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TRANSPORT PLANNING AND INVESTMENT (TRANSPORT ECONOMICS 302)

Duration   2 Hours   70   Marks

EXAMINERS :
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This paper consists of 15 pages including one rough work sheet.

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INSTRUCTIONS:

THIS IS A FILL IN EXAMINATION – WRITE YOUR ANSWERS IN THIS BOOKLET AND HAND IT IN TO THE INVIGILATOR WHEN YOU ARE DONE.

THIS EXAMINATION PAPER CONSISTS OF:

SECTION A: COMPULSORY MULTIPLE CHOICE QUESTIONS
              (20 MARKS)

SECTION B: COMPLETE ANY TWO (2) OF THE THREE (3) LONG QUESTIONS
              (50 MARKS)

TOTAL OF 70 MARKS

SECTION A

ANSWER ALL THE QUESTIONS IN THIS SECTION
TOTAL OF 20 MARKS

QUESTION 1

Read each statement carefully and then choose the correct option.
Indicate your chosen answer by colouring the corresponding letter next to the correct option.
For example: [B]

1.   There are four periods of radical change in transport and logistics The second period from the   (1)
     16th century onwards is called

     A   the Hansa economy
     B   industrial revolution
     C   the Golden Age
     D   age of exploration

2   Technical suitability   (1)

     A   is determined on the basis of a social cost/benefit analysis
     B   is when the current value of benefits exceeds the current value of costs
     C   is when the physical or operating results are above a certain minimum
          acceptable level
     D   is determined by the regulator

3   The benefit/cost ratio (BCR) is used to evaluate transport investment projects Which of the four   (1)
     statements is not correct?

     A   BCR < 1 investment held back
     B   BCR > 1 investment held back
     C   Annual growth over time= $b(1+g)t$
     D   BCR> 1 investment carried out

4   Which one of the following statements is false as far as prediction models are concerned?   (1)

     A   They predict the future performance of the system
     B   They do not rely very much on logical and causative aspects
     C   For them an understanding of the relationship between form and process becomes
          of decisive importance
     D   They may be used to extrapolate trends

5   Which one of the following is not a component of traffic?   (1)

    A   Usual traffic
    B   Generated traffic
    C   Development traffic
    D   Converted traffic

6   Which one of the following is not an element of a sound transport policy?   (1)

    A   Regulation
    B   Licensing
    C   Coordination
    D   Consolidation

7   The overall objective of the airport master plan is to   (1)

    A   establish a schedule of priorities
    B   provide a concise and descriptive report
    C   provide guidelines for future development which will satisfy aviation demand
    D   present the pertinent backup information

8   Which one of the following statement is not a requirement for a functional transport model   (1)

    A   It should measure the efficiency of the whole system
    B   It should explain the transport situation /behaviour in simple terms
    C   It should make a contribution to policy formulation
    D   It should predict the transport situation/behaviour meaningfully

9   Which one is correct? **Linear programming** makes the following assumption   (1)

    A   The operational formulation of goals
    B   Conditions which limit the scope of permissible solutions
    C   The linearity of the target function
    D   Information on real structural relations

10   Which one of the following techniques is **not used** in the economic evaluation of mutually   (1)
     exclusive alternatives?

    A   B/C ratio
    B   PVOC
    C   UMESC
    D   IRR

[TURN OVER]

11   Which one of the following is not one of the categories into which the **elementary**   (1)
      consequences in multicriteria evaluation can be divided into

      A   Financial effects
      B   Monetary effects
      C   Environmental and safety effects
      D   Socioeconomic effects

12   Which one of the following is not a tax relating to vehicle use?   (1)

      A   Mass-distance tax
      B   Tax on vehicles
      C   Tyre tax
      D   Fuel tax

13   _____ in ports refer to the benefits that arise because of the geographical closeness of   (1)
      a variety of completely different industries

      A   Economies of scope
      B   Economies of scale
      C.   Localisation economies
      D   Urbanisation economies

                                                                                               (1)
14   **Gain in travel time (GT) can be used as a dimension**

      A   When the users really gain
      B   Only for business travellers
      C   When it can be measured
      D   When it can be classified according to the different categories

15   Which one of the following is not a parameter of sensitivity analysis?   (1)

      A   Residual value
      B   Time costs
      C   Traffic Growth rate
      D   Discount rate

16   Which one of the following is not one of the bond ratings when considering investments   (1)
      in airports?

      A   Best grade
      B   High grade
      C   Medium grade
      D   Lower grade

17   Which one of the following is a direct subsidy in port investment?   (1)

              A   construction subsidy
              B   capital equipment
              C   real estate
              D   wages

18   In rail transport an ownership model where there is a separate track organisation on the one   (1)
      hand and then multiple operators on the other hand is called

              A   Vertically integrated model
              B   Vertically separated model
              C   Track degradation model
              D   Track independent model

19   Which one of the following is not a factor to be considered in developing a transport policy?   (1)

              A   Priorities
              B   Ownership
              C   Tariffs
              D   Degree of subsidisation

20   Which one of the following is not one of the policy instruments used by government   (1)
      authorities to achieve their goals?

              A   Taxes and subsidies
              B   Promotional policy
              C   Moral persuasion
              D   Licensing

                                                          SECTION A TOTAL   [20]

                                                                       [TURN OVER]

SECTION B

ANSWER ANY TWO (2) OF THE THREE (3) QUESTIONS IN THIS SECTION TOTAL OF 50 MARKS

PLEASE NOTE: ONLY THE FIRST TWO (2) QUESTIONS WILL BE MARKED IF YOU ANSWERED ALL THREE (3) QUESTIONS IN THIS SECTION

QUESTION 2

Discuss the transport planning process and demonstrate its cyclical nature by means of a figure   **(25)**

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QUESTION 3

(i)   Briefly explain transport integration in port planning and development   **(5)**

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(ii)   Fully discuss the optimal period of investment   **(10)**

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(iii)   A cost/benefit analysis may be defined as a practical way of evaluating the desirability of   **(10)**
            a project,   " Briefly discuss the different **criteria for project evaluation**

TOTAL [25]

QUESTION 4

What is meant by **regional airport planning?** Discuss the problems that might arise as a   **(25)**
result of coordinating the plans of three airports in one metropolitan area

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TOTAL [25]

SECTION B TOTAL   [50]

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ROUGH WORK