पूर्वप्रश्नांकक्रमांक

(1) सर्दा प्रत्यसंकाल 80 अतिरिक्त प्रश्न आहेत. उंचवागांनी प्रश्नांची उसेच लिहिलेली सुविधा करण्यापूर्वी या प्रत्यसंकाल पर्यंत प्रश्न आहेत तिथे मातीच याची काही फर्म स्थापन करावी. असा तसेच अन्य काही दोन आदिवासी ही प्रत्यसंकाल अन्दरीजनकाळने लगेल असले प्रश्न.

(2) असले पूर्वप्रश्नक्रमांक ची चौकोटीत न विसरत बोलणेच सिद्धात.

(3) वर छापावली प्रत्यसंकालक्रमांक तम्मच्या उपाधिक्रम विषयात जाँची उपाधिक्रमीत सूचना न हविला नमुद करायला.

(4) अ) प्रत्यसंकालक्रमांक वर्गांमध्ये 4 पर्यंत उसेच उत्तरसूची असल त्यांना 1, 2, 3 आणि 4 असे क्रमांक विलीन केलेले आहेत. व्या वर उत्तरांची विवश तयार करता तर प्रत्यसंकालक्रमांक तम्मच्या उपाधिक्रमीत सूचना न हविला नमुद करायला. अशा प्रकारे उपाधिक्रम ऊपरिक्रमांक नमुद करता तो विवशत प्रत्यसंकालक्रमांकच्या चलावून तबिले जाई याची कामांनी निदेश घेणारी. ह्यांच्या फलाच्या श्रेणीमध्ये फार दिलेले विवरणांची विवशत उपरिक्रमांक नमुद करता ती उपरिक्रमांक ने प्रत्येकप्रथम तयार करायला.

(5) व्या प्रश्नांमध्ये घरावणे गुण आहेत. व्या सर्व प्रश्नांमध्ये उपलब्ध असेल जर व्या असेल तर त्याच्या यथोऽर्थमुद्धर याच्या अनुसार या प्रश्नाने उपरिक्रमांक असलेला तयार करायला.

(6) उपरिक्रमांके एकत्र नमुद केलेले उसे छाप्याचा वेळाने नाही. नमुद केलेले उसे छाप्याचा वेळाने उसे दिसाले ते स्थाने जाते नाही. एकाशी जाते उसे नमुद केल्याने उत्तर दिसाले जाते नाही. एकाशी जाते उसे नमुद केल्याने उत्तर दिसाले जाते.

(7) अ) प्रत्येक प्रश्नांमध्ये उपरिक्रमांक अनुसार या प्रश्नांमध्ये उपरिक्रमांक योगेश्वर उपरिक्रमांक गुण दिले जातात, तसेच "उपरिक्रमांके बहुउपरिक्रमांक स्वरूपाच्या प्रश्नांची सर्व महत्त्वाची उपरिक्रमांक नमुद करता याची." आहेत.

(8) प्रश्न 76 ते 80 या प्रश्नांच्या हुकुमांच्या उपरिक्रमांक गुण वजी केलेले नाहीत.

(9) प्रश्न 76 ते 80 वरुळ प्रत्यसंकालक्रमांक उपरिक्रमांक अनुसार सोडविलेले प्रश्नेक चुकीच्या उपरिक्रमांक ईंटीपाश गुण वजी करण्यात येईल.
Between the thirteenth and the sixteenth century, European feudal lords accumulated large amounts of money by exploiting the serfs. The accumulated capital was put to newer uses. They gave financial support to explorers who discovered new lands and routes. Columbus crossed the Atlantic Ocean and discovered the New World. Vasco da Gama circumnavigated the African continent and discovered a safe trade route to India and the East. One of the ships in Magellan’s fleet returned to Europe and proved that it was possible to circumnavigate the Earth. Another use of the accumulated capital was the
patronization of great artists like Leonardo da Vinci, Michelangelo and Raphael. These artists revolutionized the arts of painting and sculpture and represented the human body in great detail. Artists like da Vinci also studied anatomy as it would help them represent the human body accurately in their art.

Anatomy was not the only science that evolved in this period. Alchemists who wanted to find the Philosophers' Stone and the Elixir of Life ended up discovering various new elements like Phosphorus and Chemistry evolved as a Science. Copernicus proposed that Sun and not Earth, was the centre of our solar system. Scientists like Kepler and Galileo used the experimental method to prove him right. They believed that the book of Nature was written in the language of Mathematics. Apart from the various discoveries, Scientific Method itself evolved in this period. Scientists proposed an idea, conducted experiments to prove it, recorded the proceedings of the experiment and kept the records open for scrutiny by others working in the field. They believed that man had an almost unlimited potential of changing the world for the better. Though the Church was immensely rich and powerful, people began to discard a life of blind belief in destiny and a Spirit of Inquiry evolved. The new ideology of Humanism emphasized the capacities and efforts of individual humans. European scholars revived the classical Greek and Roman texts and popularised them with the new technique of printing developed by Gutenberg. The word renaissance means revival. All these interrelated phenomena are collectively called the Renaissance.

1.  पुनर्जीवन म्हणजे
   अ.  ग्रीक व रोमन साहित्याची सुनिव्यात
   ब.  विकिस्क वृत्तीचा उदय
   क.  मानवतावदाचा विकास
   द.  चर्च/प्रमोदसंघेचा हास

   (1) अ, ब आणि क (2) ब, क आणि ड
   (3) अ, ब आणि क (4) ब आणि क

Renaissance means
a. Beginning of Greek and Roman literature
b. Rise of the Spirit of Inquiry
c. Development of Humanism
d. Decline of Church

   (1) All of the above (2) ब, क आणि ड
   (3) a, b and c (4) ब आणि क
According to the above paragraphs, what are the factors included in Humanism?

a. Importance of individual capital  
b. Importance of individual efforts  
c. Popularisation of new printing technology  
d. Belief in human potential  

Which of the statements given above are correct?

(1) a, b and d  
(2) b, c and d  
(3) b and d  
(4) a and c  

Which of the following statements is/are correct?

a. Earlier the Earth was considered to be at the centre of the solar system.  
b. The earlier rich church got impoverished later.  

(1) a only  
(2) b only  
(3) Neither a nor b  
(4) Both a and b
4. From the paragraphs above, which of the following statements are true?
   a. Scientific development is closely connected with the development of arts.
   b. Study of Anatomy is a must for the arts of painting and sculpture.
   c. Changes in the printing technology played an important role in bringing about the European Renaissance.
   d. Capital can initiate development in arts and sciences.

   (1) All of the above are true.
   (2) a, c and d are true, b is not true.
   (3) a, b and c are true, d is not true.
   (4) a, b and d are true, c is not true.

5. Which one of the following statements is/are true?
   a. Gutenberg invented the printing press.
   b. The serfs were exploited by the European feudal lords to discover new routes.

   (1) a only
   (2) b only
   (3) Neither a nor b
   (4) Both a and b
प्रश्न क्रमांक 6 ते 10:

मानवाला काही निर्माणद्वारा हक्क अभावत. जगातील सर्वच देशांमधील नागरिकांनी त्याप्रः प्राप्त झाले पाहिजेत या हेतु “मानवी हक्क” हा संकल्पना अधिनियम कागदात प्रचलित झाली. जीवनमंत्र, उपजीविका याच्या बरोबर भाषण, संघटना आणि धर्मश्रद्धा स्वतंत्रता यांचा मानवी हक्कांमध्ये समावेश होतो. ईंटलंडमध्ये 1215 मध्ये “मिनाकाटी” ना नवाणे आता जाणारा कायदा समावेश होता. तेहापणुन सर्वसंघीय स्वतंत्रता अधिकारास बघते असावीत ही काल्पनिक हक्कांमध्ये जमाला आली. 1628 मध्ये फिलिप्पीन ऑफ राइफ आणि 1689 मध्ये फिलिप्पीन बिल ऑफ राइफ ने त्यात अधिक स्वतंत्रता आली. अमेरिकन स्वतंत्रता आणि अमेरिकन स्वतंत्रता जाहिराताच्या यांची मानवी हक्कांमध्ये रक्षण हा ही हेतु होता.

