VASAVI COLLEGE OF ENGINEERING *(AUTONOMOUS)*, HYDERABAD
Accredited by NAAC with A++ Grade
B.E. VI-Semester Main & Backlog Examinations, June-2022
Critical Reasoning (OE-IV)

Time: **3 hours**　　　　　　　　　　　　　　　　　　　　　　　Max. Marks: **60**

*Note: Answer all questions from **Part-A** and any **FIVE** from **Part-B***

Part-A (10 × 2 = 20 Marks)

Q. No.		Stem of the question	M	L	CO	PO
1.	a.	In a group of 72 students, 47 have background is electronics, 59 have background in Mathematics & 42 have background in both the subjects. How many subjects do not have background in any of the subjects A. 8　B. 13　C. 25　D. 34　E. None of these	2	2	1	12
	b.	In a town of 500 people, 285 read Hindu and 212 read Indian Express and 127 read Times of India, 20 read Hindu and Times of India and 29 read Hindu and Indian Express and 35 read Times of India and Indian express. 50 read no newspaper. Then how many read only one paper? A. 123　B. 231　C. 312　D. 321　E. None of these		2		
2.		Directions: Solve the following questions. 	2	1	1	12
	a.	Who among the following is Graduate and Housewife but not among Working People? A. F　B. A　C. G　D. E				
	b.	Who among the following is Housewife but not among Working People? A. H　B. D　C. J　D. F				
3.	a.	Assertion: Grains should be consumed without Sprouting. Reason: Sprouting kills many vital nutrients. 　A. Both A and R are true, and R is the correct explanation of A. 　B. Both A and R are true, but R is not the correct explanation of A. 　C. A is true, but R is false. 　D. A is false, but R is true. 　E. Both A and R are false.	2	2	2	12
	b.	Assertion: Calcium prevents osteoporosis. Reason: Calcium is found in milk. 　A. Both A and R are true, and R is the correct explanation of A. 　B. Both A and R are true, but R is not the correct explanation of A. 　C. A is true, but R is false. 　D. A is false, but R is true. 　E. Both A and R are false.		2		

			2	1	2	12

4.	a.	Arrange the following words in a logical sequence.
		1. Grass 2. Curd 3. Milk 4. Cow 5. Butter
		    A. 1, 2, 3, 4, 5
		    B. 2, 3, 4, 5, 1
		    C. 4, 1, 3, 2, 5
		    D. 5, 4, 3, 2, 1				

	b.	Arrange the following words in 9 meaningful order.
		1. Doctor 2. Illness 3. Medicine 4. Medical hall 5. Consultation.
		    A. 2, 1, 5, 4, 3
		    B. 3, 4, 5, 1, 2
		    C. 2, 1, 5, 3, 4
		    D. 4, 3, 5, 1, 2
				1		

5.	a.	Question: Among six friends R, S, T, U, V and W, who gets the second highest marks?
		Statements:
		  I. W gets more marks than T and V but not as much as S. U gets more marks than V and R but less than S. R gets the lowest marks whereas the marks of U and W are the same.
		  II. V gets more marks than R and less than T. U gets more marks than T and V but less than S.
		    A. Only statement I is sufficient.
		    B. Only statement II is sufficient.
		    C. Either statement I or statement II is sufficient.
		    D. Neither statement I nor statement II is sufficient.
		    E. Both statement I and II are sufficient.
			2	2	3	12

	b.	After a purchase, the shopkeeper returns ₹ 100 extra to you. You will
		    A. treat your friends to a lunch
		    B. offer ₹ 20 at a temple and pray for more such instance
		    C. hope he will give another ₹ 100 extra
		    D. return the extra money to the shopkeeper				

6.	a.	What is found necessarily in milk? A. Cream B. Curd C. Water D. Whiteness	2	1	3	12
	b.	If we are going early in the morning towards the south the sun will be visible at our left: A. Always B. Never C. Often D. Sometimes		2		

7.	a.	Statement: Anger is energy, in a more proactive way and how to channelize it is in itself a skill.
		Assumptions: I. Anger need to be channelized.
		II. Only skillful people can channelize anger to energy.
		    A. If only assumption I is implicit.
		    B. If only assumption II is implicit.
		    C. If either I or II is implicit.
		    D. If neither I nor II is implicit.
		    E. If both I and II are implicit.
			2	2	4	12

	b.	Statement: Medicine 'P' is a drug which is causing ripples in the medical field.
		Assumptions:
		I. No other drug is causing ripples in the medical field.
		II. Medicine 'P' is a great drug.
		    A. If only assumption I is implicit.
		    B. If only assumption II is implicit.
		    C. If either I or II is implicit.
				3		

