thus, the temperature coefficient of resistance is equal to the increase in resistance of a conductor having a resistance of one ohm on raising its temperature by 1°C . The temperature coefficient of resistance may be positive or negative.

From calculations it is found that for most of the metals the value of α is nearly $\frac{1}{273}/^\circ\text{C}$. Hence

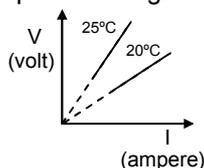
substituting α in the above equation

$$R_t = R_0 \left(1 + \frac{t}{273} \right) = R_0 \left(\frac{273 + t}{273} \right) = R_0 \frac{T}{273}$$

where T is the absolute temperature of the conductor.

$$\therefore R_t \propto T$$

V-I graph of a conductor at different temperature is given in the following diagram



- Does ohm's law followed by the conductor on both temperature ? **[1]**
- What does 'the nature of the graph' shows at 25°C ? **[1]**
- If the conductor is used on 20 V and current flowing through it is 2 A at 20°C then what is the resistance of the wire on 20°C ? **[1]**
- Based on the data represented in the graph above, which of the two temperatures has high resistance ? **[1]**

4. Some experiments were carried out using Croton sp. plants to understand the process of photosynthesis. It was observed that the leaves of the plant exposed to light for longer duration accumulated more starch. However, due to presence of pre-formed starch in the leaves, it was difficult to find the net productivity on a fixed exposure to light source. Therefore, it was necessary to obtain starch free leaves in the plant before starting the experiment.

- How can we obtain starch free leaves before the experiment? **[1]**
- If during the morning hours, using a fine blade, an incision is made to the leaves such that the phloem tissue is cut open. Which substance is found to be contained on analysis in the liquid oozing out from phloem tissue? **[1]**
- After a period of illumination, the leaves are boiled in alcohol to make them colourless. Which of the following can be used to test the end product stored in the leaves? **[1]**
 - Cobalt chloride paper
 - Litmus paper
 - Iodine solution
 - Copper sulfate solution
- Some of the starch free leaves are coated with wax on both the surfaces. The plant is maintained under normal environmental conditions. At the end of the experiment, the wax coated leaves are likely to show _____. **[1]**
 - Accumulation of more water.
 - Wilting of the wax coated leaves.
 - Increase in sucrose accumulation.
 - Decrease in number of chloroplasts

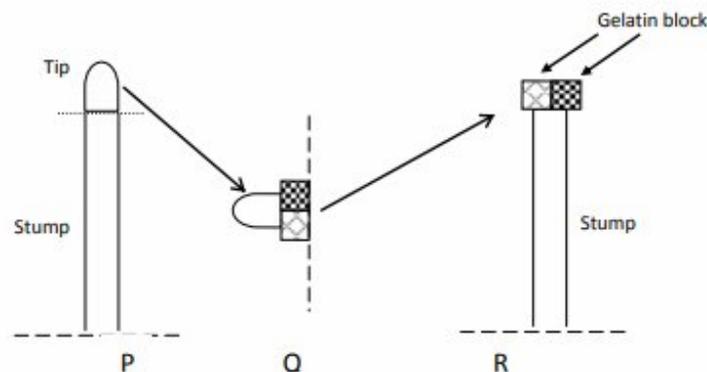
5. Power of the lens is -4 D, its focal length is [1]
 (a) 4m (b) -4 cm (c) -0.25 cm (d) -25 cm

OR

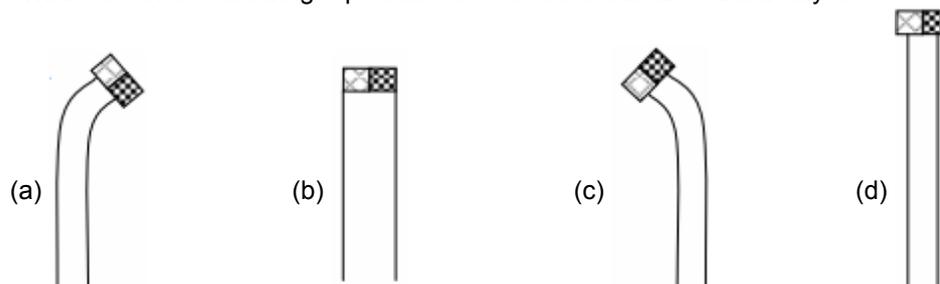
The optical phenomena, twinkling of stars, is due to

