VVV
EXAMINATION 2014

PCODE:17

Question Booklet No.:	2189	Question Booklet Series:	A

No. of pages in question Booklet	**: 24**	**Total questions**	**: 200**
Time period	**: 3 Hours**	**Maximum Marks**	**: 200**

RIICO Previous Year Paper
Civil Engineering

INSTRUCTIONS FOR THE CANDIDATES

1. Candidate must read all the instructions before writing the answers.
2. There are 200 objective multiple choice questions in the paper.
3. This booklet is made up of following sections:

Section-A	:	Reasoning Aptitude	-	30 questions,
Section-B	:	Quantitative Aptitude	-	30 questions,
Section-C	:	Language Comprehension	-	40 questions.
Section-D	:	Civil Engineering	-	100 questions.

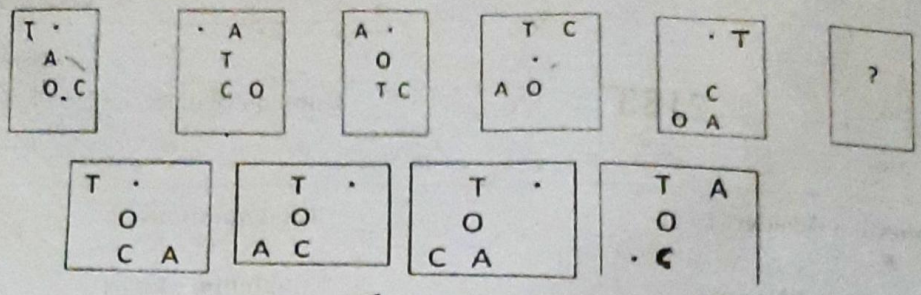
4. The candidate should attempt each question in all sections.
5. Each question will carry 1 marks each. There is No negative marks.
6. Minimum pass marks for each section shall be 40% of the maximum marks of that section.
7. The candidate should retain this answer book.
8. If you happen to find that the booklet is issued to you does not have all the pages properly printed or it has any other deficiency, then you need to approach the invigilator to get another booklet of same series.

DO NOT OPEN THIS QUESTION BOOKLET UNTIL YOU ARE ASKED TO DO SO

SECTION-A (Q.No. 1 -30)

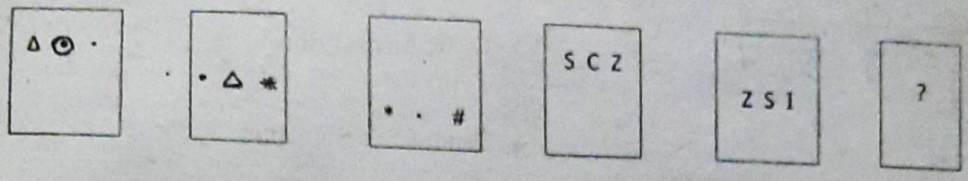
Instruction (Q1 - Q5): In each of these questions, which one will be the correct figure at the place of "?". If the sequence to be continued.

(1.)



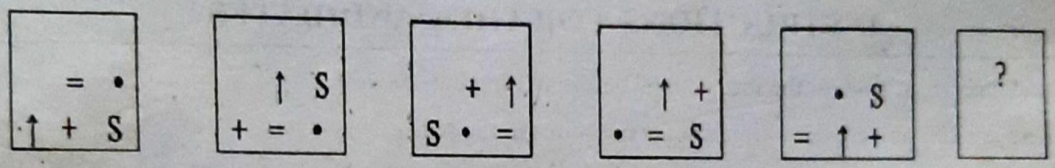
(A) (B) (C) (D)

(2.)



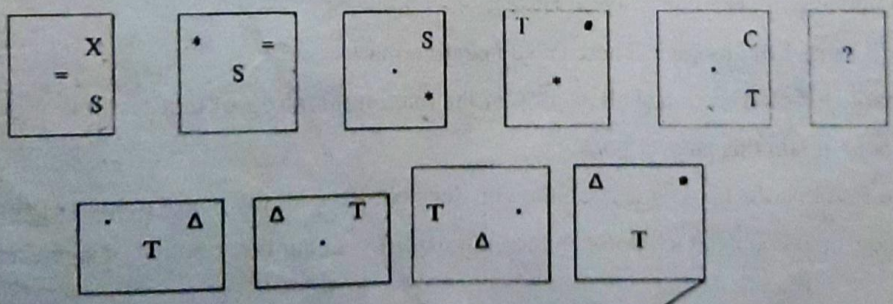
(A) (B) (C) (D)

(3.)



(A) (B) (C) (D)

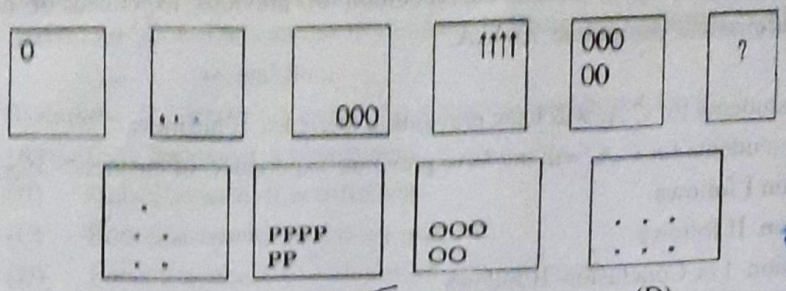
(4.)



(A) (B) (C) (D)

gkforgovernmentexam.blogspot.com

(5.)



(A) (B) (C) (D)

Instruction (Q6 – Q10): In each of the following question, a statement is given, followed by two conclusions. Give answers accordingly.

(6.) **Statement:** Until India achieves economic equality, political freedom and democracy would be meaningless.

Conclusions:

I. Political freedom and democracy go hand in hand.

II. Economic equality leads to real political freedom and democracy.

(A) Only Conclusion I follows

(B) Only Conclusion II follows

(C) Neither Conclusion I nor Conclusion II follows

(D) Both Conclusion I and Conclusion II follow

(7.) **Statement:** All the organised persons find time for rest. Hina, in-spite of her busy schedule, finds time for rest.

