

2082

RASHTRIYA INDIAN MILITARY COLLEGE, DEHRADUN
ENTRANCE EXAMINATION – DEC 18
SUBJECT: ENGLISH

3480

TIME: 2 hrs**MM: 125****Instructions:**

1. Read all the questions thoroughly before answering.
2. The question paper can be retained by the candidates post exam.
3. The question paper comprises three sections.
 - (a) Reading Section - 20Marks
 - (b) Writing Section - 50 Marks
 - (c) Grammar - 55 Marks

READING SECTION (20 MARKS)

- Q.1 Read the following passage carefully and briefly answer the questions that follow : (8 Marks)

An old society undergoing massive changes is bound to encounter obstacles and setbacks. The turmoil that India is currently undergoing has some positive aspects : its people are demanding changes and pointing towards the new goals that society should set for itself. The country's achievements in food self-sufficiency, science and technology and industrialisation cannot be lightly dismissed. It is good that problems of environmental degradation, ecological damage and imbalances, alternative sources of energy are now being debated with a degree of passion the country had not experienced before. This shows a living concern for the future. The most hopeful signals are that the common citizens of the country are no longer willing to be taken for granted, or taken for a ride. This makes India an exciting country to live in and in which to share society's new concerns. Contemporary Indian Society is undergoing a trauma of change and is confronting a series of dilemmas and paradoxes. They hurt, but they are unavoidable. It is necessary for society to view the problems of all categories of its people with empathy, find solutions to the problems of economic disparities and injustice, launch a programme of enlarging mass consciousness, promote a true sense of history as against subservience to myth, and initiate processes of participatory decision-making. While some aspects of tradition will survive because of their vitality and usefulness, many of the scaly prejudices of the part will have to be eradicated and structures of exploitation and tyranny demolished. The road ahead is long, the process may be painful, but each one of us ___ every citizen of India ___ has a stake in the future.

- (a) What are the positive aspects of the present turmoil in India?
- (b) Name some of the achievements made by the nation?
- (c) What does the author praise the Indian citizen for?
- (d) What is necessary for a society to grow?
- (e) Which traditional aspects need to be abolished?
- (f) Write the meaning of the following :

(i) Trauma (ii) Demolish (iii) Tyranny

- Q.2 Make a précis of the following passage in 60-80 words. Also assign a suitable title to it. (5 Marks)

As daylight can be seen through very small holes, so little things will illustrate a person's character. Indeed character consists in little acts well and honourably performed; daily life being the quarry from which we build it up. One of the most marked tests of character is the manner in which we conduct ourselves towards others. A graceful behaviour towards our superiors, inferiors and equals is a constant source of pleasure. It pleases others because it indicates respect for their personality, but it gives tenfold more pleasure to ourselves. Every man may, to a large extent, be a self educator in good behaviour as in everything else; he can be civil and kind if he will, though he does not a penny in his purse. Gentleness in society is like the silent influence of light which gives colour to all nature; it is far more powerful than loudness of force and far more fruitful.

Q.3 Read the poem given below and answer the questions that follow :-

(7 Marks)

BALTIMORE

When I sailed out of Baltimore,
With twice a thousand head of sheep,
They would not eat, they would not drink,
But bleated over the deep.,
Inside the pens we crawled each day,
To sort the living from the dead;
And when we reached the Mersey's mouth,
Had lost five hundred head,
That had no fear of man or sea,
Struck through the bars its pleading face,
And I stroked it.
And to the sheep-men standing near,
"You are", I said, "this one tame sheep?"
It seems a child has lost her pet.
"And cried herself to sleep".
And every time we passed it by,
Sailing to England's slaughter – house:
Eight raged sheep –men-tramps
Training and thieves
Would stroke that sheep's black nose.

— William H. Davis

- (a) With what or whom did the poet start from Baltimore?
- (b) What was the condition of the animals in the beginning?
- (c) What had happened when they reached the Mersey's mouth?
- (d) Why was one of the sheep waiting?
- (e) There was one sheep in particular, why was it particular?
- (f) Find words/phrases from the poem which mean the same as the following :-
 - (i) A place where sheep are kept
 - (ii) Shepherds

SECTION B WRITING (50 MARKS)

Q.4 Write a paragraph on any two in 100 words :-

(20 Marks)

- (a) It is better to light a candle than to curb the darkness.
- (b) Television is rightly called an idiot box.
- (c) A bird in hand is worth two in the bush.