		D. If neither I nor II is implicit. E. If both I and II are implicit.				
8.	a.	Statement: Should we scrap the system of formal education beyond graduation? Arguments: 　　I.　　　Yes. It will mean taking employment at an early date. 　　II.　　　No. It will mean lack of depth of knowledge. 　　　　A. If only argument I is strong. 　　　　B. If only argument II is strong. 　　　　C. If either argument I or II is strong. 　　　　D. If neither argument I nor II is strong. 　　　　E. If both arguments I and II are strong.	2	2	4	12
	b.	Statement: Should cottage industries be encouraged in rural areas? Arguments: 　　I.　　　Yes. Rural people are creative. 　　II.　　　Yes. This would help to solve the problem of unemployment to some extent. 　　　　A. If only argument I is strong. 　　　　B. If only argument II is strong. 　　　　C. If either argument I or II is strong. 　　　　D. If neither argument I nor II is strong. 　　　　E. If both arguments I and II are strong.		2		
9.	a.	Statement: Faced with a serious resource crunch and a depressing overall economic scenario, the state 'X' is unlikely to achieve the targeted percent compound annual growth rate during the 10th plan. Courses of action 　　I.　　　The target growth should be reduced for the next plan. 　　II.　　　The reasons for the failures should be studied. 　　III.　　　The state 'X's performance should be compared with that of other states. A. Only I follows　　B. Both I and III follow　C. Both II and III follow D. None follows　　　E. None of these	2	4	5	12
	b.	Statement: A knife-wielding assailant killed a 29-year-old man and injured four others in a lively neighborhood near Paris famed Opera Garnier before he was killed by police on Saturday night. Courses of Action: 　　I.　　　The government should ban the sale of knives in all major cities. 　　II.　　　Any person seen carrying a knife should be immediately taken into police custody. 　　III.　　　Policemen should be posted near all major tourist spots to avoid such untoward incidents. A. Only I follows　　B. Only I follows　　C. Both I and III follow D. Both II and III follow　　E. None of them follow		3		
10.	a.	Arpita, an accomplished pastry chef who is well known for her artistic and exquisite wedding cakes, opened a bakery one year ago and is surprised that business has been so slow. A consultant she hired to conduct market research has reported that the local population doesn't think of her shop as one they would visit on a daily basis but rather a place they'd visit if they were celebrating a special occasion. Based on your judgment, which of the following strategies should Rita employ to increase her daily business?	2	4	5	12

		A. making coupons available that entitle the coupon holder to receive a 25% discount on wedding, anniversary, or birthday cakes B. exhibiting at the next Bridal Expo and having pieces of one of her wedding cakes available for tasting C. placing a series of ads in the local newspaper that advertise the wide array of breads D. moving the bakery to the other side of town			
	b.	Suppose that one of your neighbors walks into the police precinct where you are an administrative aide and asks you to make 100 photocopies of a flyer he intends to distribute in the neighborhood. Of the following, what action should you take in this situation? A. Pretend that you do not know the person and order him to leave the building. B. Call a police officer and report the person for attempting to make illegal use of police equipment. C. Tell the person that you will make the copies when you are off duty. D. Explain that you cannot use police equipment for non-police work.	3		
		Part-B (5 × 8 = 40 Marks)			
11. a)		The teacher's colony has 2800 members, out of which 650 members read only English newspaper, 550 members read only Hindi newspaper and 450 members read only Marathi newspaper. The number of members reading all the 3 newspapers is 100. Members reading Hindi as well as English newspaper are 200, 400 members read Hindi as well as Marathi newspaper and 300 members read English as well as Marathi newspaper. i. Find the difference between number of members reading English as well as Marathi newspaper and the number of members reading English as well as Hindi newspaper? A. 300 B. 200 C. 100 D. 50 E. None of these ii. How many members read at least 2 newspapers? A. 600 B. 800 C. 500 D. 1000 E. None of these iii. Find the number of members reading Hindi newspaper? A. 750 B. 980 C. 1000 D. 1020 E. None of these iv. How many members read only one newspaper? A. 1560 B. 1650 C. 1640 D. 1540 E. None of these	4 4 1 12		
b)	i. ii. iii.	At a certain school, each of the 160 students takes atleast one of the 3 classes. The 3 classes available are English, Hindi and Spanish. 54 students study English, 86 study Hindi and 61 study Spanish. If 8 students take all 3 classes, how many take exactly 2 classes? A. 25 B. 28 C. 31 D. 27 E. 23 In a locality consisting of 400 families, each family reads at least one newspaper. It is known that 200 families read 'The Hindu'. 150 families read 'Indian Express' and 180 families read 'Times of India'. If it is known that exactly 40 families read all three newspapers then how many families read exactly two newspapers? A. 80 B. 50 C. 70 D. 90 E. 60 In a school of 1000 students, 700 students play Cricket, 550 students play football and 180 students play neither cricket nor football. How many students play both cricket and football? A. 230 B. 360 C. 430 D. 70 E. None of these	4 3 1 12 3 2		