Conclusions:

I. Hina is organized person.

II. Hina has leisure time.

(A) Only Conclusion I follows.

(B) Only Conclusion II follows.

(C) Either Conclusion I or Conclusion II follows.

(D) Both Conclusion I and Conclusion II follow.

(8.) **Statement:** Make-up is a form of ugliness, so intolerable that we change it every day.

Conclusions:

I. Make-up artists do not understand the public mind very well.

II. The public by and large is highly susceptible to novelty.

(A) Only Conclusion I follows

(B) Only Conclusion II follows

(C) Either Conclusion I or Conclusion II follows

(D) Both Conclusion I and Conclusion II follow

(9.) **Statement:** It is almost impossible to survive and flourish in this world without sacrificing ethics and values.

Conclusions:

I. World appreciates some concepts but may not uphold it.

II. Concept of ethics and values are not practicable in life.

(A) Only Conclusion I follows

(B) Only Conclusion II follows

(C) Either Conclusion I or Conclusion II follows

(D) Both Conclusion I and Conclusion II follow

(10.) **Statement:** In case of outstanding candidates, the condition of previous experience of business may be waved by the admission committee for C.A.

Conclusions:

I. Some of the students for C.A. will have previous experience of business.

II. Some of the students for C.A. will not have previous experience of business.

(A) Only Conclusion I follows

(B) Only Conclusion II follows

(C) Either Conclusion I or Conclusion II follows

(D) Both Conclusion I and Conclusion II follow

Instruction (Q11 – Q15): In each of the following question, give answers according to the sufficiency of data.

(11.) Rohit, Nikhil and Amar want to meet on Wednesday between 12 noon to 5 pm. What time they can meet?

Statement I : Rohit goes for tution daily except Wednesday and Saturday between 12 noon to 5 pm.

Statement II: Nikhil goes for dance class daily except Sunday between 2 pm to 4 pm and Amar goes for painting class daily except Thursday between 3 pm to 5 pm.

(A) Only Statement I is sufficient.

(B) Only Statement II is sufficient.

(C) Both Statements I and II are required.

(D) Either Statement I or Statement II is sufficient.

(12.) What is the salary of Jai? If

Statement I : Aryan 's salary is 30% more than Ram.

Statement II: Ram's salary is 15% less than Jai.

(A) Only Statement I is sufficient.

(B) Only Statement II is sufficient.

(C) Both Statements I and II are required.

(D) Neither Statement I nor Statement II is sufficient.

(13.) In any language Xee Yee Zee means Keep on Smiling then Smiling means?

Statement I : Zee Lee Xee means Keep on Dancing.

Statement II : Dee Yee means Teeth Smiling.

(A) Only Statement I is sufficient.

(B) Only Statement II is sufficient.

(C) Both Statements I and II are required.

(D) Either Statement I or Statement II is sufficient.

(14.) Speed of train whose length is 250 mt.

Statement I : Train crosses the pole of signal in 10 seconds.

Statement II : Train passes the same length platform in 20 seconds.

(A) Only Statement I is sufficient.

(B) Only Statement II is sufficient.

(C) Both Statements I and II are required.

(D) Either Statement I or Statement II is sufficient.

(15.) On which floor of the building does Prabhu stay (The building has 5 floors)?

Statement I : Only the even numbered floors are occupied and Prabhu does not stay on the second floor.

Statement II : Prabhu does not stay on an odd numbered floor.

(A) Only Statement I is sufficient.

(B) Only Statement II is sufficient.

(C) Both Statements I and II are required.

(D) Either Statement I or Statement II is sufficient.

Instruction (Q16 – Q20): Read the following data showing Profit and Expenses of a Company (in Crores) answer the following questions

Year	Profit (in Crores)	Expenses (in Crores)
2006	30	10
2007	25	15
2008	50	20
2009	40	50
2010	50	45
2011	55	60
2012	70	15
2013	75	25

(16.) Which year witnessed highest percentage earning from last year?

(A) 2010 (B) 2008 (C) 2012 (D) 2013

(17.) In year 2011, if expenses are 60 crores what was the income?

(A) 110 Crores (B) 105 Crores (C) 55 Crores (D) 115 Crores

(18.) In which year total income was highest?

(A) 2010 (B) 2012 (C) 2009 (D) 2011

(19.) What is the percentage of profit to total income in year 2010?

(A) 10.526 % (B) 10.531 % (C) 10.571% (D) 10.516%

(20.) What is the percentage of expenses to total income in year 2008?

(A) 25.87 % (B) 28.57 % (C) 35 % (D) 40%

Instruction (Q21 – Q25): Read the following statements carefully and answer

1. There are six people in the family (A, B, C, D, E, F)
2. C is the wife of B and mother of F.
3. F is grand-daughter of E.
4. D is the grand-mother of A and the mother of B.
5. There are two married couples in the family.

(21.) What is C to A?

(A) Grand-mother (B) Daughter

(C) Mother (D) None of these

(22.) Which of the following is true?

(A) A is the sister of F (B) A is the brother of F

(C) B has two daughters (D) None of these

(23.) Who among the following is one of the couples?

(A) D and E (B) C and D (C) E and B (D) None of these

(24.) How many male members are there in the family?

(A) 2 (B) 3
(C) 4 (D) Can't be determined

(25.) Which of the following is not true?

(A) E is daughter of F (B) C is mother of F
(C) C is wife of B (D) D is mother of B

Instruction (Q26 – Q30): In each of the following question, statements are given, followed by conclusions. Give answers accordingly.

(26.) **Statements:**

1. All Jackets are Shirts.
2. Some Shirts are Coats.
3. All Coats are Suits.

Conclusions:

I Some Jackets are Suits.
II Some Shirts are Suits.

(A) Only Conclusion I is followed.
(B) Only Conclusion II is followed.
(C) Either Conclusion I or Conclusion II is followed.
(D) Neither Conclusion I Nor Conclusion II is followed.

