OPENNET – V : Entrance Test for
Diploma in Nautical Science leading to B.Sc. (Nautical Science) 2006

Total No. of Questions = 100   *Time : 3 Hours*

— All questions are compulsory.

— Use of calculator is **not** allowed. Rough work may be done in the space provided at the back of the Test booklet.

— The Test booklet has the following 5 tests :

Tests	No. of Questions	Marks
I – Reasoning Aptitude	20	20
II – General Knowledge	20	20
III – Mathematics	20	20
IV – English	20	20
V – General Science	20	20

Read the instructions given on the OMR Answer Sheet carefully before you start.

HOW TO FILL UP THE INFORMATION ON THE ENTRANCE TEST OMR ANSWER SHEET

While filling up the OMR Answer Sheet, you should follow the following guidelines :

1. Write your complete Roll Number. This should correspond to the roll number already supplied to you. Also write your correct name, address with pin code in the space provided, in ink. Put your signatures on the Answer Sheet with date, in ink. Ensure that the Invigilator in your examination hall also puts his signatures with date on the OMR Answer Sheet at the space provided. You should use HB pencil to mark the answers of the questions on the OMR Answer Sheet.

2. Do not make any stray marks on the OMR Answer Sheet.

3. Write correct information in numerical digits in Roll No., Programme Code, Date and Month and Examination Centre Code Columns. **The column of Course Code should be left blank.** The corresponding rectangle should be dark enough and should be filled in completely.

4. Each question is followed by four probable answers which are numbered 1, 2, 3 and 4. You should select and show only one answer to each question considered by you as the most appropriate or the correct answer. Select the most appropriate answer. Then by using HB pencil, blacken the rectangle bearing the correct answer number against the serial number of the question. **If you find that answer to any question is none of the four alternatives given under the question you should darken the rectangle '0'.**

5. If you wish to change your answer, ERASE completely the already darkened rectangle by using a good quality eraser and then blacken the rectangle bearing your revised answer number. If incorrect answer is not erased completely, smudges will be left on the erased rectangle and the question will be read as having two answers by the Optical Mark Reader (OMR) and will be ignored for giving any credit.

6. No credit will be given if more than one answer is given for one question. Therefore, you should select the most appropriate answer.

7. You should not spend too much time on any one question. If you find any particular question difficult, leave it and go to the next. If you have time left after answering all the questions, you may go back to the unanswered ones.

8. There is no negative marking for wrong answers.

GENERAL INSTRUCTIONS

1. Mobile Phones, calculators, books, slide-rules, foot rulers, note-books or written notes, etc. are not allowed inside the examination hall.

2. You should follow the instructions given by the Centre Superintendent, observers and by the Invigilators at the examination venue. If you violate the instructions you will be disqualified.

3. Any candidate found copying or receiving or giving assistance in the examination will be disqualified.

4. The Test Booklet and the OMR Answer Sheet would be supplied to you by the Invigilators. **After the exam is over, you should hand over the Test Booklet and the OMR Answer Sheet to the Invigilator before leaving the examination hall.** Any candidate who does not return the Question Booklet and the OMR Answer Sheet will be disqualified.

5. Candidates arriving late will not be permitted to enter the examination hall. The reporting time is 9.15 A.M. The examination will start at 10.00 A.M. and will be over at 1.00 P.M.

6. All rough work is to be done on the test booklet itself and not on any other paper. Scrap paper is not permitted. For arriving at answers you may work in the margins, make some markings or underline in the test booklet itself.

7. The University reserves the right to cancel scores of any candidate who impersonates or uses malpractices. The examination is conducted under uniform conditions. The University would also follow a procedure to verify the validity of scores of all examinees uniformly. If there is substantial indication that your performance is not genuine, the University may cancel your score.

TEST I
REASONING APTITUDE

1. What is the sum upto 105 terms of the following series ?

    2 + 3 + 4 — 9 + 2 + 3 + 4 — 9 + ...