- (a) Atmospheric reflection (b) Total reflection
 (c) Atmospheric refraction (d) None of these
6. The radius of curvature of a mirror is 20cm, the focal length of spherical mirror is [1]
 (a) 20cm (b) 10cm (c) 40cm (d) 5cm
7. Point to be kept in mind for verification of Ohm's Law is: [1]
 (a) Ammeter and voltmeter should be connected in series
 (b) Ammeter should be connected in series and voltmeter in parallel
 (c) Ammeter should be connected in parallel and voltmeter in series
 (d) Ammeter and voltmeter should be connected in parallel

8. Plants show phototropism, wherein shoots respond by bending towards light. The plant hormone auxin is responsible for this phototropic effect. An experiment was carried out where the tip of growing seedling was cut and placed horizontally with its cut end in equal contact with two gelatin blocks as shown in the figure (P) below. Auxin diffuses into the gelatin blocks. After some time the gelatin blocks were placed on seedling stump as shown in the figure (R). The complete experiment was carried out in dark condition. [1]



Which one of the following represents the correct result after a few days?



OR

Arrange the following in proper sequence :

spinal cord, receptor organ, motor neuron, stimulus, sensory neuron, effector organ

- (a) Stimulus \rightarrow Receptor organ (like skin) \rightarrow Sensory neuron \rightarrow Spinal cord \rightarrow Motor neuron \rightarrow Effector organ (muscle or gland)
 (b) Stimulus \rightarrow Effector organ (muscle or gland) \rightarrow Sensory neuron \rightarrow Spinal cord \rightarrow Motor neuron \rightarrow Receptor organ (like skin)
 (c) Stimulus \rightarrow Receptor organ (like skin) \rightarrow Sensory neuron \rightarrow Effector organ (muscle or gland) \rightarrow Motor neuron \rightarrow Spinal cord
 (d) Stimulus \rightarrow Receptor organ (like skin) \rightarrow Motor neuron \rightarrow Spinal cord \rightarrow Sensory neuron \rightarrow Effector organ (muscle or gland)

9. Which one of the following gas contributes to green house effect and is produced due to incomplete combustion of coal and petroleum? [1]
 (a) Oxides of nitrogen (b) Methane (c) Carbon monoxide (d) Carbon dioxide
10. Which of the following reactions is an endothermic reaction ? [1]
 (a) Burning of coal
 (b) Decomposition of vegetable matter into compost
 (c) Process of respiration
 (d) Decomposition of calcium carbonate to form quick lime and carbon dioxide
11. Identify the basic salt from the following salts: [1]
 (a) Na_2CO_3 (b) NH_4Cl (c) NaNO_3 (d) KCl
12. The positions of four elements A, B, C and D in the modern periodic table are shown below. Which element is most likely to form an acidic oxide? [1]

A																			
	B																		
																		C	
																			D

- (a) A (b) B (c) C (d) D

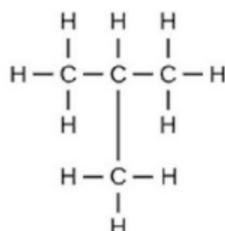
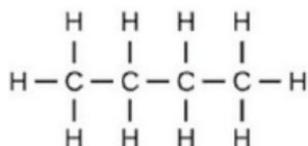
OR

- Elements P, Q, R and S have atomic numbers 11, 15, 17 and 18 respectively. Which of them are reactive non-metals?
 (a) P and Q (b) P and R (c) Q and R (d) R and S

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 (a), (b), (c) and (d) as given below

- (a) Both A and R are true and R is correct explanation of the assertion.
 (b) Both A and R are true but R is not the correct explanation of the assertion.
 (c) A is true but R is false.
 (d) A is false but R is true.

13. **Assertion:** Following are the structural isomers of butane. [1]



Reason: Structural isomers have the same molecular formula but they differ in their structures.