Q.5. Study the picture given below. Write a story or description on an account of what the picture suggests to you. There must be a clear connection between the picture and the composition. (10 Marks)



Q.6. Write a letter to The Hindu expressing your views about the importance of co-curricular activities in the all-round development of students. Sign yourself as Manoj Pandey, a resident of Dehradun, Uttarakhand (10 Marks)

Q. 7. You have been asked by your class teacher to deliver a speech on the topic 'Man is the most dangerous animal in the world' in the morning assembly. Write the speech in about 130-150 words. (10 Marks)

SECTION-C GRAMMAR (55 MARKS)

Q. 8. Correct the following statements. Write the complete sentence.

(5 Marks)

- (a) The chair is made of a wood.
- (b) The number of board members are very small.
- (c) She is the most cleverest girl of the class.
- (d) We don't agree to what Mr Sharma says.
- (e) He wishes the train moves faster.

Q.9. Fill in the blanks with appropriate modals.

(5 Marks)

- (a) If wishes were horses, beggars _____ ride.
(i) could (ii) might (iii) would (iv) perhaps
- (b) _____ you visit Dehradun, you must stay with us.
(i) will (ii) should (iii) may (iv) can
- (c) You _____ go to him; a letter will do.
(i) should (ii) needn't (iii) can't (iv) None of these
- (d) Kill the snake lest it _____ sting you.
(i) shall (ii) may (iii) will (iv) should
- (e) Our friends _____ turn into enemies.
(i) may (ii) might (iii) could (iv) should

Q.10. Read the conversation given below and complete the exercise. Write the correct answer in answer sheet against the correct blank number. Don't copy whole sentence (5 Marks)

Wife : Our servant has run away.
Husband : Is anything missing?
Wife : Yes, my gold watch.
Husband : Where did you keep it?
Wife : On the dressing table. As usual.
Husband : I am going to the police to report.

Wife told her husband that (a) _____
Husband asked the wife (b) _____
The wife told him that (c) _____
The husband then asked her where (d) _____
and told her that he (e) _____

Q.11. Rewrite the following sentences as directed

(5 Marks)

- (a) As soon as the newspaper reaches the stands it is sold out. (Begin with - 'No sooner—')
- (b) My father goes for a walk every morning. (Rewrite using 'fail')
- (c) He could not complete the race as he had injured his foot. (Use 'prevented')
- (d) Jhon has probably forgotten the date of examination. (Begin with - 'In')
- (e) If you don't come, I will not go out. (Begin with - 'Only')

Q. 12. Join the following sentences to make one complete sentence without using 'and', 'but' or 'so'

(5 Marks)

- (a) Tom may run fast. He cannot catch the train.
- (b) Sophia is a quiet girl. She is an introvert.
- (c) He completed the work on time. There were many obstacles.
- (d) Dinesh received my note. He sent his reply within a week.
- (e) Jennifer saw that I was confused. She came to my rescue.

Q.13. Below are given idioms each followed by four alternates, marked by (a), (b), (c) and (d) choose the most appropriate one as your answer. (5 Marks)

- (a) To egg on
(i) to egg on slowly (ii) to destroy slowly (iii) to give a walkover (iv) to urge someone
- (b) In the swim
(i) knowing latest things (ii) to cross a river by rowing
(iii) to cross a river by swimming (iv) to be in the river
- (c) To be on the carpet
(i) to be subject of criticism (ii) to be under consideration
(iii) a heartfelt welcome (iv) to be on the ground
- (d) To be in doldrums
(i) to be in low spirits (ii) to be within doors (iii) to praise loudly (iv) to be in a crisis
- (e) No love lost
(i) to have a fight (ii) to dislike each other
(iii) are as friendly as ever (iv) are upset

Q. 14. Choose the word which is opposite in meaning to the word underlined

(5 Marks)

- (a) Religious leaders are venerated in all communities.
(i) defamed (ii) respected (iii) criticised (iv) accused
- (b) The student's labour met with fervent appreciation from her teachers.
(i) fury (ii) lukewarm (iii) sympathetic (iv) arduous
- (c) All the employees look for docile servants.
(i) dutiful (ii) insincere (iii) unmanageable (iv) haughty
- (d) Overuse of cosmetic aids made the model look ghastly.
(i) horrible (ii) attractive (iii) disgusting (iv) foul
- (e) The news of the team's victory brought expressions of rapture on the faces of all those present.
(i) happiness (ii) ecstasy (iii) anguish (iv) joy

