

Name:

Enrolment No:



**UNIVERSITY OF PETROLEUM AND ENERGY STUDIES**

**End Semester Examination, December 2018**

**Course: U R B A N F I N A N C E**

**Semester: V I I**

**Program: Bachelor of Planning**

**Time: 03 hrs.**

**Max. Marks: 100**

**Instructions:**

1. This Question Paper consists of 10 Pages and 11 Questions.
2. All 11 Questions are mandatory to attempt.
3. Question No 9 and 10 carry internal Options to choose one amongst two each.
4. Start a new answer (to separate question) on a fresh page
5. Word Limits are to be adhered strictly
6. Preference should be given to bulleted fashion of writing instead of paragraphs as far as possible.
7. Use Pictorial Representations/ aids wherever necessary to support/ elaborate your answer.
8. Use Color Pens to highlight key words/ phrases (in your opinion) of your answer.

**S E C T I O N A**

(5 Questions of 4 Marks each) Word Limit- 40 Words

S. No.	Question	Marks	CO
Q 1	<b>PROVIDE</b> for the Full Name of the following Acronyms variants of Public Private Partnerships  a) DBO b) DBOOT c) BLT d) ROT e) LDO	<b>4</b>	

Q 2	<b>OUTLINE</b> 5 major targeted intervention areas of Basic Services to the Urban Poor (BSUP)	<b>4</b>	
Q 3	<b>WRITE</b> a Short note on 'CITY CHALLENGE FUND' in context to India's smart City Mission	<b>4</b>	
Q 4	<b>DEFEND</b> the concept of Double-Entry Accounting Systems being gradually adopted in Book Keeping by Various Local Self Governments of India. What Benefits does it have over the Single-Entry Accounting System of the Past?	<b>4</b>	
Q 5	From the perspective of Urban finance, <b>ILLUSTRATE</b> the benefits of Private Sector Participation in Urban Infrastructure Projects, as compared to Sole Interests in the Project by Government Department(s)/ Agency(s).	<b>4</b>	

# SECTION B

(4 Questions of 10 Marks each) Word Limit- 100 Words

Q 6	<b>DISCUSS</b> the Role of Management Information Systems (MIS) in Financing Urban Infrastructure Projects. Elaborate on the ease brought about by MIS in the past 15-20 Years.	<b>10</b>
Q 7	<b>GIVE EXAMPLES</b> of a 3 Urban Indicators, and <b>EXPLAIN</b> their features in context to the Capital City of Dehradun.	<b>10</b>
Q 8	<b>DEMONSTRATE</b> challenges unique to any Tourism Dependent Local Town Economy (like Srinagar/ Haridwar/ Rishikesh/ Shimla etc) in terms of Urban Infrastructure Finance.	<b>10</b>
Q 9	<p>Q-9a: <b>ELABORATE</b> on the 'City Investment Plan' from the 'City Development Plan perspective'. On the Basis of JAWAHARLAL NEHRU NATIONAL URBAN RENEWAL MISSION (JnNURM) Toolkits prepared by the Ministry of Urban Development, Government of India- <b>ENUMERATE</b> (seven) Financing Options could the CIP look towards for Urban Finance. (3+7=10 Marks)</p> <p style="text-align: center;">OR</p> <p>Q-9b: <b>CRITICISE</b> the crucial role played by Local Self Governments in Identification, Design and Execution of Urban Infrastructure Projects in Indian Towns and Cities. What constraints/ impediments would be faced if same were to be done wither by State or Central Government. Candidate may take suitable examples of Centralized vs Decentralized Program/ Plan/ Policy Implementation methodology.</p>	<b>10</b>

# SECTION C

(2 Questions of 20 Marks each) Word Limit- 200 Words

Q 10	<p><b>ATTEMPT ANY ONE OF THE FOLLOWING</b></p> <p>Q-10a: <b>APPRAISE</b> regarding the Challenges faced by Urban Local Bodies for Tier 2 and Tier 3 Towns in terms of generation of Local Level Revenue for Urban Finance.</p> <p style="text-align: center;">OR</p> <p>Q-10b: <b>ASSESS</b> in terms of Political, Administrative and Financial Decentralization or powers, as enshrined in the 74th Amendment to Indian Constitution, as to how has the purpose of Urban Local Body Empowerment failed, to a Large extent.</p>	<b>20</b>	
Q 11	<p><b>Important note:</b> Only on the basis of the quoted news article below; answer the questions which follow.</p> <p>Each Sub Question carries <b>4 Marks</b>- and needs to be attempted in Maximum <b>40 Words</b> each</p> <p>Published on- <b>May 15, 2018</b>;</p> <p>Posted by- India Briefing;</p> <p>Written by- Oliver Gonsalves;</p> <p><b>Word Count</b>- 948 Words;</p> <p><b>Estimated Reading Time:</b> 6 minutes</p> <p>Weblink:- <a href="https://www.india-briefing.com/news/eastern-peripheral-expressway-india-infrastructure-challenges-investors-16825.html/">https://www.india-briefing.com/news/eastern-peripheral-expressway-india-infrastructure-challenges-investors-16825.html/</a></p> <p><b>Theme of Article- Public Private Partnerships in Roads Sector</b></p>	<b>20</b>	

## **EASTERN PERIPHERAL EXPRESSWAY LAYS INFRASTRUCTURE CHALLENGES BARE FOR INVESTORS**

The yet-to-be inaugurated Eastern Peripheral Expressway (EPE) is among a string of high-profile highway projects that will increase the efficiency of road mobility in India.

