CENTRE FOR MATHEMATICS & STATISTICS TRIVANDRUM

Phone: 8113887329, 9496817167 Email: cmscsirnet@gmail.com, www.cmsnetiss.com

IES/ISS Exam, 2021

SDT-G-ENG

GENERAL ENGLISH

Time Allowed: Three Hours

Maximum Marks: 100

Question Paper Specific Instructions

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

Attempt all the questions.

Marks allotted for a particular question / part are indicated against it.

Word limit of the answers, if specified, should be adhered to.

You must not disclose your identity in any of your answers.

Answers must be written in ENGLISH only.

- Q1. Write an essay on any one of the following topics in about 800 words: 30
 - (a) Water security for a sustainable future.
 - (b) Compensating women for household work.
 - (c) Economic growth in the post-pandemic world.
 - (d) Prospects of digital revolution.
 - (e) Cultural pluralism in the Indian context.
- Q2. Write a précis of the following passage in your own words in about one-third of the original length:

Let us begin with the question: what is science? Karl Popper, an influential 20th-century philosopher of science, thought that the fundamental feature of a scientific theory is that it should be falsifiable. To call a theory falsifiable is not to say that it is false. Rather, it means that the theory makes some definite predictions that are capable of being tested against experience. If these predictions turn out to be wrong, then the theory has been falsified, or disproved. So a falsifiable theory is one that we might discover to be false—it is not compatible with every possible course of experience. Popper thought that some supposedly scientific theories did not satisfy this condition and thus did not deserve to be called science at all; rather they were merely pseudo-science.

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Freud's psychoanalytic theory was one of Popper's favourite examples of pseudo-science. According to Popper, Freud's theory could be reconciled with any empirical findings whatsoever. Whatever a patient's behaviour, Freudians could find an explanation of it in terms of their theory — they would never admit that their theory was wrong. Popper illustrated his point with the following example. Imagine a man who pushes a child into a river with the intention of murdering him, and another man who sacrifices his life in order to save the child. Freudians can explain both men's behaviour with equal ease: the first was repressed, and the second had achieved sublimation. Popper argued that through the use of such concepts as repression, sublimation, and unconscious desires, Freud's theory could be rendered compatible with any clinical data whatever; it was thus unfalsifiable.

The same was true of Marx's theory of history, Popper maintained. Marx claimed that in industrialized societies around the world, capitalism would give way to socialism and ultimately to communism. But when this didn't happen, instead of admitting that Marx's theory was wrong, Marxists would invent an ad hoc explanation for why what happened was actually perfectly consistent with their theory. For example, they might say that the inevitable progress to communism had been temporarily slowed by the rise of the welfare state, which 'softened' the proletariat and weakened their revolutionary zeal. In this sort of way, Marx's theory could be made compatible with any possible course of events, just like Freud's. Therefore, neither theory qualifies as genuinely scientific, according to Popper's criterion.

Popper contrasted Freud's and Marx's theories with Einstein's theory of gravitation, also known as general relativity. Unlike Freud's and Marx's theories, Einstein's theory made a very definite prediction: that light rays from distant stars would be deflected by the gravitational field of the sun. Normally this effect would be impossible to observe — except during a solar eclipse. In 1919, the English astrophysicist, Sir Arthur Eddington organized two expeditions to observe the solar eclipse of that year, one to Brazil and one to the island of Principe off the Atlantic coast of Africa, with the aim of testing Einstein's prediction. The expeditions found that starlight was indeed deflected by the sun, by almost exactly the amount Einstein had predicted. Popper was very impressed by this. Einstein's theory had made a definite, precise prediction, which was confirmed by observations. Had it turned out that starlight was not deflected by the sun, this would have showed that Einstein was wrong. So Einstein's theory satisfies the criterion of falsifiability.

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Popper's attempt to demarcate science from pseudo-science is intuitively quite plausible. There is certainly something fishy about a theory that can be made to fit any empirical data whatsoever. But some philosophers regard Popper's criterion as overly simplistic. Popper criticized Freudians and Marxists for explaining away any data that appeared to conflict with their theories, rather than accepting that the theories had been refuted. This certainly looks like a suspicious procedure. However, there is some evidence that this very procedure is routinely used by 'respectable' scientists — whom Popper would not want to accuse of engaging in pseudo-science — and has led to important scientific discoveries.

(659 words)

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- Q3. Write a paragraph in about 200 words on any one of the following:
 - (a) Appearances can be deceptive.
 - (b) I have miles to go before I sleep.
 - (c) Health is wealth.
 - (d) Politics is the art of the possible.
 - (e) If winter is here, can spring be far behind?
- Q4. Use the following words, each in a single sentence. Bring out the meaning clearly without changing the form of the word. No credit will be given for a vague or ambiguous sentence.

 2×5=10
 - (a) austere
 - (b) loathsome
 - (c) predicament
 - (d) supercilious
 - (e) precarious
- Q5. Use the following idioms and phrasal verbs in sentences so as to bring out their meaning clearly:

 2×5=10

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- (a) burning question
- (b) at loggerheads
- (c) to laugh in (one's) sleeve
- (d) left in the lurch
- (e) see off

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Q6. Correct the following sentences without changing their meaning. Do not make unnecessary changes in the original sentence: $1\times10=10$

- (a) He has promised to lend us some money, isn't it?
- (b) According to me we should spend more money on education.
- (c) She returned back after sometime.
- (d) Most shopkeepers in the mall deal with jewellery and fashion items.
- (e) The teacher asked the new student what was his name.
- (f) Neither the convict nor his lawyer were present.
- (g) We need to buy more stationery for our office.
- (h) If it will rain, I'll come and meet you in the car.
- (i) Time and tide waits for none.
- (j) I doubt that he will be able to accomplish the task in time.

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SINCE 2008