Q.15. Choose the synonym of the underlined words

(5 MARKS)

- (a) The price of all commodities in the market is exorbitant.
(i) exaggerated (ii) preposterous (iii) sumptuous (iv) excessive
- (b) The bomb blast mutilated the bodies of the victims.
(i) annihilated (ii) demolished (iii) mangled (iv) dismantled
- (c) It had never been foreseen that the audience would pass unsavoury comments on your recitation.
(i) delicious (ii) tasteless (iii) nasty (iv) pleasant
- (d) The mountain air flowing from the north has proved salubrious for the people settled here.
(i) wholesome (ii) toxic (iii) virulent (iv) pleasant
- (e) No one is allowed to transgress beyond the line of control.
(i) exceed (ii) trespass (iii) wander (iv) confine

Q.16. Give one word for each of the following expressions.

(5 MARKS)

- (a) One who comes as a settler into a foreign country _____
- (b) The state of absence of government in a country _____
- (c) A person who draws maps and charts _____
- (d) A state of extreme excitement _____
- (e) A person, an animal or a plant that lives, grows or is often found in a particular place _____

Q. 17. Fill in the blanks with appropriate phrasal verbs.

(5 MARKS)

- (a) Let's _____ the meeting. We can have it tomorrow.
(i) call off (ii) put off (iii) wrap up (iv) hurry up
- (b) As soon as he fell down he _____. After some time he regained consciousness.
(i) passed off (ii) passed out (iii) passed away (iv) passed down
- (c) He _____ me when he saw me doing what didn't like.
(i) jumped at (ii) jumped on (iii) jumped out at (iv) leaped out at
- (d) You should stop smoking. It _____ your health.
(i) tells on (ii) tells off (iii) winds up (iv) tells apart
- (e) Whenever he calls me up he usually _____ my parents. He doesn't want to talk to them. He just wants to know about their health.
(i) asks around (ii) asks out (iii) asks for (iv) asks after

Q. 18. Change the following sentences into passive voice.

(5 MARKS)

- (a) Open the recently painted windows which are far from the main door.
- (b) Why are you singing a song when everyone is in the land of nod?
- (c) The candy you bought yesterday does not taste sweet.
- (d) Didn't they know that you are the son of a cricketer?
- (e) He could buy a car if he wanted.

ALL THE BEST

20/12

RASHTRIYA INDIAN MILITARY COLLEGE, DEHRADUN
ENTRANCE EXAMINATION – DEC 2018
SUBJECT: MATHEMATICS

3480

TIME: 1Hr 30 Mins

MM: 200

Instructions:

निर्देश:

1. Attempt all 30 questions. Write your answers separately on the answer sheet to be provided at the exam centre.
सभी 30 प्रश्नों को हल कीजिए। अपने उत्तर पुस्तिका पर लिखिए जो आप को परीक्षा कक्ष में दी जायेगी।
2. Part 'A' contains 20 questions and each question in this part carries 'Five marks'.
भाग 'क' के सभी प्रश्न पाँच अंकों के हैं, और इसमें कुल 20 प्रश्न हैं।
3. Part 'B' contains 10 questions and each question in this part carries 'Ten marks'.
भाग 'ख' के सभी प्रश्न दस अंकों के हैं और इसमें कुल 10 प्रश्न हैं।
4. Use of Calculator is Prohibited. Marks will be awarded for steps.
केल्कुलेटर का प्रयोग करना सख्त मना है। अंक स्टेप वार दिये जायेंगे।
5. Take the value of π as $\frac{22}{7}$
 π का मान $\frac{22}{7}$ लीजिए।
6. The question paper can be retained by the candidates post exam./ परीक्षा के बाद परीक्षार्थी प्रश्न पत्र को ले जा सकता है।

PART A (20 × 5 = 100 MARKS)