(27.) **Statements:**

1. Some Computers are Phones.
2. No Phone is an Eraser.

Conclusions:

I No Computer is an eraser.
II Some Computers are definitely not Phones.

(A) Only Conclusion I is followed.
(B) Only Conclusion II is followed.
(C) Either Conclusion I or Conclusion II is followed.
(D) Neither Conclusion I Nor Conclusion II is followed.

(28.) **Statements:**

1. Some Mangoes are Oranges.
2. All the Oranges are Apples.

Conclusions:

I Some Mangoes are Apples.
II No Orange is Mango.

(A) Only Conclusion I is followed.
(B) Only Conclusion II is followed.
(C) Either Conclusion I or Conclusion II is followed.
(D) Neither Conclusion I Nor Conclusion II is followed.

(29.) **Statements:**

1. All the Helicopters are Aeroplanes.
2. Some Fighterplanes are Aeroplanes.

Conclusions:

I All the Helicopters are Fighterplanes.

II Some Fighterplanes are Helicopters.

(A) Only Conclusion I is followed.

(B) Only Conclusion II is followed.

(C) Either Conclusion I or Conclusion II is followed.

(D) Neither Conclusion I Nor Conclusion II is followed.

(30.) **Statements:**

1. Some Pins are Needles.
2. Some Threads are Needles.
3. All Needles are Nails.
4. All Nails are Soaps.

Conclusions:

I Some Pins are Soaps.

II Some Threads are Nails.

III Some Pins are Threads.

IV No Pin is Thread.

(A) Only Conclusion I, II and either Conclusion III or IV follows.

(B) Only Conclusion III and Conclusion IV are followed.

(C) Only Conclusion I and Conclusion II are followed.

(D) All follows.

SECTION-B (Q.No. 31 -60)

(31.) Calculate $(\sqrt{0.1})$ up to three decimals.

(A) 0.316 (B) 0.311

(C) 0.314 (D) 0.219

(32.) Addition of two numbers is 22 and addition of square of these two numbers is 404. What is product of these two numbers?

(A) 36 (B) 38 (C) 40 (D) 42

(33.) Simplify $\frac{1+\sqrt{2}}{\sqrt{5}+\sqrt{3}}+\frac{1-\sqrt{2}}{\sqrt{5}-\sqrt{3}}$ is

(A) $\sqrt{5}-\sqrt{6}$ (B) $\sqrt{5}+\sqrt{6}$

(C) $\sqrt{5}-2\sqrt{3}$ (D) $\sqrt{5}+\sqrt{3}$

(34.) Aryan, Bittu, Chandan and Dushyant can complete a work .in 6 days, 8 days, 12 days and 18 days respectively. Work is started by Aryan and after each one day Bittu, Chandan and Dushyant joins one by one. How many days are needed to complete the total work?

(A) $4\frac{2}{29}$ days (B) $4\frac{5}{27}$ days

(C) $3\frac{12}{31}$ days (D) $4\frac{5}{29}$ days

father 2x (2) Atul - x (2) 2x-20 = 12x

(35.) Atul father's age is double of Atul's age, Before twenty years his father's age was 12 times of Atul's age. What was Atul Father's age before 2 years?

(A) 44 years (B) 46 years

(C) 42 years (D) 40 years

(36.) If apples are bought at the rate of 25 for Rs.100, How many apples must be sold for Rs.100 so as to gain 25% profit?

(A) 20 (B) 25 (C) 10 (D) 15

(37.) Let A, B be any two sets, then $(A \cup B)'$ is equal to

(A) $A' \cup B'$ (B) $A \cup B$

(C) $A \cap B$ (D) $A' \cap B'$

(38.) A labour invested 1/3 of his capital at 7% than 1/4 of remaining at 8% and the remainder at 10 %. If his annual income is Rs.561, the capital is-

(A) Rs. 6200 (B) Rs. 6400

(C) Rs. 6500 (D) Rs. 6600

(39.) Total number of prime numbers which are present in $(33)^6$

(A) 11 (B) 12 (C) 13 (D) 6

(40.) Missing number in the series 3, 4, 16, 75, 364, ? is

(A) 1745 (B) 1845 (C) 1945 (D) 2045

(41.) If $a^x = b, b^y = c$ and $c^z = a$ then xyz is equal to

(A) 0 (B) 1 (C) $\frac{1}{abc}$ (D) abc

(42.) In what proportion water is mixed with milk that mixture is sold with a profit of $16\frac{2}{3}\%$ on the cost price?

(A) 6 : 1 (B) 1 : 6 (C) 3 :2 (D) 2 : 3

(43.) $x - \frac{1}{x} = 3$, What is the value of $x^3 - \frac{1}{x^3}$

(A) 32 (B) 36 (C) 40 (D) 49

(44.) What is the average of square of natural numbers till 7?

(A) 18 (B) 19 (C) 20 (D) 21

(45.) In a group of 65 people 40 like to speak English, and 10 people like to speak both English and Hindi. The number of persons like to speak Hindi only and not English are -

(A) 25 (B) 35 (C) 15 (D) 20

(46.) Missing number in the series 7, 4, 5, 9, ?, 52.5, 160.5

(A) 32 (B) 16 (C) 14 (D) 20

(47.) If + means ÷ , – means +, × means –; ÷ means × ; and + means ÷ calculate value of 8÷6–3 × 8 + 2

(A) 40 (B) 49 (C) 32 (D) 47

(48.) What is the angle between both hands of a clock at the time of 8:20

(A) 72° (B) 130° (C) 128° (D) 70°

(49.) The distance between Station A and Station B is 220 kms, One train starts from station A to station B with a speed of 80km/hour. After 30 minutes other train starts from Station B to Station A with a speed of 100km/hour. At what distance from Station A both trains meet.

(A) 100 km (B) 90 km

(C) 120 km (D) 80 km

(50.) A car travel with a speed of 72km/hour and complete distance in 15 hours. How much speed to be increased to cover the same distance in 12 hours?

(A) 20 km/hour (B) 19 km/hour
(C) 18 km/hour (D) 12 km/hour

(51.) Speed of a boat in calm water is 10km/hour. It floats 26 kms in the direction of stream and 14 kms against the direction of stream and takes equal time. What is the speed of stream.

