

Q4.

- i.) Discuss the functions expected of a present day "Operating System" for a computer and present an account of the development of operating systems for microcomputers to the present day sophistication, chronologically indicating the levels of utility and user-friendliness of these systems.

(Marks 08)

- ii.) Computers with multimedia capabilities have revolutionized the conveying of ideas and knowledge. To utilize the full power of the multimedia capabilities of computers for these purposes a category of programs called "Presentation Software" has evolved. Describe the features expected of such software to be used in the construction industry for conceptual explanations, technical briefings, site meetings, etc.

(Marks 08)

- iii.) One of the very versatile tools made available to the Engineer from the early days of computers is an application software called a "Spread Sheet", which has been designed to manipulate data on a two dimensional plane. After describing the salient features that should be present in such a software package, briefly describe the steps involved in the development of a computer based tool for extracting quantities from Structural & Layout drawings for a housing project and preparing the Bill of Quantities (BOQs).

(Marks 09)

Q5.

- i.) One of the reasons for the vast popularity of microcomputers in the recent years is the substantial advances made in the 'storage media' technologies. Discuss the types, storage technologies and capacities of currently popular storage media for use with microcomputers.

(Marks 08)

- ii.) The present day MIS is centered on the Personal Computer, which is the System-Human interface. Describe and discuss the main components that should be available in the "System Unit" of a micro-computer with multimedia, networking and communication facilities.

(Marks 08)

- iii.) "Micro Processors" for computers have evolved tremendously from early 1980s' to the present day. It is one of the major factors that contributed in the information revolution. Describe the chronological evolution of the famous 'Intel' range of Micro Processors with particular reference to clock speeds and data bus widths.

(Marks 09)

Q6.

- i.) E-mail is the personal written communication system that gained wide acceptance in the information age. Describe how e-mail system works and useful features available with the system. Further, describe how large files can be made smaller (such as AutoCAD drawing files, audio or video files), so that they can be sent through e-mail.

(Marks 08)

- ii.) Short range electronic communication under secure conditions have recently evolved substantially to shift communication links between computing and communication devices from Cables to Wire-less technologies. Describe *two* (02) such popular wire-less technologies today with possible example of applications in the construction industry.

(Marks 08)

- iii.) Discuss the conceptual meaning of "Artificial Intelligence" (AI) as applied to computer and information technology. Use a possible application of AI in the construction industry to illustrate the future use of such technology.

(Marks 09)