   (1) 0   (2) 1

   (3) 2   (4) 5

2. If 5.4 = 2515

      4.5 = 1624

      3.2 = 93

   then the value of 2.1 is

   (1) 40   (2) 1600

   (3) 14   (4) 24

3. The afternoon classes in a school begin at 1 : 00 P.M. and end at 3 : 52 P.M. There are 4 afternoon class periods with 4 minutes allowed between periods as break. The number of minutes in each class period is

   (1) 39   (2) 40

   (3) 43   (4) 59

4. Introducing a man, a woman said, "His father-in-law's father is my father-in-law". How is the man related to her ?

   (1) Husband   (2) Son-in-law

   (3) Son   (4) Father

5. Rita ranks sixteenth from the top in the class of forty two. What is her rank from the bottom ?

   (1) 28   (2) 26

   (3) 16   (4) 27

6. How many triangles are there in the figure below ?

   (1) 5   (2) 7

   (3) 9   (4) 10

7. If 'South-East' is called 'East', 'North-West' is called 'West', 'South-West' is called 'South' and so on, what will 'North' be called ?

   (1) East

   (2) North-East

   (3) North-West

   (4) South-West

Directions for Questions 8 – 9 : Fill in the blanks to complete the series.

8. $11\frac{1}{9}$, $12\frac{1}{2}$, $14\frac{2}{7}$, $16\frac{2}{3}$, _____

   (1) $8\frac{1}{3}$ (2) 20

   (3) 10   (4) $9\frac{1}{11}$

9. 9, 11, 20, 31, _____ , 82

   (1) 51   (2) 41

   (3) 60   (4) 71

Directions for Questions 10 – 11 : Read the following information and answer the questions.

The sum of incomes of A and B is more than that of C and D taken together. The sum of the incomes of A and C is the same as that of B and D taken together. A earns half as much as the sum of incomes of B and D.

10. Whose income is the highest ?

   (1) A

   (2) B

   (3) C

   (4) D

11. If A's income is Rs. 80,000 per annum and the difference between the income of B and D be the same as A's income, B's income is

   (1) Rs. 40,000

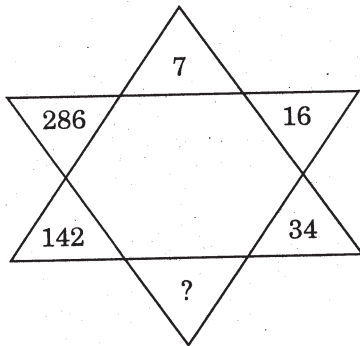   (2) Rs. 1,00,000

   (3) Rs. 1,20,000

   (4) Rs, 1,50,000

12. (1) 70 – 80

   (2) 54 – 62

   (3) 28 – 32

   (4) 21 – 24

13. (1) 2 – 4

   (2) 4 – 8

   (3) 6 – 18

   (4) 8 – 32

14.

   (1) 72
   (2) 68
   (3) 66
   (4) 70

15.
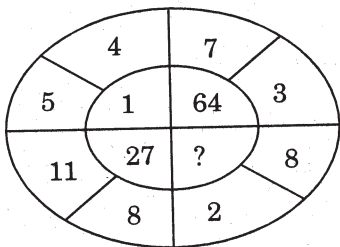
   (1) 216
   (2) 125
   (3) 128
   (4) 81

Directions for Questions 16 – 20 : *Read the following information and answer the questions that follow.*

(i) P, Q, R, S, T and U are six members of a family, each of them engaged in a different profession — Doctor, Lawyer, Teacher, Engineer, Nurse, and Manager, not necessarily in that order.

(ii) Each of them remains at home on a different day of the week from Monday to Saturday.

(iii) The Lawyer remains at home on Thursdays.

(iv) R remains at home on Tuesdays.

(v) P, the Doctor, does not remain at home either on Saturdays or on Wednesdays.

(vi) S is neither the Doctor nor the Teacher, and remains at home on Fridays.

(vii) Q is the Engineer and T is the Manager.

16. Which of the following combinations is correct ?

    (1) R – Teacher

    (2) Q – Engineer

    (3) T – Manager

    (4) All are correct

17. Which of the following combinations is correct regarding staying at home ?

    (1) Lawyer – Tuesday

    (2) Nurse – Friday

    (3) Teacher – Wednesday

    (4) Manager – Friday

18. Who is the nurse ?

    (1) S

    (2) R

    (3) U

    (4) Data inadequate

19. Who among them remains at home on the following day on which the nurse stays at home ?

    (1) Q   (2) Q or T

    (3) R   (4) S

20. Who remains at home on Tuesdays ?

    (1) S   (2) T

    (3) R   (4) Q