1948 मध्ये संयुक्त राष्ट्रमंडळाचे मानवी हक्कांचा जाहिराताचा घोषित केला आणि त्याचे वेळेस भारतास स्वतंत्रता मिळाल्यानंतर संविधान तयार करण्याचे काम सुरू होते. घटनाकाळावर या जाहिरातातील तरुणीचा प्रभाव होता. आणि महानुभव त्यातील काही तरुणी भारतीय राज्यवर्तनेच्या तिस-या भारतात केलेल्या आहेत. घटनेत प्रलय 32 नूसार मानवी हक्के म्हणून, महानुभव हक्क महानुभव मानवी जीवनाचे दिलोळे आहेत त्यांचे उल्लंघन जात्यास त्याविष्ट व स्वतंत्र न्यायालयच्या दाद असते. इंटरनाशनल द नामे या 1993 मध्ये भारतात मानवी हक्क संरक्षण कायदा पारित करण्याचा आला. या कायदानुसार राष्ट्रीय व राज्य मानव हक्क आयोगांची स्वतंत्रता करण्याचा आली. मानवी हक्कांचे उल्लंघन जात्यास राष्ट्रीय किंवा राज्य मानव हक्क आयोगांकडे तंत्राचे कल्याण दाद मिळू शकते.

भारतात निवासांनी मानवी हक्क उल्लंघन भारतात प्रमाणार होताना हस्तांता दिसते. निवासांना मानवी हक्कांवर संबंधित तरुणीसंगीत शासनाची विशेष कायदेही पारित केलेले असल्या तरी सामाजिक मानसिकता ही पुढी वाढे असल्यास नव्हेत निवासांच्या दृष्टीमध्ये झाले जाते. विश्वास अघोषण्य अग्रहार सेन यांनी 1992 मध्ये विज्ञानी बृत्तेचा अंकाने “मिसिंग बूमेंस” हा लेख संहिता होता. भारत त्यांची दृष्ट चौदी स्तर सरकार उल्लंघन केला होता. हवाच्या मागणे जमाला देशातील गर्भावस्थेत राज्य गर्व महानुभव त्याची भूमि हवाचा केली गेली. शिक्षण हे परिवर्तनांचे मोठे साधन आहेत. त्या मध्यमानुभूत स्तरांचे आर्थिक व सामाजिक संबंधक्षण शक्य आहे. विश्वास खट्टर तत्त्वातील नैन्यमित काळातील दिलेल्या निर्णयाची अंतिमानजांवरी आजही भूमिका रोजगाराच्या तिक्कीतील लागू झालेली नाही महानुभव समाजात आणि विषेषत: महिला तथा अंतर्राष्ट्रीय कायद्यांची गर्तकी करणे गरजेचे आहे.
Questions number 6 to 10:

Human possesses some rights given by nature itself. The concept of “Human Rights” is developed in modern era with the object to provide them to the citizens of all countries around the world. Human Rights include right to life, livelihood along with speech, association and religious belief. During 1215 the law known as “Magna Carta” was passed in England. Since then the concept of control over the rights of the State took birth. It was more explained due to the Petition of Rights of 1628 and Bill of Rights of 1689. The object behind the American freedom and American declaration on fundamental freedom was also to protect the human rights.

In 1948 the Universal Declaration on Human Rights was made by the United Nations and at the same time framing of the Constitution of India was going on due to Indian Independence. The framers of the Constitution were influenced by the provisions of this declaration and hence some of the provisions of the said declaration are made in the third part of the Constitution of India. As per Article 32 of the Constitution, if the human rights which are given as fundamental rights to the citizens get violated, it can be challenged in the Supreme Court. Due to international pressure and developments the Protection of Human Rights Act was passed in India in the year 1993. The National and State Human Rights Commissions were established by this Act. If human rights are violated, recourse can be made to filing a complaint to the National or State Human Rights Commission.

The rampant violation of human rights of women can be seen in India. Though the Constitutional provisions regarding human rights of women are made along with special laws made by Government, due to social mentality of male dominance, women are given secondary status. Well known economist Mr. Amartya Sen had written an article “Missing Women” in a British Journal in the year 1992, where he mentioned that ten crore women are lost. Lost means they were killed before taking birth as female foeticide. Education is a big tool for change. Economic and social empowerment of women can be done through that means. The decision given by Supreme Court in Vishakha case has not been yet implemented at the major places of employment, hence the awareness of women laws is essential in the society and especially among women.
6. **Choose the correct statement.**
   a. All human rights are legal rights.
   b. All human rights are fundamental rights.
   c. All fundamental rights are human rights.
   
   (1) Only a is correct  
   (2) Both a and b are correct  
   (3) Only c is correct  
   (4) All are correct

7. **Choose the correct statement.**
   a. Education of women alone can prevent violation of their human rights.
   b. Women should be more aware of their laws than anyone else.
   
   (1) a only  
   (2) b only  
   (3) Neither a nor b  
   (4) Both a and b

8. **Choose the correct statement.**
   a. Violation of human rights can immediately be challenged in the Supreme Court.
   b. The Americans got independence only to protect the human rights.
   
   (1) a only  
   (2) b only  
   (3) Neither a nor b  
   (4) Both a and b
9. All fundamental rights are

(1) Part of universal declarations
(2) Enforceable by Supreme Court only
(3) Given to all persons and they can challenge its violation
(4) None of the above

10. Women empowerment can be done

(1) by making strict laws
(2) through universal declarations
(3) by Supreme Court decisions
(4) None of the above
Questions number 11 to 15:

It is also good to love: because love is difficult. For one human being to love another human being: that is perhaps the most difficult task that has been entrusted to us, the ultimate task, the final test and proof, the work for which all other work is merely preparation. That is why young people, who are beginners in everything, are not yet capable of love: it is something they must learn. With their whole being, with all their forces, gathered around their solitary, anxious, upward-beating heart, they must learn to love. But learning-time is always a long, secluded time ahead and far on into life, is: solitude, a heightened and deepened kind of aloneness for the person who loves. Loving does not at first mean merging, surrendering, and uniting with another person (for what would a union be of two people who are unclarified, unfinished, and still incoherent?), it is a high
inducement for the individual to ripen, to become something in himself, to become world, to become world in himself for the sake of another person; it is a great, demanding claim on him, something that chooses him and calls him to vast distances. Only in this sense, as the task of working on themselves (“to hearken and to hammer day and night”), may young people use the love that is given to them. Merging and surrendering and every kind of communion is not for them (who must still, for a long, long time, save and gather themselves); it is the ultimate, is perhaps that for which human lives are as yet barely large enough.

According to writers’ thinking to love another person is a difficult task because

a. one cannot love another person without any purpose or aim.

b. it is the final examination for which human being prepares oneself after doing all other tasks.

c. it takes a long time to learn it and it is difficult to work with courage and perseverance.

d. it requires a person to gather all his/her energies and strive for completing all other tasks.

Which of the above statements is/are correct reason/s?

(1) b only  
(2) b and c  
(3) All but a  
(4) c and d
12. How does one learn to love?

(1) Person has to remain alone for a long time or may be for all life for developing capacity to love.

(2) Person learns to love by avoiding merging, surrendering and uniting with another person.

(3) Person learns to love by working hard as if she or he is preparing to appear for the final examination.

(4) Person learns to love by doing sacrifices and working hard for other persons who are needy.

13. What may the writer be wanting to say when he writes, “to love means to become world in himself for the sake of another person”?

(1) Writer contradicts with his argument that love does not mean merging, surrendering or uniting with another person.

(2) Writer suggests that a person should surrender his or her personal life for another person so that she or he could be happy for ever.

(3) Writer might be suggesting that a person should expand her or his perspective towards another person unconditionally.

(4) Writer argues that when a person loves another person then she or he considers that she or he possesses that person and therefore she/he can keep him or her happy throughout life.
14. How will young persons become capable of loving another person by hearkening and getting hammered?

(1) Hearkening and hammering makes a person capable of learning to love and then love another person.

