ENGLISH
(COMPULSORY)

Time Allowed : Three Hours	Maximum Marks : 300

QUESTION PAPER SPECIFIC INSTRUCTIONS

Please read each of the following instructions carefully before attempting questions.

All questions are to be attempted.

The number of marks carried by a question is indicated against it.

Answers must be written in **ENGLISH** only.

Word limit in questions, wherever specified, should be adhered to and if answered in much longer or shorter than the prescribed length, marks will be deducted.

Any page or portion of the page left blank in the Question-cum-Answer Booklet must be clearly struck off.

1. Write an essay in about 600 words on any *one* of the following topics : 100

(a) Mathematics : A mirror of modern civilization.

(b) New frontiers of science need to be explored in the current times.

(c) Education is a means of shaping character and of social change.

(d) The role of literature in a common man's life.

2. Read carefully the passage given below and write your answers to the questions that follow in clear, correct and concise language : 15×5=75

Not so long ago a book on human origins would have devoted a substantial number of pages to descriptions of the fossil evidence for primate evolution. This was in part because it was assumed that at each stage of primate evolution one of the fossil primates would have been recognizable as the direct ancestor of modern humans. However, we now know that for various reasons many of these taxa are highly unlikely to be ancestral to living higher primates. Instead, this account will concentrate on what we know of the evolution and relationships of the great apes. It will review how long Western scientists have known about the great apes, and it will show how ideas about their relationships to each other, and to modern humans, have changed. It will also explore which of the living apes is most closely related to modern humans.

Among the tales of exotic animals brought home by explorers and traders were descriptions of what we now know as the great apes, that is, chimpanzees and gorillas from Africa, and orangutans from Asia. Aristotle referred to 'apes' as well as to 'monkeys' and 'baboons' in his *Historia animalium* (literally the 'History of Animals'), but his 'apes' were the same as the 'apes' dissected by the early anatomists, which were short-tailed macaque monkeys from North Africa.

One of the first people to undertake a systematic review of the differences between modern humans and the chimpanzee and gorilla was Thomas Henry Huxley. In an essay entitled 'On the relations of Man to the Lower Animals' that formed the central section of his 1863 book called *Evidence as to Man's Place in Nature*, he concluded the anatomical differences between modern humans and the chimpanzee and gorilla were less marked than the differences between the two African apes and the orangutan.

Darwin used this evidence in his *The Descent of Man* published in 1871 to suggest that, because the African apes were morphologically closer to modern humans than to the only great ape known from Asia, the ancestors of modern humans were more likely to be found in Africa than elsewhere. This deduction played a critical role in pointing most researchers towards Africa as a likely place to find human ancestors. As we will see in the next chapter, those who considered the orangutan our closest relative looked to South-East Asia as the most likely place to find modern human ancestors.

Developments in biochemistry and immunology during the first half of the 20th century allowed the search for evidence about the nature of the relationships between modern humans and the apes to be shifted from traditional morphology to the morphology of molecules. The earliest attempts to use proteins to determine primate relationships were made just after the turn of the century, but the first results of a new generation of analyses were reported in the early 1960s. The famous US biochemist Linus Pauling coined the name 'molecular anthropology' for this area of research. Two reports, both published in 1963, provided crucial evidence. Emile Zuckerkandl, another pioneer molecular anthropologist, described how he used enzymes to break up the protein haemoglobin from blood red cells into its peptide components, and that when he separated them using a small electric current, the patterns made by the peptides from a modern human, a chimpanzee, and a gorilla were indistinguishable. The second contribution was by Morris Goodman, who has spent his life working on molecular anthropology, who used techniques borrowed from immunology to study samples of a serum (serum is what is left after blood has clotted) protein called albumin taken from modern humans, apes, and monkeys. He came to the conclusion that the albumins of modern humans and chimpanzees were so alike in their structure that you cannot tell them apart.

