

LL.B. ENTRANCE – SAMPLE QUESTIONS, IIT KHARAGPUR

English

A. Read the passage and answer the following questions:

Philosophy of Education is a label applied to the study of the purpose, process, nature and ideals of education. It can be considered a branch of both philosophy and education. Education can be defined as the teaching and learning of specific skills, and the imparting of knowledge, judgment and wisdom, and is something broader than the societal institution of education we often speak of. Many educationalists consider it a weak and woolly field, too far removed from the practical applications of the real world to be useful. But philosophers dating back to Plato and the Ancient Greeks have given the area much thought and emphasis, and there is little doubt that their work has helped shape the practice of education over the millennia.

Plato is the earliest important educational thinker, and education is an essential element in "The Republic" (his most important work on philosophy and political theory, written around 360 B.C.). In it, he advocates some rather extreme methods: removing children from their mothers' care and raising them as wards of the state, and differentiating children suitable to the various castes, the highest receiving the most education, so that they could act as guardians of the city and care for the less able. He believed that education should be holistic, including facts, skills, physical discipline, music and art. Plato believed that talent and intelligence is not distributed genetically and thus is to be found in children born to all classes, although his proposed system of selective public education for an educated minority of the population does not really follow a democratic model.

Aristotle considered human nature, habit and reason to be equally important forces to be cultivated in education, the ultimate aim of which should be to produce good and virtuous citizens. He proposed that teachers lead their students systematically, and that repetition be used as a key tool to develop good habits, unlike Socrates' emphasis on questioning his listeners to bring out their own ideas. He emphasized the balancing of the theoretical and practical aspects of subjects taught, among which he explicitly mentions reading, writing, mathematics, music, physical education, literature, history, and a wide range of sciences, as well as play, which he also considered important. During the Medieval period, the idea of Perennialism was first formulated by St. Thomas Aquinas in his work "De Magistro". Perennialism holds that one should teach those things deemed to be of everlasting importance to all people everywhere, namely principles and reasoning, not just facts (which are apt to change over time), and that one should teach first about people, not machines or techniques. It was originally religious in nature, and it was only much later that a theory of secular perennialism developed.

During the Renaissance, the French skeptic Michel de Montaigne (1533 - 1592) was one of the first to critically look at education. Unusually for his time, Montaigne was willing to question the conventional wisdom of the period, calling into question the whole edifice of the educational system, and the implicit assumption that university-educated philosophers were necessarily wiser than uneducated farm workers, for example.

Q. What is the difference between the approaches of Socrates and Aristotle?

- a) Aristotle felt the need for repetition to develop good habits in students; Socrates felt that students need to be constantly questioned.
- b) Aristotle felt the need for rote-learning; Socrates emphasized on dialogic learning.
- c) There was no difference.
- d) Aristotle emphasized on the importance of paying attention to human nature; Socrates emphasized upon science.

Q. What do you understand by the term 'Perennialism', in the context of the given comprehension passage?

- a) It refers to something which is of ceaseless importance.
- b) It refers to something which is quite unnecessary.
- c) It refers to something which is abstract and theoretical.
- d) It refers to something which existed in the past and no longer exists now

B. In the sentences below a word or phrase is underlined. From the given options choose the one closest in meaning to the underlined part.

Q. Grouping stars by their constellations is a handy way of mapping the sky.

- a) Funny
- b) Nice
- c) Convenient
- d) simple

Q. Centuries ago, a nomadic tribe besieged the temple to loot its treasure.

- a) Wild
- b) Barbarous
- c) Brave
- d) roving

Mathematics

Q. In a group of 500 students, each student can speak at least one of the two languages, English or Hindi. If overall, 375 students can speak Hindi and, 225 students can speak English, how many students can speak only English and not Hindi?

- (A) 100 (B) 125 (C) 150 (D) 275

Q. Given, $f(x) = x^2 - 3x + 2$. For $f(f(x))$, the coefficient associated with the term x^2 is:

- (A) 1 (B) 5 (C) 6 (D) 10

Q. If $3x + 2iy - 7 = ix - 5y + 5i$ where $i = \sqrt{-1}$, then the value of x and y are respectively:

- (A) 1, 2 (B) 1, -2 (C) -1, 2 (D) -1, -2

Q. Given, $\cos A = \frac{4}{5}$ and $\cos B = \frac{12}{13}$ where both A and B lie in the 4th quadrant. Then, the value of $\cos(A + B)$ is:

- (A) $-\frac{8}{65}$ (B) $\frac{8}{65}$ (C) $-\frac{16}{65}$ (D) $\frac{33}{65}$

Basic Science (Life Science/Chemistry/Physics) (Total Marks: 35)

Q. In RT-PCR test, 'RT' refers to

- a) Reverse transcriptase
- b) RNA transcriptase-
- c) RNA template
- d) RNA translation

Q. The 'B.1.617.2' variant of the SARS-COV2 virus represents the

- a) Beta variant
- b) Delta variant
- c) Delta plus variant
- d) Alphar variant

Q. Mayer Equation is based on

- a) specific heat at constant pressure
- b) specific heat at constant volume
- c) both (a) and (b)
- d) None of the above

Q. Zeroth Law of Thermodynamics deals with

- a) Thermal equilibrium
- b) Non equilibrium thermodynamics
- c) Equilibrium of phases
- d) Equilibrium of systems

Q. Glycogen is a branched chain polymer of α -D-glucose units in which chain is formed by C_1 — C_4 glycosidic linkage whereas branching occurs by the formation of C_1 — C_6 glycosidic linkage. Structure of glycogen is similar to _____ .