(2) Hearkening and hammering helps a person to look into one's inner self and become aware of it and attain perfection by spending time alone.

(3) Both persons aiming to love each other should become aware of their own inner self and by working hard they expand their world for each other.

(4) Hearkening and hammering might be helping one to be aware of one's self and acquire all capabilities required for loving another person by self developing.
Writer writes, "... for learning to love one needs to spend long time or may be life in seclusion ...". This means that he assumes that,

a. it is not possible to learn things in the presence of other persons as they influence our thoughts.

b. in seclusion a person gets time to reflect and examine his or her personal experiences.

c. seclusion protects a person from other persons nurturing different meaning of love, that is not matching with her or his meaning of love.

d. Seclusion allows a person to listen carefully to one’s inner voice, widen one’s world for becoming capable of loving.

Which of the assumption/s is/are implicit in the paragraph?

(1) None except d is not implicit.

(2) All but c and d are implicit.

(3) Only b is implicit.

(4) All except d are implicit.
प्रश्न क्रमांक 16 ते 20:

एक नवोदय तथा स्थायी चगदोडीचा लाभ वा साठीच नवे तर भारताचा भविष्यतील विकास हा शास्त्र व सर्वसंमानस्वरूप होणारचा दृष्टिकोण भारताचा नवोपक्रम किंवा नवे तर ही अत्यंत महत्वाची भूमिका वजाब आहे. आपल्या देखाव्याने आरोग्य, शिक्षा, शेती, उर्जा आणि कौशल्ये वा अत्यंत महत्वाच्या विभागामध्ये गरजाची आवश्यकता अभाव दिसून वसूली. लोकसंख्येच्या दृष्टिकोणात येथील अनेक आढळणारे व मोडणारे त्याना संपूर्ण उपलब्धता करून घेणे आवश्यक आहे. क्तीवर्ती वृत, जात, लिंग, प्रेमश अशा बहुविधानांमध्ये विविधता बाळी आणि विकासाचे आवाहन तर आहेच, त्यानेहून अनेक आंतरिक व विद्युती अदले व कोडावर्दी नगररक्षकांचा आरोपी वेळी आणण्याचे हित तात्त्विकी गरज आहे.

नवोपक्रम (Innovation) हेच या अत्यंत देखभालक काढणारी सामोरी ज्ञानसाठीचे उत्तर आहे व सर्वच उपक्रमांचा केंद्र बिंदु आहे. जागृतीत अत्यंतव्यथा तयार होत असताना त्यादून निर्माण होणार्या लाभांचे वितरण होणारस्तीची संधी संचार निर्मिती अशा नवोपक्रमांतून होत हाते. सर्वसामान्यता आपल्याला उपयुक्त व उद्देश्यपूर्ण व्यवसायिक प्रतिमाने किंवा प्रक्रिया पाखाला सर्वसामान्य नगरांमध्ये सेवा प्राप्त करू हे सुलभ हात असते व कामाचारांपासून माणांत पत्ती केलेल्या काळजीच्या जागृती अधिकारी लोक विकास प्रक्रियांत सध्याचे सहभागी होत असतात.

शरणार्थी अपल्यांनी एकमेंग गरज महणजे नवोपक्रमांचा नवा प्रतिमाचा शोध केलेला त्याचा भर हा सर्वसामान्यता पर्याप्त होणारा आणि सर्वसामान्यचे वृद्धी बोलवर त्रिकोणाचा सार्वत्र वाढती असतेच्या काम उत्तम असणाऱ्या दर्शनातून व अभाव स्विरीतील वाढती कगजणे हा असते.

तुंडीची गोष्ट म्हणजे, माणील किंतुती ठगव्याला नवोपक्रम व संस्थान यांनी विकसितांचा माणणीला अप्राध्य प्रत्येक श्रीमंतला इतक्युपर्यंत वज अधिक भर दिला अनुभूत भांदिलीत व भांडनेच आंदा संपूर्ण व्यवसाय त्यांचे समाधान करणाऱ्यांच्या वापरली जात होते. भारतात हा तंत्र विकासभागी एवढार नाही. त्यापेक्षा आपल्या देखे तील संसाधन व नवोपक्रमांची गरजाच्या आणि गरज जनतेच्या अत्यंतस्वरूप गरजाचा लक्ष केलेला करणाऱ्यांचा गरज आहे. पर्याप्तता जुना सधार उपयोगांचा दृष्टिकोण आता चालनाच्या नाही.

आपल्या प्रचंड लोकसंख्येच्या आणि त्यांचा भाव गरजत घेता आपल्या नवोपक्रमांची दृष्टिकोण संस्थानसाठी धक्कादायक व वापराच्या तयारीमध्ये आणि पर्याप्तता तुरुळांतून शास्त्र असी आपली संसोधन व नवेतीची दिशा असावी करणाऱ्यांच्या नवा महामंडळाचे कामकाजात हीच विचारसार्थी दाखवले. विकसन भारताच्या लोकांना-तलांना-तोपांना तयार केलेले नवेतीचे प्रतिमान विकसित करणाऱ्या त्यांचा प्रक्षेप आहे. जांनिर्मितीत जेवेळ लोकांना आहेत अशाच सर्वसामान्य दृष्टीकोणातून आणण अधिकारीक शास्त्र विकासाचे प्रतिमान निर्माण करू गेले.

क्षेत्र आयुक्तांची जाणा / SPACE FOR ROUGH WORK
Questions number 16 to 20:

Innovation is going to be critical for India not only for growth and competitive advantage, but also to ensure that our future development is sustainable and inclusive. Our country faces a range of unmet needs related to critical areas such as health, education, agriculture, energy and skills. It also faces immense challenges related to demography, with 55 crore below the age of 25 for whom opportunities must be provided, disparity, driven by the multiple deprivations of class, caste, gender, and region, and the challenge of development, with the urgent need to lift crores of citizens out of dire poverty.

Innovation is going to central to providing an answer to these most pressing challenges and for creating opportunity structures for sharing the benefits of the emerging knowledge economy. Affordable solutions, innovative business models, or processes which ease delivery of services to citizens will allow more people to join the development process and also enable looking beyond the conventional way of doing things.

However, our unique needs call for a new model of innovation that focuses on affordability and inclusive growth and lifts people at the bottom of the pyramid out of poverty and deprivation. For decades, the trajectory of innovation has reflected the priorities of the developed world focusing more on the desires of the rich, and directing ecosystem of talent and capital to satisfy them. India cannot follow that path. Our innovation must instead focus on the poor, and their most essential wants. The old consumption-intensive approaches cannot work, given the sheer scale of our needs and our vast population. Instead our innovation needs to be frugal with scarce resources, affordable for our poorest citizens and environmentally sustainable. The work of India's National Innovation Council reflects this thinking. Their effort has been aimed at creating an Indian model of Innovation, of the people, by the people and for the people. Only through this inclusive approach where people are beneficiaries in knowledge creation and generation can we hope to create more sustainable models of development.
16. Skill development programme is important for India because
(1) India is an Agrarian Economy with a lot of unmet needs.
(2) Services sector contributes around 50% of the Gross Domestic Product.
(3) India has a large population, the majority being in dire poverty.
(4) Young population needs to be provided with opportunities.

Which of the following statements are correct?
(a) So far we have been meeting the needs of developed countries only.
(b) Our present model of development has degraded our environment.

(1) a only (2) b only
(3) Neither (4) Both a and b

17. Which of the following statements is/are correct?
(a) For an all-round development we should concentrate on our poverty and population.
(b) We should try to produce more and more with less and less.

(1) a only (2) b only
(3) Neither (4) Both a and b
19. Which of the following statements are correct?

a. Without innovation, we cannot progress.
b. So far the development in India was not inclusive (all encompassing).

(1) a only  (2) b only  
(3) Neither  (4) Both a and b

Which one of the following statements is incorrect?

a. We have not been adequately innovative so far.
b. Unless the people join in, we cannot have sustainable development.