14. **Assertion :** Electric current always flows from high potential terminal of cell to low potential terminal of cell
Reason : Positive charge flows from high potential to low potential. [1]

Section – B

15. (i) Write two observations when lead nitrate is heated in a test tube. [1×3=3]
(ii) Name the type of reaction.
(iii) Write a balanced chemical equation to represent the above reaction.
16. A compound 'X' of sodium is used as an antacid and it decomposes on strong heating. [1×3=3]
(i) Name the compound 'X' and give its chemical formula.
(ii) Write a balanced chemical equation to represent the decomposition of 'X'.
(iii) Give one use of compound 'X' besides an antacid.
- OR**
- You are provided with 90 ml of distilled water and 10 ml of concentrated sulphuric acid to prepare dilute sulphuric acid.
(i) What is the correct way of preparing dilute sulphuric acid? Give reason.
(ii) How will the concentration of H_3O^+ ions change on dilution?
17. Two elements X and Y have atomic numbers 12 and 16 respectively. To which period of the modern periodic table do these two elements belong? What type of bond will be formed between them and why? Also give the chemical formula of the compound formed. [3]
18. (i) What is fertilization? [1+2=3]
(ii) Define bisexual and unisexual flowers with the help of one example of each.
- OR**
- (i) Give one reason for avoiding frequent pregnancies by women.
(ii) Explain the barrier method of contraception with one example.
19. Explain the process of double circulation through human heart with the help of schematic diagram. [3]
20. (i) How does embryo get nourishment inside the mother's body? [2+1=3]
(ii) What is menstruation?
21. Write down the function of following parts of brain : [1×3=3]
(i) Cerebrum (ii) Cerebellum (iii) Medulla
22. Answer the following questions : [1×3=3]
(a) State two properties of the image formed by the eye lens on the retina.
(b) State one function of cornea in human eye.
(c) What is meant by the power of accommodation of an eye?
23. (a) What is focal length if you have an object 2.0 m from the concave mirror, and the real image is 4.0 m from the mirror?
(b) A 10 mm long pin is placed vertically in front of a concave mirror. A 5 mm long image of the pin is formed at 30 cm in front of the mirror. Find the focal length of this mirror. [1.5×2=3]
24. Name the physical quantity which is same and different in all the bulbs when three bulbs of :
(a) same wattage (power) are connected in series.
(b) same wattage (power) are connected in parallel. [1.5×2=3]

OR

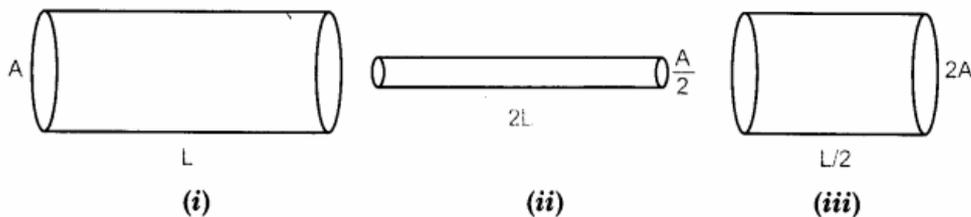
How much current will an electric bulb draw from 220 V source if the resistance of the bulb is 1200Ω ? If in place of bulb, a heater of resistance 100Ω is connected to the sources, calculate the current drawn by it.

Section – C

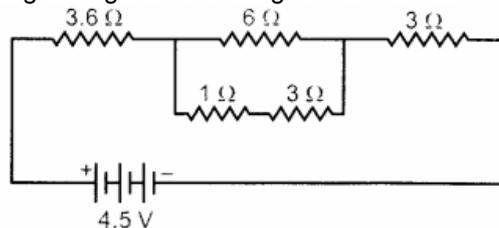
25. Metal X is found in nature as its sulphide XS. It is used in the 'galvanisation of iron' articles. Identify the metal X. Suggest other to method to prevent this metal from corrosion. **[5]**
26. Write a brief note regarding properties and uses of baking soda and washing soda. **[5]**
27. (i) Mention the main functions of following endocrine glands and diseases caused due to deficiency of their secreted hormones :
 (a) Pituitary gland (b) Pancreas (c) Thyroid gland
 (ii) How do adrenaline work during the adverse conditions like flight or fight? **[3+2=5]**
28. (i) How is oxygen & carbon dioxide is transported in human beings ? **[2.5×2=5]**
 (ii) Describe the mechanism of breathing in human beings.

OR

- (i) Explain mechanism of transpiration with reference to transpiration cohesion theory.
 (ii) Draw a labelled diagram of stomata
29. (a) The figure below shows three cylindrical copper conductors along with their face areas and lengths. Discuss in which geometrical shape the resistance will be highest. **[2.5 × 2 = 5]**



- (b) Find the current flowing through the following electric circuit.