(A) 2 km/hour (B) 3 km/hour
(C) 5 km/hour (D) 4 km/hour

(52.) What is the smallest number which is divided by 8, 12, 15 and 20 gives remainder of 5, 9, 12 and 17 respectively?

(A) 147 (B) 137 (C) 127 (D) 117

(53.) If length of rectangle is made half and breadth is made three times. How much percentage change will occur in the area of that rectangle?

(A) 30% (B) 40% (C) 50% (D) 60%

(54.) One watch sounds one time at One O' clock, sound two times at 2 O' clock and so on till12 O' Clock it sounds 12 times. How much it sounds in 24 hours?

(A) 156 (B) 157 (C) 155 (D) 148

(55.) Value of n; if $12 \times {}^{n}C_{2} = {}^{2n}C_{3}$

(A) 3 (B) 4 (C) 5 (D) 6

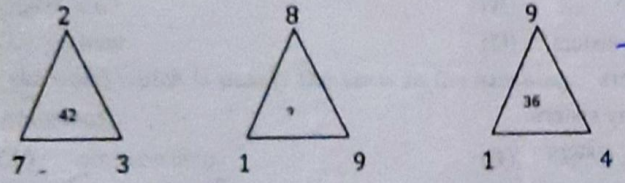
(56.) If four dices are thrown together. What is probability of getting three heads?

(A) $\frac{1}{2}$ (B) $\frac{1}{3}$ (C) $\frac{1}{4}$ (D) $\frac{3}{8}$

(57.) The difference between square of two successive numbers is 37. The numbers are:

(A) 17, 18 (B) 16, 17 (C) 18, 19 (D) 15, 16

(58.) Find the missing number?



(A) 45 (B) 42 (C) 40 (D) 72

(59.) $\left(1+\frac{1}{x+1}\right)\left(1+\frac{1}{x+2}\right)\left(1+\frac{1}{x+3}\right)\left(1+\frac{1}{x+4}\right) = ?$

(A) $\frac{x+5}{x+1}$ (B) $x+\frac{1}{x+5}$
(C) $\frac{1}{x+5}$ (D) $\frac{1}{x+1}$

(60.) If cost price of 26 things is equal to selling price of 25 things. What is profit or loss in percentage?

(A) 4% profit (B) 4% loss
(C) 8% profit (D) 8% loss

SECTION-C (Q.No. 61 -100)

(61.) Which of the following sentence is correct?

(A) Sleeping in the house, a thief entered their house
(B) A thief entered their house, when they are sleeping
(C) While they were sleeping in the house, a thief entered their house.
(D) None

(62.) Choose the best alternative to complete the sentence.

I think.....

(A) will be the plane on time
(B) the plane will be on time
(C) the plane to be on time
(D) it will be on time the plane

(63.) Choose the correct sentence

(A) If you are looking for Sita, you would find her with Ram
(B) If you looked for Sita, you would find her with Ram
(C) If you had looked Sita, You found her with Ram.
(D) If you looks for Sita, you would find her with Ram

(64.) The answer she said is this

Choose the correct punctuated sentence.

(A) The answer, she said is this.
(B) "The answer", she said is this.
(C) The answer, she said, is this
(D) "The answer", she said, " is this."

(65.) English.....

(A) is not only difficult to speak but also to write.
(B) is only not difficult to speak but also to write.
(C) is only not difficult to speak also but to write.
(D) is difficult not only to speak but also to write.

(66.) The women.....

(A) who is standing their are my sisters
(B) is standing there are my sisters
(C) who are standing there are my sisters
(D) who are standing there is my sisters

(67.) Rephrase the underline part of the sentences

Did you know when <u>shall he be leaving</u> for higher studies in USA

(A) should he be left
(B) he would be leaving
(C) he would be left
(D) would he have left

(68.) Your good gestures <u>will highly appreciate</u>.

(A) will be highly appreciate
(B) will be highly appreciated
(C) will be high appreciative
(D) would be high appreciation

(69.) They <u>fell very proudly</u> that their team had won the match.

(A) felt very proudly
(B) felt very proud
(C) felt very pride
(D) feel very proudly

gkforgovernmentexam.blogspot.com

(70.) The old man looked with caution before he crossed the busy road

(A) cautiously before (B) at cautiously when
(C) cautiously when (D) no improvement

(71.) They have been attending classes since the term began.

(A) would attend (B) would be attending
(C) should attend (D) no improvement

(72.) You have come here with a view to insult me.

(A) to insulting me (B) for insulting me
(C) of insulting me (D) no improvement

(73.) Fill in the blanks choosing appropriate word

An employment advertisement should _____ the number of vacancies.

(A) provide (B) declare
(C) contain (D) specify

(74.) The passenger were afraid but the captain_____ them that there was no danger.

(A) promised (B) advised
(C) assured (D) counseled

(75.) I haven't seen you_____ a week.

(A) within (B) since
(C) for (D) from

(76.) The terrorists made a vain attempt to _____ the bridge.

(A) blow down (B) blow up
(C) blow over (D) blow out

(77.) The building was so old and dilapidated that it was not_____

(A) habitation (B) habitat
(C) habitant (D) habitable

(78.) He is very keen _____ going abroad for higher studies.

(A) on (B) for
(C) over (D) at

Choose the word which is nearly the same in the meaning.

(79.) Abundant

(A) considerable (B) adequate
(C) plentiful (D) sufficient

(80.) Reckless

(A) rash (B) courageous
(C) bold (D) daring

(81.) Untie

(A) unfold (B) undo
(C) unhinge (D) unchain

Choose the correct antonym of the words given below.

(82.) Confess

(A) Refuse (B) Deny
(C) Contest (D) Contend

(83.) Alien

(A) Native (B) Domiciled

(C) Natural (D) Resident

(84.) Absolute

(A) Deficient (B) Faulty

(C) Limited (D) Scarce

Each of the following questions contains a small paragraph followed by a question on it. Read each paragraph carefully and choose the correct answers.