(1) a only  (2) b only  
(3) Neither  (4) Both a and b
Questions number 21 to 25:

Aerosols are dispersions of liquids in gases (like fog and many sprays) and of solids in gases (such as smoke): the particles are often large enough to be seen with a microscope. Emulsions are dispersions of liquids in liquids (such as milk).
The preparation of aerosols can be as simple as sneezing (which produces an aerosol). Laboratory and commercial methods make use of several techniques.

Chemical precipitation sometimes results in a colloid. A precipitate (e.g. silver iodide) already formed may be dispersed by the addition of a peptizing agent (e.g. potassium iodide). Clays may be peptized by alkalis, the OH\(^-\) ion being the active agent.

Emulsions are normally prepared by shaking the two components together, although some kind of emulsifying agent has to be used in order to stabilize the product. This emulsifier may be a soap (a long chain fatty acid), a surfactant (Section 23.11), or a lyophilic sol that forms a protective film around the dispersed phase. In milk, which is an emulsion of fats in water, the emulsifying agent is casein, a protein containing phosphate groups. That casein is not completely successful in stabilizing milk is apparent from the formation of cream on the surface: the dispersed particles coalesce into oily droplets which float to the surface.

Aerosols are formed when a spray of liquid is torn apart by a jet of gas. The dispersal is aided if a charge is applied to the liquid, for then the electrostatic repulsions blast the jet apart into droplets. This procedure may also be used to produce emulsions, for the charged liquid phase may be squirted into another liquid.

Colloids are often purified by dialysis. As in the discussion of Donnan effect membrane (e.g. cellulose) is selected which is permeable to solvent and ions, but not to the colloidal particles. Dialysis is very slow, and is normally accelerated by applying an electric field and making use of the charge carried by many colloids; the technique is then called electrodialysis.

---

**21.** व्यास्तृतिप्राप्त दर हा — व्या मदतीने बर्धित केला जाऊ शकतो

(1) चूबकीय क्षेत्र
(2) विद्युत चूबकीय क्षेत्र
(3) अणुक्षेत्रीय क्षेत्र
(4) बीत एकाही नाही

Rate of dialysis can be enhanced with the help of

(1) Magnetic field
(2) Electromagnetic field
(3) Nuclear field
(4) None of the above
22. Emulsions can also be prepared by using the principle similar to the preparation of
(1) Sols
(2) Gels
(3) Aerosols
(4) Emulsifiers

23. The cream obtained on the surface of milk is
(1) dispersed proteins
(2) dispersed fats
(3) dispersed casein
(4) dispersed carbohydrates

24. Aerosols are dispersions of liquids in gases formed by
(1) Tearing apart a spray of gas with liquid
(2) Tearing apart a spray of mixture of gas and liquid with solid
(3) Tearing apart a spray of mixture of liquid and solid with gas
(4) None of the above

25. In the process of alkaline peptization of clays _______ is the active agent.
(1) Hydrogen radicals
(2) Hydroxyl radicals
(3) Hydrogen ions
(4) None of the above
The beginnings of a science

The science of international politics is in its infancy. Down to 1914, the conduct of international relations was the concern of persons professionally engaged in it. In democratic countries, foreign policy was traditionally regarded as outside the scope of party politics; and the representative organs did not feel themselves competent to exercise any control over foreign affairs. The science of international politics is in its infancy. Down to 1914, the conduct of international relations was the concern of persons professionally engaged in it. In democratic countries, foreign policy was traditionally regarded as outside the scope of party politics; and the representative organs did not feel themselves competent to exercise any control over foreign affairs.
close control over the mysterious operations of foreign offices. In Great Britain, public opinion was readily aroused if war occurred in any region traditionally regarded as a sphere of British interest, or if the British navy momentarily ceased to possess that margin of superiority over potential rivals which was then deemed essential. In continental Europe, conscription and the chronic fear of foreign invasion had created a more general and continuous popular awareness of international problems. But this awareness found expression mainly in the labour movement, which from time to time passed somewhat academic resolutions against war. The Constitution of the United States of America contained the unique provision that treaties were concluded by the President "by and with the advice and consent of the Senate". But the foreign relations of the United States seemed too parochial to lend any wider significance to this exception. The more picturesque aspects of diplomacy had a certain news value. But nowhere, whether in universities or in wider intellectual circles, was there organized study of current international affairs. War was still regarded mainly as the business of soldiers; and the corollary of this was that international politics, was the business of diplomats. There was no general desire to take the conduct of international affairs out of the hands of the professionals or even to pay serious and systematic attention to what they were doing.

Who were more aware about international problems?

(1) The British people
(2) The Americans
(3) People from countries like Germany and France connected to each other by land routes
(4) Asians
From the paragraph we can conclude that the leaders of the working class in Europe were

(1) Great academicians
(2) Idealist
(3) A part of a group having a good understanding of war
(4) Unable to grasp the reality

Which of the following statements is/are correct?

a. Democratic countries studied international relations thoroughly in the first half of the 20th century.
b. Labour movements decided the foreign policies of European nations.
c. US Constitution promoted the study of international relations.
d. Universities and intellectual circles had little impact on foreign policy formulation.

(1) Only a is correct
(2) All statements are correct
(3) Only d is correct
(4) Only b and c are correct
In the first two decades of the 20th century, foreign policy was a realm of

(1) Political parties
(2) Legislature
(3) Soldiers
(4) Foreign offices

The paragraph suggests that

(1) In general, Europeans were unwilling to work in the armed forces.
(2) Foreign invasions were common in European countries.
(3) European workers mainly talked about foreign policy.
(4) USA had a well-developed foreign office.

(1) Only a and b are correct
(2) Only c and d are correct
(3) All statements are correct
(4) Only d is correct
A biofuel is a fuel that contains energy from geologically recent carbon fixation, such as plants. These fuels are produced from living organisms. Examples of this carbon fixation occur in plants and microalgae. These fuels are made by a biomass conversion (biomass refers to recently living organisms, most often referring to plants or plant-derived materials). This biomass can be converted to convenient energy containing substances in three different ways: thermal conversion, chemical conversion, and biochemical conversion. This biomass conversion can result in fuel in solid, liquid, or gas form. This new biomass can be used for biofuels. Biofuels have increased in popularity because of rising oil prices and the need for energy security. Bioethanol is an alcohol made by fermentation, mostly from carbohydrates produced in sugar or starch crops such as corn, sugarcane, or sweet sorghum. Cellulosic biomass, derived from non-food sources, such as trees and grasses, is also being developed as a feedstock for ethanol production. Ethanol can be used as a fuel for vehicles in its pure form, but it is usually used as a gasoline additive to increase octane and improve vehicle emissions. Bioethanol is widely used in the USA and in Brazil. Current plant design does not provide for converting the lignin portion of plant raw materials to fuel components by fermentation. Biodiesel can be used as a fuel for vehicles in its pure form, but it is usually used as a diesel additive to reduce levels of particulates, carbon monoxide, and hydrocarbons of diesel-powered vehicles. Biodiesel is produced from oils or fats using transesterification and is the most common biofuel in Europe.
31. Which of the following statement(s) is/are correct?
a. Carbon fixation is a comparatively recent phenomenon.
b. Each of the thermal, chemical and biochemical conversions results in solid, liquid and gas form of fuel.

(1) Only a
(2) Only b
(3) Neither a nor b
(4) Both a and b

32. Which of the following statement(s) is/are correct?
a. Biofuels were not produced before.
b. Biofuels are not obtained from non-living things.

(1) Only a
(2) Only b
(3) Neither a nor b
(4) Both a and b
प्रश्न क्रमांक 33 ते 37:

सामाजिक भूमिका । भूमिकांत, समूहा । समूहात वा सामाजिक संस्थांमध्ये सपेश्या: स्थिर स्वरूपाचे परस्परसंबंध असतात. ता स्थिर स्वरूपाच्या घटकांमध्ये परस्परसंबंधांची संचना बनते. आता, ता संबंधातील स्विशेष (stability) कुशलतेचे बनते? ‘सामाजिक नियममुळे’ (social norms) असेही याचे उत्तर देऊ लागेल. सामाजिक नियमाच्या आधारावर एक महत्त्वाचे धक्का ठेवतो तो यासाठीच.

