# 24225 3 Hours / 70 Marks

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#### Instructions:

- (1) All Questions are *compulsory*.
- (2) Answer each next main Question on a new page.
- (3) Illustrate your answers with neat sketches wherever necessary.
- (4) Figures to the right indicate full marks.
- (5) Assume suitable data, if necessary.

Marks

#### 1. Attempt any FIVE of the following:

10

- (a) State the need of rural development in India.
- (b) List Various micro-irrigation techniques.
- (c) Write classification of rural roads on the basis of local available material.
- (d) Write names of four types of cottage industry for civil engineering materials.
- (e) State the government policies pertaining to rural development.
- (f) Define a Socio-economic survey.
- (g) Give the meaning of the term "Rain water harvesting".

## 2. Attempt any THREE of the following:

12

- (a) Explain the role of Civil Engineer in the development of rural area.
- (b) Explain the function of K.T. Weir and farm pond.
- (c) Explain design parameters for laying drip irrigation.
- (d) Explain the credit-cum-subsidy schemes for rural development.



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### 3. Attempt any THREE of the following: 12 Explain the principles of low-cost housing. (a) (b) Explain working of Biogas Plant with neat sketch. (c) Explain use of local materials for construction of low-cost housing. (d) Explain the salient features of Pradhan Mantri Gram Sadak Yojana. 4. Attempt any THREE of the following: 12 Explain infrastructure requirements of cottage industry. (a) Enlist sources of funds for rural development in India. (b) (c) Draw flow diagram of stone crushing plant. (d) Explain the salient features of Deen Dayal Upadhyay Grameen Kaushalya Yojana. State the necessity of Planning for rural development. (e) 5. Attempt any TWO of the following: 12 Explain protection of borehole source of water. (a) (b) Draw layout of Sprinkler irrigation system showing its components. (c) Explain construction techniques of rural road. 12 6. Attempt any TWO of the following: Describe the procedure mentioned in Prime Minister Rural Development (a) Fellow scheme for rural development. (b) Explain the methodology used for executing the block and district level planning. Describe the functions of planning at micro, meso and macro levels for rural (c) area.