(85.) Satisfaction with co-workers, promotion opportunities, the nature of work, and pay goes with high performance among those with strong growth needs. Among those with weak growth needs, no such relationship is present - and, in fact, satisfaction with promotion opportunities goes with low performance.

This passage best supports the statement that:

(A) satisfaction is an inevitable organizational variable.

(B) job satisfaction and performance are directly and closely related

(C) relationship between job satisfaction and performance is moderated by growth need

(D) every organisation has few employees having weak growth need

(86.) The only true education comes through the stimulation of the child's powers by the demands of the social situations in which he finds himself. Through these demands he is stimulated to act as a member of a unity, to emerge from his original narrowness of action and feeling, and to conceive himself from the standpoint of the welfare of the group to which he belongs.

The passage best supports the statement that real education -

(A) will take place if the children imbibe action and feeling.

(B) will take place if the children are physically strong.

(C) is not provided in our schools today.

(D) comes through the interaction with social situations.

(87.) There is a shift in our economy from a manufacturing to a service orientation. The increase in service-sector will require the managers to work more with people rather than with objects and things from the assembly line.

(A) managers should have a balanced mind

(B) assembly line will exist in service organisations.

(C) interpersonal skills will become more important in the future work place.

(D) manufacturing organizations ignore importance of people.

(88.) Though the waste of time or the expenditure on fashions is very large, yet fashions have come to stay. They will not go, come what may. However, what is now required is that strong efforts should be made to displace the excessive craze for fashion from the minds of these youngsters.

The passage best supports the statement that:

(A) fashion is the need of the day.

(B) the excessive craze for fashion is detrimental to one's personality.

(C) the hoard for fashion should be done away with so as not to let down the constructive development.

(D) work and other activities should be valued more than the outward appearance.

(89.) The future of women in India is quite bright and let us hopes that they will justify their abilities by rising to the occasion. Napoleon was right when he declared that by educating the women we can educate the whole nation because a country can never rise without the contribution of 50% of their population.

The passage best supports the statement that:

(A) India is striving hard for the emancipation of women.

(B) all women should be well educated

(C) a nation can progress only when women are given equal rights and opportunities as men

(D) women ought to be imparted full freedom to prove their worth and contribute to the progress of the nation.

(90.) Due to enormous profits involved in smuggling, hundreds of persons have been attracted towards this anti-national activity. Some of them became millionaires overnight. India has a vast coastline both on the Eastern and Western Coast. It has been a heaven for smugglers who have been carrying on their activities with great impunity. There is no doubt, that from time to time certain seizures were made by the enforcement authorities, during raids and ambush but even allowing these losses the smugglers made huge profits.

The passage best supports the statement that

(A) smuggling hampers the economic development of a nation.

(B) smuggling ought to be curbed

(C) authorities are taking strict measures to curb smuggling.

(D) smuggling is fast increasing in our country owing to the quick profit it entails.

Read the following passage and answer the questions based on it.

At low tide he walked over the sands to the headland and round the comer to the little bay facing the open sea. It was inaccessible by boat, because seams of rock jutted out and currents swirled round them treacherously, But you could walk there if you-chose one of the lowest ebb tides that receded a very long way. You could not linger on the expedition, for once the tide was on the turn, it came in rapidly. For his reason very few people cared to explore the little bay and the cave at the back of it. But the unknown always drew this man like a magnet. He found the bay fresh and unlitter, as it was completely covered by the sea at high tide. The cave looked mysteriously dark, cool and inviting, and he penetrated to the farthest comer where he discovered a wide crack, rather like a chimney. He peered up and thought he could see a patch of daylight.

(91.) According to the writer, the bay could not be reached by boat, because:

(A) It had numerous layers of rock

(B) there were too many eddies

(C) it was facing the open sea

(D) there were seams of rock and treacherously swirling currents

(92.) One could visit the bay:

(A) at any time one chose

(B) on certain specified occasions

(C) when there was a low tide

(D) during the evening walk

gkforgovernmentexam.blogspot.com

(93.) It was not possible to "linger on the expedition" because:

(A) the water rose rapidly

(B) the tide turned quickly

(C) the tide turned sprightly

(D) the water rushed in with a great force

(94.) He found the bay "fresh and unlitter" because:

(A) the sea water had receded

(B) he was the first visitor there

(C) the high tide had just washed the litter away

(D) it was not frequented by people who would pollute it

(95.) While passing through the cave, the writer discovered a:

(A) cool and scheduled corner

(B) large opening

(C) chimney-shaped rock

(D) big crack through while light came in

Read the following passage and answer the questions based on it.

Regular physical activity provides numerous health benefits from leaner bodies and lower blood pressure to improved mental health and cognitive functioning. As the school physical education programme promotes physical activity arid can teach skills as well as from or change behaviour, it holds an important key to influencing health and well-being across the life span, To improve the fitness of students, we need to rethink the design and delivery of school-based physical education programme. Adults in the United States, think that information about health was more important for students to learn the content in language arts, mathematics, science, history or any other subject. Deposite this high ranking, most schools devote minimal curriculum time to teaching students how to lead healthy lives. Our first step might be to consider ways to increase curriculum time devoted to physical education. In addition, schools need to thoughtfully analyse the design and delivery of school physical education programme to ensure that they are engaging, developmentally appropriate, inclusive and instructionally powerful.

(96.) According to this passage, regular physical activity is needed to:

(A) control one's blood pressure

(B) lose one's weight

(C) improve one's cognitive skills

(D) improve one's physical as well as mental health

(97.) In order to tone up the physical education programme:

(A) it should be made compulsory at school

(B) as assessment of the existing programme should be made

(C) a committee should be set up in every school,

(D) the programme should be reoriented and implemented

(98.) According the Americans, health education is more important than teaching:

(A) social sciences, (B) liberal arts

(C) any subject (D) natural sciences

(99.) The author wants the reoriented physical education programme to be :

(A) given minimal curriculum time

(B) very comprehensive

(C) relevant to the modem society.