The six lane, 135 km (84 mi) long expressway will allow vehicles not destined for Delhi to bypass the metropolis entirely. This will give Delhi residents a huge respite from vehicular congestion and air pollution caused by heavy logistics movement through the heart of the city.

Presently, vehicles destined for the neighboring states of Uttar Pradesh, Punjab, Haryana, Rajasthan, Himachal Pradesh, Jammu and Kashmir, and Uttarakhand pass through Delhi to connect to other national highways.

To avoid massive traffic congestion, the Delhi government restricts the entry of commercial freight vehicles into the city to between 11 pm and 7 am, which in turn raise the costs of logistics.

However, while much anticipated, the construction of the EPE has experienced multiple delays due to the scope of financing involved and unfriendly bidding process, exposing long-standing challenges faced by investors in India's road infrastructure sector.

### **What is the Eastern Peripheral Expressway?**

The EPE will connect industrial hubs in both Haryana (Sonepat and Faridabad cities) and Uttar Pradesh (Greater Noida and Ghaziabad) state.

Built at a cost of US\$663 million, the EPE has two unique features:

- Vehicles plying on it will pay toll according to the distance covered; and,

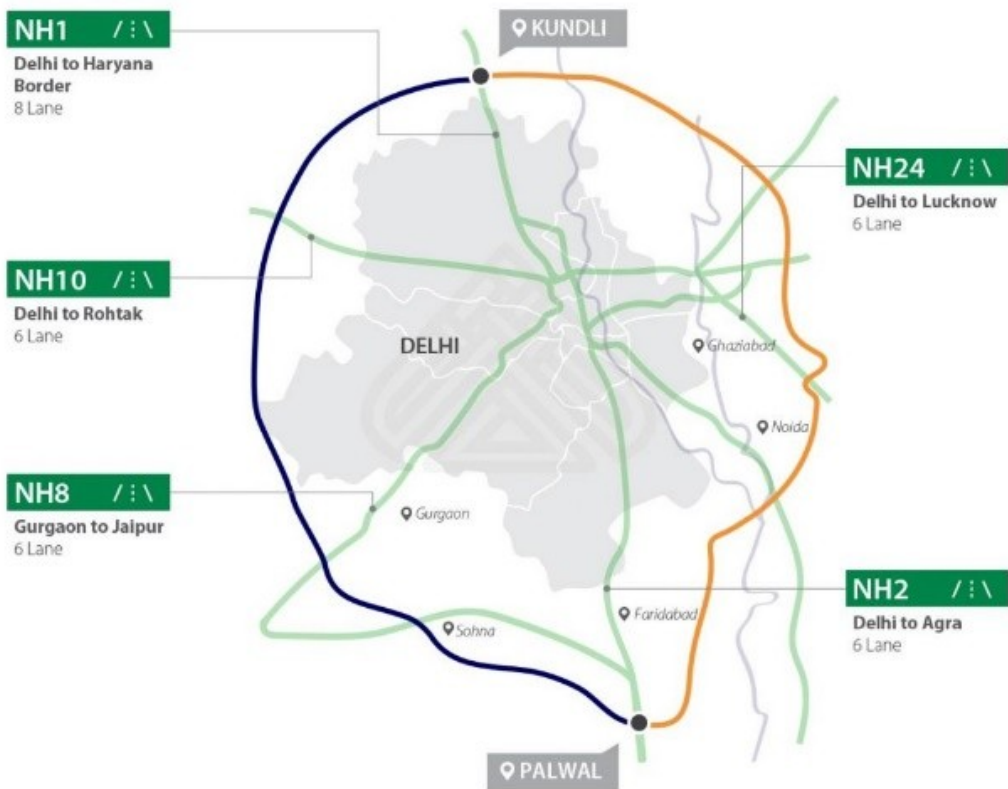
- Weigh-in motion sensors at entry points to prevent the overloading of vehicles.

Areas for unloading excess freight are also planned. Currently, overloaded vehicles are unloaded at busy toll plazas, causing unnecessary traffic delays and raising logistics costs.

The EPE is the first part of a two-phase expressway project that will bypass Delhi like a ring road. The second, the Western Peripheral Expressway (WPE), is a 135 km (84 mi), partially completed project that bypasses/edges past the western border of Delhi.

