



**K.K COLLEGE OF ENGINEERING & MANAGEMENT (KKCEM)
NAIRO, GOVINDPUR, DHANBAD, JHARKHAND - 828109**

**Scholarship Examination (2017-18 Session) ::: Model Test Paper
Examination Date : April 15 / May 13, 2017**

Time : 1½ Hr

F. Marks : 100

Instructions :

- I. The Question Paper has three Sections. The Maximum Marks is 100.
- II. Each Question has four choices for right answer. Tick [✓] the right choice.
- III. Section – A contains Questions for Testing Aptitude, GK & Grammar. Weightage is 40 Marks.
- IV. Section – B contains Questions for Testing knowledge of Physics & Chemistry. Weightage is 40 Marks.
- V. Section – C contains Questions for Testing knowledge of Mathematics. Weightage is 20 Marks.
- VI. Use of Calculator is strictly prohibited.

Section – A ::: APTITUDE

[20 Questions x 2 Marks Each :: 40 Marks]

- [1]** Complete the series: 4, 6, 9, 13.....
(A) 18 (B) 17 (C) 16 (D) 20

...

...

- [20]** Complete the series: BD, FH, JL, NP,.....
(A) SV (B) RT (C) SU (D) TV

Section – B ::: PHYSICS & CHEMISTRY

[20 Questions x 2 Marks Each :: 40 Marks]

- [21]** A filament bulb (500 W, 100 V) is to be used in a 230 V main supply. When a resistance R is connected in series, it works perfectly and the bulb consumes 500 W. The value of R is
(A) 230 Ω (B) 46 Ω (C) 26 Ω (D) 13 Ω

- ...
- ...
- [30]** A circuit contains an ammeter, a battery of 30 V and a resistance 40.8 ohm all connected in series. If the ammeter has a coil of resistance 480 ohm and a shunt of 20 ohm, the reading in the ammeter will be
 (A) 1 A (B) 0.48 A (C) 0.5 A (D) 0.02 A

- [31]** Which of the following is an anionic detergent ?
 (A) Sodium stearate (B) Sodium lauryl sulphate
 (C) Cetyltrimethyl ammonium bromide (D) Glyceryloleate

- ...
- ...
- [40]** The non-metal that does not exhibit positive oxidation state is :
 (A) Oxygen (B) Iodine (C) Chlorine (D) Fluorine

Section – C :: MATHEMATICS
[10 Questions x 2 Marks Each :: 20 Marks]

- [41]** If the mean deviation of the numbers 1, 1+d, ..., 1+100d from their mean is 255, then a value of d is :
 (A) 10.1 (B) 20.2 (C) 10 (D) 5.05

- ...
- ...
- [50]** A man is walking towards a vertical pillar in a straight path, at a uniform speed. At a certain point A on the path, he observes that the angle of elevation of the top of the pillar is 30°. After walking for 10 minutes from A in the same direction, at a point B, he observes that the angle of elevation of the top of the pillar is 60°. Then the time taken (in minutes) by him, from B to reach the pillar, is :
 (A) 6 (B) 10 (C) 20 (D) 5

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