- Q.1 How much pure alcohol be added to 400 ml of a 15% solution to make it's strength 32%.
15 प्रतिशत घोल के 400 मिली. की स्ट्रैन्थ 32 प्रतिशत करने के लिए इसमें कितना शुद्ध अल्कोहोल मिलाना पड़ेगा?
- Q.2 A bag contains 10 paise, 25 paise and 50 paise coins. The number of 25 paise coins is three times the number of 10 paise coins. If 50 paise coins are 5 more than 25 paise coins and the total value of money in the bag is Rs 120, find the number of 10 paise coins.
एक थैले में 10 पैसे, 25 पैसे तथा 50 पैसे के सिक्के रखे हैं। 25 पैसे के सिक्कों की संख्या 10 पैसे के सिक्कों की संख्या की तीन गुणा है। यदि 50 पैसे के सिक्कों की संख्या 25 पैसे के सिक्कों की संख्या से 5 अधिक हैं तथा थैले में रखे पैसे का कुल मूल्य 120 रुपये है, तो 10 पैसे के सिक्कों की संख्या ज्ञात कीजिए।
- Q.3 How many $\frac{2}{3}$ kg pieces can be cut from a cake of weighing 4 kgs?
4 किलोग्राम वजन के केक से $\frac{2}{3}$ किलोग्राम वजन के कितने टुकड़े काटे जा सकते हैं।
- Q.4 The proprietor of a departmental Store, who is dishonest, professes to sell sugar at his cost price but uses a false weight of 950 gms for each kilogram. Find his gain percent.
एक बड़ी दुकान का बेइमान मालिक, चीनी को उसके क्रय मूल्य पर बेचने का ढोंग करता है, लेकिन प्रत्येक किलोग्राम के स्थान पर 950 ग्राम के नकली बाट का उपयोग करता है। उसके लाभ का प्रतिशत ज्ञात करें।

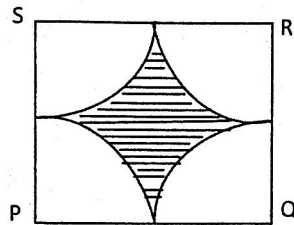
Q.5 Simplify/ सरल किजिए।

$$\frac{x^{m+n} \times x^{n+l} \times x^{l+m}}{(x^m \times x^n \times x^l)^2}$$

Q.6 Factorise/ गुणनखंड करें।

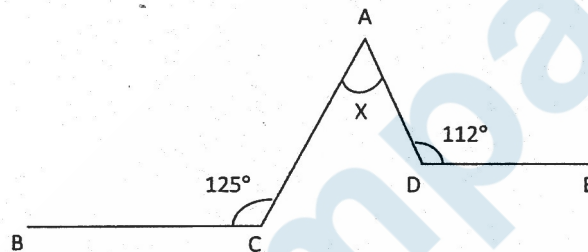
$$(a^2 - 5a)^2 - 36$$

- Q.7 In the figure, PQRS is a square of side 14cm. P, Q, R and S are centre of circular arcs of equal radius. Find the perimeter of the shaded region.
चित्र में PQRS, 14 सेमी. का एक वर्ग है। P, Q, R एवं S बराबर त्रिज्या के गोलाकार चापों के केन्द्र हैं। छायांकित क्षेत्र की परिधि ज्ञात करें।



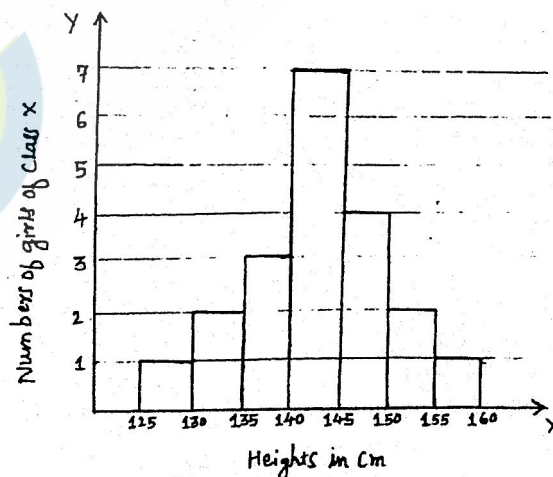
Q.8 Simplify/ सरलीकृत करें $5\sqrt{3}(3\sqrt{3} - \sqrt{12}) + 2\sqrt{3}(4\sqrt{27} - 5\sqrt{48})$

- Q.9 If line BC is parallel to DE, Find the value of x . / यदि रेखा BC, DE के समानान्तर है, तो x का मान ज्ञात करें।