#### Route of the Eastern Peripheral Expressway

■ Eastern Peripheral Expressway
 ■ Western Peripheral Expressway



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## **India's Developing Road Network**

India has the world's third largest road network after the US and China.

In 2017, India had 115,435 km (71,727 mi) of national highways constructed. Besides national highways, the country has built expressways to connect major cities and industrial hubs that are situated in relatively close proximity.

The Mumbai-Pune Expressway and the Delhi-Gurgaon Expressway are important Indian highways – in the state of Maharashtra and the National Capital Region – respectively.

Highway construction is a key priority for the Bhartiya Janata Party (BJP)-led government under Prime Minister Modi. Interestingly, the Golden Quadrilateral highway network, connecting India's four main metropolitan cities – Delhi, Mumbai, Chennai, and Kolkata – was built under the previous BJP government.

## **Bidding for Road Projects in India**

India's roads and highways ministry now promotes the 'build, operate, and transfer' (BOT) mode of awarding contracts for highway projects, replacing the previous 'engineering, procurement, and construction' (EPC) mode.

The BOT mode allows the developer to recover financial investments through long-term toll collections and other charges. However, the capital costs involved in constructing the EPE were deemed too high to recover through toll duties. In the EPC mode, the government provides capital funding for construction projects and the developer agrees to complete all construction activity under a fixed time frame.

The initial BOT approach did not attract any bids for building the EPE, compelling the National Highways Authority of India (NHAI) to switch back to an EPC mode. This led to multiple contractual delays, pushing back the start

of construction work for the EPE.

The government's eventual approval of the EPC mode is indicative of the private sector's skepticism of alternate models.

In recent months, the government has responded by implementing the 'toll, operate, and transfer' (TOT) model. This type of contract allows for the auctioning of highways constructed by the federal government for a period of 30 years.

Private investors are responsible for road maintenance and are permitted to recover costs through tolls or charges. However, it remains to be seen if the TOT model appeals to private sector players, as it requires significant up-front investments.

Since 2016, the government has additionally promoted a Hybrid Annuity Model (HAM) to encourage small developers. Through HAM, developers receive 40 percent funding from the government, in installments. The residual 60 percent is recovered from the NHAI, in the form of annuity. However, like the TOT model, the recovery of annuity payments is time-consuming.



### Prevailing Models of Financing Infrastructure Development in India

Models	Features
Engineering, Procurement, and Construction (EPC)	Complete capital funding by the government.
Build, Operate, and Transfer (BOT)	Private developer recovers investments through tolls or annuities.
Toll, Operate, and Transfer (TOT)	Private developer responsible for capital investments and maintenance; 30 year recovery period.
Hybrid Annuity Model (HAM)	40% government funding; 60% recoverable through annuities.

Graphic © Asia Briefing Ltd.

### Investing in India's roads infrastructure: Learning from the EPE

BOT, whether annuity-based or toll-based, is a segment of the public private partnership (PPP) model that the government is attempting to popularize for road infrastructure projects in India.

The federal government permits 100 percent foreign direct investment (FDI) under the automatic route in road and highway projects. Foreign companies often form consortiums with their Indian counterparts to bid for infrastructure projects.

Yet, continuing low-key participation from the private sector points to long-standing challenges.

For one, investors often find it difficult to recover financial investments through tolls or annuities; pressure by the public can force the operator to lower or prematurely roll-back toll rates.

Further, while it can take several years for developers to recover costs, they are responsible for all expenditure related to the annual maintenance of these projects.

The preference for the EPC mode in the construction of the Eastern Peripheral Expressway is thus a clear indication of the private sector's

aversion to the capital-intensive BOT mode.

Moreover, the EPE, touted as India's 'smartest highway' (technologically advanced), had a near impossible construction target of 400 days.

The target failed to account for delays in land acquisition and technical difficulties, and is an example of project management challenges in India's infrastructure sector.

These concerns routinely dissuade the private sector from increasing their investments in the roads and highways sector, often compelling government contractors and agencies to take over project funding and release fresh tenders for bidding.

-----End of Article-----

**NOTE: READ INSTRUCTIONS BEFORE ATTEMPTING THE ANSWERS**

**Q-11a: WHICH** two models of BOT are being promoted by the Government of India, in order to popularize PPP in Road Sector Projects. Identify and Elaborate.

**Q-11b: LIST** two important and unique features of the Eastern peripheral Expressway.

**Q-11c: WHY** does the Author predict that High Profile Highway Projects will increase the efficiency of Road Mobility in India.

**Q-11d: DISCUSS** challenges faced by Private Developers while foraying in PPP Models for Infrastructure development in India.

**Q-11e: REVIEW** Private Sector aversion to Capital Intensive BOT models of PPP in India.

**END OF QUESTION PAPER**