सामाजिक नियमाचे भूमिका वडकिण्यासाठी व्यक्तींचे परस्परांचे कसे बांधणे याविषयीचे नियम होते. म्हणजेच सर्वत्रविविध नियम असतात. सामाजिक स्थितील स्थानात त्याची भूमिका नियोजन, स्थानात त्याची भूमिका ही दोन खऱ्यातील असतात. त्याची स्थानाचा आहे (content) सामाजिक नियममध्ये हाच असतो. उदा. पित्ताची भूमिका म्हणजेच पित्ताने आपल्या मुलाशी कसे बांधणे याविषयीच्या अपेक्षा होते. कोणत्याही समूहातील वदविविध भूमिका परस्परसंबंधाने असतात ते सामाजिक नियमाचे म्हणजे त्याच्या संस्थांच्या नियम असतात, पित-पती, बहुण-भाउ, बहुण-मुलु, यांनी परस्परांचे कसे बांधणे याबद्दल सामाजिक नियमाचे ही मार्गदर्शक तत्त्वेनुसार जिंका वर्तनविषयक आदर्श असतात.

तर्ख नेमकी समाजात सामाजिक नियमाचे असतात आणि त्यांचा समूहात संबंध वाहिनी असतो. वर्तन दिसते तसे हे वर्तनविषयक नियम दिसत नाहीत, म्हणजेच नियमाचे अभूत असतात. व्यक्तीचा वर्तनाव मर्यादा धारणाची आणि भागांतरील, अभूत आदर्श म्हणजे नियम होय अर्थात नियमाची व्यक्ती जॉन्सन यांनी केली आहे. नियमाचे वर्तनाचे नियंत्रण करतात. नियमाचे परवर्तन करतात. नियमाचे विविध अशा दोन्ही स्वरूपाचा असतात. व्यक्तींनी कसे बांधणे हे सांपर्यात नियमाचे म्हणजे स्वरूपाच्या नियमाचे. उदा. विद्याध्यायी शिक्षकांच्या आपल्या पाठ्यांचा. तसे विविधता नियमाचे व्यक्तीचे तर्ख कसे नसते, तिचे कसे बाहू घेते हे सांगतात. उदा. चौंक करून येते, शिक्षकांची उद्देश्यांनी वागून नेले इ. सामाजिक नियमाचे स्वतः, काळ, परिस्थिती आणि सामाजिक स्थानापेक्षा असतात. पारस्परिकत, भूमिकेनुसूची, तसेच काळाच्या/काळाच्या दोन्ही बदलतात. पण नियमाचे अपवादाच्या बदलत नाहीत. ती सपेश्या: स्थिर असतात. सर्व सामाजिक नियमाचे एकता असत नाहीत. पर्यावरण वस्तुस्थिति, स्वरूपाचे प्रभाव भिन्न भिन्न असते. सामाजिक प्रकृतेत व्यक्तीले श्रेष्ठांचे आंतरिकता होते. नियमाचे स्वरूपाचे विविध प्रकार आहेत. लोकप्रिय (Folkways), लोकप्रिय (Mores) वा कायदे (Laws) या स्थूल गटात नियमांचे वर्धक कार्य समाजासाठी करतात. सामाजिक व्यक्ती व समूहांच्या वर्तनाचे नियम कसल्यास समाजात यवस्थाचा निर्माण करणे व समाजात स्वतः उत्तम करणे अशा ही महत्त्वाची भूमिका सामाजिक नियमाचे पर पाठवतात.

33. सामाजिक नियममाने कसे संबंधित होईल?

अ. एखादा माणसांचे दुसऱ्या असलेल्या नातेसंबंध

ब. परस्परांत परस्परांत कसे बांधते याचे नियम

क. परस्परांत कसे बांधणे या संबंधातील मार्गदर्शक

ड. सामाजिक वर्तनविषयक आदर्श

(1) ब, क व ड विधाने योग्य

(3) क व ड विधाने योग्य

(2) अ, ब, क, ड विधाने योग्य

(4) फल फल विधाने योग्य
34. सामाजिक नियमने कशाचे नियमण करतात?
   अ. मानवी परसपर संबंधाचे
   ब. मानवी स्वभावाचे
   त. व्यक्तित्वाचे वर्णनाचे
   द. भिन्न भिन्न समाज गटाचे
(1) फक्त अ विधान बरोबर आहे (2) ब आणि क ही विधाने बरोबर आहेल
(3) अ आणि व ही विधाने बरोबर आहेल (4) अ आणि क ही विधाने बरोबर आहेल

35. सामाजिक नियमने सामाजिक स्थानसापेक्ष असतात कारण
   अ. ती व्यक्तिकृत बदलतात
   ब. प्रत्येक समाजातील नियमांचे स्वरूप भिन्न भिन्न असते
   त. ती स्वाभाविक मानवांचे बदलतात
   द. ती सांस्कृतिक नैसर्गिक स्थिर असतात
(1) फक्त ब (2) अ व ब
(3) ब, क, द (4) अ, ब, क, द

36. सामाजिक नियमने कोणती महत्वाची भूमिका पावतात?
   अ. समाजात स्थिरता
   ब. सामाजिक संस्थांमध्ये स्थिर संबंध
   त. समाजात स्थिरता
   द. समाजात सुव्यवस्था
(1) फक्त ब (2) क व ड
(3) ब, क व ड (4) अ, ब, क, ड

37. सामाजिक नियमनाचा कशाचा समावेश होतो?
   a. सामाजिक संस्था परसपरसंबंध नियम
   b. लोकरीती
   c. समाज व्यवस्था
   d. सामाजिक काम व व्यवस्था
   e. सामाजिक घटणी
   f. समाज सामाजिक संस्था
   g. लोकरीती
   h. अमूर्त आदर्श
(1) b, d, g (2) a व e
(3) c व h (4) वरील सर्व पत्त्यांचे
Hyderabad sits nestled amongst one of the oldest rock systems of the world. These granite rocks are 2500 million years old. Rain, sun and wind have for aeons, through their collective and continuous physical and chemical actions, worked them into weird shapes. Some appear perched upon each other so precariously that you feel some giant-children playing at house making must have kept them there. From times immemorial they have stayed like that without tumbling down. They will remain like that long after we are gone.

Golconda Fort was once a mere hillock, a hump of a giant camel, a mass of scattered misshapen granite. It was sheer wilderness. There cow and goatherds used to graze cattle and sheep belonging to the nearby villages. It was so popular with graziers that it took the name of ‘hillock of the graziers’ - Golla Konda in Telugu, the local language. Golla Konda later on became ‘Golconda’. Hyderabad is the daughter of Golconda Fort which stands in ruins now, eight kilometres away from the centre of the city. The fort was built about a thousand years ago, during the Kakatiya rule (AD 1000 – 1321) which had its capital at Warangal — a city about 150 kilometres to the north of Hyderabad.

Rudramba Devi, queen of the Kakatiya dynasty, ruled for 34 years from AD 1262 to 1296. She withstood the combined attacks of the Pandyas, the Yadavas and the Hoysalas with the help of her grandson, Prataparudradeva who succeeded her (AD 1296 – 1323).

He too was an illustrious ruler but was subjected to repeated attacks by the Sultans of Delhi: there were five during the two decades after AD 1303. Finally, he was defeated by Ulugh Khan, imprisoned and taken prisoner to Delhi. On the way he committed suicide. Ulugh Khan later became the Sultan of Hindustan, and is known as Mohammad Tughlaq. Since his empire had extended to the south, Delhi was no longer the centre of political gravity. He, therefore, ordered that the capital of India be shifted from Delhi to Daulatabad. For two decades this city remained the capital of India.

38. Which of the following statements is false?

(1) The granite rocks have been in existence for aeons.

(2) The forces of nature have worked the rocks into strange shapes.

(3) Giant children must have stacked the rocks precariously upon each other.

(4) Though the rocks are delicately balanced on each other, they are not likely to tumble down soon.
39. What is the meaning of the word 'aeon' used in the passage?

