## **PROVISIONAL ANSWER KEY**

**Question Paper Code:** 85/2016/OL Category Code: 537/2014 Exam: II Grade Overseer/Draftman Civil SR for PH Medium of Question: English Date of Test 28-12-2016 Alphacode А Question1:-The preamble of Indian Constitution prepared by A:-Dr. Rajendra Prasad B:-Dr. B.R. Ambedkar C:-Jawaharlal Nehru D:-Vallabai Pattel Correct Answer:- Option-C Question2:-Who is regarded as "Jhansi Rani" of Travancore ? A:-Animaskrine B:-Akkamma Cheriyan C:-A.V. Kuttimalu Amma D:-Anna Chandi Correct Answer:- Option-A Question3:-Human Rights Commission came to exist in India A:-1983 September 5 B:-1993 September 28 C:-1993 October 28 D:-1983 September 25 Correct Answer:- Option-B Question4:-Who is said "No caste, No religion and No god to man" ? A:-Sree Narayana Guru **B:-Sahodaran Ayyappan** C:-Dr. Palppu D:-Ayyankali Correct Answer:- Option-B Question5:-Among the following which is regarded as the "Protector of Indian Constitution" A:-Parliament **B:-Attorney General** C:-Supreme Court D:-President Correct Answer:- Option-C Question6:-Among the following who sang the song of Vande Madharam in the midnight meeting of Indian Independence ? A:-Latha Mangeshkar B:-Sarojini Naidu C:-Annie Besant D:-Sujatha Kripalani Correct Answer:- Option-D Question7:-The first woman chief justice of Kerala High Court A:-K.K. Usha **B:-Sujatha Manohar** C:-Anna Chandi D:-Omana Kunjamma Correct Answer:- Option-B Question8:-The novel written by Swadeshabimani Ramakrishna Pillai A:-Ente Nadukadathal **B:-Sara Samgraham** C:-Narakathil Ninnu D:-Brandhalayam Correct Answer:- Option-C Question9:-The novel "Nurayum Pathayum" written by A:-Thakazhi Sivasankara Pillai

B:-N.P. Muhammed C:-Vaikkam Muhammed Basheer D:-Cherukad Correct Answer:- Option-A Question10:-Who abolished slave trade in Tranvancore ? A:-Ayiliam Thirunal B:-Rani Parvathi Bai C:-Rani Lakshmi Bai D:-Marthandavarmma Correct Answer:- Option-C Question11:-The first national park in Kerala A:-Silent valley B:-Mathikettan Chola C:-Iravikulam D:-Pampadum Chola Correct Answer:- Option-C Question12:-Who is called "Kerala Tagore" ? A:-P. Kunchi Raman Nair B:-Vailo Pilli C:-Ullur D:-Vallathole Correct Answer:- Option-D Question13:-Advaita Chintha Padhadi is the literary work of A:-Sree Narayana Guru B:-Brahmananda Sivayogi C:-Chattambi Swamikal D:-Pandit K.P. Karuppan Correct Answer:- Option-C Question14:-The aim of Rajiv Awaz Yojana A:-Rural housing **B:-Urban housing** C:-Housing for SC and ST D:-Slum free India Correct Answer:- Option-D Question15:-The eradication of unemployment programme of Kudumbasree known as A:-Kerala Vilasam B:-Kerala Sree C:-Janasree D:-Ashwasa Kiran Correct Answer:- Option-B Question16:-The publisher of the news paper "Al Ameen" A:-Kadathil Vargeese Mappila **B:-Moulana Muhammed** C:-Vakkam Abdul Khader Moulavi D:-Muhammed Abdul Rahman Correct Answer:- Option-D Question17:-The leader of Guruvayoor Sathyagraha A:-Mannath Padmanabhan B:-K. Kelappan C:-T.K. Madhavan D:-A.K. Gopalan Correct Answer:- Option-B Question18:-The year of Vaikyam Sathyagraha A:-1926 B:-1932 C:-1924 D:-1923 Correct Answer:- Option-C

Question19:-Herman Gundert is associated with which Christian Missionaries in Kerala ?