- a) Amylose
- b) Amylopectin
- c) Cellulose
- d) Glucose

76. The correct order of increasing acidic strength is _____

- a) Phenol < Ethanol < Chloroacetic acid < Acetic acid
- b) Ethanol < Phenol < Chloroacetic acid < Acetic acid
- c) Ethanol < Phenol < Acetic acid < Chloroacetic acid
- d) Chloroacetic acid < Acetic acid < Phenol < Ethanol

Q. The electronic configuration of Cu(II) is $3d^9$ whereas that of Cu(I) is $3d^{10}$. Which of the following is correct?

- a) Cu(II) is more stable
- b) Cu(II) is less stable
- c) Cu(I) and Cu(II) are equally stable
- d) Stability of Cu(I) and Cu(II) depends on nature of copper salts

Logical Reasoning

Read the following statement to answer the question. The questions is based on the information given below:

A, B, C, D, E, F and G are seven students (both boys and girls) in a class. They sit on three benches labelled I, II and II, in a manner such that there are at least two students on each bench, with one of them being a girl. C who is a girl student, does not sit with A, E and D. F, who is a boy student sits with only B. A sits on bench I with his best friend. G sits on the bench II. E is the brother of C.

Q. How many girls are there out of these 7 students?

- a) 3
- b) 3 or 4
- c) 4
- d) Data inadequate

For the following question, look at the series, and identify from amongst the options as to which number(s) or alphabet(s) should fill up the blank?

Q. Series: 3, 6, 9, 30, 117..... ?

- a) 192
- b) 352
- c) 388
- d) 588

Legal Aptitude

Q. A barrel of flour fell from the window of B's warehouse, located on the third floor of building and hit A, a pedestrian:

- a) A has to prove the fact of negligence
- b) B has to prove that he was not negligent
- c) The fall of the barrel is prima facie evidence of negligence, unless B proves otherwise
- d) Both a and b

Q. When an act or omission does not constitute infringement of a legal right pertaining to the plaintiff, no action will lie notwithstanding any loss or harm resulting from such act or omission.

- a) Principle of Vicarious Liability
- b) Principle of Injuria sine Damno
- c) Principle of Damnum Since Injuria
- d) Principle of Respondeat Superior

Q. A patient in a lunatic asylum, who is at intervals of sound mind.

- a) He may contract during those intervals.
- b) He may not contract during those intervals.
- c) He may contract during those intervals only with the permission of a district judge.
- d) He may contract during those intervals only with the permission of central government.

Q. A agrees to pay B a sum of money if a certain ship does not return. The ship is sunk.

- a) The contract cannot be enforced when the ship sinks.
- b) The contract can be enforced when the ship sinks.
- c) The contract can be enforced with the permission of a high court.
- e) The contract can be enforced when the permission of the Supreme Court.

Q. A tells 'B' that Kolkata Knight Riders will win the IPL 2019. 'B' challenges the statement of 'A'. They bet with each other over the result of the match. This is:

- a) Illegal agreement
- b) Wagering agreement
- c) Contingent agreement
- d) Both a and b

Q. A, a doctor conducts a uterus surgery on B, and mistakenly leaves a gauge inside the stomach. Few months later, when B developed complications and went for a second surgery the gauge was found.

- a) B has to prove the fact of negligence.
- b) A has to prove that he was not negligent.
- c) The gauge found is prima facie evidence of negligence, unless A proves otherwise.
- d) Both a and b.

Q. Darjeeling Tea is protected under the

- a. Trade Mark Act
- b. Geographical Indications Act
- c. Patents Act
- d. Copyright Act

Q. An artistic, literary, or musical work is protected under intellectual property law:

- a) Patents
- b) Trademarks
- c) Copyrights
- d) Geographical Indications

Q. The natural guardian of an unmarried Hindu girl is:

- a) Only father
- b) Father and after him, the mother
- c) Grandfather
- d) Uncle

Q. *Saptapadi* is:

- a) Telling marriage mantra seven times
- b) The taking of seven steps by the bridegroom and bride jointly before the sacred fire

- c) Exchanging garland seven times
- d) None of the above

Q. When a national emergency is in operation, the President is empowered under Article 359, to suspend any of the fundamental rights guaranteed under Part III of the Constitution, except:

- a) Articles 14, 19 and 21
- b) Article 14
- c) Article 19
- d) Article 20 and 21

Q. Federal structure of the Constitution signifies:

- a) Distribution of power between the Centre and the States
- b) Distribution of subject matter between the states and the local governments
- c) Distribution power between the President and the Governors
- d) Division of jurisdiction between the Supreme Court and the High Courts

Q. Rajyasabha:

- a) Dissolves in every six years.
- b) Dissolves simultaneously with Loksabha
- c) Never Dissolves
- d) Dissolves on the notification of the President

Q. Vice – President of India can be removed by:

- a) Impeachment.
- b) Resolution passed by both Houses of Parliament.
- c) Resolution passed by the Council of States agreed to by the House of the People.
- d) All of the above.