(D) thoughtful

(100.) In order to improve the physical education programme, we should, first of all :

(A) increase the teaching load of instructors

(B) allot more time to the teaching and learning of physical activity

(C) decide on the number of activities to be taught

(D) employ qualified instructors

gkforgovernmentexam.blogspot.com

gkforgovernmentexam.blogspot.com

SECTION-D (Q.No. 101 -200)

(101.) The tendency of a stone is, to split along:

(A) Texture (B) Fracture
(C) Cleavage (D) Structure

(102.) For lime concrete,

(A) slump is 50 to 75 mm
(B) flexural strength at 90 days is 0.2 N/mm^2
(C) compressive strength at 90 days is 1.5 N/mm^2
(D) all the above.

(103.) Pick up the correct statement from the following:

(A) For thin structures subjected to wetting and drying, the water cement ratio should be 0.45
(B) For mass concrete structures subjected to wetting and drying, the water ratio should be 0.55
(C) For thin structures which remain continuously under water, the water-cement ratio by weight should be 0.55
(D) All the above.

(104.) The rate of hydration and hydrolysis of cement depends upon its

(A) soundness (B) fineness
(C) setting time (D) tensile strenght

(105.) The commonly used cement in cement paints is

(A) white cement (B) Portland cement
(C) alumina cement (D) rapid hardening cement

(106.) The solvent used in cement paints is

(A) thinner (B) turpentine
(C) water (D) spirit

(107.) The central part of a tree is called

(A) heart wood (B) pitch
(C) sap wood (D) cambium layer

(108.) Stainless steel contains

(A) 18% of chromuim and 8% nickel
(B) 8% of chromium and 18% of nickel
(C) 12% of chromium and 36% of nickel
(D) 36% of chromium and 12% of nickel.

(109.) Depending on the chemical composition and mechanical properties, iron may be classified as

(A) cast iron (B) wrought iron
(C) Steel (D) all the above.

(110.) Which of the following represents a metamorphic rock?

I. slate II. shale III. quartzite .

The correct answer is

(A) only III (B) both I and III
(C) both II and III (D) all I, II and III

(111.) The shear modulus of most materials with respect to the modulus of elasticity is

(A) equal to half (B) less than half
(C) more than half (D) none of these

(112.) When a bar is cooled to -5°C, it will develop

(A) no stress (B) shear stress

(C) tensile stress (D) compressive stress

(113.) The Poisson's ratio for steel varies from

(A) 0.23 to 0.27 (B) 0.25 to 0.33

(C) 0.31 to 0.34 (D) 0.32 to 0.42

(114.) The ratio of change in volume to the original volume is called

(A) linear strain (B) lateral strain

(C) volumetric strain (D) Poisson's ratio

(115.) A beam supported on more than two supports is called

(A) simply supported beam (B) fixed beam

(C) overhanging beam (D) continuous beam

(116.) In a beam where shear force changes sign, the bending moment will be

(A) zero (B) minimum

(C) maximum (D) infinity

(117.) To stagger vertical joints in successive courses of a wall, a piece of brick is generally used at the end of the course, which is known as

(A) bat (B) header

(C) stretcher (D) closer

(118.) Pick up the incorrect statement from the following:

(A) In dog-legged stairs, no space between its flights is provided

(B) In open newel stair, a rectangular well is provided

(C) In geometric stair, a curved shaped well between forward and backward flights, is provided

(D) In geometrical stair, two quarter space landing is provide

(119.) Cavity wall is generally provided for

(A) heat insulation (B) sound insulation

(C) prevention of dampness (D) all the above.

(120.) The depth of the ground water table may be ascertained by

(A) looking through the well in the vicinity

(B) standing on the well in the vicinity

(C) measuring the depth of water in the well

(D) none of the above.

(121.) Junction between the flange and web of a beam is known as

(A) lap joint (B) butt joint

(C) fillet (D) shear joint

(122.) A channel section consist of

(A) two web

(B) two flanges

(C) two webs and two flangers

(D) one web and two flangers

(123.) The diameter of cold driven rivets ranges from

(A) 6 to 12 mm (B) 12 to 22 mm

(C) 22 to 32mm (D) 32 to 42mm

Download Previous Years Paper for AEN & JEN Exam gkforgovernmentexam.blogspot.com

(124.) Which of the following is not a compression member ?

(A) strut (B) tie (C) rafter (D) boom

(125.) If the pitch is 6 cm and rivet value is 4 tonnes, the number of rivets required for a riveted connection carrying an eccentric load of 15 tonnes at a distance of 30 cm from the centre line, is

(A) 6 (B) 8 (C) 10 (D) 12

(126.) Slenderness ratio of a compression member is

(A) $\frac{\text{Moment of Inertia}}{\text{Radius of gyration}}$ (B) $\frac{\text{Effective length}}{\text{Area of cross-section}}$

(C) $\frac{\text{Radius of gyration}}{\text{Effective length}}$ (D) $\frac{\text{Radius of gyration}}{\text{Area of cross-section}}$

(127.) Web crippling generally occurs at the point where

(A) bending moment is maximum
(B) shearing force is minimum
(C) concentrated loads act
(D) deflection is maximum

(128.) As per I.S. 456 - 1978, the pH value of water shall be

(A) less than 6 (B) equal to 6
(C) not less than 6 (D) equal to 7

(129.) Cantilever retaining walls can safely be used for a height not more than

(A) 3 m (B) 4 m
(C) 5 m (D) 6 m

(130.) If a bent tendon is required to balance a concentrated load W at the centre of the span L, the central dip h must be at least

(A) $\frac{WL}{P}$ (B) $\frac{WL}{2P}$
(C) $\frac{WL}{3P}$ (D) $\frac{WL}{4P}$

(131.) For M 150 mix concrete, according to I.S. specifications, local bond stress, is

(A) 5 kg/cm^2 (B) 10 kg/cm^2
(C) 15 kg/cm^2 (D) 20 kg/cm^2

(132.) A short column 20 cm x 20 cm in section is reinforced with 4 bars whose area of cross section is 20 sq. cm. If permissible compressive stresses in concrete and steel are 40 kg/cm^2 and 300 kg/cm^2, the Safe load on the column, should not exceed

(A) 4120 kg (B) 41, 200 kg
(C) 412, 000 kg (D) none of these.