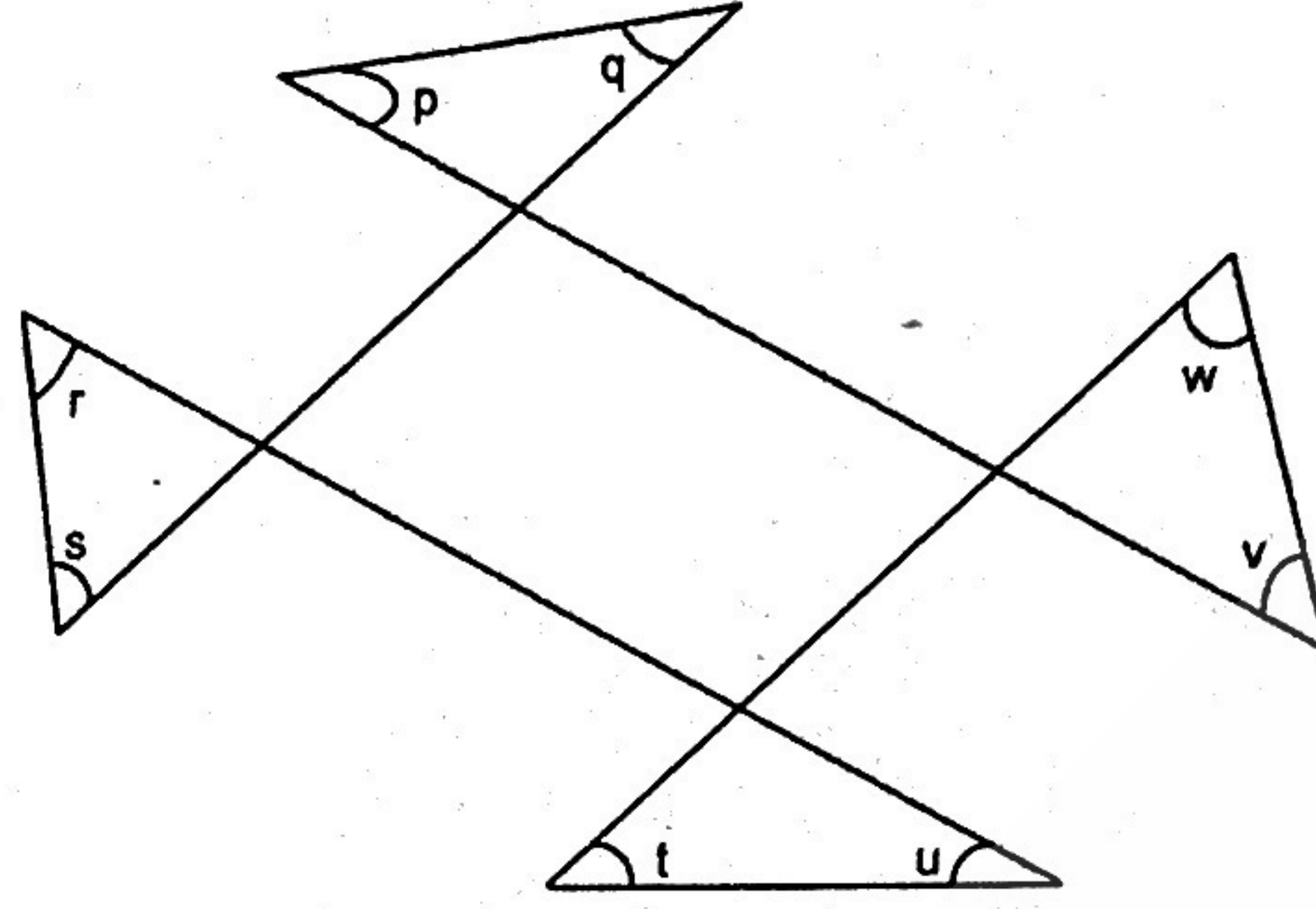


- Q.10 Observe the graph and answer the following question:-
लेखाचित्र को ध्यान से देखें और निम्न प्रश्नों के उत्तर दें:-

- What information is being given by the graph? / लेखाचित्र द्वारा क्या जानकारी दी जा रही है?
- Which group contains maximum girls? / किस समूह में अधिकतम लड़कियाँ हैं?
- What percentage of girls have height 140 cm and above? / 140 सेमी. एवं उससे अधिक ऊँचाई की लड़कियों का प्रतिशत कितना है?
- Find the class interval which corresponds to 20% of girls. / 20 प्रतिशत छात्राओं से संबंधित वर्ग अंतराल ज्ञात कीजिए।