	iv.	Out of 75 students, 17 students enrolled in a Physics class, 28 students enrolled in a Chemistry class, and 39 students enrolled in a Biology class. 5 students enrolled in both the Physics and Chemistry classes, 7 students enrolled in both the Chemistry and Biology classes, and 6 students enrolled in both the Biology and Physics classes. If 4 students enrolled in Physics, Chemistry, and Biology, how many students did not enroll in any of the three science classes? A. 2 B. 3 C. 4 D. 5 E. 6		3		
12. a)		Directions: Study the following information to answer the given questions: There are 7 boxes which are colored with different colors – White, Blue, Yellow, Green, Red, Brown and Pink. They are placed one above the other. And contain different flavored cupcakes – Mint Oreo, Chocolate, Blueberry, Mango, Lemon, Apple Pie and Cranberry, but not necessarily in the same order. Further information is as follows: (i) Boxes containing Either Mango or Cranberry cupcake is on the top or first place respectively. (ii) The brown box is placed on 5th place from bottom. (iii) The boxes containing Chocolate and Apple Pie cupcakes are placed consecutively. (iv) White and Red colored boxes contain Mint Oreo and Lemon cupcakes respectively. (v) Yellow and Brown boxes are placed at consecutive places. (vi) Blue box, which contains Chocolate cupcake, and White box have one box in between them. (vii) Yellow box, which contains Blueberry cupcake is placed just above the box containing Apple Pie cupcake. i. Box containing which cupcake is immediate next to box containing Lemon cupcake? A. Chocolate B. Mint Oreo C. Either (A) or (B) D. Blueberry E. Mango ii. The box containing Blueberry cupcake is at which position from below? A. Second B. Third C. Sixth D. Fourth E. Fifth iii. If the box at the lowest place is colored Green, then which colored box contains Mango cupcake? A. Green B. White C. Red D. Cannot be determined E. None of these iv. Brown colored box contains which flavored cupcake? A. Apple Pie B. Lemon C. Chocolate D. Either (A) or (B) E. Cranberry	4	4	2	12

b)	i.	Assertion (A): A fish has a streamlined body.
		Reason (R): The streamlined body helps fishes move faster in the water.
		    A. Both A and R are true, and R is the correct explanation of A.
		    B. Both A and R are true, but R is not the correct explanation of A.
		    C. A is true, but R is false.
		    D. A is false, but R is true.
		    E. Both A and R are false.
			4	2	2	12

	ii.	Assertion (A): Telephone wires sag more in summers than winters.
		Reason (R): The wires expand due to heat.
		    A. Both A and R are true, and R is the correct explanation of A.
		    B. Both A and R are true, but R is not the correct explanation of A.
				2		

C. A is true, but R is false.

D. A is false, but R is true.

E. Both A and R are false.

iii.   Assertion (A): The bulb filament is made of silver.

Reason (R): Silver does not melt.   **2**

   A. Both A and R are true, and R is the correct explanation of A.

   B. Both A and R are true, but R is not the correct explanation of A.

   C. A is true, but R is false.

   D. A is false, but R is true.

   E. Both A and R are false.

iv.   Arrange the words given below in a meaningful sequence.   **1**

   1. Tree 2. Seed 3. Flowers   4. Fruit 5. Plant

   A. 5, 2, 1, 3, 4   B. 2, 5, 1, 4, 3   C. 2, 5, 1, 3, 4   D. 2, 5, 3, 1, 4

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13. a) **i.** What is the profit earned by selling a printer for Rs.3000?   **4 2 3 12**