(133.) According to I.S. : 456 specifications, the safe diagonal tensile stress for M 150 grade concrete, is

(A) 5 kg/cm^2 (B) 10 kg/cm^2
(C) 15 kg/cm^2 (D) 20 kg/cm^2

(134.) The transverse reinforcements provided at right angles to the main reinforcement

(A) distribute the load
(B) resist the temperature stresses
(C) resist the shrinkage stress
(D) all the above.

(135.) PERT analysis is based on

(A) optimistic time
(B) pessimistic time
(C) most likely time
(D) all the above

(136.) The critical activity has

(A) maximum float
(B) minimum float
(C) zero float
(D) none of these

(137.) Critical path moves along the activities having total float

(A) positive
(B) negative
(C) zero
(D) same

(138.) Completion of an activity on CPM network diagram, is generally known

(A) event
(B) node
(C) connector
(D) all the above

(139.) An open cubical tank of 2 m side is filled with water. If the tank is rotated with an acceleration such that half of the water spills out, then the acceleration is equal to

(A) g/3
(B) g/2
(C) 2g/3
(D) g

(140.) When a liquid rotates at a constant angular velocity about a vertical axis as a rigid body, the pressure intensity varies

(A) linearly with radial distance
(B) as the square of the radial distance
(C) inversely as the square of the radial distance
(D) inversely as the radial distance

(141.) The unit of kinematic viscosity is

(A) gm/cm-sec^2
(B) dyne-sec/cm^2
(C) cm^2/sec
(D) gm/cm^2-sec

(142.) Newton's law of viscosity relates

(A) intensity of pressure and rate of angular deformation
(B) shear stress and rate of angular deformation
(C) shear stress, viscosity and temperature
(D) viscosity and rate of angular deformation

(143.) A manometer is used to measure

(A) low pressure
(B) moderate pressure
(C) high pressure
(D) atmospheric pressure

(144.) The body will float of the force of buoyancy is ..... the weight of the liquid displayed

(A) equal to
(B) less than
(C) more than
(D) none of these

(145.) A flow whose streamline is represented by a straight line is called ..... dimensional flow

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

(146.) When the venturimeter is inclined, then for a given flow it will show ..... reading

(A) same (B) more

(C) less (D) not relevant

(147.) The coefficient of discharge for an external mouth piece is

(A) 0.375 (B) 0.5

(C) 0.707 (D) 0.855

(148.) A vertical rectangular plane surface is submerged in water such that its top and bottom surfaces are 1.5 m and 6.0 m respectively below the free surface. The position of center of pressure below the free surface will be at a distance of

(A) 3.75m (B) 4.0m

(C) 4.2m (D) 4.5m

(149.) Pick up the correct statement from the following :

(A) Rain which is intercepted by buildings, vegetations and other objects, is generally known as rainfall interception

(B) The difference between the total rainfall and intercepted rainfall, is generally called ground rainfall

(C) When rainfall exceeds the interception rainfall, water reaches the ground and infiltration starts

(D) All of the above

(150.) Sewer pipes need be checked for

(A) minimum flow (B) maximum flow

(C) both (A) and (B) (D) none of these.

(151.) Absolute humidity in air

(A) decreases at higher altitudes

(B) increases at higher altitudes

(C) remains constant at all altitudes

(D) none of these.

(152.) The standard height of a standard rain gauge, is

(A) 10 cm (B) 20 cm

(C) 30 cm (D) 50 cm

(153.) A recording type rain gauge

(A) produces a mass curve of rain fall

(B) records the cumulative rain

(C) is sometimes called integrating rain gauge or continuous rain gau

(D) all the above.

(154.) A hydraulic jump in a control meter will be formed above the control, if its original

(A) depth is more than critical depth

(B) depth is less than the critical depth

(C) depth is equal to critical depth

(D) none of these.

(155.) Shrouding is provided in

(A) cavity type tube wells (B) slotted type tube wells

(C) strainer type tube wells (D) perforated type tube wells.

Download Technical Paper for AEN, JEN Exams gkforgovernmentexam.blogspot.com

(156.) The quantity of water retained by the sub-soil against gravity, is known

(A) Yield (B) porosity

(C) specific yield (D) specific retention

(157.) The water obtained from .....is generally known as underground water

(A) infilteration galleries (B) springs

(C) rivers (D) wells

(158.) a pipe sunk into the ground to tap the underground water is called

(A) open well (B) tube well

(C) artesian well (D) infiltration well

(159.) the water of a river has an important property called

(A) turbidity (B) self purification

(C) permeability (D) infiltration capacity

(160.) when lead is present in water ,it

(A) changes its colour (B) causes turbidity

(C) causes alkalinity (D) none of these

(161.) the maximum permeasible chlorine content for public supplies should be between

(A) 0.1 to 0.2 ppm (B) 0.3 to 0.4 ppm

(C) 1.2 to 4 ppm (D) 6.5 to 8 ppm

(162.) Bio- chemical oxygen demand (B.O.D)of safe drinking water must be

(A) 0 (B) 10

(C) 50 (D) 100

(163.) in the process of screening, the screens should be inclined at an angle of

(A) 10° to 20° (B) 30° to 40°

(C) 45° to 60° (D) 70°to 85°

(164.) the most common coagulant is

(A) magnesium sulphate (B) alum

(C) chlorine (D) bleaching powder

(165.) Select the correct statement.

(A) The greater the viscosity, the greater is permeability.

(B) The greater the unit weight, the greater is permeability.

(C) The greater the unit weight, the smaller is permeability.

(D) Unit weight does not affect permeability.