Q.11 Find the sum of p, q, r, s, t, u, v and w / p, q, r, s, t, u, r और w का योग ज्ञात कीजिए।



- Q.12 Hariram purchased 25 kg of wheat at Rs 4 per kg and 35 kg of wheat at Rs 4.50 per kg. He sold the mixture at Rs 4.50 per kg. Find his profit or loss.
हरिराम ने 25 किग्रा. गेहूँ 4 रुपये प्रति दर के हिसाब से खरिदे और 35 किग्रा. गेहूँ 4.50 प्रति दर के हिसाब से खरिदे। उसने इन दोनों का मिश्रण 4.25 रुपये प्रति किलो कि दर से बेचा तो उसका लाभ या हानि ज्ञात कीजिए।
- Q.13 Find the largest four digit number which is exactly divisible by 86.
चार अंको की सबसे बड़ी संख्या ज्ञात कीजिए जो 86 से पूरी तरह विभाजित हो।
- Q.14 Find the additive inverse of $(\frac{1}{6} + \frac{4}{9} - \frac{2}{7})$
 $(\frac{1}{6} + \frac{4}{9} - \frac{2}{7})$ का योगीय प्रतिलोम ज्ञात कीजिए।
- Q.15 Two parallel sides of a trapezium are in the ratio of 7:11 and the distance between them is 17 cm. if the area of the trapezium is 306 cm^2 , find the length of the parallel sides.
किसी समलम्ब चतुर्भुज की समानान्तर भुजाओं का अनुपात 7:11 तथा उनके बीच की दूरी 17 सेमी. है। यदि इस समलम्ब चतुर्भुज का क्षेत्रफल 306 सेमी.^2 हो तो सामानान्तर भुजाओं की लम्बाई ज्ञात कीजिए।
- Q.16 A tree 12 metre high casts a shadow of length 8 metre. What is the height of the tree whose shadow is 6 metre?
एक 12 मीटर ऊँचे पेड़ की छाया की लम्बाई 8 मीटर है। उस पेड़ की ऊँचाई ज्ञात कीजिए जिसकी छाया 6 मीटर है।
- Q.17 When the number 105 is increased in the ratio 5:7, then what is new number?
यदि संख्या 105 को 5:7 के अनुपात में बढ़ा किया जाता हो तो नई संख्या क्या होगी?
- Q.18 Three fans are purchased at Rs 450 each. One of them is sold at a loss of 10%. At what price should the other two be sold so as to gain 20% on the whole transaction?
450 रुपये प्रति पंखे के हिसाब से तीन पंखे खरीदे गये। यदि एक पंखे को 10% हानि पर बेचा गया हो तो बाकी दो पंखों को किस भाव पर बेचना चाहिए कि पूरे लेने देन पर 20% का लाभ हो?
- Q.19 Jacob scored 32% marks in an examination and failed by 12 marks. Dayne scored 42% marks and got 28 marks more than the minimum required marks to pass. Find the maximum marks of the examination.
किसी परीक्षा में जेकब ने 32% अंक प्राप्त किए तथा 12 अंकों से फेल हो जाता है। उसी परीक्षा में डेन 42% अंक प्राप्त करता है जो कम से कम पास होने के लिए अंकों से 28 अंक अधिक है। अधिकतम अंक ज्ञात कीजिए।
- Q.20 Write in ascending order:- / बढ़ते क्रम में लिखिए:- $3\sqrt{2}, 2\sqrt{8}, \sqrt{50}, 4, 4\sqrt{3}$

PART B (10 × 10 = 100 MARKS)

Q.21

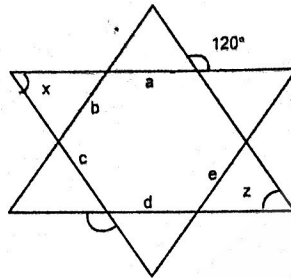
A sum of money invested at 6% per annum simple interest for a certain period of time yields Rs 960 as interest. If this sum had been invested for 5 years more, it would have yielded Rs 2160 as interest. Find the sum.

एक धनराशि को 6% साधारण ब्याज प्रतिवर्ष की दर पर एक निश्चित समयावधि के लिए निवेश करने पर, 960 रुपये ब्याज प्राप्त होता है। यदि यह धनराशि 5 वर्ष और अधिक समय के लिए निवेशित होती तो उससे 2160 रुपये अधिक ब्याज प्राप्त होता। धनराशि ज्ञात करें।

Q.22

Agam makes a star with the help of line segments a,b,c,d,e and f, in which a is parallel to d, b is parallel to e and c is parallel to f. Deep marks an angle as 120° as shown in figure and asked Agam to find $\angle x$, $\angle y$ and $\angle z$. Help Agam to find the angles.