Proteins are made up of a string of amino acids. In many instances one amino acid may be substituted for another without changing the function of the protein. In the 1960s and 1970s Vince Sarich and Allan Wilson, two Berkeley biochemists interested in primate and human evolution, exploited these minor variations in protein structure in order to determine the evolutionary history of the molecules, and therefore, presumably, the evolutionary history of the taxa being sampled. They, too, concluded that modern humans and the African apes were very closely related.

(a) What does the author say about earlier assumptions regarding evolution ? 15

(b) According to the author, how are modern humans and apes related ? 15

(c) What later developments took place in the twentieth century in investigating the relationship of apes and humans ? 15

(d) What were the attempts made to use proteins to determine primate relationships ? 15

(e) In what way does the latest research prove the relationship between apes and humans ? 15

3. Make a précis of the following passage in about one-third of its length. Do not give a title to it. The précis should be written in your own language : 75

Everyone must have had at least one personal experience with a computer error by this time. Bank balances are suddenly reported to have jumped into the millions, appeals for charitable contributions are mailed over and over to people with crazy-sounding names at your address, department stores send the wrong bills, utility companies write that they're turning everything off, that sort of thing. If you manage to get in touch with someone and complain, you then get instantaneously typed, guilty letters from the same computer, saying, 'Our computer was in error, and an adjustment is being made in your account.'

These are supposed to be the sheerest and blindest accidents. Mistakes are not believed to be part of the normal behavior of a good machine. If things go wrong, it must be a personal, human error, the result of fingering, tampering, a button getting stuck, someone hitting the wrong key. The computer, at its normal best, is infallible.

I wonder whether this can be true. After all, the whole point of computers is that they represent an extension of the human brain, vastly improved upon but nonetheless human, super-human maybe. A good computer can think clearly and quickly enough to beat you at chess, and some of them have even been programmed to write obscure verse. They can do anything we can do, and more besides.

It is not yet known whether a computer has its own consciousness, and it would be hard to find out about this. When you walk into one of those great halls now built for the huge machines, and stand listening, it is easy to imagine that the faint, distant noises are the sound of thinking, and the turning of the spools gives them the look of wild creatures rolling their eyes in the effort to concentrate, choking with information. But real thinking, and dreaming, are other matters.

On the other hand, the evidences of something like an unconscious, equivalent to ours, are all around, in every mail. As extensions of the human brain, they have been constructed with the same property of error, spontaneous, uncontrolled, and rich in possibilities.

Mistakes are at the very base of human thought, embedded there, feeding the structure like root nodules. If we were not provided with the knack of being wrong, we could never get anything useful done. We think our way along by choosing between right and wrong alternatives, and the wrong choices have to be made as frequently as the right ones. We get along in life this way. We are built to make mistakes, coded for error.

We learn, as we say, by 'trial and error'. Why do we always say that ? Why not 'trial and rightness' or 'trial and triumph' ? The old phrase puts it that way because that is, in real life, the way it is done.

A good laboratory, like a good bank or a corporation or government, has to run like a computer. Almost everything is done flawlessly, by the book, and all the numbers add up to the predicted sums. The days go by. And then, if it is a lucky day, and a lucky laboratory, somebody makes a mistake : the wrong buffer, something in one of the blanks, a decimal misplaced in reading counts, the warm room off by a degree and a half, a mouse out of his box, or just a misreading of the day's protocol. Whatever, when the results come in, something is obviously screwed up, and then the action can begin.

The misreading is not the important error; it opens the way. The next step is the crucial one. If the investigator can bring himself to say, 'But even so, look at that !' then the new finding, whatever it is, is ready for snatching. What is needed, for progress to be made, is the move based on the error.

Whenever new kinds of thinking are about to be accomplished, or new varieties of music, there has to be an argument beforehand. With two sides debating in the same mind, haranguing, there is an amiable understanding that one is right and the other wrong. Sooner or later the thing is settled, but there can be no action at all if there are not the two sides, and the argument. The hope is in the faculty of wrongness, the tendency toward error. The capacity to leap across mountains of information to land lightly on the wrong side represents the highest of human endowments. (750 words)

4.(a) Rewrite the following sentences after making necessary corrections. Do not make unnecessary changes in the original sentence : 1×10=10

4.(a)(i) Every man, woman and child were rescued.