30. (a) A student cannot see clearly a chart hanging on a wall placed at a distance 3 m from his eye. Name the defect of vision he is suffering from. Draw a ray diagram to illustrate this defect. List its two possible causes.
 (b) Draw a ray diagram to show how this defect may be corrected using a lens of appropriate focal length.
 (c) An eye donation camp is being organised by social workers in your locality. How and why would you help in this cause? **[2.5+1+1.5=5]**

OR

- (a) Explain the following terms used in relation to defects in vision and correction provided by them:
 (i) Myopia (ii) Far-sightedness. (iii) Bifocal lenses
 (b) Why is the normal eye unable to focus on an object placed within 10 cm from the eye? **[3+2=5]**

BOARD PREPARATORY EXAM

fo"k; - fgUlh *c*

I = %2019-20

vf/kdre vrd : 80	d{kk -x	I e; : 3 ?k.Vs
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I kekl; funðk

- (i) I Hkh izu djuk vfuok; ZgS
- (ii) bl izu i= ea pkj [k.M fn; s x; s gS
 [k.M ^d* & vi fBr x | ká k
 [k.M ^f*k* & 0; kdj .k
 [k.M ^x* & i kB; i qrd
 [k.M ^?k* & jpuk

[k.M ^d*&vi fBr x | ká k

1. fuEufyf[kr x | ká k dks/; kui wzd i <dj i nS x, Á'uka ds mÚkj fyf[k, [9 Marks]
 f'k{k k fdl h Hkh nsk dh fodkl ifØ; k dk , d vfhkuu vax gS bl fy, ekuo l ekt ea bl smPp i kFfedrk nh xbZ gA
 f'k{k l s r kRi ; Z g&' k fDr dks xg.k dj euq; }kjk l gh vFkZ ea viuh {kerkvka dk mi ; ksx djuk l h[kuk] vKku ds
 valdkj l sfudydj Kku ds izdk'k dh vkj c<ekA f'k{k }kjk gh Kku vkj vKku ds e/; varj dks l e>dj euq;
 l gh fn'kk dh vkj c<ek gS rFkk l E; d~Kku ds izdk'k ea thou dk l okxh.k fodkl dj ikrk gS rc , d k l e>uk
 fcydy rdz wZ gS fd ipfyr f'k{k izkkyh nkski wZ gA
 , d fLFkr ea f'k{k uhfr ea l qkkj djuk vfuok; ZgS tkrk gA ik'pkr; f'k{k i) fr dk vuqj.k djus ds dkj.k ge
 viuh f'k{k vkj l l Nfr dks Hkoy jgS gA vkj usrdk ds iru dh vkj vxd kj gA ikphu Hkjrth; f'k{k i) fr dh
 l cl segUoi wZ fo'ksrk ; g ekuh tkrh gS fd og uhfr; ka l s ifjiwZ FkhA uhfr vFkZ~l gh fn'kk&funðk ; seuf; ds
 Áij mBus dk] vkxs c<us dk l cl s cMk ek/; e gks gA f'k{k euq; dk l E; d~mRFku djrh gA uhfr Hkh ey : i l s
 f'k'V vkpj.k dk gh fn'kk&funðk djrh gA bl izdkj f'k{k vkj uhfr dk eq; mnas ; , d gh gA
 ½½ f'k{k dk 0; fDr ij D; k i Hkko i Mfk gS \ [2 Marks]
 ¼k½ i k'pkr; f'k{k i) fr useuf; ij D; k i Hkko Mkyk gS \ [2 Marks]
 ½½ f'k{k vkj uhfr dk eq; mnas ; D; k gS \ [2 Marks]
 ¼k½ i l r x | ká k dk l okZ/kd mi ; q' k'kd rdZ l fgr nhft , A [2 Marks]
 ¼³½ *i ru* dk foijhrkFkd 'kCn fyf[k, A [1 Mark]

[k.M ^f*k*&0; kdj .k

2. 'kCn rFkk in ea varj Li "V dhft , A [3 Marks]
3. l jy o l a q' r okD; ea vUrj fyf[k, A [3 Marks]
4. jpuk ds vk/kkj ij okD; ds fdrus Hksn gks gA uke fyf[k, A [3 Marks]
5. fuEufyf[kr okD; ka dks feJ okD; ka ea cnfy , A [2 × 2 = 4 Marks]
 (i) og Qy [kjhrus ds fy, ckTkkj x; kA
 (ii) ml ds 'kkj epkus ds ckn ml ds i Mkl h ckj vk x, A