लाइन a,b,c,d,e और f कि मदद से अगम ने एक सितारा बनाया है जिसमें a समान्तर d, c समान्तर f और b समान्तर e है। दीप ने दि गई आकृति में 120° का कोण चिह्नित किया है और अगम से और का मान ज्ञात करने को कहा। अगम को कोणों का मान ज्ञात करने में मदद कीजिए।



Q.23 Find the value of / मान ज्ञात कीजिए:-

$$\left(\frac{x^m}{x^n}\right)^l \times \left(\frac{x^n}{x^l}\right)^m \times \left(\frac{x^l}{x^m}\right)^n$$

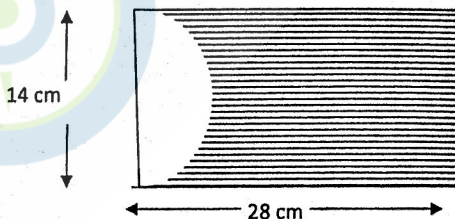
Q.24 A train running at a uniform speed passes a bridge 300m long in 15 seconds and another bridge 450 m long in 21 seconds. Find the speed of the train in km/hr and the length of the train in metre.
एक रेलगाड़ी जो एक समान चाल से दौड़ रही है, 300 मी. लम्बे पुल को 15 सैकेण्ड में तथा 450 मी. लम्बे किसी दूसरे पुल को 21 सैकेण्ड में पार करती है। उस रेलगाड़ी की चाल किमी./घण्टे में तथा लम्बाई, मीटर में ज्ञात कीजिए।

Q.25 Aseem was asked to divide Rs 15,600 into two parts such that the interest on one part at 5% per annum for 5 years may be equal to that on the other at $4\frac{1}{2}\%$ for 6 years. How was the money divided?
असीम को रु. 15600 को दो भागों में बाँटने के लिए बोला जाता है। यदि पहले भाग पर 5% ब्याज की दर से 5 वर्ष का ब्याज, दूसरे भाग पर $4\frac{1}{2}\%$ ब्याज की दर से 6 वर्ष का ब्याज बराबर हो तो उसने धन को किस प्रकार विभाजित किया?

Q.26 Karthik is twice as old as Shyam. If six years is subtracted from Shyam's age and four years added to Karthik's age, then Karthik will be four times Shyam's age. How old were they two years ago?
कार्थिक की आयु श्याम से दुगुनी है। यदि श्याम की आयु से 6 वर्ष घटा दिये जाय तथा कार्थिक की आयु में 4 वर्ष जोड़ दिये जाय तो कार्थिक की आयु श्याम की आयु की चार गुनी हो जायेगी। दो वर्ष पहले दोनों की आयु क्या थी?

Q.27 If 2 men or 3 women take 40 hours to do a certain piece of work, how long will 4 men and 9 women working together take to complete the work?
यदि 2 आदमी या 3 औरत किसी काम को 40 घंटे में पूरा कर लेती है, तो 4 आदमी तथा 9 औरत उसी काम को एक साथ मिलकर कितने समय में पूरा कर लेंगे?

Q.28 In the given figure, find the area and perimeter of the shaded region, if the unshaded part is a semicircle.
दिए हुए चित्र में क्षयांकित भाग का क्षेत्रफल तथा परिमाप ज्ञात कीजिए यदि अनक्षयांकित भाग अर्धवृत्त हो।



Q.29 Solve/ हल कीजिए : $\frac{2x+1}{10} - \frac{3-2x}{15} = \frac{x-2}{6}$. Hence find the value of y if $\frac{2}{x} + \frac{5}{y} = 5$.

Q.30 Two regular polygons are such that the ratio between their number of sides is 1:2 and the ratio of measures of their interior angles is 3:4. Find the number of sides of each polygon.
दो समबहुभुजों की भुजाओं की संख्या का अनुपात 1:2 है तथा उनके अंतःकोणों का अनुपात 3:4 है। प्रत्येक बहुभुज की भुजाओं की संख्या ज्ञात करें।

ALL THE BEST