

NYPUNYAM SKILL FIESTA 2016

Auto Technology

Phase 2 Question Paper

REGIONAL LEVEL:

Q1. Remove crankshaft from the given petrol engine, clean, inspect and reset the bearing, reassemble the engine, check the valve timing and valve clearance and then restart the engine. (Time: 4 hrs.)

Tools and Equipments required for phase 1 and phase 2 test:

Tools and equipments required			
S. No.	Name of tool/equipment	Quantity	Remarks
1	Micrometer (25-75mm)	5 nos	
2	Magnetic stand	5 nos	
3	Surface plate	5 nos	
4	V-block with clamp	5 nos.	
5	Cylinder bore dial gauge	5 nos.	
6	Battery 12V 38Ah	10 nos.	
7	Battery charger 24V or 48V	4 nos or 2 nos	
8	Battery connecting cable with connectors	5 sets	
9	Hydrometer	2 nos.	
10	Petrol engine (without MPFI) in starting condition with mounting stand.	5 nos.	
11	Ring spanner (6mm-32mm)	5 set	
12	Double end spanner (6mm-32mm)	5 set	
13	Box spanner (6mm-32mm)	5 set	
14	Circlip pliers	5 set	
15	Nose pliers (15cm)	5 nos.	
16	Soft hammer	5 nos.	
17	Screw driver (100mm-250mm)	5 set	
18	Scraper (25cm)	5 nos.	
19	Combination Pliers (20cm)	5 nos.	

20	Copper drift	5 nos.	
21	Allen key (2mm-14mm)	5 set	
22	Steel rule (30cm)	5 nos.	
23	Cleaning tray (60*45)	5 nos.	
24	Ball peen hammer (0.5 kg)	5 nos.	
25	Grease gun (1 kg)	5 nos.	
26	Chisel (10 cm)	5 nos.	
27	Digital multimeter	5 nos.	
28	Varnier caliper (0-300mm) with least count 0.02mm	5 nos.	
29	Torque wrench	5 nos.	
30	Feeler gauge (20 blades)	5 set	
31	Piston ring compressor	5 set	
32	Piston ring expander	5 set	
33	Stud removal with socket handle	5 set	
34	Temperature gauge (0°-100°)	5 nos.	
35	Dial gauge with least count 0.01mm	5 nos.	
36	Valve spring compressor universal	5 nos.	
37	Valve lifter	5 nos.	

Consumables required

Consumable required		
S.No.	Item name	Quantity
1	Petrol (for aprox150 candidate)	50 ltr
2	Piston ring set	5 sets
3	Cylinder head Gasket	5 sets
4	Banyan waste	10 Kg
5	Engine oil	40 ltr
6	Crank main bearing*	5 sets
7	Connecting rod big end bearing*	5 sets
8	Plastic gauge	2 nos.
9	Distilled water	5 ltr
10	Emery paper (300)	6 nos.
11	Anabond	400ml
12	Shellac	5 bottle
*as per the availability of type of engine		

PPE Required

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S. No.	Name	Quantity
1	Hand gloves	5 sets
2	Apron	5 nos.