6. fuEufyf[kr okD; ka dks l a p r okD; ka ea cnfy, A [2 x 2 = 4 Marks]
 (i) Ákr%dky gkus ij fpfM+ k; pggpkus yxrh gÅ
 (ii) okehjks dñ l pr gkus ij ?kj dh rjQ nkMhA

7. l ekl dsfdrusHkn gÅ ÁR; d dk uke fyf[k, A [4 Marks]

8. fuEufyf[kr l eLrina dk foxg dhft,] rFkk l ekl dk uke Hkh fyf[k, A [1 x 5 = 5 Marks]
 (i) nœfirZ (ii) gLrfyf[kr
 (iii) deyu; u (iv) tyÁnWk.k
 (v) fnu&jkr

[k.M 'x*&iB; i qrd

9. bZoj d.k&d.k ea0; klr g\$ ij ge ml sD; ka ughans[k i krÅ [4 x 7 = 28 Marks]

10. ehjckbz us Jhd".k ds : i & l kh; Z dk o.ku d\$ sfd; k g\$

11. *l Pps eu ea jke cl rs g\$ & nks ds l ns k dks l anHkZu kj Li "V dhft, A

12. *euq; rk* dfork dsek/; e l s dfo D; k l ns k nsuk pkgrk g\$

13. Nk&s HkKbz us viuh i <kbz dk Vkb&Vfcy cukrs l e; D; k&D; k l kpk v\$ fQj ml dk ikyu D; ka ugha dj i k; k\

14. Þvkt tks ckr Fkh og fujkyh Fkh fdl ckr l sirk py jgk Fkh fd vkt dk fnu vius vki ea fujkyk g\$. Li "V dhft, A

15. gfjgj dkd* i k B dk mĩs; Li "V dhft, A

[k.M 'k*&jpuk

16. fuEu ea l sfd l h , d fo" k; ij %80&100% 'kCnka ea vuqNn fyf[k, [10 Marks]
 (i) Xykcy okfez

- Xykcy okfez D; k g\$ rFkk d\$ s gkrh g\$
- nñi fj.kke
- cpko RkFkk mi l gkj

vFlok

(ii) foKki u dh c<Fh gPZ ykd fi; rk

- foKki u dh vko"; drk
- foKki uka l s gkus okys ykHk
- foKki uka l s gkus okyh gkfu; k;

17. *c<Fh egxkbz fo'k; ij nks ukxfj dka ds e/; gq l ðkn dks %50&80% "kCnka ea fyf[k, A [7 Marks]

BOARD PREPARATORY EXAM

SUBJECT– SOCIAL SCIENCE

SESSION 2019-20

Maximum Marks : 80

Class –X

Time : 3 Hours

GENERAL INSTRUCTIONS

02-12-2019

- (i) All questions are compulsory.
- (ii) The question paper consists of 35 questions divided into four sections A, B, C and D.
- (iii) Section A contains 20 questions of 1 mark each.
Section B contains 8 questions of 3 marks each.
Section C contains 6 questions of 5 marks each.
Section D contains 1 question of 6 marks (Map work).

SECTION –A

1. Elle, the measuring unit in Germany was used to measure:
(A) Cloth (B) Thread (C) Land (D) Height
2. Which treaty recognised Greece as an independent nation?
(A) Treaty of Constantinople, 1832 (B) Treaty of Vienna, 1815
(C) Treaty of Versailles, 1871 (D) None of these
3. 'Hind Swaraj' was written by:
(A) Abul Kalam Azad (B) Mahatma Gandhi (C) Sardar Patel (D) Subhas Chandra Bose
4. Waste land includes
(A) Fertile plains and tarai areas (B) Rocky, arid and desert areas
(C) Areas of plateau region (D) None of these
5. Why is power sharing good for democracy?
(A) It reduces the possibility of conflicts between two social groups.
(B) It is a good way to ensure the stability of political order.
(C) It is an essential feature of democracy.
(D) All of these
6. Development of a country can generally be determined by
(A) Its per capita income (B) Its average literacy level
(C) Health status of its people (D) All the above
7. Which one of the following Indian industries has been hit hard by globalisation?
(A) Information Technology (IT) (B) Toy Making
(C) jute (D) Cement
8. Women in India are discriminated in:-
(A) Political life (B) Social life
(C) Economic life (D) All the above
9. Power sharing is:-
(A) The very spirit of democracy (B) Separation of powers at different level
(C) System of checks and balances (D) All the above
10. Soil is formed by the process of :-
(A) Denudation (B) Gradation (C) Weathering (D) Erosion

11. What is majoritarianism?
12. Write the names of any two countries which are example of holding together.
13. What do you mean by 'Feminist'?
14. Give any two examples of communal expressions in daily life.
15. Define multiparty system.
16. What does HDI stand for?
17. What is credit?
18. Define the term average income.
19. What is liberalisation?
20. Mention two beverage crops grown in India.