   I.   The cost price of 6 such printers is equal to selling price of 5 such printers

   II. 20% profit is earned by selling each printer.

   A. Only statement I is sufficient.

   B. Only statement II is sufficient.

   C. Either statement I or statement II is sufficient.

   D. Neither statement I nor statement II is sufficient.

   E. Both statement I and II are sufficient.   **1**

ii. When someone demands something undesirable, you

   A. always try to avoid the man

   B. neglect the person and leave the place

   C. always try to explain your inability to meet the demand

   D. try to teach him a lesson, so that he does not repeat the same behavior   **1**

iii. A lotus flower always has

   A. Petals   B. Mud C. Root D. Water E. None of these   **1**

iv. A disease always has

   A. Cure B. Medicine   C. Cause   D. Germs

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b) **i.** On reaching the railway station, you find that the train you wanted to catch is just to start and there is hardly any time for purchasing the ticket. The best thing for you is to :   **4 1 3 12**

   A. Rush to the train rather than miss it and inform the T.T.I. at the next stoppage about your inability to purchase the ticket.

   B. Rush to the train and perform your journey quietly.

   C. First purchase the ticket and then catch the train if it is there.

   D. Miss the train rather than take the risk of boarding the moving train.

ii. While travelling in a train, you observe some college students pulling the alarm chain simply to get down at their desired point. You would :   **1**

   A. With the help of some passengers, check them from doing so

   B. Let them pull the chain but check them from detraining.

   C. Inform the guard of the train as soon as it stops.

   D. Keep quiet and do nothing.   **1**

iii. A. The vegetable prices in the local market have increases manifold during the past few days.

   B. Incessant rains have created flood like situation in most rural parts of the State.

   A. If statement A is the cause and statement B is its effect.

		B. Incessant rains have created flood like situation in most rural parts of the State.
		   A. If statement A is the cause and statement B is its effect.
		   B. If statement B is the cause and statement A is its effect.
		   C. If both the statements A and B are independent causes.
		   D. If both the statements A and B are effects of independent causes.
		   E. If both the statements A and B are effects of some common cause.				

	iv.	If you find yourself in a situation where you are required to make a power - point presentation and you are already bogged down by too much work, as the manager what would you do?
		   A. Take an alternative mode of presentation
		   B. Cancel the seminar and reschedule according to your convenience
		   C. Pass the buck to your subordinate, you are the boss, no one can question you
		   D. Prioritize your work and try to squeeze out time for it
			1			

14. a)	i.	Statement: If it is easy to become a doctor, I don't want to be a doctor.
		Assumptions:
		   I. A candidate wants to be professional.
		   II. One wants to achieve a thing which is hard earned.
		      A. Only I is implicit
		      B. Only II is implicit
		      C. Either I or II is implicit
		      D. Neither I nor II is implicit
		      E. Both I and II are implicit
			4	1	4	12

	ii.	Statement: Safety and health practices in many Asian companies are below international standards.
		Assumptions:
		   I. International standards of health and safety are ideal and unrealistic.
		   II. Asian organizations do not consider safety and health management as their prime social responsibility.
		      A. Only I is implicit
		      B. Only II is implicit
		      C. Either I or II is implicit
		      D. Neither I nor II is implicit
		      E. Both I and II are implicit
			3			

	iii.	If you are a fitness walker, you don't need to go to a health gym. You also don't need any fitness equipment for workout. All you need is a pair of comfortable athletic shoes.
		This paragraph supports which of the following statements;
		      A. Fitness walking is better than weight lifting
		      B. Walking outdoors provides more health benefits than walking indoors
		      C. Fitness walking is an effective and convenient form of exercise
		      D. Poorly designed shoes can cause foot injuries
			3			

	iv.	Statement: Should there be students union in college/university?
		Arguments:
		   I. No. This will create a political atmosphere in the campus.
		   II. Yes, it is very necessary Students are future political leaders.
			2			

