

GOVERNMENT OF INDIA
MINISTRY OF EDUCATION
DEPARTMENT OF SCHOOL EDUCATION & LITERACY

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UNSTARRED QUESTION NO. 686
ANSWERED ON 26.07.2023

Courses on Artificial Intelligence in school education and higher education

686 # **Shri Vinay Dinu Tendulkar:**

Will the Minister of *Education* be pleased to state:

- (a) the courses that having been designed to educate about study and usage of Artificial Intelligence, IoT Technology and 3D Printers in school education and higher education and whether there is a plan to implement this policy uniformly, for all the State education boards;
- (b) the number of institutions from Government and Non-Government sectors found suitable for said study and whether any guideline have been issued for making this programme successful; and
- (c) if so, the details thereof, if not, the reasons therefor?

ANSWER

MINISTER OF STATE IN THE MINISTRY OF EDUCATION
(SMT. ANNPURNA DEVI)

(a) Education being a subject in the Concurrent List of the Constitution and the majority of schools being under the jurisdiction of the State Governments, it is for the respective State Government to either adopt or adapt NCERT textbooks or develop their own textbooks based on the National Curriculum Framework. National Education Policy (NEP), 2020 has acknowledged the importance of Artificial Intelligence (AI), IoT, 3D printing and other such emerging technologies and recommended their inclusion in the curriculum at appropriate stages. The existing National Council of Educational Research and Training (NCERT) textbooks of Computer Science class XI (Chapter 3) and Informatics Practices class XI (Chapter 2) talk about AI, IoT and other emerging technologies. Central Institute of Educational Technology (CIET), NCERT also organizes online webinars on AI and its relevance in education.

In tune with the provisions of NEP, 2020, the UGC has developed Curriculum and Credit Framework for Undergraduate Programmes”. Artificial Intelligence (AI), 3-D machining, big data analysis, machine learning, drone technologies, and Deep learning with important applications to health, environment, and sustainable living are part of digital and technological solutions under the value-added courses of undergraduate programmes. University Grants Commission (UGC) recognized Universities offer programme with approval of their statutory bodies and regulatory councils where applicable, leading to award of degree specified under section 22 of the UGC Act, 1956. Though course-wise approval is not accorded by them.

Similarly, the policy also advocates universities to offer Ph.D. and Masters Programmes in core areas such as Artificial Intelligence, Machine Learning as well as multidisciplinary fields. In accordance with the recommendation, the UGC prepares the curriculum framework for postgraduate programmes with adequate weightage to contemporary subjects such as Artificial Intelligence, Machine Learning, etc.

(b) & (c) UGC has already notified Curriculum and Credit Framework for Undergraduate programmes. All Higher Education Institutions (HEIs) are advised to adopt the new curriculum framework for undergraduate programmes.