SECTION –B

21. What are the main differences between a federal form of government and a unitary one? Explain with an example.
22. Explain the features of three cropping seasons in India.
23. Explain stages of resource planning.
24. Differentiate between formal sector credit and informal sector credit.
OR
Explain any three advantages of globalisation.
25. How do ideas, ideals and values plays a role in politics?
26. What steps did the French revolutionaries take to create a sense of collective identity among the French people?
OR
Explain any three features of the Napoleonic code.
27. What is sustainable development? Suggest any two ways in which resources can be used judiciously.
28. Differentiate between national and regional parties.

SECTION –C

29. Write note on (any two)
(i) Treaty of Vienna
(ii) Frankfurt Parliament
(iii) Giuseppe Mazzini
30. How did Mahatma Gandhi successfully organise Satyagraha movements in various places just after arriving in India? Explain.
OR
Write note on Non–Cooperation movement. Why did Mahatma Gandhi decide to called of this movement.

31. Why power sharing is desirable?
32. What is meant by proto-industrialisation? How did it affect the rural peasants and artisans?
33. Discuss the functioning of Self-Help Groups (SHGs) and write the advantages of Self-Help Groups (SHGs) for the poor.

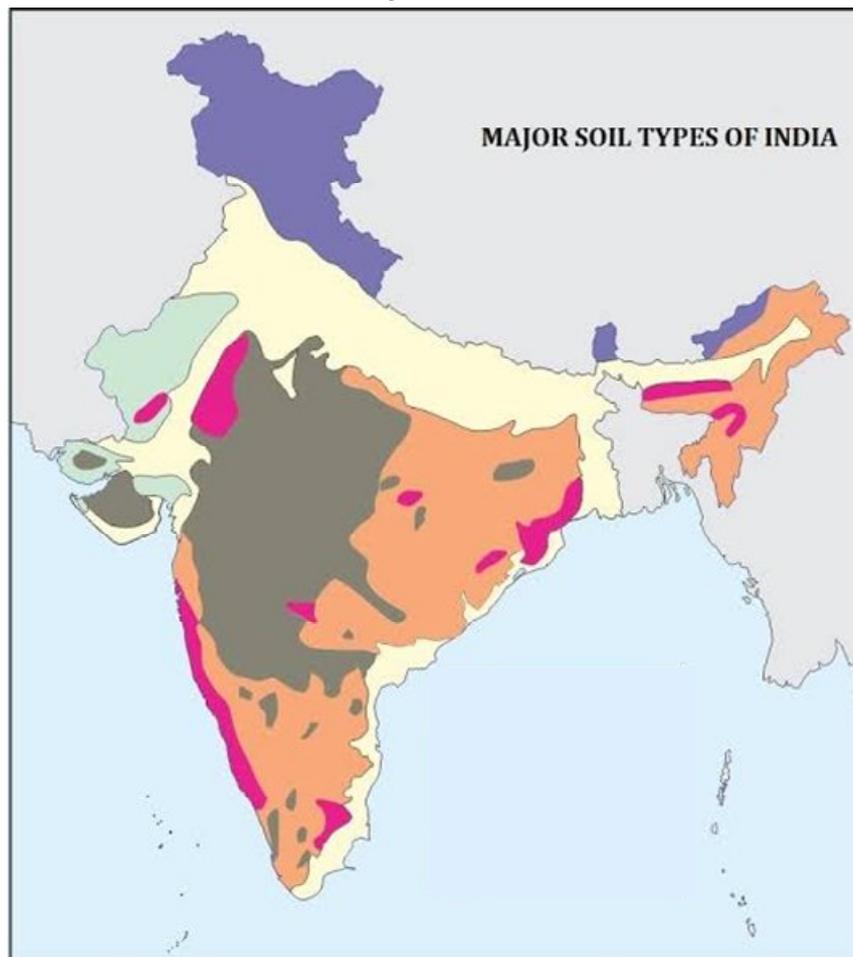
OR

What were the reasons for putting barriers to foreign trade and foreign investment by the Indian government? Why did it wish to remove these barriers?