		A. Only argument I is strong B. Only argument II is strong C. Either I or II is strong D. Neither I nor II is strong E. Both I and II are strong				
b)	i.	Statement: Should children be legally made responsible to take care of their parents during their old age? Arguments: 　I.　　　Yes. Such matter can only be solved by legal means. 　II.　　Yes. Only this will bring some relief to poor parents. 　　　A. Only argument I is strong 　　　B. Only argument II is strong 　　　C. Either I or II is strong 　　　D. Neither I nor II is strong 　　　E. Both I and II are strong	4	2	4	12
	ii.	Statement: Should we scrap the 'Public Distribution System' in India? Arguments: 　I.　　　Yes, Protectionism is over, everyone must get the bread on his/her own. 　II.　　Yes. The poor do not get any benefit because of corruption. 　　　A. Only argument I is strong 　　　B. Only argument II is strong 　　　C. Either I or II is strong 　　　D. Neither I nor II is strong 　　　E. Both I and II are strong		2		
	iii.	Statement: Should higher education be completely stopped for some time? Arguments: 　I.　　　No. It will hamper the country's future progress. 　II.　　Yes. It will reduce the educated unemployment. 　　　A. Only argument I is strong 　　　B. Only argument II is strong 　　　C. Either I or II is strong 　　　D. Neither I nor II is strong 　　　E. Both I and II are strong		2		
	iv.	Statement: Should there be reservation in Government jobs for candidates from single child family? Arguments: 　I.　　　No. This is not advisable as the jobs should be offered to only deserving candidates without any reservation for a particular group. 　II.　　Yes. This will help reduce the growing population in India as the parents will be encouraged to adopt single child norm. 　　　A. Only argument I is strong 　　　B. Only argument II is strong 　　　C. Either I or II is strong 　　　D. Neither I nor II is strong 　　　E. Both I and II are strong		2		
15. a)	i.	Statement: Majority of the students in many schools do not pass in the final examination. Courses of Action:	4	3	5	12

I.   These schools should be closed down as these have become unproductive.

II.   The teachers of these schools should immediately be retrenched.

A. Only I follows   B. Only II follows   C. Either I or II follows   D. Neither I nor II follows   E. Both I and II follow

   3

ii.   Statement: Footpaths of a busy road are crowded with vendors selling cheap items.

Courses of action :

   I.   The help of police should be sought to drive them away.

   II.   Some space should be provided to them where they can earn their bread without blocking footpaths.

A. Only I follows   B. Only II follows   C. Either I or II follows   D. Neither I nor II follows   E. Both I and II follow

   4

iii.   Statement: The sale of a particular product has gone down considerably causing great concern to the company.

Courses of action:

   I.   The company should make a proper study of rival products in the market.

   II.   The price of the product should be reduced and quality improved.

A. Only I follows   B. Only II follows   C. Either I or II follows   D. Neither I nor II follows   E. Both I and II follow

iv.   Statement: Every year large number of devotees die due to severe cold on their way to the shrine located at the top of the mountain range.

Courses of action:

   I.   The devotees should be discouraged to visit the shrine without having proper warm clothes and other amenities.

   II.   The government should provide warn clothes and shelter to all the devotees visiting the shrine.

   4

A. Only I follows   B. Only II follows   C. Either I or II follows   D. Neither I nor II follows   E. Both I and II follow

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b) Directions: Study the following information carefully and answer the questions given below:

      4   4   5   12

Following are the conditions for admitting students for a Ph.D. programme in Management: The applicant must—

(i) be a post graduate in any discipline with at least 50 per cent marks.

(ii) have passed the eligibility test with at least 60 per cent marks.

(iii) have work experience of at least two years after completing post-graduation.

(iv) not be less than twenty five years as on 1.12.2017.

In the case of an applicant who fulfils all other conditions except:

(a) at (i) above, but have completed M. Phil. program, his/her case is to be referred to Director.

(b) at (ii) above, but has work experience of more than five years,his/her case is to be referred to Registrar.

In each of the following questions, detailed information of one applicant is provided. You have to decide the correct course of action based on the above conditions and the information provided in each question. You are not to assume anything other than the information provided in each question. All these cases are given to you as on 1.12.2017.

i. Parneeti has secured 75 per cent marks in graduation and has been working for seven years after post-graduation. She was born on 11th February, 1989.
    i. If the applicant is to be admitted.
    ii. If the applicant is not to be admitted.
    iii. If the case is to be referred to Director.
    iv. If the case is to be referred to Registrar.
    v. If the information provided is inadequate to take a decision.

ii. Joshva has been working for three years after completing M.Phil. Programme. He was born on 1st November, 1988. He has secured 60 per cent marks in the eligibility test and 45 per cent marks in graduation.
    A. If the applicant is to be admitted.
    B. If the applicant is not to be admitted.
    C. If the case is to be referred to Director.
    D. If the case is to be referred to Registrar.
    E. If the information provided is inadequate to take a decision.