4.(a)(ii) No sooner I am out, than the students make a noise.

4.(a)(iii) Walk carefully lest you may not fall.

4.(a)(iv) The patient died before the doctor arrived.

4.(a)(v) Time and tide waits for none.

4.(a)(vi) Into what kind of mess have you got me into ?

4.(a)(vii) I learned the answer would come sooner than I expected.

4.(a)(viii) Hardly he had stepped out than it began to rain.

4.(a)(ix) Either of the five dancers will dance tonight.

4.(a)(x) My client was neither aware nor party to the plot.

4.(b) Supply the missing words : 1×5=5

4.(b)(i) She started the work _____ a few days.

4.(b)(ii) There is no exception _____ this rule.

4.(b)(iii) We are accountable to God _____ our actions.

4.(b)(iv) The police is entrusted _____ the enforcement of law and order.

4.(b)(v) The girl was hit with a stone _____ her brother.

4.(c) Use the correct forms of the verbs given in brackets : 1×5=5

4.(c)(i) After she _____ (take) her lunch, she went to the theatre.

4.(c)(ii) The doctor _____ (examine) the patients every evening.

4.(c)(iii) They _____ (build) that bridge since 2003.

4.(c)(iv) He _____ (play) cards, when I saw him.

4.(c)(v) If she works hard, she _____ (get) a first class.

4.(d) Write the antonyms of the following : 1×5=5

4.(d)(i) Ecstasy

4.(d)(ii) Advocate

4.(d)(iii) Anaemic

4.(d)(iv) Allow

4.(d)(v) Hyperbole

5.(a) Rewrite the following sentences as directed without changing the meaning : 1×10=10

5.(a)(i) He is a learned man. He cannot make that mistake. (Combine the sentence by using 'too' – 'to')

5.(a)(ii) Brutus was not without love for Caesar _____ ? (Add a question tag)

5.(a)(iii) As soon as he went there, the uproar commenced. (Remove 'as soon as' and put 'no sooner than')

5.(a)(iv) Either the father or the son has not taken it. (Use 'neither – nor')

5.(a)(v) You tell me the truth. I shall not punish you. (Rewrite the sentence beginning with 'unless'.)

5.(a)(vi) The Prince said, "It gives me great pleasure to be here this evening". (Change into Indirect Speech)

5.(a)(vii) The minister was spoken to by them. (Change into active voice)

5.(a)(viii) Not only Rama but also Gopal did it. (Remove 'not only' – 'but also' and put 'as well as')

5.(a)(ix) The farmer worked so hard, that he might not starve. (Remove 'so' and 'that' and put 'lest')

5.(a)(x) Hardly had I arrived at the gate, when my servant brought the horse. (Remove 'hardly' and put 'scarcely')

5.(b) Use the following words to make sentences that bring out their meaning clearly. Do not change the form of the words. (No marks will be given for vague and ambiguous sentences) : 1×5=5

5.(b)(i) Misogynist

5.(b)(ii) Unprecedented

5.(b)(iii) Orchard

5.(b)(iv) Morale

5.(b)(v) Volunteer

5.(c) Choose the appropriate word to fill in the blanks : 1×5=5

5.(c)(i) Modern youth is fond of _____ life. (ostentatious / ostensible)

5.(c)(ii) The poetry of Keats has a _____ beauty. (sensational / sensuous)

5.(c)(iii) King Ashoka did not approve of the _____ sport of hunting. (barbarous / barbaric)

5.(c)(iv) Everyone despised him for his _____ behaviour. (obnoxious / noxious)

5.(c)(v) The _____ party was attacked by militants. (petrol / patrol)

5.(d) Use the following idioms/phrases in sentences of your own to bring out their meaning clearly : 1×5=5

5.(d)(i) back seat driver

5.(d)(ii) call it a day

5.(d)(iii) wet behind the ears

5.(d)(iv) set off

5.(d)(v) run out of