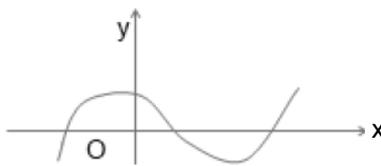
34. Mention the geographical requirement for the growth of :-
(a) Wheat (b) Cotton

SECTION -D

35. Locate and label the following with appropriate symbols on the same outline political map of India:
- (a) Area of Red and Yellow soil
 - (b) Area of Forest and Mountainous soil
 - (c) Area of Black soil
 - (d) Area of Alluvial soil
 - (e) Place associated with salt satyagraha
 - (f) Place associated with Jallianwala Bagh



6. If $\sin\theta + \cos\theta = \sqrt{2} \cos\theta$, ($\theta \neq 90^\circ$) then the value of $\tan\theta$ is [1]
 (A) $\sqrt{2} - 1$ (B) $\sqrt{2} + 1$ (C) $\sqrt{2}$ (D) $-\sqrt{2}$
7. Which term of the A.P. 64, 60, 56, 52, is zero? [1]
 (A) 16th (B) 17th (C) 14th (D) 15th
8. If the distance between the points A(4, p) and B(1, 0) is 5, then [1]
 (A) $p = 4$ only (B) $p = -4$ only (C) $p = \pm 4$ (D) $p = 0$
9. The quadratic equation having roots 3 and -4 is : [1]
 (A) $x^2 + x - 12 = 0$ (B) $x^2 - x + 12 = 0$ (C) $x^2 + 7x + 12 = 0$ (D) $x^2 - 7x + 12 = 0$
10. The following figure shows the graph of $y = p(x)$, where $p(x)$ is a polynomial in variable x . The number of zeroes of the polynomial $p(x)$ is [1]



- (A) 1 (B) 2 (C) 3 (D) 4

Direction: (Q.11 to Q.15) Fill in the blanks:

11. The pair of lines represented by the equations $2x + y + 5 = 0$ and $4x + ky + 6 = 0$ will be parallel if value of k is _____. [1]
- OR**
- If the quadratic equation $x^2 - 2x + k = 0$ has equal roots, then value of k
12. The 45th term of an AP with first term 15 and common difference -2 is _____. [1]
13. Two vertices of a triangle are $(3, -5)$ & $(-7, 4)$. If its centroid is $(2, -1)$, then the third vertex is _____. [1]
14. The perimeters of two similar triangles $\triangle ABC$ and $\triangle PQR$ are 35cm and 45cm respectively, then the ratio of the areas of the two triangles is _____. [1]
15. Given that $\text{HCF}(26, 91) = 13$, then $\text{LCM}(26, 91)$ is _____. [1]

Direction: (16 to 20) Answer the following :

16. Find the value of k , if line represented by the equation $2x - ky = 9$ passes through the point $(-1, -1)$. [1]
17. If $\cos \alpha = \frac{1}{2}$ and $\tan \beta = \frac{1}{\sqrt{3}}$, find the value of $\sin(\alpha + \beta)$, where α and β both are acute. [1]
18. The areas of two similar triangles are 12 cm^2 and 48 cm^2 . If the height of the smaller one is 2.1 cm, then find the corresponding height of the bigger one. [1]
19. By what number should 1365 be divided to get 31 as quotient and 32 as remainder? [1]
20. If α and β are the roots of the equation, $x^2 - 6x + 1 = 0$; find the value of $\alpha^2 + \beta^2$. [1]

Section – B

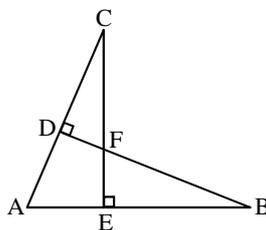
21. Using prime factorisation, find the HCF and LCM of [2]
(i) 144, 198 (ii) 21, 28, 36, 45
22. Two numbers are in the ratio of 3 : 4. If 8 is added to each number, they become in the ratio of 4 : 5. Find the numbers. [2]
23. Find the roots (if they exist) of the following quadratic equation by the method of completing the square : $x^2 - 6x + 5 = 0$ [2]
24. Find the area of a triangle whose vertices are (6, 3), (-3, 5) and (4, -2). [2]
25. The 10th and 18th terms of an A.P. are 41 and 73 respectively. Find 26th term. [2]
26. Show that $\tan 48^\circ \tan 23^\circ \tan 42^\circ \tan 67^\circ = 1$. [2]

OR

Evaluate $\cos 48^\circ \cos 42^\circ - \sin 48^\circ \sin 42^\circ$.