A:-I.M.S. B:-C.M.S. C:-B.M.S. D:-B.E.M. Correct Answer:- Option-D Question20:-How many satalites were launched by PSLV C 34 on its mission ? A:-17 B:-21 C:-22 D:-20 Correct Answer:- Option-D Question21:-Sand stone is a i) sedimentary rock ii) aqueous rock iii) siliceous rock The answer is A:-only (i) B:-both (i) and (iii) C:-both (i) and (ii) D:-all (i), (ii) and (iii) Correct Answer:- Option-D Question22:-If a number of forces are acting simultaneously on a particle, then the resultant of these forces will have the same effect as that of the applied forces. This principle is called A:-Principle of physical independence of vectors B:-Principle of transmissibility of forces C:-Principle of reduction of forces D:-None of these Correct Answer:- Option-A Question23:-The maximum settlement of raft foundation on clayey soil should be limited to A:-25 mm B:-25 to 40 mm C:-40 to 65 mm D:-65 to 100 mm Correct Answer:- Option-D Question24:-The least count of prismatic compass is A:-10' B:-30' C:-15' D:-20' Correct Answer:- Option-C Question25:-If the magnetic bearing of the sun at a place at noon in Southern hemisphere is 167°, the magnetic declination at that place is A:-77° N B:-23° S C:-13° E D:-13° W Correct Answer:- Option-C Question26:-Ratio of inertia force to viscous force is called A:-Reynold's Number **B:-Froude's Number** C:-Weber Number D:-Euler's Number Correct Answer:- Option-A Question27:-The ordinates of curve 3, 4, 6, 7, 10, 12 and 15 cm respectively at a common distance of 3 cms. The area using Trapezoidal rule will be equal to A:-`134 cm^(2)` B:-`144 cm^(2)` C:-`154 cm^(2)` D:-`164 cm^(2)` Correct Answer:- Option-B

Question28:-The unit of measurement of plastering is in A:-metres B:-cum C:-sqm D:-ton Correct Answer:- Option-C Question29:-The major ingredient of cement is A:-Silica **B:-Alumina** C:-Iron oxide D:-Lime Correct Answer:- Option-D Question30:-Priming is not required in A:-Reciprocating Pumps **B:-Centrifugal Pumps C:-Dynamic Pressure Pumps D:-Hand Pumps** Correct Answer:- Option-A Question31:-A portion of embankment having a uniform up gradient of 1 in 500 is circular with a radius of 1000 m of the centre line. It subtends 180° at the centre. If the height of the embankment is 1 m at the lower end and side slope is 2 : 1, the earth work involved is A:-`26,000 m^(3)` B:-`26,500 m^(3)` C:-`27,000 m^(3)` D:-`27,500 m^(3)` Correct Answer:- Option-D Question32:-The optimum depth for Kov watering of rice is A:-135 mm B:-165 mm C:-190 mm D:-215 mm Correct Answer:- Option-C Question33:-The expected out turn of 2.5 cm cement concrete flooring per mason per day is A:-2.5 sq.m. B:-5 sq.m. C:-7.5 sq.m. D:-10 sq.m. Correct Answer:- Option-C Question34:-A circle will appear as on an isometric drawing. A:-Ellipse **B:-Circle** C:-Cycloid D:-Parabola Correct Answer:- Option-A Question35:-Lami's theorem is applicable only for A:-Coplanar forces **B:-Non-concurrent forces** C:-Coplanar and concurrent forces D:-None of these Correct Answer:- Option-C Question36:-Slate is formed by the metamorphic action on A:-Shale B:-Lime stone C:-Sand stone D:-Granite Correct Answer:- Option-A Question37:-The number of bricks per cubic meter of brick masonry is A:-400 B:-450

