

ANNEXURE-I

SYLLABUS FOR COMMON ENTRANCE TEST

The syllabus of Mathematics, Physics and Chemistry for POLYCET-2020 is the same as that of SSC Examination of March / April 2020 conducted by the Board of Secondary Education, Andhra Pradesh.

Structure of the question paper:

The question paper for common Entrance Test for admission into Polytechnics consists of 120 questions.

Section A	01 to 60	Mathematics
Section B	61 to 90	Physics
Section C	91 to 120	Chemistry.

All questions are of multiple – choice type. Each question will have a stem and four answers noted against as 1, 2, 3 and 4. Out of these four, only one is an appropriate answer to the statement given in stem and other three are distracters. A few sample questions of the type in all subjects are shown here. The stem is given both in Telugu and English. The distracters are also given in both languages whenever necessary. All correct responses (Answers) to the questions must be entered by shading / darkening the circle / oval on the OMR Response Sheet provided separately for this purpose.

Model Questions

MATHEMATICS

1. If $a, \frac{1}{ax}, \frac{1}{ay}, \frac{1}{az}, b$ are in G.P then

(1) a, x, y are in G.P	(2) b, x, y are in G .P
(3) x, y, z are in G.P	(4) None

2. Lt $\frac{11^{12} - x^{12}}{x - 11} =$

(1) $12(11)^{12}$	(2) $-12(11)^{12}$	(3) $12(11)^{11}$	(4) $-12(11)^{11}$
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3. $\sim(\sim p \vee q) =$

(1) $p \vee q$	(2) $\sim p \vee q$	(3) $p \wedge q$	(4) $\sim q \wedge p$
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4. $\sin^2 1^\circ + \sin^2 2^\circ + \sin^2 87^\circ + \sin^2 89^\circ =$

(1) 2	(2) 3	(3) 4	(4) 1
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PHYSICS

61. For complete destructive interference at any point, the phase difference between the two waves must be equal to

- (1) $\frac{\pi}{8}$ (2) $\frac{\pi}{4}$ (3) $\frac{\pi}{2}$ (4) π

62. The distances of two points on the axial line of a short bar magnet are $2d$ and d respectively. The ratio of magnetic inductions at these points is

- (1) 4 : 1 (2) 1 : 4 (3) 8 : 1 (4) 1 : 8
63. The control rods used in a Nuclear Reactor are made up of
- (1) Zinc (2) Boron (3) Radium (4) Barium
- (1) $4n$ series (2) $(4n+1)$ series (3) $(4n-1)$ series (4) $(4n+3)$ series

65. The process of fixing messages to r.f carrier waves is called

(1) Rectification (2) Demodulation (3) Amplification (4) Modulation

CHEMISTRY

91. Molecular formula of hexene

(1) C_6H_{14} (2) C_6H_{12} (3) C_6H_6 (4) C_6H_{10}

92. The carbon compound which reacts with Tollen's reagent

(1) Alcohol (2) Acid (3) Ester (4) Aldehyde

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93. Oligosaccharide among the following

(1) Glucose (2) Fructose (3) Cellulose (4) Sucrose

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94. Which of the following is used to remove impurities and neutralises sugarcane juice?

(1) CO_2 (2) $Ca(OH)_2$ (3) SO_2 (4) P_2O_5

95. Denatured spirit if consumed causes

(1) Ulcers in the intestine (2) Damage to liver

(3) Blindness (4) Unconsciousness

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