<p>| | |</p>
<table>
<thead>
<tr>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>(1)</td>
<td>Hundreds of years</td>
</tr>
<tr>
<td>(2)</td>
<td>Thousands of years</td>
</tr>
<tr>
<td>(3)</td>
<td>A million years</td>
</tr>
<tr>
<td>(4)</td>
<td>An eternity</td>
</tr>
</tbody>
</table>

40. About Hyderabad, the passage states that:

<p>| | |</p>
<table>
<thead>
<tr>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>(1)</td>
<td>It was built about a thousand years ago.</td>
</tr>
<tr>
<td>(2)</td>
<td>It was built during the Kakatiya rule.</td>
</tr>
<tr>
<td>(3)</td>
<td>It came into existence after Golconda was built.</td>
</tr>
<tr>
<td>(4)</td>
<td>It is to the south of Warangal.</td>
</tr>
</tbody>
</table>

<p>| | |</p>
<table>
<thead>
<tr>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>(1)</td>
<td>Only a and b are correct</td>
</tr>
<tr>
<td>(2)</td>
<td>Only c and d are correct</td>
</tr>
<tr>
<td>(3)</td>
<td>Only a, b and c are correct</td>
</tr>
<tr>
<td>(4)</td>
<td>Only b, c and d are correct</td>
</tr>
</tbody>
</table>

41. From the passage, it is clear that:

<p>| | |</p>
<table>
<thead>
<tr>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>(a)</td>
<td>Rudamba Devi had at least one son.</td>
</tr>
<tr>
<td>(b)</td>
<td>Rudamba Devi was a widow.</td>
</tr>
<tr>
<td>(c)</td>
<td>Rudamba Devi had at least one child.</td>
</tr>
</tbody>
</table>

<p>| | |</p>
<table>
<thead>
<tr>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>(1)</td>
<td>Only a is correct</td>
</tr>
<tr>
<td>(2)</td>
<td>Only a and b are correct</td>
</tr>
<tr>
<td>(3)</td>
<td>Only c is correct</td>
</tr>
<tr>
<td>(4)</td>
<td>Only b and c are correct</td>
</tr>
</tbody>
</table>

42. What is the word used in the passage that means 'strange and ugly'?

<p>| | |</p>
<table>
<thead>
<tr>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>(1)</td>
<td>aeons</td>
</tr>
<tr>
<td>(2)</td>
<td>weird</td>
</tr>
<tr>
<td>(3)</td>
<td>precarious</td>
</tr>
<tr>
<td>(4)</td>
<td>misshapen</td>
</tr>
</tbody>
</table>

43. About Rudamba Devi, we learn that:

<p>| | |</p>
<table>
<thead>
<tr>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>(a)</td>
<td>She belonged to the Kakatiya dynasty.</td>
</tr>
<tr>
<td>(b)</td>
<td>The Pandyas and the Yadavas attacked her one after another.</td>
</tr>
<tr>
<td>(c)</td>
<td>Her grandson helped the Hoysalas.</td>
</tr>
<tr>
<td>(d)</td>
<td>Prataparudra defeated her and became king.</td>
</tr>
</tbody>
</table>

<p>| | |</p>
<table>
<thead>
<tr>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>(1)</td>
<td>Only a</td>
</tr>
<tr>
<td>(2)</td>
<td>Only a and b</td>
</tr>
<tr>
<td>(3)</td>
<td>Only a, b and c</td>
</tr>
<tr>
<td>(4)</td>
<td>All four</td>
</tr>
</tbody>
</table>
Questions number 44 to 50:

Love is a great force in private life; it is indeed the greatest of all things: but love in public affairs does not work. It has been tried again and again, and it has always failed. The idea that nations should love one another, or that business concerns or marketing boards should love one another, or that a man in Portugal should love a man in Peru of whom he has never heard — it is absurd, unreal, dangerous. It leads us into perilous and vague sentimentalism. "Love is what is needed," we chant, and then sit back and the world goes on as before. The fact is we can love only what we know personally. And we cannot know much. In public affairs, in the building of civilization, something much less dramatic and emotional is needed, namely, tolerance. Tolerance is a very dull virtue. It is boring. It is negative. It is merely putting up with people, being able to stand things. Yet it is the quality which will be most needed after the war. This is the sound state of mind which we are looking for. This is the only force which will enable different races and classes and interests to settle down together to the work of reconstruction.

The world is very full of people — appallingly full: it has never been so full before, and they are all tumbling over each other. Most of these people one doesn't know, and some of them one doesn't like: doesn't like the colour of their skins, say, or the shapes of their noses, or the way they talk, or their smell, or their clothes, and so on. Well, what is one to do? There are two solutions. One of them is the Nazi solution. If you don't like people, kill them, banish them, segregate them, and then strut up and down proclaiming that you are the salt of the earth. The other way is much less thrilling, but it is on the whole the way of the democracies, and I prefer it. If you don't like people, put up with them as well as you can. Don't try to love them: you can't, you'll only strain yourself. But try to tolerate them. On the basis of that tolerance a civilized future may be built. Certainly I can see no other foundation for a post-war world.

44. The writer holds that love cannot form the basis of relationship among ________.
   a. Family members
   b. Strangers
   c. Neighbours
   d. Business competitors

(1) Only a and b
(2) Only c and d
(3) Only b, c and d
(4) Only b and d
45. The writer calls the idea of love among nations, business houses and strangers "absurd, unreal and dangerous" because ________.
   a. the expectation is unnatural
   b. it leads to just feeling nice and nothing more
   c. it may create groupings
   d. it may lead to inactivity
   (1) Only a, b and c  (2) Only b, c and d
   (3) Only a, b and d  (4) All four

46. In comparison with love, the writer considers the virtue of tolerance as ________.
   a. low in emotion  b. unpopular
   c. dangerous  d. negative
   (1) only d  (2) only a and d
   (3) a, b, d  (4) a, b, c, d

47. The writer suggests that if we don't like some people, we should ________ them.
   (1) kill  (2) banish
   (3) avoid  (4) bear

48. The theme of the passage is ________.
   (1) Love is not a remedy for the post-war world.
   (2) Allowing space to others is the only remedy for the post-war world.
   (3) We must first try to love; and if it doesn't work, we must tolerate.
   (4) Tolerance is an unattractive virtue.

49. Which one of the following two statements is incorrect?
   a. In the post-war period if you like people — know them, love them.
   b. In the post-war period you should either love people or tolerate them.
   (1) Only a  (2) Only b
   (3) Neither a nor b  (4) Both a and b

50. What is the meaning of the word “appallingly” as used in the passage?
   (1) unpleasantly  (2) abundantly
   (3) appealingly  (4) necessarily
a. In a family of seven members, the profession of each member is different and they are T.C., C.A., E.E., S.M., P.M., E.O., R.O. They live in different cities namely Nagpur, Akola, Amravati, Solapur, Pune and Mumbai but separately. Two married couples are in the family.

b. Rama, who is E.O., goes to Pune, every week to visit his wife Rima, the sister of Sneha, is R.O. at Nagpur.

c. Husband of Sheela is E.O. at Akola. Damu, the brother of Rama, has married a R.O.

d. Brother-in-law of Sneha is E.E. and is working at Amravati. Pankaj, who is S.M. is working at Mumbai. Damu’s brother, Madan is C.A. at Solapur, who is the son of Pankaj. Wife of Rama is not P.M.

Then, what is the relation of T.C. with S.M. ?

(1) Sister-in-law
(2) Daughter-in-law
(3) Brother-in-law
(4) Son-in-law
Read the information and course of action based on it. Choose the option(s) that indicate(s) appropriate course(s) of action.

Information: Inactivity produces a complex cascade of metabolic changes. Unused muscles atrophy, and shift from endurance type muscle fibers, which can burn fat to fast-twitch fibers that rely more strongly on glucose. Inactive muscles lose mitochondria, power packs of the cell, which burn fat. With muscles relying more on carbohydrates for what little work they are doing, unburned lipids accumulate and blood becomes very fatty.

Courses of action:

a. People should stop eating food that contains large amount of carbohydrates.
b. People should avoid food that contains fats for reducing accumulation of fats in blood.
c. People should keep on doing activities that involve all muscles of the body for remaining healthy.