C:-500 D:-550 Correct Answer:- Option-C Question38:-The type of roof which slopes in two directions with a break in the slope on each side is called A:-Gable roof B:-Hip roof C:-Gambrel roof D:-Mansard roof Correct Answer:- Option-C Question39:-Sum of tread and rise must lie between A:-300 to 350 mm B:-400 to 450 mm C:-500 to 550 mm D:-600 to 650 mm Correct Answer:- Option-B Question40:-In the construction of arches, sand box method is used for A:-Centering B:-Actual laying of arch work C:-Striking of centering D:-None of these Correct Answer:- Option-C Question41:-The slenderness ratio of masonry walls should not be more than A:-10 B:-20 C:-30 D:-40 Correct Answer:- Option-B Question42:-Pick up the portion not included in plinth area A:-Wall **B:-Room** C:-Verandah D:-Courtyard Correct Answer:- Option-D Question43:-Hydrographic survey deals with the mapping of A:-Large water bodies **B:-Rainfall data** C:-Wave movement D:-None of these Correct Answer:- Option-A Question44:-EDMI stands for A:-Electronic Distance Measuring Instrument **B:-Electrical Distance Measuring Instrument** C:-Electronic Displacement Measuring Instrument **D:-Electrical Displacement Measuring Instrument** Correct Answer:- Option-A Question45:-GPS is a precised system to provide accurate timing and location launched by A:-India B:-USA C:-Russia D:-China Correct Answer:- Option-B Question46:-The moment of inertia of a triangular section with base 'b' and height 'h' about an axis through the centre of gravity and parallel to the base is given as A:-`(bh^(3))/(12)` B:-`(bh^(3))/(24)` C:-`(bh^(3))/(36)` D:-`(bh^(3))/(48)` Correct Answer:- Option-C

Question47:-If the resultant of two forces has the same magnitude as either of the forces, then the angle between the forces is

A:-30° B:-60° C:-45° D:-120° Correct Answer:- Option-D Question48:-One Newton is equivalent to A:-1 kg.wt B:-9.81 kg.wt C:-981 dynes D:-`(1)/(9.81)` kg.wt Correct Answer:- Option-D Question49:-Crushing strength of a good building stone should be more than A:-50 MPa B:-100 MPa C:-150 MPa D:-200 MPa Correct Answer:- Option-B Question50:-The percentage of Alumina in good brick earth lies between A:-20 to 30% B:-40 to 50% C:-50 to 60% D:-70 to 80% Correct Answer:- Option-A Question51:-Le Chatelier's test is used to determine the A:-Soundness of cement B:-Setting time of cement C:-Tensile strength of cement D:-Compressive strength of cement Correct Answer:- Option-A Question52:-Basic purpose of retarder in concrete is A:-to increase the initial setting time of cement paste in concrete B:-to decrease the initial setting time of cement paste in concrete C:-to render the concrete water tight D:-to improve the workability of concrete mix Correct Answer:- Option-A Question53:-Theodolite is an instrument used for A:-tightening the capstan headed screw of level tube B:-measurement of horizontal angles only C:-measurement of vertical angles only D:-measurement of both horizontal and vertical angles Correct Answer:- Option-D Question54:-The process of turning the telescope about the vertical axis in horizontal plane is called A:-transiting **B:-reversing** C:-plunging D:-swinging Correct Answer:- Option-D Question55:-Scale on which three dimensions can be measured called A:-Plain scale **B:-Diagonal scale** C:-Shrunk scale **D:-Comparative scale** Correct Answer:- Option-D Question56:-As per Indian standard, length of one link in 30 m chain should be A:-40 cm B:-30 cm C:-10 cm