(166.) The weakest bond in soil is

(A) hydrogen bond (B) secondary valanced bond

(C) covalent bond (D) ionic bond

(167.) A normally consolidated clay settled 10 mm when effective stress was increased from 100 kN/m2 to 200 kN/ m2 . If the effective stress is further increased from 200 kN/ m2 to 400 kN/ m2 , then the settlement of the same clay is

(A) 10 mm (B) 20 mm

(C) 40 mm (D) none of these

(168.) The most accurate method for the determination of water content in the laboratory is

(A) Sand bath method (B) oven drying method

(C) pycnometer method (D) calcium carbide method

(169.) Total number of stress components at a point within a soil mass loaded at its boundary is

(A) 3 (B) 6

(C) 9 (D) 16

(170.) A cylindrical specimen of saturated soil failed under an axial vertical stress of 100 kN/m2 when it was laterally unconfined. The failure plane was inclined to the horizontal plane at an angle of 45°. The values of cohesion and angle of internal friction for the soil are respectively

(A) 0.5 N/mm2 and 30°

(B) 0.05 N/mm2 and 0°

(C) 0.2 N/mm2 and 0°

(D) 0.05 N/mm2 and 45°

Download Technical Paper for AEN, JEN Exams gkforgovernment exam.blogspot.com

(171.) The minimum size of grains of silt is about

(A) 0.0002mm (B) 0.002mm

(C) 0.02mm (D) 0.2mm

(172.) Sieving is not practicable for grain sizes smaller than about

(A) 0.075mm (B) 0.095mm

(C) 0.15mm (D) 0.2mm

(173.) Which of the following is practically impermeable ?

(A) Gravel (B) Sand mixtur

(C) Coarse sand (D) Clay

(174.) Per capita demand of water is calculated in litres

(A) per person per day (B) per person per month

(C) per person per year (D) none of these.

(175.) When the water table is close to ground surface, the bearing capacity of a soil is reduced to

(A) one-fourth (B) one-half

(C) two-third (D) three-fourth

(176.) The active earth pressure of a soil is proportional to (where φ is the angle of friction of the soil)

(A) $\tan(45^\circ - \varphi)$ (B) $\tan^2(45^\circ + \varphi)$

(C) $\tan^2(45^\circ - \varphi)$ (D) $\tan(45^\circ + \varphi)$

(177.) The lateral earth pressure on a retaining wall

(A) is equal to mass of the soil retained

(B) proportional to the depth of the soil

(C) proportional to the square of the depth of the soil

(D) proportional to the internal friction of the soil

(178.) The quantity of seepage of water through soils is proportional to

(A) coefficient of permeability of soil

(B) total head loss through the soil

(C) neither (A) nor (B)

(D) both (A) and (B).

(179.) The minimum water content at which the soil retains its liquid state and also possesses a small shearing strength against flowing, is known

(A) liquid limit (B) plastic limit

(C) shrinkage limit (D) permeability limit.

(180.) The maximum value of effective stress in the past divided by the present value, is defined as over consolidation ratio (OCR). The O.C.R. of an over consolidated clay is

(A) less than 1 (B) 1

(C) more than 1 (D) None of these.

(181.) The slope correction for a length of 30 m along a gradient of 1 in 20, is

(A) 3.75 cm (B) 0.375 cm

(C) 37.5 cm (D) 2.75 cm.

(182.) Planimeter is used for measuring

(A) volume (B) area

(C) contour gradient (D) slope angle

(183.) The horizontal angle between the true meridian and the magnetic meridian is called

(A) true bearing (B) dip

(C) local attraction (D) magnetic declination

(184.) At the equator, the amount of dip is

(A) 0 (B) 45

(C) 60 (D) 90

(185.) A back sight indicates the ..... of the instrument

(A) shifting (B) setting up

(C) height (D) none of these

(186.) The reduced level of plane of collimation is ..... height of instrument

(A) equal to (B) less than

(C) greater than (D) not related to

(187.) The horizontal distance between any two consecutive contours is called

(A) vertical equivalent (B) horizontal equivalent

(C) contour interval (D) contour gradient

(188.) The plotting of small areas which can be commanded from a single station, is usually done on the plane table by the method of

(A) radiation (B) intersection

(C) traversing (D) resection

(189.) The main principle of surveying is to work

(A) from part to the whole

(B) from whole to the part

(C) from higher level to the lower level

(D) from lower level to higher level.

(190.) For the construction of highway (or railway)

(A) longitudinal sections are required

(B) cross sections are required

(C) both longitudinal and cross sections are required

(D) none of these.

(191.) The contour lines can cross one another on map only in case of

(A) a vertical cliff

(B) a valley

(C) a ridge

(D) an overhanging cliff

(192.) Contour lines cross ridge or valley lines at
(A) 30° (B) 45°
(C) 60° (D) 90°

(193.) A curve of varying radius is known as
(A) simple curve
(B) compound curve
(C) reverse curve
(D) transition curve

Download Technical Paper for AEN, JEN Exams gkforgovernmentexam.blogspot.com

(194.) The curve used for ideal transition curve is a
(A) cubic parabola
(B) clothoid spiral
(C) cubic curve
(D) lemniscate

(195.) Scientific planning of transportation system and mass transit facilities in cities should be based on
(A) spot speed data
(B) origin and destination data
(C) traffic volume data
(D) accident data

(196.) If is a dorry abrasion test the loss in weight 21 gms, then the coefficient of hardness is
(A) 13 (B) 9.5
(C) 21 (D) 17

(197.) When the speed of traffic flow becomes zero, then
(A) traffic density attains maximum value whereas traffic volume becomes zero
(B) traffic density and traffic volume both attain maximum value
(C) traffic density and traffic volume both become zero
(D) traffic density becomes zero whereas traffic volume attains maximum value

(198.) The camber of road should be approximately equal to
(A) longitudinal gradient
(B) two times the longitudinal gradient
(C) three times the longitudinal gradient
(D) half the longitudinal gradient

(199.) The maximum design gradient for vertical profile of a road is
(A) ruling gradient
(B) limiting gradient
(C) exceptional gradient
(D) minimum gradient

(200.) Maximum number of vehicles that can pass a given point on a lane during one hour without creating unreasonable delay, is known as
(A) traffic density of lane
(B) basic capacity of lane
(C) probable capacity of lane
(D) practical capacity of lane