Options:

(1) All three courses of action
(2) Only a and b follow
(3) Only a follows
(4) Only c follows
Accompanying large cube is constructed by sticking small cubes of some nutrition required by a species of insects under study. Dark places on the large cube indicate small cubes eaten by insects. Four insects of two subspecies were placed in the cage along with the cube. One insect attacked the one corner of the large cube and ate all cubes diagonally. Remaining three insects of one subspecies attacked one cube each on different surfaces of the large cube. Each one of these ate a line of cubes in respective layer of cubes.

Choose the option that indicates remaining number of cubes.

(1) 49  (2) 50  (3) 51  (4) 52
Seven persons P, Q, R, S, T, U, and V are working on a project. They decided to get divided in groups 1, 2 and 3 for collection of data. They have decided that there should be at least two persons in each sub-group and at least one woman in each sub-group. R is a woman and she wanted to be with persons other than P and T. S and U, both men, wanted to have a chance to work only with Q. P wants to be in group 1 to have a chance to work with an unfamiliar person. V is in group three and T is the brother of R.

Choose the option that represents the number of women involved in the project work.

(1) 3  
(2) 4  
(3) Either 3 or 4  
(4) Information is misleading

Choose the option that describes correctly sufficiency of information “a” and “b” for answering the question, ‘How is M related to R?’

a. A’s brother, F, who is the only son of his parents, is married to W, who is M’s sister.  
(1) “a” alone is sufficient  
(2) Both “a” and “b” are sufficient  
(3) Either “a” or “b” is sufficient  
(4) Neither “a” nor “b” is sufficient
A symbol arrangement mechanism rearranges the input of symbols in each step by specific rules; the example of which is given below:

Input → N, T, Y, A, P, F

Step 1 → Y, T, F, A, P, N

Step 2 → Y, P, F, T, A, N

Step 3 → P, F, A, T, Y, N

Step 4 → P, T, N, F, Y, A

Step 5 → P, N, T, A, Y, F → last arrangement

If the arrangement at the first step of some input is O, D, K, W, G, X, then choose the step from the options that will display the arrangement G, X, D, W, O, K.

(1) 2nd  (2) 3rd  (3) 4th  (4) 5th
57. There are 23 buses available between Dinu's house and his school. How many ways are possible for Dinu to go from his house to school and return using different buses?

(1) 529  (2) 506  (3) 463  (4) 484

(1) D, 50, A  (2) B, 49, A  (3) C, 50, A  (4) C, 51, B

Choose the appropriate set of numbers and alphabets that would replace the question marks logically from triangle to outermost trapezoid.
Both block objects are turned and repositioned as shown by arrows. Choose the alternative that is like the final arrangement.
A word arrangement machine when given a particular input, rearranges it, following a particular rule. The following is the illustration of the input and the steps of arrangement.

Input : Ja Ma Da Ch Ha Bo Ka
Step I : Da Ja Ma Ha Bo Ka Ch
Step II : Ha Da Ja Ma Ka Ch Bo
Step III : Ja Ha Da Ka Ch Bo Ma and so on.

If ‘Step II’ of an input is ‘ga re bu la ra hi hai’, what would be the ‘Step VII’, as per the rule followed in the above steps?

(1) ra ga hai hi re la bu
(2) hai ra ga bu hi re la
(3) hi ra hai ga la bu re
(4) ra hai ga hi re la bu
Four statements and four conclusions I, II, III and IV are given. Considering the statements to be correct, select the correct alternative about the conclusion(s), which is (are) logical deduction(s) of the given statements:

**Statements:**

a. All papers are books.
b. Some books are pens.
c. All pens are pencils.
d. All pencils are erasers.

**Conclusions:**

I. Some erasers are papers.
II. Some papers are pencils.
III. All erasers are pens.
IV. Some pens are papers.

(1) Only II is deduced
(2) Only I and IV are deduced
(3) Only II and III are deduced
(4) I, II, III and IV all are not deduced
Select the appropriate image for completing the given series of grids.

(1) (2) (3) (4)

(1) (2) (3) (4)
Choose the odd object.
The words in the first column are written in a secret manner in the second column. The sequence of words and letters in columns I and II may not be the same. Decode the language and find the sequential code of 'REACT' from the given options:

<table>
<thead>
<tr>
<th>Column I</th>
<th>Column II</th>
</tr>
</thead>
<tbody>
<tr>
<td>TAPE</td>
<td>moij</td>
</tr>
<tr>
<td>COUP</td>
<td>lhhpok</td>
</tr>
<tr>
<td>TIE</td>
<td>nls</td>
</tr>
<tr>
<td>ROTATE</td>
<td>nhpk</td>
</tr>
<tr>
<td>SAY</td>
<td>nkpl</td>
</tr>
<tr>
<td>TREAT</td>
<td>msr</td>
</tr>
<tr>
<td>YEAR</td>
<td>khlph</td>
</tr>
<tr>
<td>SIP</td>
<td>hrp</td>
</tr>
<tr>
<td>TYRE</td>
<td>pmlh</td>
</tr>
</tbody>
</table>

(1) klpih  (2) kplih  
(3) kplhj  (4) kplih
Select a suitable image from the options that would replace the question mark.

Options:

(1)  (2)  (3)  (4)
66. In the following alphabetical sequences below, one pair that appears in the top sequence should appear in the bottom sequence and vice versa. Choose the alternative pair that should be changed around.

CY, EV, LS, RJ, WM, DJ
HA, LD, OG, QP, VM, ZP

(1) LS, OG
(2) RJ, QP
(3) WM, DJ
(4) VM, ZP

67. Five friends were discussing about their treasure of stamps. Anu said to Deepa, ‘If you give me eight stamps then you will have the same number of stamps that Lali has. If I give you my sixteen stamps then you will have stamps equal to those of Shama.’ Total number of stamps that Anu and Deepa have is less than the number of stamps that Shama and Lali have. If Deepa has four stamps less than those of Mary and the total stamps that all these friends have is 149, then how many stamps does Deepa have?

(1) 27
(2) 29
(3) 31
(4) 43
68. Relatives who had gathered for a party had one bowl of rice between two, one bowl of dal among three, one bowl of vegetable among five and one bowl of shreekhand among six. In all they ordered 108 bowls of eatables; and no food was wasted or was it short. How many relatives were present for the party?

(1) 30  (2) 60  (3) 90  (4) 120

69. A series of group of letters is designed using the following sequence of letters.

PATNWGXMQIRCHKJSYULZVBFO

Series: POZT, ?, HYJR, LCRU

Choose the logical option to replace the question mark?

(1) M U J G  (2) X V U G  (3) G V U G  (4) X V Y W

70. Jay is three times older than Gave. Aman's age is twice of that of Gave. Addition of Jaya's and Aman's age is half of Shammi's age. If Shammi's age is 70, then what is the age of Dyan who is two years older to Gave?

(1) 5  (2) 7  (3) 9  (4) 11

काठ्या कामासाठी जागा / SPACE FOR ROUGH WORK  P.T.O.
71. Below is given a statement followed by assumptions a, b and c. You have to consider the statement and the following assumptions to be true and decide which of the assumptions is implicit in the statement and choose your option accordingly.

Statement: More than two-third of Parliament members are members of party “x”.

Assumptions:

a. None of the members of party “x” is corrupt.

b. Only 60% of voters cast their votes in the election.

c. People voted for party “x” because they believed in the election manifesto of the party “x”.

(1) Only a and c are implicit
(2) Only b and c are implicit
(3) All are implicit
(4) None of these is implicit

Deepak sells a scooter priced at ₹36,000. He gives a discount of 8% on the first ₹20,000 and 5% on the next ₹10,000. How much discount should he offer on the remaining ₹6,000 if he is to allow a 7% discount on the total?

(1) 5%  (2) 6%
(3) 7%  (4) 8%
There are 5 white, 4 red, and 6 blue balls in the bag. Three balls are drawn at random from the bag. Choose the option that represents the probability that all of them are blue.