iii. Aniruthi was born on 19th April, 1991. She has passed post-graduation and eligibility test each with 55 per cent marks. She has been working for three years.
    A. If the applicant is to be admitted.
    B. If the applicant is not to be admitted.
    C. If the case is to be referred to Director.
    D. If the case is to be referred to Registrar.
    E. If the information provided is inadequate to take a decision.

iv. Anitha has completed her M. Phil. Programme after completing her graduation with 65 per cent marks. She has secured 50 per cent marks in the eligibility test. She has been working for six years after post-graduation. She was born on 20th August, 1992.
    A. If the applicant is to be admitted.
    B. If the applicant is not to be admitted.
    C. If the case is to be referred to Director.
    D. If the case is to be referred to Registrar.
    E. If the information provided is inadequate to take a decision.

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16. a) In a pollution study of 1500 Indian rivers, the following data was reported. 520 were polluted by sulphur compounds, 335 were polluted by phosphates, 425 were polluted by crude oil, 100 were polluted by both crude oil and sulphur compounds, 180 were polluted by both sulphur compounds and phosphates, 150 were polluted by both phosphates and crude oil and 28 were polluted by sulphur compounds, phosphates and crude oil.   **4   4   1   12**

  i. How many of the rivers were polluted by at least one of the three impurities?
    A. 878   B. 374   C. 346   D. 890   E. None of these

  ii. How many of the rivers were polluted by exactly two impurities?
    A. 878   B. 374   C. 346   D. 280   E. None of these

  iii. How many of the rivers were polluted by all the three impurities?
    A. 78   B. 55   C. 65   D. 28   E. None of these

  iv. How many rivers were polluted by Sulphur and Phosphate compounds only?
    A. 180   B. 152   C. 72   D. 122   E. None of these

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b) Eight persons A, B, C, D, E, F, G and H live on eight different floors from bottom to top such as ground floor is numbered as 1 and top floor is numbered as 8.   **4   4   2   12**

C lives on an even numbered floor. Only three people live between C and D. Only five persons live between H and E, and both live on odd numbered floors

and H lives above C. Both F and G live above A. F lives somewhere above G. H lives above B. Three persons live between A and B, who lives on an even numbered floor.

    i.   Who stays just below C's floor?
        A. A   B. G   C. F   D. H   E. E

    ii.   How many floors are between D and H?
        A. One B. Two C. None   D. Three   E. Four

    iii. How many persons live above E?
        A. One B. Two C. More than four D. Three   E. Four

    iv.   Who lives at the topmost floor?
        A. D   B. A   C. C   D. F   E. B

17. Answer any *two* of the following:

a)

    i.   What is the floor number of C in the 5 storey apartment?
        Statements:
        I: A's floor, which is adjacent to C, is exactly below E's floor which is fifth floor.
        II: C's floor is exactly above F's floor, whose floor is exactly above B's floor which is first.
        A.   Only statement I is sufficient.
        B.   Only statement II is sufficient.
        C.   Either statement I or statement II is sufficient.
        D.   Neither statement I nor statement II is sufficient.
        E.   Both statement I and II are sufficient.

    ii. Seven persons H, L, K, B, S, W and D were born in different months March, May, June, August, September, October and November but not necessarily in the same order. Who was born in June?
        Statements:
        I.   Three persons were born between B and H. H was born after B. S was born immediately before D but not immediately after B.
        II.   As many persons born before K were born after H. W was born after L. D was born in the month which has odd number of days.
        A.   Only statement I is sufficient.
        B.   Only statement II is sufficient.
        C.   Either statement I or statement II is sufficient.
        D.   Neither statement I nor statement II is sufficient.
        E.   Both statement I and II are sufficient.

    iii. What is the speed of boat in still water?
        Statements:
        I.   The boat can cover 45 km downstream distance in 3 hours.
        II.   Speed of the stream is one-fourth the speed of boat in still water.
        III.   The boat can cover 36 km upstream distance in 4 hours.
        A. Only I and III together
        B. All the three together
        C. Only I and II together
        D. Questions can't be answered even after using all the information
        E. Any two of the three together

    iv. How many persons are there in the row if all of them are facing north?
        Statements
        I: P who is tenth from the left end is fifth to the left of Q who is sixteenth from the right end.

The marks columns for question 17 a) show: 4, 4, 3, 12 (with 3 appearing in additional rows alongside items ii, iii, and iv).