Section – C

27. Find the zeroes of the quadratic polynomial $x^2 - 3x - 10$ and verify the relationship between the zeroes and coefficient. [3]
28. Given that $\sqrt{5}$ is irrational, prove that $2\sqrt{5} - 3$ is an irrational number. [3]
- OR**
- If HCF of 144 and 180 is expressed in the form $13m - 16$, find the value of m.
29. If A (-1, 3), B (1, -1) and C (5, 1) are the vertices of a triangle ABC, find the length of the median through A. [3]
30. If $\tan A = \frac{1}{2}$ and $\tan B = \frac{1}{3}$, by using $\tan(A + B) = \frac{\tan A + \tan B}{1 - \tan A \tan B}$, prove that $A + B = 45^\circ$. [3]
31. Obtain all the zeros of the polynomial $x^4 + 4x^3 - 2x^2 - 20x - 15$, if two of its zeroes are $\sqrt{5}$ & $-\sqrt{5}$. [3]
32. Solve $2x + 3y = 11$ and $x - 2y = -12$ algebraically and hence find the value of 'm' for which $y = mx + 3$. [3]
33. In fig. if $BD \perp AC$ and $CE \perp AB$ [3]



Prove that

- (i) $\triangle AEC \sim \triangle ADB$ (ii) $\frac{CA}{AB} = \frac{CE}{DB}$

34. Three numbers are in A.P. If the sum of these numbers be 27 and the product is 648, find the numbers. [3]

Section – D

35. As observed from the top of a 75m high light house above the sea level, the angles of depression of two ships are 30° and 45° respectively. If one ship is exactly behind the other on the same side of the light house and in the same straight line, find the distance between the two ships. (use $\sqrt{3} = 1.732$). **[4]**

OR

From a point P on the ground the angle of elevation of the top of a 10 m tall building is 30° . A flag is hoisted at the top of the building and the angle of elevation of the top of the flagstaff from P is 45° . Find the length of the flagstaff and the distance of the building from the point P. (Take $\sqrt{3} = 1.732$)

36. If a line is drawn parallel to one side of a triangle to intersect the other two sides in distinct points, then prove that the other two sides are divided in the same ratio. **[4]**

OR

State and prove the Pythagoras theorem.

37. A train covers a distance of 360 km at a uniform speed. Had the speed been $5\text{km}/\text{hour}$ more, it would have taken 48 minutes less for the journey. Find the original speed of the train. **[4]**

OR

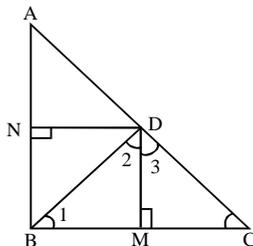
Solve the following equation: $\frac{1}{x} - \frac{1}{x-2} = 3, x \neq 0, 2$

38. The sum of $n, 2n, 3n$ terms of an A.P. are S_1, S_2, S_3 respectively. Prove that $S_3 = 3(S_2 - S_1)$. **[4]**

OR

The production of TV in a factory increases uniformly by a fixed number every year, if produced 8000 TV's in 6th years & 11300 in 9th year find the production in
(i) first year (ii) 8th year.

39. In figure, ABC is a right triangle right angled at B and D is the foot of the perpendicular drawn from B on AC. If $DM \perp BC$ and $DN \perp AB$. **[4]**



Prove that

- (i) $DM^2 = DN \times MC$ (ii) $DN^2 = DM \times AN$

OR

In trapezium ABCD, $AB \parallel DC$ and $DC = 2 AB$. EF drawn parallel to AB cuts AD in F and BC in E such that $\frac{BE}{EC} = \frac{3}{4}$. Diagonal DB intersects EF at G. Prove that $7FE = 10 AB$.

40. Prove that : $\frac{\tan \theta}{1 - \cot \theta} + \frac{\cot \theta}{1 - \tan \theta} = 1 + \sec \theta \cos \theta$ **[4]**

OR

Prove that : $\frac{\tan \theta + \sec \theta - 1}{\tan \theta - \sec \theta + 1} = \frac{1 + \sin \theta}{\cos \theta}$