(1) $1/91$  
(2) $2/91$  
(3) $3/91$  
(4) $4/77$

If Teacher's Day was on Thursday in the year 2000, then the Republic Day was on which day in the year 2001?

(1) Wednesday  
(2) Thursday  
(3) Friday  
(4) Sunday

A small aeroplane can travel at 320 km/hour in still air. The wind is blowing at a constant speed of 40 km/hr. The total time for a journey against the wind is 135 minutes. What will be the time taken in minutes for the return journey with the wind?

(1) 94.5  
(2) 105  
(3) 108.125  
(4) 120
76. तुम्हारा भागात एक देवगुळ आहे आणि अनेक भित्र लिंगी व्यक्ती स्वतंत्रपणे उपजीविकेर येथे रहतात. लोकांना मानते भीती निराशण करून पैले उक्ततात. विभागांतर एक ज्वाबांदा अधिकाऱ्य महत्त्व तुम्ही निरंभातात. एक महाविद्यालयांच्या मनोविज्ञान विभागात या समस्येच्या अभ्यास करून अहवाल तयार करता सामग्रीता. या अहवालाच्या आधारात तुम्ही
(1) ज्वाबांदा संबंधांत, लोकांना या परिस्थितीबाबत जागरूक करण्यासाठी कार्यक्रम आयोजित करण्यासाठी संपर्क साधारू.
(2) शैक्षिक संस्थांसह मदतीतील या लोकांसाठी कौशल स्वागत प्रशिक्षण उपक्रम आयोजित कराल.
(3) लोकांसह मदतीतील या लोकांच्या संपर्क साधून स्वागत कौशल प्रशिक्षण, स्वतंत्र प्रशिक्षण व स्वदैर्घ्य कमावण्यासाठी मदत करावे.
(4) लोकांसह पुढीलाच्या महत्त्वात अभ्यासात निराशण करणे अंबाब असे सांगावे.

There is temple in your area and many different gender persons reside in this area for making their living by exhorting money by creating fear in the minds of other people. As a responsible officer of the area you request the head of the Psychology Department of one college in the district to study the problem and prepare a report.

On the basis of this report you will
(1) approach responsible institutions for organizing programmes to make people aware of this situation.
(2) with the help of educational institutions organize skill training programmes for these people.
(3) approach leaders of these persons and with the help of experts help them to acquire skills and become entrepreneurs.
(4) approach leaders of these people and ask them to stop inculcating superstitions in the minds of people.

77. तुमच्या कार्यस्थलात एकाच व्यक्ती वेगवेगळ्या वशाची असून आणखी एक व्यक्ती दुसऱ्या वर्गाची आहे. तुमच्या सहकार्यांना एक गट या दोनों व्यक्तींच्या व्यवस्थापनात, त्यांच्या पेठावासाच्या वेळी दक्षतावान व त्यांना अवकल करतात. यावर तुम्ही,
(1) या गटात सहभागी होणार नाही आणि गट बसावल.
(2) या गटाची भैंसा करताना आणि हदू हदू त्यांना अशा चेष्टेपूर्वक व्यक्तीला काय वाटत असेल हे समजून चेष्टेसह मदत दाळ.
(3) या दोन व्यक्तींची मैत्री करावी आणि त्यांना भावनिक आधार दाळ आणि त्यांना कसी अतिरिक्त वाक्य देऊन सांगता वाचवाव.
(4) तुमच्या कामात या गटात इतर व्यक्तीवर दहशतमुडून वागताने मदत देण्यासाठी कार्यक्रम आयोजित करण्यासाठी संदेशांत.

In your office there is one person of a different race and another person from a different religion. A group of your colleagues make fun of them due to their appearance and way of dressing and make them uncomfortable. You will,
(1) not join this group and keep quiet.
(2) befriend this group and slowly help them understand how a person feels of this treatment.
(3) befriend both these persons and give them emotional support and save them from taking any extreme step.
(4) request your seniors to organize some programme to help them to be empathetic with all persons.

कामाशास्ती जागा / SPACE FOR ROUGH WORK
You are residing in the area where many leaders and goons are engaged in illegal constructions and hawking by pressurising civil officers. When you went to lodge a complaint with the officer in charge she told you that she is not in a position to take any action for want of any protection against these people. She also tells you that government usually makes such types of illegal work legal by making necessary changes in the laws. You will,

(1) blacken the face of the officer for protesting against inaction on her part under some pretext or the other.

(2) publish articles and cartoons in local newspapers and through social media about the trend of government giving protection to illegal constructions and hawking on private lands.

(3) organise pressure groups against nexus of goons, leaders, and people getting profits through illegal constructions and officers who are not ready to execute their responsibilities.

(4) frustrated with the situation you will join a yoga class and stop worrying about the mess around you.
You and your friend had applied for one prestigious scholarship and you have been invited for interview for selecting one among you. This scholarship is an indication of your academic capabilities. Your friend is equally competent. She comes from a disadvantaged group and she and her family worked very hard to reach this stage. She is in dire need of this scholarship and only then can she continue with her studies. You will

1. **not appear for the interview and allow your friend to get the scholarship.**

2. **appear for the interview and if selected request the committee to award it to your friend by considering it as a special case.**

3. **accept the scholarship if selected and help your friend financially.**

4. **request the committee to allow both the persons to share the award if selected and help your friend financially if necessary.**
As the Collector of the area you have received many complaints of eve-teasing by teenagers from many groups of society. You are familiar with the fact that schools and colleges fail to engage adolescent students in any constructive learning programme that channelizes their energies in some personally fulfilling and socially useful, creatively and intellectually demanding work. Many of the adolescents are out of the schools and colleges, they dream of a wealthy and comfortable life without any effort. What will be your priority to solve this problem?

(1) Arrange for police protection in the areas where this menace is rampant.

(2) Arrange group meetings of eve-teasers, help them to organise groups and assist them to engage in constructive work in the area with the help of various youth schemes.

(3) Request selected non-government organizations to involve eve-teasers in some constructive social work.

(4) Suggest the women and girls to dress appropriately.

As the Collector of the area you have received many complaints of eve-teasing by teenagers from many groups of society. You are familiar with the fact that schools and colleges fail to engage adolescent students in any constructive learning programme that channelizes their energies in some personally fulfilling and socially useful, creatively and intellectually demanding work. Many of the adolescents are out of the schools and colleges, they dream of a wealthy and comfortable life without any effort. What will be your priority to solve this problem?

(1) Arrange for police protection in the areas where this menace is rampant.

(2) Arrange group meetings of eve-teasers, help them to organise groups and assist them to engage in constructive work in the area with the help of various youth schemes.

(3) Request selected non-government organizations to involve eve-teasers in some constructive social work.

(4) Suggest the women and girls to dress appropriately.
नमुना प्रश्न

प्र. क्र. 201. सतीश चाल नौ करण्यासाठी कोणी मूलत: प्रश्न केले?

(1) स्वभावी दृष्टांक सर्वस्ती
(2) इश्वरचंद्र विद्यासागर
(3) राजा रामचंद्र राय
(4) गोपालकृष्ण गोखले

हा प्रश्नाचे योग्य उत्तर “(3) राजा रामचंद्र राय” असे आहे. त्यामुळे या प्रश्नाचे उत्तर “(3)” होईल.

प्र. क्र. 201. समारोह उतर-क्रमांक “३” हे वर्तुळ पूर्णपणे छायाकिंत करून दाखविलेले आवश्यक आहेत.

प्र. क्र. 201.

अशा पद्धतीने प्रस्तुत प्रस्तुतिभक्तीयें प्रश्नक्रमांक हा तुमच्या स्वरूपात् पुढीलप्रश्न उत्तरदेणेवरील त्या त्या प्रश्नक्रमांकमोकरील संबंधित वर्तुळ पूर्णपणे छायाकिंत करून दाखविलेला. ह्या कारणीता फक्त कायम्याचे शाळाको पॉलपेंट वापरावे, पेनसिल वा शाळाचे पेन वापरू नये.

कच्च्या कामासाठी जागा/SPACE FOR ROUGH WORK