D:-20 cm Correct Answer:- Option-D Question57:-Most suitable soil for highway embankment is A:-Granular soil **B:-Organic soil** C:-Silts D:-Clays Correct Answer:- Option-A Question58:-Which of the following lines is a part of dimension ? A:-Phantom lines **B:-Extension lines** C:-Break lines **D:-Cutting plane lines** Correct Answer:- Option-B Question59:-If the sum of all forces acting on a body is zero, then the body may be in equilibrium provided the forces are A:-Concurrent **B:-Parallel** C:-Like parallel D:-Unlike parallel Correct Answer:- Option-A Question60:-In SI unit, unit of force and energy are respectively A:-Newton and Watt B:-Dyne and Erg. C:-Newton and Joules D:-Kg wt and Joule Correct Answer:- Option-C Question61:-Plywood is made by bonding together thin layers of wood in such a way that the angle between the grains of any layer to grains of adjacent layer is A:-0° B:-30° C:-45° D:-90° Correct Answer:- Option-D Question62:-For testing compressive and tensile strength of cement, the cement mortar is made by mixing cement and standard sand in the proportion of A:-1:2 B:-1:3 C:-1:4 D:-1:6 Correct Answer:- Option-B Question63:-The nominal size of modular brick with mortar joints is A:-19 cm × 19 cm × 8 cm B:-19 cm × 19 cm × 9 cm C:-20 cm × 10 cm × 10 cm D:-20 cm × 20 cm × 10 cm Correct Answer:- Option-C Question64:-Force polygon representing a set of forces in equilibrium is a A:-triangle B:-closed polygon C:-open polygon D:-parallelogram Correct Answer:- Option-B Question65:-Angles between two forces to make their resultant minimum and maximum are respectively A:-0° and 90° B:-180° and 90° C:-90° and 180° D:-180° and 0° Correct Answer:- Option-D Question66:-Rate of change of angular momentum is equal to

A:-Force **B:-Torque** C:-Angular velocity D:-Impulse Correct Answer:- Option-B Question67:-For a given velocity of a projectile, the range is maximum when the angle of projection is A:-30° B:-45° C:-60° D:-90° Correct Answer:- Option-B Question68:-Higher pitch of roof i) results in stronger roof ii) require more covering material iii) results in weaker roof iv) require less covering material The correct answer is A:-(i) and (iii) B:-(i) and (iv) C:-(ii) and (iii) D:-(ii) and (iv) Correct Answer:- Option-A Question69:-For masonry work with solid bricks consistency of mortar should be A:-5 to 8 cm B:-9 to 13 cm C:-14 to 18 cm D:-19 to 23 cm Correct Answer:- Option-B Question70:-The type of bond provided in brick masonry for carrying heavy loads is A:-Single flemish bond B:-Double flemish bond C:-English bond D:-Zig-zag bond Correct Answer:- Option-C Question71:-The triangular space formed between the extra dos and horizontal line drawn through the crown of arch is called A:-haunch **B:-spandrel** C:-voussoirs D:-skewbacks Correct Answer:- Option-B Question72:-The principle of working of an optical square is based on A:-refraction **B:-reflection** C:-double refraction D:-double reflection Correct Answer:- Option-D Question73:-In an internal focusing type of telescope, the lens provided is A:-concave **B:-convex** C:-plano-convex D:-plano-concave Correct Answer:- Option-A Question74:-The rise and fall method provides complete check on A:-back sight **B:-foresight** C:-intermediate sight D:-all of these Correct Answer:- Option-D Question75:-Which of these is an angle measuring instrument ?

A:-Geodimeter **B:-Tellurometer** C:-Sextant D:-Telescope Correct Answer:- Option-C Question76:-Which type of line is particular to section drawing ? A:-Break lines **B:-Cutting plane lines C:-Phantom lines** D:-Extension lines Correct Answer:- Option-B Question77:-Manometer is used to measure A:-Velocity of liquid **B:-Atmospheric pressure** C:-Difference in pressure between two points in a pipe D:-Pressure in pipe and channels Correct Answer:- Option-D Question78:-1 atmospheric pressure is equivalent to A:-1.315 kg f/`cm^2````` B:-100 N C:-14.7 pascals D:-760 mm of Hg Correct Answer:- Option-D Question79:-Half turn stair change their direction through A:-90° B:-180° C:-270° D:-45° Correct Answer:- Option-B Question80:-Which of the following methods of applying water may be used in rolling land ? A:-Boarder flooding **B:-Check flooding** C:-Furrow flooding D:-Free flooding Correct Answer:- Option-A Question81:-Following staff readings were taken with a level, the instrument having been moved after third and sixth reading 2.200, 1.620, 0.980, 2.250, 2.840, 1.280, 0.600, 1.960, 1.450 If R.L. of first point is 100.000 m, then RL of last point is A:-101.350 B:-101.340 C:-101.430 D:-100.340 Correct Answer:- Option-B Question82:-The type of surveying which requires least office work is A:-tacheometry **B:-trigonometrical leveling** C:-plane table surveying D:-theodolite surveying Correct Answer:- Option-C Question83:-Intersection method of detailed plotting is most suitbale for A:-forest B:-urban area C:-hilly area D:-plains Correct Answer:- Option-C Question84:-Stream lines and path lines always coincide in the case of A:-steady flow **B:-laminar flow** C:-uniform flow

