Diploma (One Year) (B.Voc) Semester–II Examination

GENERAL EDUCATION COMPONENT

(Aptitude Development–II)

Compulsory Paper–III

155

Time : Three Hours]

155 [Maximum Marks : 70

N.B. :— (1) **All** questions are compulsory.

(2) All questions carry equal marks.

**EITHER**

1. (A) Find the compound interest on Rs. 20,000/- in 3 yrs at 4% per annum, the interest being compounded on yearly basis. 7

(B) A is twice as good a workman as B and together they finish a piece of work in 18 days. In how many days will A alone finish the work ? 7

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**OR**

(C) Find the compound interest on Rs. 16,000 at 20% per annum for 9 months, compounded quarterly. 7

(D) An Aeroplane flies along the four sides of a square at the speeds of 200, 400, 600 and 800 km/hr. Find the average speed of the plane around the field. 7

**EITHER**

2. (A) A train 220 m long is running with a speed of 59 kmph. In what time will it pass a man who is running at 7 kmph in direction opposite to that in which the train is going ? 7

(B) On 8ᵗʰ March, 2005 Wednesday falls. What day of the week was it on 8 March, 2004 ? Explain. 7

**OR**

(C) A man can row 18 kmph in still water. It takes him thrice as long to row up as to row down the river. Find the rate of stream. 7

(D) Two trains 100 mts and 120 mts long are running in the same direction with the speeds of 72 kmph and 54 kmph. In how much time will the first train cross the second ? 7

**EITHER**

3. (A) A lawn is in the form of rectangle having its sides in the ratio 2 : 3. The area of 5000 mts. Find the length and breadth of the lawn.

(B) The volume of a wall, 5 times as high as it is broad and 8 times as long as it is high, is 12 meters. Find the breadth of the wall.

**OR**

(C) Find the annual income derived from Rs. 2,500, 8% Stock at 105.

(D) Find the cost of 96 shares of Rs. 10 each at 3/4 discount, brokerage being 1/4ᵗʰ per share.

**EITHER**

4. (A) What are the responsibilities of citizen towards the betterment of the nation ?

(B) Explain the following terms :

(i) Unemployment

(ii) Child labour.

**OR**

(C) What is deforestation ? What are its main causes and what can we do to avoid it ?

(D) Explain the role of internet in Higher Education.

5. (A) Find the Simple Interest on Rs. 3,000 at 6.5% per annum for the period of 3 yrs.

(B) In one hour a boat goes 11 km along the stream and 5 km against the stream. Find the speed of boat in still water.

(C) Find the surface area of 10 cm × 4 cm × 3 cm bricks.

(D) Explain use of Web Browsers in brief.

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