	II: R is seventh to the left of S who is eleventh from the right end and nineteenth from the left end. A. Only statement I is sufficient. B. Only statement II is sufficient. C. Either statement I or statement II is sufficient. D. Neither statement I nor statement II is sufficient. E. Both statement I and II are sufficient.				

b)	i. Statement: It is suggested to put the child in school at the age of 4 or so.
	Assumptions:
	    I. At this age, the child is ready to learn new things.
	    II. The schools do not admit children after the age of 4.
	        A. Only I is implicit
	        B. Only II is implicit
	        C. Either I or II is implicit
	        D. Neither I nor II is implicit
	        E. Both I and II are implicit
	
	ii. Statement: Should religion be banned?
	Arguments:
	    I. Yes. It develops fanaticism in people.
	    II. No, Religion binds people together.
	        A. Only argument I is strong
	        B. Only argument II is strong
	        C. Either I or II is strong
	        D. Neither I nor II is strong
	        E. Both I and II are strong
	
	iii. Statement: Should India become a permanent member of UN's Security Council?
	Arguments:
	    I. Yes. India has emerged as a country which loves peace and amity.
	    II. No. Let us first solve problems of our own people like poverty, malnutrition.
	        A. Only argument I is strong
	        B. Only argument II is strong
	        C. Either I or II is strong
	        D. Neither I nor II is strong
	        E. Both I and II are strong
	
	iv. Statement: Should fashionable dresses be banned?
	Arguments:
	    I. Yes. Fashions keep changing and hence consumption of cloth increases.
	    II. No. Fashionable clothes are a person's self-expression and therefore his/her fundamental right.
	        A. Only argument I is strong
	        B. Only argument II is strong
	        C. Either I or II is strong
	        D. Neither I nor II is strong
	        E. Both I and II are strong
		4	3
			
			2
			
			3
			
			2
				4	12

c)	Directions: Following are the criteria for selection of chemistry lectures in an organization. The candidate must − a. Have passed +2 examination in first class with at least 60% marks.	4	4	5	12

b. Have passed graduation with chemistry honours or pass degree with at least 55% marks.

c. Have experience in chemistry teaching for a minimum of 1 year.

d. Be not less than 22 years and not more than 30 years of age as on 1.1.2014.

If a candidate satisfies all the above mentioned criteria except

I. (b) Above but has a post-graduate degree in chemistry, case may be assigned to the executive director(ED).

II. (c) Above but can has experience and can do marketing, the case may be assigned to the vice president (VP).

   i.   Sambhrant has completed +2 from BJB junior college with 65% marks and graduated in chemistry from Utkal University with 70%. He has teaching experience in chemistry for more than 3 years and his age is 27 years.
- A. If the candidate is to be selected.
- B. If the case is to be assigned to ED.
- C. If the case is to be assigned to VP.
- D. If the information given is inadequate to answer.
- E. If the candidate is not to be selected.

   ii.   Laxmi Rattan Shukla has passed +2 with 70% marks and is a chemistry graduate with 50% and he has also done M SC in chemistry. He has experience of teaching for more than 1 year and is 29 years of age.
- A. If the candidate is to be selected.
- B. If the case is to be assigned to ED.
- C. If the case is to be assigned to VP.
- D. If the information given is inadequate to answer.
- E. If the candidate is not to be selected.

   iii.   Mamta Kulkarni is a BSc chemistry student with 53% marks. She has secured 58% in the +2 but has teaching experience of 2 years. She is 28 years of age.
- A. If the candidate is to be selected.
- B. If the case is to be assigned to ED.
- C. If the case is to be assigned to VP.
- D. If the information given is inadequate to answer.
- E. If the candidate is not to be selected.

   iv.   Ritu Chandra is a chemistry graduate. He has no experience in teaching but he can do marketing for the institute. He has experience in marketing. His age is around 26 years.
- A. If the candidate is to be selected.
- B. If the case is to be assigned to ED.
- C. If the case is to be assigned to VP.
- D. If the information given is inadequate to answer.
- E. If the candidate is not to be selected.

M : Marks;   L: Bloom's Taxonomy Level;   CO; Course Outcome;   PO: Programme Outcome

i)	Blooms Taxonomy Level – 1	20%
ii)	Blooms Taxonomy Level – 2	30%
iii)	Blooms Taxonomy Level – 3 & 4	50%

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