D:-turbulent flow Correct Answer:- Option-A Ouestion85:-If in a closed traverse, sum of north latitudes is more than the sum of the South latitudes and also that the sum of west departures is more than the sum of east departures, the bearing of the closing line lies in the A:-NE guadrant **B:-SE** quadrant C:-NW quadrant D:-SW guadrant Correct Answer:- Option-B Question86:-Continuity equation is based on law of conservation of A:-Momentum B:-Energy C:-Velocity D:-Mass Correct Answer:- Option-D Question87:-Which of the following is used the measure discharge ? A:-Current meter **B:-Venturi meter** C:-Pitot tube D:-Anemometer Correct Answer:- Option-B Question88:-The point in the immersed body through which the resultant pressure of liquid is taken to act is called A:-centre of gravity B:-centre of buoyancy C:-centre of pressure D:-metacentre Correct Answer:- Option-C Question89:-Sensitivity of bubble tube can be increased by A:-Decreasing the length of bubble B:-Increasing the diameter of bubble tube C:-Increasing the viscosity of liquid D:-Decreasing the radius of curvature of tube Correct Answer:- Option-B Question90:-Contour interval is A:-inversely proportional to the scale of map B:-directly proportional to the flatness of ground C:-larger for accurate works D:-smaller for accurate works Correct Answer:- Option-A Question91:-Error due to bad ranging is A:-cumulative, positive B:-cumulative, negative C:-compensating D:-both (1) and (2) Correct Answer:- Option-A Question92:-First observation taken on turning point is A:-Back sight **B:-Foresight** C:-Intermediate sight D:-None of these Correct Answer:- Option-B Question93:-Pressure at the summit of a syphon is A:-Equal to atmospheric pressure B:-Less than atmospheric pressure C:-Greater than atmospheric pressure D:-None of these Correct Answer:- Option-B Question94:-If the fore bearing of a line is observed to be 12°24', then the back bearing of line is A:-77°36'

B:-97°36' C:-167°36' D:-192°24' Correct Answer:- Option-D Question95:-The major loss of energy in long pipes is due to A:-Sudden enlargement **B:-Sudden contraction** C:-Gradual contraction or enlargement D:-Friction Correct Answer:- Option-D Question96:-At magnetic poles, the dip of magnetic needle is A:-0° B:-45° C:-90° D:-120° Correct Answer:- Option-C Question97:-For a sphere of radius 15 cm moving with a uniform velocity of 2 m/sec through a liquid of specific gravity 0.9 and dynamic viscosity 0.8 poise, the Reynold's number will be A:-300 B:-500 C:-675 D:-603.5 Correct Answer:- Option-C Question98:-The instrument used in plane tabling for obtaining horizontal and vertical distance directly without resorting is called A:-alidade B:-plane alidade C:-telescopic alidade D:-clinometer Correct Answer:- Option-C Question99:-Water surface of a still pond represents A:-level surface **B:-horizontal surface** C:-spheroidal surface D:-curved surface Correct Answer:- Option-A Question100:-A bearing noted 45°NE represents A:-Quadrantal system B:-Whole circle system C:-Reduced bearing system D:-None of these Correct Answer:- Option-A